Rapid SQL® 7.6 User Guide

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Welcome to Rapid SQL

Rapid SQL is an integrated cross-platform database development environment that provides a highly-intuitive and well-integrated interface. Its graphical facilities simplify SQL scripting, object management, reverse-engineering, database project management, version control, and schema deployment. Additionally, it provides comprehensive tools for tuning and editing code to ensure high-performance and quality.

Rapid SQL offers support for all major databases including IBM DB2, Microsoft SQL Server, MySQL, Oracle, and Sybase.

Technical Requirements

Rapid SQL is a 32-bit application that runs in a Microsoft Windows environment. Before using Rapid SQL, ensure that your environment meets the following requirements:

Hardware Requirements

Embarcadero Technologies recommends the following minimum hardware requirements:

- 128 MB of memory
- 125 MB of disk space

Operating System Requirements

Rapid SQL supports the following Windows versions:

- Windows 2000 with Microsoft Internet Explorer 5.5 or later
- Windows XP Pro

Database

The table below describes the database platforms Rapid SQL supports and the server and client requirements:

Platform	Server	Client
IBM DB2 for OS/390 (z/OS)	IBM DB2 for OS/390 (z/OS) v7, v8, and v9.	When going through a DB2 Connect gateway, DB2 Client for Windows 6.0 or later. When going directly to the mainframe from the client, DB2 Connect Personal Edition v6 or higher on the client machine.
IBM DB2 for Linux, Unix, and Windows	IBM DB2 Universal Database 8 and 9	IBM DB2 Client for Windows 7.2 or later. **NOTE:** When using a v8 client, Rapid SQL only supports connecting to a v8 Database on Windows, Linux and Unix.
Microsoft SQL Server	Microsoft SQL Server 2000, 2005, and 2008 **NOTE**: For SQL Server 2005 and 2008, only object types like users, logins, roles, config parameters, etc., are supported. We do NOT support Microsoft .NET extensions at this time.	Microsoft SQL Server Client Library

>

Platform	Server	Client
MySQL	MySQL 4.x. (Rapid SQL is tolerant of 5.x but does not support Stored Procedures, Triggers, Views.)	MySQL ODBC driver 3.5.1 and above
Oracle	Oracle 8i, 9i, 10g, and 11g	Oracle SQL*Net Client
Sybase ASE	Sybase System 12.5, Sybase 15	Sybase Open Client

Licensing Rapid SQL

Rapid SQL includes a trial period in which the application can be used without a license. To use Rapid SQL after the trial period, a license must be obtained. It is recommended that you license the application as soon as possible, in order to continue to use Rapid SQL without interruption once the trial period has passed.

For more information on licensing Rapid SQL, see the *Rapid SQL Installation Guide*.

>

Rapid SQL Tutorial

Embarcadero Rapid SQL® is an integrated development environment that enables developers to create, edit, version, tune, and deploy server-side objects residing on Microsoft® SQL Server, Oracle®, Sybase Adaptive Server®, IBM® LUW DB2®, and IBM® DB2® for OS/390® databases. Its unified database development environment provides extensive graphical facilities that simplify SQL scripting, object management, reverse engineering, database project management, version control, and schema deployment. With Rapid SQL, programmers can develop and maintain high-quality, high-performance client/server and Web-based applications in less time, and with greater accuracy.

This tutorial is intended to help you get started using Embarcadero Rapid SQL. After completing this tutorial, you will have the foundation you need to explore the many features of Rapid SQL. You will have learned how to register and connect cross-platform datasources; navigate the database Explorer; work with the individual object browsers, editors, and wizards; build and manage projects; and leverage many of the productivity-focused features offered throughout Rapid SQL. Rapid SQL allows you to concentrate *more on what needs to be done and less on how it should be done.*

This tutorial is divided into six sessions. Do them all at once, or complete them individually as you have time.

- Session 1: Getting Started with Rapid SQL
- Session 2: Productivity Enhancers
- Session 3: Database Object Management Made Easy
- Session 4: Building a Database Project
- Session 5: Visual Query Builder and Data Editor
- Session 6: SQL Debugging and Profiling

You can use this tutorial as a road map of product highlights, and to help familiarize yourself with key product features.

Once you begin, select **Help** from the Toolbar to browse additional online help resources, including documentation that complements and builds upon the activities outlined in this tutorial.

Session 1: Getting Started with Rapid SQL

Download and Install

You can obtain the latest version of the Rapid SQL software from the Embarcadero Web site at http://www.embarcadero.com/downloads/downloadrapidsql.jsp

Provide the requested information and follow the steps indicated to download and install the software. When you first install an evaluation copy of Rapid SQL, you can use the tool for 14 days once you register your trial license. After that time, a permanent license is needed.

Proceed to Overview.

Overview

Rapid SQL allows you to view and manage datasources via the Database Explorer. The Database Explorer enables navigation between different datasource platforms from the same window. Additionally, the Rapid SQL environment enables multiple workspaces to be opened at the same time, allowing you to work while application processes run in the background.

Start Rapid SQL

1 On the Start menu, navigate to **Programs**, **Embarcadero Rapid SQL 7.6.0**, and select **Rapid SQL 7.6.0**.

The first time Rapid SQL starts, a dialog appears prompting a search for pre-existing datasources that have been registered in other Embarcadero applications. Selecting **Yes** prompts Rapid SQL to search and locate any datasources defined in the datasource catalog (defined on the machine identified in the **Options** field). For the purposes of this tutorial, select **No**.

2 Click **OK** to continue.

Rapid SQL provides a feature that automatically searches the DBMS configurations on the network or installation machine and finds datasources residing on the system that are not currently registered. The **Discover Datasources** dialog contains a list of these datasources that includes the name of the datasource server or instance, and the type of DBMS. Use the **Discover Datasources** dialog to register datasources in Rapid SQL.

Registering Cross-Platform Datasources

Datasource registration is performed via the **Datasource Registration Wizard**. It opens automatically via the **Discover Datasources** dialog (when you click **OK**), and can also be opened manually from Rapid SQL's Main Menu. (**Datasource>Register Datasource**.)

Registering a Datasource

Rapid SQL provides the same interface for IBM DB2, Microsoft SQL Server, Oracle, Sybase, and ODBC datasource registration. Each datasource's connection information and log on details only need to be set up once per datasource instance. This connection information can be saved locally, or in a common datasource catalog for use in other Embarcadero products requiring datasource registration.

You can configure Embarcadero products to use a datasource catalog stored in the system registry of your machine (locally), or use a datasource catalog located in the registry of a remote machine. This capability provides the ability to easily share datasource catalogs among multiple users and workstations, and creates a highly-maintainable development environment.

All Embarcadero database management products share the datasource catalog. You can set up your datasource catalog using one product (such as Rapid SQL), and the same list of datasource will be made available in other Embarcadero Technologies products. Any changes you make to the datasource catalog are reflected in all Embarcadero database management products.

To register a Microsoft SQL Server datasource

1 From the **Datasource** menu select **Register Datasource**.

2 On the first panel of the **Datasource Registration** Wizard, select **Microsoft SQL Server** as the database type and then click **Next**.

3 Use the controls on the **Connection Information** panel to select a Microsoft SQL Server datasource on your network and then click **Next**.

4 On the **Security Parameters** panel, provide valid credentials in the **User ID** and **Password** boxes and select the **Auto-Connect?** to avoid having to provide credentials each time you connect to this datasource. Click **Next** to continue.

5 Since the **Datasource Properties** panel references an advanced feature, click **Next.**

6 In the **Datasource Group** tree, indicate where the datasource you are currently registering will sit. Click **Finish** to complete the Wizard and when prompted, connect to the datasource. The datasource is registered with the instance of Rapid SQL, and it can now be manipulated via the Rapid SQL interface.

Proceed to Session 2: Productivity Enhancers.

Session 2: Productivity Enhancers

Database Object Management Made Easy

Rapid SQL provides the Database Explorer Tree to provide an easy and intuitive way to drill down into atomic database objects. The Database Explorer Tree displays all registered datasources and serves as the entry-point to much of Rapid SQL's advanced functionality.

Viewing Datasources and Datasource Objects in the Explorer Tree

1 On the **Explorer**, select **By Object Type**.

The Explorer displays objects organized by type.

2 Under the datasource you registered, expand the **Databases** node and drill down further by expanding the **Pubs** node. The datasource object types for that database are displayed.

3 Expand the **Tables** node to view a list of table objects contained in the **SAMPLE_DATASOURCE** database.

Proceed to Creating an Object Using the Object Creation Wizard.

Creating an Object Using the Object Creation Wizard

You can create database objects via Object Creation Wizards accessed from the Database Explorer. The following steps provide an example of how to use the Table Object Creation Wizard to create a new Oracle table.

Using the Table Object Creation Wizard

4 Right-click the **Tables** node and select **New** from the menu. The **Create Table Wizard** appears.

5 Enter the appropriate information on the panels of the wizard:

- On the **Properties** panel, select a Schema, provide a table name of **SAMPLE_TABLE**, and optionally modify other properties.
- On the **Columns** panel, type a column name of **sample_column1**, and optionally modify other column attributes. Experiment with the **Add Column** and **Delete** buttons.
- Proceed through the **Indexes**, **Constraints**, and **Permissions** panels, optionally making changes.
- On the **DDL View** panel, inspect the DDL generated by your choices and when ready click **Execute**. Your new table is created.

NOTE: Rapid SQL build ccode syntactically-correct and ready to run the first time it is generated. Manual coding is not required in any of the Object Creation Wizards.

In the case of tables, Rapid SQL automatically opens an editor on the newly created object.

6 For now, close the object editor window.

Proceed to Working With an Existing Object Using the Object Editor.

Working With an Existing Object Using the Object Editor

Once an object is created, it can be modified via the same Object Editor. Object Editors perform modification operations that would normally require painstaking and error-prone scripting, such as deleting or inserting columns in a table while preserving data, dependencies, and permissions. Rapid SQL analyzes the database catalog to determine its structure, and then automatically generates the appropriate SQL script required for the extended alteration.

For example, when a full table alteration is required, Rapid SQL automatically unloads and reloads the data, eliminating most of the tedious work a manual alteration would require.

When an object is created, Rapid SQL automatically opens an individual Object Editor for the newly-created object.

To modify an existing object

1. On the **Explorer**, navigate to the **Tables** node of the datasource defined previously and select the table you created in the previous exercise.
2. Double-click the object.

   OR

   From the **Command** menu, select **Open**.

   Rapid SQL opens the Table Object Editor and you can proceed to modify the selected object.

Proceed to Object Documentation and Reporting.

Object Documentation and Reporting

Rapid SQL can provide HTML reports for all database objects. The reports are automatically displayed in the Rapid SQL application workspace, but can be saved as a new file, or referenced in the original file. All HTML reports are browser-ready and suitable for posting directly to the Web.

To generate an HTML report

1. On the **Explorer**, open any datasource and navigate to the **Tables** node.
2. Right-click an object and select **Report** from the menu. The **Report** dialog appears.
3. Enter the appropriate information in the fields provided:
   - In the **Report Home Page File Name** field, type the directory path and file name of the report manually, or click **Browse** and navigate to the path and file name. This value supports network Web server paths.
   - In the **Report Title** dialog, type the name of the report.
4. Click **Execute**. The HTML report is automatically generated to the path defined in the **Report Home Page File Name** field in **Step 3** and displayed in the Rapid SQL application workspace.

Proceed to Working With Code, Files and Data.

Working With Code, Files and Data

Rapid SQL provides many features and powerful development tools for creating and executing SQL code and working with data. This section of the tutorial will provide a high-level functionality overview of the major development features and tools within Rapid SQL.

Setting Environment Options

The **Options Editor** provides an interface for you to set Rapid SQL environment parameters to meet your development requirements.

To set development environment parameters

1. Select **File>Options**. The **Options Editor** dialog opens.
2. Click on the **General Tab**. General settings are displayed and modified by selecting them from the dropdown menu or via the tabbed window.
3. Adjust the development parameters as required and click **OK**. The environment options are automatically applied to all registered datasources.

Using the Favorites Tab

The **Favorites Tab** provides a drag-and-drop library interface of all supported DBMS syntax, SQL syntax, built-in functions, optimizer hints, and SQL-conditional syntax. Additionally, it provides the ability to create custom folders to store commonly-used code for quick and efficient access, as needed.

To open the Favorites Explorer

1. At the bottom of the **Explorer** pane, click **Favorites**. The **Favorites Explorer** appears.
2. Expand the **Microsoft** node and then expend the **Schema** subnode.
3. RIght-click the **Procedures** node and select **Open**. The selected code opens in the SQL Editor window and is ready for execution.

To add a custom folder to the Favorites Explorer

1. Open the **Favorites Explorer** and right-click the **Favorites** folder.
2. Select **New Folder** from the menu. A new folder is added to the bottom of the tree view.

To add an existing script to the Favorites Tab

1. Select **New>SQL**, create a two or three-line script in the SQL editor, and then save your script.
2. After saving the script, right-click anywhere on the workspace and select **Add to Favorites**. The **Favorite Properties** dialog box opens.
3. Enter the appropriate information in the fields provided. The script is added to the **Favorites Explorer**.

   NOTE: Code from the **Paste SQL**, **Paste SQL Syntax**, and **Favorites Tab** are available from any SQL or DDL Editing window.

Proceed to Working with Scripts and Files.

Working with Scripts and Files

Rapid SQL extends the auto-generation of SQL code by allowing you to run your scripts across multiple databases at the same time. Additionally, Rapid SQL provides the option to execute code immediately, or schedule it to run later.

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Using the Script Execution Facility

1. On the **Favorites Explorer**, navigate to the **Microsoft SQL Server** node and select the **Schema** subnode.
2. Right-click the **Procedures** node and select **Script Execution Facility**. The **Script Execution Facility** dialog box appears.
3. Click the **Target Tab** and select the datasources against which the script will run.
4. Click the **Output Tab** and select a type of output format. For the purposes of this example, select **Graphical Output**.
5. If you want to send a notification message indicating that the script has executed, click the **Notify Tab** and enter the appropriate information in the fields provided.
6. Click **Execute**. Rapid SQL runs the script against the datasources specified on the **Target Tab**.

   NOTE: Separate script output windows are created for each selected datasource.

Using the File Execution Facility

Similar to the Script Execution Facility, files containing SQL scripts can be added to the File Execution Facility and executed immediately or scheduled to run later. Other than code's origin, all supporting functionality is the same.

1. On the **Tools** toolbar, click **File Execution Facility**.

   Rapid SQL opens the File Execution Facility dialog box.
2. To locate the file you want to execute, click **Add**. Use the **Select Files** dialog box to locate and select a file.
3. On the **Target Tab**, select the datasources to run the script against.
4. On the **Output Tab**, and select the desired output option. For the purposes of this example, select **Graphical Output**.

   NOTE: To enable the scheduling function for the script, you must select the **File Output option**.
5. If you want to send notification that the script has executed, on the **Notify Tab**, complete the target information.
6. Click **Execute**.

   Rapid SQL runs the script against the target datasources.

   NOTE: Separate script output windows are created for each selected datasource.

Proceed to Viewing Data.

Viewing Data

Rapid SQL provides several options for browsing data. In addition, it gives you the ability to construct even the most complex SQL statements with point-and-click ease.

Select * Browsing (SQL Server Example)

1. On the **Database Explorer** ensure that the **Explorer** tab is displayed and then expand the **MS SQL server** node**.**
2. Expand any database you know has table data**,** expand the **Tables** node, right-click a table, and then click **SELECT * FROM**.

All columns and rows from the table are displayed in the active workspace.

>

Retaining Datasource Explorer View Settings

1 On the **Explorer** dropdown, select **Retain View Setting**.

The next time you open the Explorer, it will open just as you left it. All connections that were present when you closed Rapid SQL will be reestablished.

Datasource Explorer Bookmarks

Rapid SQL allows you to set bookmarks for frequently visited database objects.

1 On the **Datasource Explorer**, right-click any node.

2 Select **Add Bookmark**.

You can modify the bookmark name as desired.

After Bookmarks are defined you can use them to easily navigate to commonly used datasource resources via the main menu Bookmarks item.

You can use the Bookmark Manager to maintain your Bookmarks.

1 Select **Bookmarks>Bookmark Manager.**

The Bookmark Manager dialog box opens where you can rename, move, and delete bookmarks.

Setting Keyboard Shortcuts and Hot Keys

1 Select **Tools>Customize**.

The Customize dialog box opens.

2 In the **Customize** dialog box, open the **Keyboard Tab**.

- The Keyboard Tab can be used to set Keyboard shortcut hot keys for all areas of Rapid SQL functionality.

Referencing Most Recently Used Datasources

1 From the **File** menu, select **Recent Datasources**, and then choose a datasource.

This will automatically place you on the datasource within the Explorer, ready to work with an active connection.

Proceed to Session 3: Scripting.

Session 3: Scripting

By providing several code generation and assistance options, Rapid SQL makes cross-platform development easy for developers of all experience levels.

NOTE: The following examples build on the MS SQL Server SAMPLE_DATASOURCE registered earlier in this tutorial. These examples can be applied to any registered datasource for any of the supported platforms.

Proceed to Generating Code.

Generating Code

The Code Generation Facility can be used to create complete procedures, functions or packages revolving around views or tables.

>

To open the Code Generation Facility

1 From the **Tools** toolbar, click **Code Generation Facility**.

Rapid SQL opens the Embarcadero Code Generator dialog box.

2 In the **datasource** list box, select the target datasource from the drop-down list.

3 In the **database** list box, select **pubs**.

4 In the **Tables/Views** pane, click **Tables**, and then select **authors**.

5 In the **Select 1 or More Where Clause Columns** box, select **state**.

6 In the **Select 1 or More Output Columns** box, select all columns.

7 In the **Generate** box, choose **Select** (this is the code option).

8 In the **Provide an Output File Name**, type or browse and locate a target file where you want to save the generated script, and then click **Open**.

9 Click **OK**.

The DDL to create the procedure is generated and displayed in an editable window called the DDL Editor. You can edit the name of the new procedure and any of the generated code at this time.

10 Name the new procedure **sample_select_authors**.

11 To submit the DDL and create the procedure, click **Execute** or **Step Execute** in the toolbar above the editor.

The indicated file will be saved on the selected directory.

NOTE: No SQL statement coding is required to generate complete stored procedures and packages. If applicable, Rapid SQL allows all generated code to be previewed and edited to fit any development need.

Right-Click Feature

Similar to the Code Generation Facility, the right-click code generation feature can be used to create complete procedures, functions, or packages revolving around views or tables.

1 On the **Database Explorer**, expand the **MS SQL server** node.

2 Expand any database**,** and then expand the **pubs** node.

3 Expand the **Tables** node, and right-click the **authors** table.

4 From the pop-up list, select **Generate, Procedure,** and then **Select**.

5 In the **Input Columns** pane, select **state**.

6 In the **Output Columns** pane, leave all output columns selected.

7 Click **OK**.

The DDL to create the procedure is generated and displayed in an editable window, called the DDL Editor. You can edit the name of the new procedure and any of the generated code.

To submit the DDL and create the procedure, click **Execute** or **Step Execute**.

NOTE: No SQL statement coding is required to generate complete stored procedures and packages. If applicable, Rapid SQL allows all generated code to be previewed and edited to fit any development need.

Proceed to Code Assistance.

Code Assistance

Rapid SQL provides extensive, easy-to-use code assistance features for all supported DBMS platforms, throughout the application. Assistance is provided in the form of ready-to-use code templates and blocks of syntactically correct code.

Paste SQL

1. On the **Database Explorer**, expand the **MS SQL server** node**.**
2. Expand any database**,** and then expand the **pubs** node.
3. To open a **SQL Editor window**, from the main toolbar, select **File, New,** and then **SQL (Ctrl+N)**.
4. On the **Edit** toolbar, select **Paste SQL Statement**.

   The Paste SQL dialog box opens.
5. In the Tables pane, select the **authors** table.
6. In the Columns pane, select all columns.
7. In the Statement column, click **Select** as the generation option.
8. To copy the generated code to the SQL Editor workspace, click **Paste Statement**.

   NOTE: You can use the statement as is, or modify the code as needed.

Paste SQL Syntax

1. On the **Database Explorer**, expand the **MS SQL server** node.
2. Expand any database**,** and then expand the **pubs** node.
3. To open a SQL Editor window, from the main toolbar, select **File, New,** and then **SQL (Ctrl+N)**.
4. On the **Edit** toolbar, select **Paste SQL**.

   The SQL Syntax for SQL Server dialog box opens.
5. In the **SQL Statements:** pane, click a target template.

   The template syntax appears in the Syntax pane.
6. To copy the code into the SQL Editor workspace, click Paste.

   NOTE: You can add your own code to complete the needed operation.

Proceed to Session 4: Building a Database Project.

Session 4: Building a Database Project

Rapid SQL provides an excellent team development environment that allows you to reverse engineer live database objects into off-line SQL source code files that can then be easily added to a version control system (VCS). Rapid SQL's seamless VCS integration offers all version control operations, such as get, check-out, check-in, history, and diff.

Proceed to Creating a New Rapid SQL Project.

Creating a New Rapid SQL Project

The example below reverse engineers the table objects from the Microsoft SQL Server pubs database into a Rapid SQL project, and then adds the project to version control using Microsoft Visual Source Safe.

To create a new project:

1. On the main toolbar, select **File, New,** and then **Project**.

   The New Project dialog box opens.

2. In the **Name** text box, type **sample_project**.
3. In the **Location** text box, type or browse and locate a directory that contains a VSS database.
4. **Optionally**, enter a description.
5. Under **Initialize New Project**, select **From Database**.
6. Click **OK**.

   The New Project Reverse Engineering Wizard opens.

7. In the **Select a Datasource** box, select the datasource you created.
8. Click **Next**.

   The next panel of the wizards opens.

9. In the **Select Database to reverse-engineer** window, select **pubs**.
10. Click **Next**.

    The next panel of the wizard opens.

11. From the **Owners** list box, select **dbo**.
12. In the **Object Type** box, right-click to unselect all options, and then select **Tables**.
13. In the **Extract Scope** box, select **Selected Objects Only**.
14. Click **Next**.

    The next panel of the wizard opens.

15. In the **Object Type** box, select **Tables** from the drop-down list, and then select the **authors**, **discounts**, and **employee** tables.
16. In the **Options for Tables** box, right-click to **Unselect All**.
17. Click **Next**.

    The next panel of the wizard opens.

18. 18.For **Object Ownership**, select **Retain**.
19. Click **Next**.

    The Preview panel of the wizard opens so you can review the project you are creating.

20. Click **Execute**.

You have now successfully created a working database project. At this point, the project is available to be added to Version Control. This can be done by clicking **Yes** when prompted and following the dialog, or by right- clicking the project on the **Project Explorer**. Select **Yes** for the purpose of this example.

Proceed to Adding a Project to Version Control (Sample - Microsoft Visual Source Safe).

Adding a Project to Version Control (Sample - Microsoft Visual Source Safe)

When a project is created Rapid SQL will automatically prompt you to add the project files to the selected VCS (see Setting Environment Options below).The dialog you see is displayed below:

1. In the **Visual SourceSafe Login** dialog box, enter the **Username** and **Password**.
2. Type or browse and locate the target database, and then click **Open**.

   The Add to SourceSafe Project dialog box opens.
3. To name your project, in the **Project** text box type "**sample_project**".
4. Click **OK**.

   You receive the message below to indicate that your project was successfully placed in the VSS.

Proceed to Section 5: Visual Query Builder and Data Editor.

Section 5: Visual Query Builder and Data Editor

Rapid SQL gives you the ability to construct complex SQL statements with point-and-click ease using the Visual Query Builder.

Visual Query Builder

1. On the **Database Explorer**, expand the **MS SQL Server** node, and then select **pubs**.
2. Expand the **pubs** node, and then select **Tables**.
3. Right-click the **authors** table and select **Build Query**.

   The **authors** table is automatically added to the Query Builder workspace.
4. Right-click the **titleauthor** table and select **Add**.

   NOTE: Note that the tables are automatically identified as being joined by any columns with the same name and datatype.
5. To expose the Visual Query Building clauses and options, open the **DML Tab**.
6. Right-click on any clause to initiate a change to the clause.
7. Click the **Execute** button on the toolbar above the Build Query workspace.

   The query executes and the lower window displays the results. The generated SQL is also available in the lower window.

   NOTE: Any visual query builder session can easily be saved to a file for later use.

Live Data Editor

1. On the **Database Explorer**, expand the **MS SQL Server** node, and then select **pubs**.
2. Expand the **pubs** node, and then select **Tables**.
3. Right-click the **authors** table and select **Edit Data**.

   Rapid SQL opens the Data Editor Filter dialog box.

4 In the **Columns** box, select **Add All**. Optionally, you can add a WHERE clause that will filter for only the desired data.

5 Click **OK**. The editing window opens.

NOTE: Rapid SQL builds the SQL to retrieve the data to be edited in the lower window.

- The editing window has LIVE and BATCH modes. LIVE mode commits your changes each time you move to a new row. BATCH mode will allow you to move within the window and commit your changes when ready.
- Changes made in BATCH mode can be cancelled by selecting **Reload Data**.

Proceed to Section 6: SQL Debugging and Profiling.

Section 6: SQL Debugging and Profiling

SQL Debugging

The SQL Debugger is another database productivity tool that lets you debug SQL Server, Oracle, Sybase or IBM DB2 LUW for Open Systems stored procedures as well as Oracle functions. SQL Debugger simplifies the task of finding coding errors.

1 On the **Database Explorer**, expand the **MS SQL Server** node, and then select **pubs**.

2 Expand the **pubs** node, and then select **Procedures**.

3 Right-click the target **Procedure** and select **Debug**.

- If the procedure/function contains input variables, the Procedure Execution window prompts for entry of these values.

4 Enter the value(s) for the input variable(s) and press **Continue**.

NOTE: Pressing the Debug button or selecting Debug from the Command menu invokes The SQL Debugger.

TIP: Rapid SQL allows the user to save the input variable values to a file for later use. This is very helpful for procedures/functions with many input variables that need to be run repeatedly.

The application opens the SQL Debugger Interface.

SQL Profiling- Oracle Only

The SQL Profiler within Rapid SQL provides the ability to capture the metrics of various PL/SQL programmable objects as they are executed in the database. It quickly identifies performance bottlenecks by first calculating the overall runtimes of objects like Oracle packages, and then computing the amount of time each line of PL/SQL code spends executing. Information is presented in an easily viewed, drill-down format.

To start a profiling session:

1 From the **Tools** menu select **SQL Profiler, Start**.

OR

From the **SQL Profiler** toolbar, click the **Start Profiling** button **Execute**.

The Profiler Start dialog box opens.

2 Enter a name for the profiling session, or select an existing name from the drop-down list.

3 Click **OK.**

The Profiler session is now active.

4 Select the programmable object you want to capture metrics for, and click **Execute**.

5 When finished, from the **SQL Profiler toolbar**, click **Stop**.

The SQL Profiler Stop dialog box opens.

- Stop & Analyze – Stops the profiling session and presents the detail profiling information.
- Stop – Stops the profiling and leave the user on the current screen.
- Cancel – Cancels the stop command.
- Help – Displays SQL Profiler Help

6 Click **Stop**.

7 Expand the **PL/SQL Code Profiling** section.

8 Right-click the profile session, and then select **Run Summary**.

The Run Summary appears.

9 Right-click a session and select **Run Detail**.

The Run Detail screen appears and allows you to view the metrics for the run in both a graphical and text format.

10 To drill down further into the data, right-click a unit, select **Unit Detail**.

NOTE: You can scroll through the Source window to view the execution times for each statement.

To compare two cases:

1 From the **Run Summary** screen, select the two cases you wish to compare (SHIFT+CLICK to select the second case), and then right-click and select **Compare**.

Additional Evaluation Resources

Embarcadero Technologies provides a variety of resources to help support your evaluation and selection of a development tool for your organization.

Web site

Visit our Web site for current product and company information, educational materials and supporting information. Visit www.embarcadero.com

Electronic Documentation

Detailed reference documentation is available on the Rapid SQL Evaluation CD or online at www.embarcadero.com/support

Online FAQ

The Rapid SQL online FAQ provides answers to commonly asked questions regarding licensing, installation and other helpful topics.

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E-mail Support

You can contact Rapid SQL support engineers, consultants and engineers directly by sending inquiries to support@embarcadero.com

Telephone Support

We encourage you to call us anytime you would like help or have questions during your evaluation. Please call 415.834.3131 ext. 2, Monday to Friday, 6:00am - 6:00pm PST, Saturday and Sunday, 8:00am - 5:00 PST.

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Application Basics

Application Basics is designed to situate you within the application and to provide information about what Rapid SQL offers in the way of design, navigation, and application features. The information presented here is high-level and conceptual. For information on how to use Rapid SQL, see Using Rapid SQL.

Application Basics is divided into two sections, the table below describes each section:

Section	Description
Product Design	This section describes the Rapid SQL user interface.
Specifying Rapid SQL application and feature options	This section describes how to customize Rapid SQL's configuration to suit your specific needs.

Product Design

The Rapid SQL window opens with the Database Explorer on the left, the Workspace on the right, and all toolbars docked at the top of the application. The Output Window is not automatically displayed. Rapid SQL also offers you a number of desktops, or workspaces, that you can toggle among while you work.

Database Explorer

Rapid SQL organizes the wealth of information pertaining to your servers through its Database Explorer. The Database Explorer provides a fast and efficient way to access your database objects and scripts. The Database Explorer is a separate window containing a tree object that you can select and expand. The tree object organizes and nests subjects as branches. By expanding or collapsing the tree, you can efficiently browse multiple datasources. The Database Explorer window is dockable so that you can maneuver through the application efficiently.

The Database Explorer includes three tabs:

- Explorer
- Favorites
- Project
- VC Files

Explorer Tab

The Explorer Tab provides a visual method for browsing, accessing and manipulating your database objects. The Explorer Tab lets you:

- Connect, disconnect, and browse the objects in the supported datasources on your network.
- Drag objects to the Rapid SQL workspace.
- Create new objects.

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Datasource Node

When you click the datasource node of the Explorer Tab tree, Rapid SQL lists all the databases available for that datasource. When you click a database node, you can view all the database object types available for that datasource. When expand an object type node, Rapid SQL displays available objects. You can collapse any portion of a datasource to concentrate on a particular portion of your database.

For more information, see:

Organizing the Explorer

Creating New Objects from the Explorer

Extracting DDL from the Explorer

Displaying Dependencies from the Explorer Tab

Organizing the Explorer

Rapid SQL contains functionality that lets you configure how objects are organized in the Explorer Tab. The table below explains the available options:

Functionality	Description
Organize by Object Type	Select to display objects by object type for all users in the same list. This display mode cuts performance in databases that contain many objects.
Organize by Owner	Select to display objects by owner. Most efficient if you are working with databases containing a high number of objects.
Show Only My Objects	Select to display the objects you own in the Explorer Tab. Available if you are organizing the Explorer Tab by object type.
Show System Objects	Select to display system objects.
Full Refresh	Select to refresh.
Expand All Groups	Select to expand all groups.
Collapse	Select to collapse all datasources or collapse all groups.
Retain Group View Settings	Select to retain the current state of the Explorer Tab so that the it opens the same way the next time you start Rapid SQL.

TIP: You can also set these options on the Explorer tab of the Options Editor. For details, see Explorer options.

Organizing the Explorer by Object Owner

1. On the **Explorer Tab**, click the **Explorer** list above the list of datasource groups.
2. Click **Organize by Owner.**

   Rapid SQL dynamically reorganizes the display of the Explorer Tab, sorting database objects by object owner.

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Organizing the Explorer by Object Type

To organize the Explorer by Object Type, do the following:

1. On the **Explorer Tab**, click the **Explorer** list above the list of datasource groups.
2. Click **Organize by Object Type.**

   Rapid SQL dynamically reorganizes the display of the Explorer Tab, sorting database objects by type.

Showing or Hiding System Objects

To show or hide system objects, do the following:

1. On the **Explorer Tab**, click the **Explorer** list above the list of datasource groups.
2. Click **Show System Objects** to show all system objects.
3. Click the **Show System Objects** again to hide all system objects.

Creating New Objects from the Explorer

Rapid SQL lets you create new database objects from the Explorer Tab. When you create an object from the Explorer Tab, Rapid SQL does the following:

- Automatically brings up the Object Attachment Facility which associates the new object with an object type.
- Opens a DDL Editor containing a shell script based on the object type you select.
- Automatically ties that object to the current database.

Creating a New Object from the Explorer

To create a new object from the Explorer, do the following:

1. In the **Explorer Tab**, right-click the object type node for the object to create and then click **New** to open the wizard associated with that object.

   The Object Type Information dialog box displays. The object type and owner are automatically assigned based on the object type you selected in the previous step.
2. Enter the name of the object.
3. Click **OK**.

   Rapid SQL opens an editor containing a template for the object type.

Extracting DDL from the Explorer

Rapid SQL's Explorer Tab provides a quick, convenient method for extracting object DDL. Rapid SQL lets you extract the DDL for multiple or individual database objects. SQL scripts are the text of statements that are used to create database objects. Rapid SQL also lets you run SQL scripts against other databases to recreate the database objects. You can also extract scripts to create a record of how an object was created. Rapid SQL lets you extract the CREATE statements for any object into a DDL Editor. If you are extracting the DDL of an Oracle procedural logic object, an SQL Editor automatically opens instead, saving you the trouble of inserting PL/SQL tags.

Rapid SQL offers two ways to extract DDL from the Explorer Tab:

Using the Shortcut Menu

1. Select one or more objects in the **Explorer Tab**. To select contiguous objects, hold SHIFT and select multiple objects. To select noncontiguous objects, hold ALT and select specific objects.
2. Right-click to display the shortcut menu and then click **Extract**.

Dragging Objects

1. Select one or more objects in the **Explorer Tab**. To select contiguous objects, hold SHIFT and select multiple objects. To select non-contiguous objects, hold ALT and select specific objects.
2. Drag the script(s) to the desired position in the Rapid SQL workspace.

Displaying Dependencies from the Explorer Tab

Rapid SQL lets you open a result set window, directly from the Explorer Tab**,** to display dependencies for an object.

Displaying Dependencies from the Explorer Tab

1. On the **Explorer Tab**, double-click the object node.

   Rapid SQL displays the list of objects.
2. Right-click the target object and then click **Dependencies**.

   Rapid SQL opens the Dependencies window which lists all dependent objects.

   NOTE: Rapid SQL does not retrieve dependencies if objects are created out of order.

Favorites Tab

Rapid SQL provides the Favorites Tab for designating and accessing favorite scripts. On the Favorite Scripts Tab you can do the following with frequently used SQL scripts:

- View
- Navigate
- Save
- Recall
- Execute

TIP: Sample Favorite Scripts are installed for Microsoft SQL Server, Oracle, and Sybase Adaptive Server.

For more information, see Favorite Properties Dialog Box.

Favorite Properties Dialog Box

The table below describes the options and functionality on the Favorite Properties dialog box:

Option	Description
Description	Lets you enter a description.
File Name	Lets you type or browse and locate a file.

>

Option	Description
Hot Key	Lets you enter a Hot Key. Hot Keys must begin with CTRL or be stand-alone function keys. Rapid SQL automatically places the CTRL command in front of any character.
File Type	Lets you select a file type.

Subsystem Node

NOTE: The Subsystem node is available for IBM DB2 LUW for OS/390 and z/OS only.

The Subsystem node displays detailed information about the DB2 subsystem. Subsystem objects include:

- Connections
- DDF
- Parameters

Connections

Connections displays the current connections to the subsystem.

NOTE: The information is read-only.

For more information, see Subsystem Node.

DDF

DDF (distributed data facility) displays the information regarding the status and configuration of the DDF, a set of DB2 LUW for OS/390 components through which DB2 LUW for OS/390 communicates with another RDBMS.

NOTE: The information is read-only.

For more information, see Subsystem Node.

Parameters

Parameters displays the DB2 subsystem parameters.

NOTE: The information is read-only.

For more information, see Subsystem Node.

Project Tab

The Project Tab provides a visual method for browsing, accessing, and manipulating your projects. The Project Tab lets you:

- Open, close, modify, and browse projects.
- Drag project items to the Rapid SQL workspace.

- Create new projects.

  NOTE: The Project Tab is available after you create or open a project.

For more information on working with projects, see Project Management.

VC Files Tab

The VC Files Tab displays open version control files. This tab displays files listed in the *.xml file for the version control files. The tab displays a checkbox icon for files that are checked-out.

For more information, see Version Control.

Rapid SQL Windows

The Rapid SQL interface includes several windows to help you develop your program. The windows include:

Topics

- Describe Window
- Output Window
- Browsers
- Workspaces
- Preview Dialog Boxes

Describe Window

Rapid SQL offers a floating Describe window for procedures, tables, views, and functions (Oracle and IBM DB2 LUW for Open Systems only). In the Describe window, you can view columnar information (for tables and views) or input parameter information (for procedures and functions).

Opening the Describe Window

Rapid SQL offers three ways to open the Describe window:

1. In an editor, right-click an object and then click **Describe from Cursor**.
2. On the **Explorer Tab**, select an object and then click **Describe**.
3. On the **Explorer Tab** or in an editor, select an object and then press **CTRL+D**.

Using the Describe Window

In the Describe window:

1. Click the **Name** list and then click a name to view a list of types of objects in the database.
2. Click the **Owner** list and then click an owner to view a list of all owners of objects in the database.
3. Click the **Type** list and then click a type to view columnar information (for tables and views) or input parameter information (for functions and procedures).

Output Window

Rapid SQL incorporates a separate window to capture all messages returned by the server and to log entries about the progress of operations started by the application.

For more information, see Configuring the Output Window

Configuring the Output Window

Rapid SQL lets you display, hide, or dock the Output Window anywhere in the application.

Displaying the Output Window

1 On the **View** menu, click **Output**.

OR

On the **Main** toolbar, click **Output**.

Rapid SQL displays the Output Window.

Hiding the Output Window

1 On the **View** menu, click **Output**.

OR

On the **Main** toolbar, click **Output**.

OR

Right-click the **Output Window** and then click **Hide**.

Rapid SQL hides the Output Window.

Docking the Output Window

Right-click the **Output Window** and then click **Docking View**.

Rapid SQL docks the Output Window to the bottom of the application frame.

Undocking the Output Window

Right-click the **Output Window** and then click **Docking View**.

Rapid SQL displays the Output Window as a floating window in the application.

Messages in the Output Window

The Output Window lets you save, print, copy, and clear server messages.

Saving Server Messages

1 Right-click the **Output Window** and then click **Save**.

Rapid SQL opens the Save As dialog box.

2 Enter the location and name of the file in the **File Name** box.

NOTE: Rapid SQL defaults the file extension to .msg.

3 To save the file, click **OK**.

Printing Server Messages

1 Right-click the **Output Window** and then click **Print**.

Rapid SQL opens the Print dialog box.

NOTE: Rapid SQL prompts you with information on the size of the print job before opening the **Print** dialog box.

2 Configure your print job.

3 Click **OK** to print the file.

Copying Server Messages

1 Right-click the target **Server Messages** and then click **Copy**.

Rapid SQL copies the selected text to the Microsoft Windows Clipboard.

2 Paste the contents of the clipboard into target applications.

Clearing Server Messages

1 Right-click the **Output Window** and then click **Clear**.

Rapid SQL clears your Server Messages.

Browsers

Browsers are a flexible environment where you can examine, extract, and execute database objects and their dependencies. Browsers provide the means to view objects types across multiple database platforms and connections. You can simultaneously view and work with objects from Oracle, Microsoft SQL Server, Sybase Adaptive Server, and IBM DB2 LUW for Open Systems.

The benefit of using Browsers is the ability to see detailed information about specific object types. You can also print, search, copy, and sort the contents of a Browser window.

Topics

- Browser Toolbar
- Opening Browsers
- Browser Object Types
- Extracting DDL from Browsers
- Displaying Dependencies from Browsers
- Refreshing Browsers

Browser Toolbar

You can place the floating **Browser** toolbar anywhere on the Rapid SQL workspace.

For more information, see Browsers.

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Opening Browsers

Browsers let you view all types of database objects, including the SQL procedures used to build them. Browsers let you:

- Copy database objects
- Modify database objects
- Test database objects

The ability to browse dependencies is especially useful, particularly when modifying SQL code in procedures and triggers. For example, in a situation where a trigger enforces a rule that does not let you update a particular box, you can use the Browser to do the following:

- Browse the triggers to find the offending trigger.
- Extract the DDL for that trigger into one window.
- In another window, drop the offending trigger, make your update to the box, then execute the corrected trigger DDL to replace the trigger in the database.

Opening a Browser Window

Rapid SQL offers two ways to open a Browser:

1 On the **Browse** menu, click the target object type.

OR

In the workspace, right-click, click **Browser**, then click the target object.

Rapid SQL opens a Browser.

For more information, see Browsers.

Browser Object Types

Rapid SQL's Browsers read the appropriate object types for specific databases. A select statement is issued against the appropriate systems table based on the requested object to bring back a listing of the objects in the database. The table below contains a list of the Browsers available for each database platform:

Object Type	IBM DB2 LUW for Open Systems	IBM DB2 LUW for z/OS and OS/390	Microsoft SQL Server	Oracle	Sybase Adaptive Server
Aliases	✓	✓	✓		✓
Check Constraints	✓	✓	✓	✓	✓
Clusters				✓	
Databases	✓	✓	✓	✓	✓
Database Links				✓	

>

Object Type	IBM DB2 LUW for Open Systems	IBM DB2 LUW for z/OS and OS/390	Microsoft SQL Server	Oracle	Sybase Adaptive Server
Defaults			✓		✓
Directories				✓	
Event Monitors	✓				
Extended Procedures			✓		✓
Foreign Keys	✓	✓	✓	✓	✓
Functions	✓	✓		✓	
Groups			✓		✓
Indexes	✓	✓	✓	✓	✓
Libraries				✓	
Packages	✓	✓		✓	
Plans		✓			
PL/SQL Code Profiling				✓	
Primary Keys	✓	✓	✓	✓	✓
Procedures	✓	✓	✓	✓	✓
Profiles				✓	
Roles				✓	
Rules			✓		✓

Object Type	IBM DB2 LUW for Open Systems	IBM DB2 LUW for z/OS and OS/390	Microsoft SQL Server	Oracle	Sybase Adaptive Server
Rollback Segments				✓	
Segments			✓		
Sequences				✓	
Snapshots				✓	
Snapshot Logs				✓	
Materialized Views				✓	
Materialized View Logs				✓	
Synonyms				✓	
Tables	✓	✓	✓	✓	✓
Tablespaces				✓	
Triggers	✓	✓	✓	✓	✓
Types				✓	
Type Bodies				✓	
Unique Keys	✓	✓	✓	✓	✓
User Datatypes	✓	✓	✓		✓
User Messages			✓		
Users			✓	✓	✓

Object Type	IBM DB2 LUW for Open Systems	IBM DB2 LUW for z/OS and OS/390	Microsoft SQL Server	Oracle	Sybase Adaptive Server
Views	✓	✓	✓	✓	✓

Working with Browsers

Browsers offer a versatile method of browsing and managing the contents of your databases. To help you maintain and organize your databases, you can:

- Print the contents of a Browser
- Search the contents of a Browser
- Copy the contents of a Browser
- Sort the contents of a Browser

Printing Browsers

1. Open a **Browser** for the desired object type.
2. On the **File** menu, click **Print to open the Print dialog box.**
3. In the **Name** box, click the list, which contains a list of local and network printers that you can access (if you do not see any listed, then your computer is not configured for any printers).
4. Click the target printer.
5. In the **Print Range** box, click the appropriate option button to indicate print range.
6. In the **Number of copies** text box of the **Copies** box, click the **Up** or **Down** arrow or enter the number of copies.
7. Click **OK**.

   Rapid SQL prints the selection.

Searching Browsers

1. Open a **Browser** for the desired object type.
2. On the **Edit** menu, click **Find**.

   Rapid SQL opens the Find box.
3. In the **Find What** text box, enter the search string.
4. To make the search case sensitive, select the **Match Case** check box.
5. To specify the direction to search, in the **Direction** box, click the **Up** or **Down** option button.
6. Click **Find Next**.

   Rapid SQL finds the next occurrence of your search string.

Copying Browsers

1. Open a **Browser** for the desired object type.
2. Select the objects to copy.

3 On the **Edit** menu, click **Copy**.

4 Place the pointer at the position where you want to paste the objects, and then on the **Edit** menu, click **Paste**.

Sorting Browsers

1 Open or Create a **Browser** for the desired object type.

2 Double-click the column header for the column of data to sort and Rapid SQL lists the contents of the column in ascending order.

3 Double-click the column header again and Rapid SQL lists the contents of the column in descending order.

For more information, see Browsers.

Extracting DDL from Browsers

For each database type, Rapid SQL provides an appropriate Browser. The Browsers are mutually exclusive object windows, showing only objects of a given type. If you connect to multiple datasources, you have access to a number of objects that are not available based on the database platform. Rapid SQL includes intelligence to determine the valid object types in the underlying datasource.

Using the Main Menu

1 On the **Browse** menu, click the target object type.

Rapid SQL opens the appropriate Browser:

2 In the **Browser**, double-click the target object type to extract the object type DDL into a **DDL Editor**.

Using the Browser Toolbar

1 On the **Browser** toolbar, click **Tables**.

Rapid SQL opens the Table Browser:

2 Click the scroll bar arrow to locate the target table.

3 Double-click the target table.

Rapid SQL extracts the schema DDL into a DDL Editor.

Using the Shortcut Menu

1 Right-click an open area of the workspace, click **Browsers**, and then click the target object type.

2 In the **Browser**, double-click the target object type.

Rapid SQL extracts the schema DDL into a DDL Editor.

For more information, see Browsers.

Displaying Dependencies from Browsers

You can display object dependencies for an object from its corresponding object Browser. Rapid SQL displays the dependencies in a separate result set window.

Displaying Dependencies

Rapid SQL offers three ways to display dependencies from Browsers:

1 Open a **Browser** for an object type.

2 In the **Browser**, click the target object.

3 On the **Object** menu, click **Dependencies**.

OR

On the **Browser** toolbar, click **Dependencies**.

OR

Right-click the target object and then click **Dependencies**.

Rapid SQL displays dependencies in a separate window.

For more information, see Browsers.

Refreshing Browsers

Rapid SQL lets you refresh and display the results of a Browser operation.

Refreshing the Browser

1 On the **Object** menu, click **Refresh**.

OR

On the **Browser** toolbar, click **Refresh**.

OR

Right-click the **Browser** workspace and then click **Refresh**.

Rapid SQL refreshes the results of the browser operation.

For more information, see Browsers.

Workspaces

Workspaces are a convenient way to maximize your desktop. You can use workspaces to multiply the amount of scripting, script execution, and development resources you have available at any one time. Rapid SQL lets you open and use several workspaces at one time. Using more than one workspace lets you:

- Execute long running scripts in one workspace while working in other workspaces.
- Develop strategies for working on scripts and result sets in one workspace while other scripts reside in one or more of the other workspaces.

Toggling Between Workspaces

Rapid SQL offers two ways to toggle between workspaces:

1 On the **Main** toolbar, click **Workspace**.

OR

Right-click the current workspace and then click the target workspace.

Rapid SQL brings the target workspace forward.

>

For more information, see:

Setting Workplace Options

Managing Workspaces

Managing Workspaces

Rapid SQL provides you with three default workspaces. You manage the workspaces in the Workspace dialog box. Using the Workspace dialog box you can:

- Differentiate between workspaces by changing the background color or wallpaper.
- Toggle among workspaces.
- Create, delete, rename, and specify the order of workspaces.

Managing Workspaces

The Workspace dialog box lets you manage all open windows in your workspace.

1 On the **Windows** menu, click **Windows**.

Rapid SQL displays the Workspace dialog box. Any open windows in the current workspace display in the list.

The table below describes the options and functionality on the Workspace dialog box:

Option	Description
Activate	Sets the focus onto the window you have selected in the list and closes the Workspace dialog box.
OK	Closes the Workspace dialog box and accepts any changes you have made to the windows in the current workspace.
Save	Saves the contents of the window you have selected in the list. You are prompted to provide a name and location for the file you are saving if you have not done so already.
Close Window	Closes the window you have selected from the list. If you have not saved the contents of the window, you are prompted with a save file alert.
Help	Initiates and displays this Help topic in the Rapid SQL Help.

Set Sort Columns Dialog Box

The Set Sort Columns dialog box lets you sort multiple columns, and sort column identification, in the Right Pane of the application.

For more information, see Completing the Set Columns Dialog Box.

Completing the Set Columns Dialog Box

To complete the Set Columns dialog box, do the following:

1 In the right pane of the application, right-click a column heading and select **Sort Multiple Columns**.

Rapid SQL opens the Set Sort Columns dialog box.

2 In **Column Name** select the column(s) to use to sort the information in the right pane of the application.

3 Click the right arrow to move the column(s) to the **Column Name** box.

4 Click the up and down arrows to change the order of the sort columns.

For more information, see Set Sort Column Dialog Box.

Preview Dialog Boxes

Before executing any code, Rapid SQL offers Preview dialog boxes to let you confirm actions before execution. In the Preview dialog boxes, you can:

- Preview the code to execute.
- View the SQL of the code on your database.
- Create a report detailing the affect of executing code on your database.
- Schedule execution of the code.
- Save the code to execute.
- Open your e-mail program with the code to execute as an attachment.
- Print the code to execute.

Topics:

- Preview
- Impact Analysis
- Generate Report

Menus

Rapid SQL offers two context-sensitive menus to let you access all the application's features. The Main Menu is always on the top of the application window. The shortcut menu is accessible from almost anywhere in the application. Right-click to view the available shortcut menu. Rapid SQL lets you customize the Tools menu to help you tailor the application to your needs.

Topics

- Main Menu
- Shortcut menus
- Customizing the Tools Menu

Main Menu

Rapid SQL's features can all be accessed from the Main Menu by clicking the menu name and selecting from the submenu. The menus are context sensitive and change based on the tasks you want to perform. The table below describes the Rapid SQL menus:

Menu Item	Description
File	Create, open, close, print, send, and save script files and result sets. Set application options and defaults.

Menu Item	Description
Datasource	Create, modify, select, connect to, and disconnect from datasources. Access the database search facility.
Project	Available only when a project is open. Configure project management, build projects, and use version control functions.
Browse	Browse any object type a datasource connection.
Logfile	Activate/deactivate, open, set options, and flush the Rapid SQL application log.
View	Arrange the Rapid SQL environment. Display or hide the Database Explorer, toolbars, Output Window, Describe window, activate full-screen mode.
Tools	Choose any of Rapid SQL's tools, such as Database Search and the Visual Diff Utility. Customize and add tools of your own.
Bookmarks	Access and manage bookmarks.
Help	Access HTML Help.
Query	Available only when an Editor is open. Execute and set options for your SQL scripts.
Object	Available only when a browser is open. Execute, view dependencies, extract, and refresh objects in a database.
Edit	Available only when an Editor is open. Edit and manipulate the text in your scripts.
Format	Available only when a Result Window is active. Format the contents of result sets.
Window	Cascade and tile open windows. Toggle among open windows.

For more information, see Menus.

Explorer Bookmarks

The Bookmarks menu lets you access and manage explorer bookmarks. Explorer bookmarks let you quickly access nodes in the Database Explorer.

Creating Explorer Bookmarks

1. On the **Database Explorer**, right-click the target node, and then select **Add Bookmark**.

   Rapid SQL opens the Add Friendly Bookmark Name dialog box.

2. Type the explorer bookmark name.

3. Click **OK**.

   Rapid SQL displays the explorer bookmark under the Bookmarks menu. Explorer bookmarks are organized by platform.

Editing Explorer Bookmarks

1. On the **Main Menu**, select **Bookmarks**.

2. Select **Bookmark Manager**.

   Rapid SQL opens Bookmark Manager.

3 To rename the explorer bookmark, select the target explorer bookmark, and then click **Rename**.

Rapid SQL opens the Edit Bookmark Name dialog box.

4 Type the new explorer bookmark name.

5 Click **OK**.

6 To delete an explorer bookmark, select the target explorer bookmark, and then click **Delete**.

TIP: To add explorer bookmarks without using the Add Friendly Bookmark Name dialog box, select **Do not show 'Add Friendly Bookmark Name' dialog** option.

Shortcut Menus

Rapid SQL incorporates context-sensitive menus to give you another way to access object functionality. These menus mirror the functionality that you can access from application toolbars or the main menu.

Opening Shortcut Menus

1 Right-click anywhere on the Rapid SQL desktop to open the appropriate shortcut menu.

For more information, see Menus.

Toolbars

Rapid SQL toolbars change to reflect the element of the application you are using. The toolbars contain icons that are the fastest way to access commonly used features of Rapid SQL. You can move the toolbars to horizontal or vertical positions anywhere on the screen, and you can toggle them off and on by using the shortcut menu when the pointer is positioned over one of Rapid SQL's toolbars. For more information, see the following topics:

- Available toolbars
- Using toolbar viewing options
- Moving Toolbars

NOTE: For related information, see Customizing general user interface appearance.

Available toolbars

The following list represents Rapid SQL's toolbars:

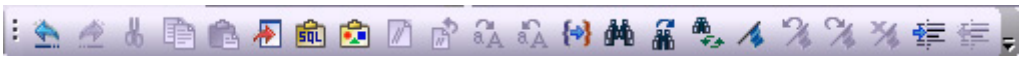
Datasource Toolbar

Registration Toolbar

>

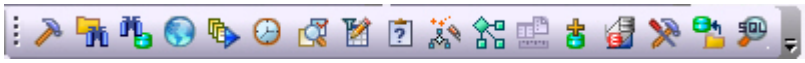
Main Toolbar

Edit Toolbar

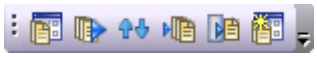


Windows Toolbar

Tools Toolbar



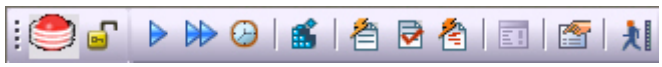
Project Toolbar



SQL Edit Toolbar

Browsers Toolbar

Query Builder Toolbar



Object Editor Toolbar

Using toolbar viewing options

Rapid SQL offers standard Windows toolbar options such as docking, floating, and positioning toolbars.The only application-specific viewing option is the hiding or display of the individual toolbars.

To hide or display a toolbar:

1 On the **View** menu, select **Toolbars** and then select the specific toolbar you want to display or hide.

For information on the toolbars available, see Available toolbars.

Moving Toolbars

1 Click the pointer at the right edge of any toolbar.

2 Drag the toolbar to the new position.

For more information, see Toolbars.

Customizing general user interface appearance

Rapid SQL lets you choose from a set of general visual application styles, dictate hiding or display of particular items, and select preferences for specific user interface elements.

To customize the general look and feel of Rapid SQL:

1 On the **View** menu, select **Toolbars** and then select **Customize**. The **Customize** dialog opens.

2 Use the following table as a guide to understanding and setting options on tabs of the Customize dialog:

Tab	Settings and tasks	
Toolbars	Select the toolbars you want to display in the application. For information on the toolbars available, see Available toolbars.	
Application Visual Style	Select a visual style such as Microsoft Windows XP or one of the .NET options from the dropdown. Depending on your selection, the following options may or may not be enabled: **Use default WIndows XP colors**, **OneNote style tabs**, **Docking Tab Colors**, **Allow MDI Tab Swapping**, **Enable Smart Docking**, **Enable Tab Menu**, and **3D Rounded Docking Tabs**.	
	Menu animations	Lets you specify a menu animation style of UNFOLD, SLIDE, or FADE.
	Menu Shadows	Displays shadowed 3D effects.
Tools	Lets you define external applications to run from the **Tools** menu of Rapid SQL: the text displayed on the Tools menu command (**Menu contents**), the path and file name of the executable (**Command**), optional **Arguments**, and an optional **Initial DIrectory**. For detailed information on providing arguements, see Specifying an Argument for a Tools Menu Command.	

Tab	Settings and tasks	
Keyboard	**Category**	Select a general category for a hot key for the command.
	Commands	Select a hot key command, based on the general category.
	Description	Displays the command description.
	Set Accelerator for	Select application area where you want new hot key to be active.
	Current Keys	Displays current hot key.
	Press New Shortcut Key	Press keyboard key or an unassigned F key.
Options	**Show ScreenTips on toolbars**	Select to display a ScreenTip when you hover your mouse over a button. For example, when you hover your mouse over the New button, Rapid SQL displays the ScreenTip “New.”
	Show shortcut keys in ScreenTips	Select to display a shortcut key in the ScreenTip when you hover your mouse over a button. For example, when you hover your mouse over the New button, Rapid SQL displays the ScreenTip “New (CTRL+N).”

3 Click **Apply** at any time to implement any changes you have made and when finished, click **Close**.

Specifying an Argument for a Tools Menu Command

You can specify an argument to be passed to a program for newly added commands by choosing one of Rapid SQL's predefined arguments or entering a command-line argument.

The table below provides scenarios of how to use command-line arguments:

Command	Argument	Description
NOTEPAD.EXE	$$FilePath$$	Starts Microsoft Notepad displaying the contents of the $$FilePath$$ argument.
ISQL.EXE	-U$$CurUserID$$ -P$$CurPwd$$ -S$$CurConString$$ -i$$FilePath$$	Starts ISQL, automatically connects to the current datasource using the current user name and password, and executes the contents of $$FilePath$$.
SQLPLUS.EXE	$$CurUserID$$/$$CurPwd$$@$$ CurConString$$ @$$FilePath$$	Starts SQL*Plus, connects to the current datasource using the current user name and password, and executes the contents of $$FilePath$$.

The table below provides scenarios of how to use Rapid SQL’s predefined arguments:

Argument	Description
$$FilePath$$	The complete filename of the current source (defined as drive+path+filename); blank if a non-source window is active.
$$FileDir$$	The directory of the current source (defined as drive+path); blank if a non-source window is active.
$$FileName$$	The filename of the current source (defined as filename); blank if the non-source window is active.
$$FileExt$$	The filename extension of the current source; blank if a non-source window is active.
$$CurLine$$	The current cursor line position within the active window.

>

Argument	Description
$$CurCol$$	The current cursor column position within the active window.
$$CurText$$	The current text (the word under the current cursor position, or the currently selected text, if there is one).
$$CurDir$$	The current working directory (defined as drive+path).
$$CurDatasource$$	The name of the current datasource as defined in Rapid SQL.
$$CurUserID$$	The name of the current datasource user.
$$CurPwd$$	The current datasource password.
$$CurConString$$	The current connection string or server name.

Predefined Arguments

Rapid SQL provides a number of predefined arguments that you can pass to programs that you have added to the Tools menu. The table below lists the available predefined arguments:

Argument	Description
$$FilePath$$	The complete filename of the current source (defined as drive+path+filename); blank if a non-source window is active.
$$FileDir$$	The directory of the current source (defined as drive+path); blank if a non-source window is active.
$$FileName$$	The filename of the current source (defined as filename); blank if the non-source window is active.
$$FileExt$$	The filename extension of the current source; blank if a non-source window is active.
$$CurLine$$	The current cursor line position within the active window.
$$CurCol$$	The current cursor column position within the active window.
$$CurText$$	The current text (the word under the current cursor position, or the currently selected text, if there is one).
$$CurDir$$	The current working directory (defined as drive+path).
$$CurDatasource$$	The name of the current datasource as defined in Rapid SQL.
$$CurUserID$$	The name of the current datasource user.
$$CurPwd$$	The current datasource password.
$$CurConString$$	The current connection string or server name.

NOTE: Arguments are case-sensitive.

Keyboard Shortcuts

Rapid SQL provides a number of keyboard shortcuts to help you expedite your tasks. The table below lists the taxes and related shortcuts:

General Editing	Keyboard Command
Delete one character to the left	BACKSPACE
Delete one character to the right	DELETE

General Editing	Keyboard Command
Cut selected text to the Clipboard	CTRL+X
Undo the last action	CTRL+Z
Redo the last undo operation	CTRL+Y
Copy text	CTRL+C
Paste the Clipboard contents	CTRL+V

To Extend a Selection	Keyboard Command
One character to the right	SHIFT+RIGHT ARROW
One character to the left	SHIFT+LEFT ARROW
To the end of a word	CTRL+SHIFT+RIGHT ARROW
To the beginning of a word	CTRL+SHIFT+LEFT ARROW
To the end of a line	SHIFT+END
To the beginning of a line	SHIFT+HOME
One line down	SHIFT+DOWN ARROW
One screen up	SHIFT+PAGE UP
To the beginning of a document	CTRL+SHIFT+HOME
To the end of a document	CTRL+SHIFT+END
To include the entire document	CTRL+A

To Move the Insertion Point	Keyboard Command
One character to the left	LEFT ARROW
One character to the right	RIGHT ARROW
One word to the left	CTRL+LEFT ARROW
One word to the right	CTRL+RIGHT ARROW
One line up	UP ARROW
One line down	DOWN ARROW
To the end of a line	END
To the beginning of a line	HOME
One screen up (scrolling)	PAGE UP
One screen down (scrolling)	PAGE DOWN
To the end of a document	CTRL+END
To the beginning of a document	CTRL+HOME

Bookmarks	Keyboard Command
Toggle bookmark on/off	CTRL+F2
Go to next bookmark	F2
Go to previous bookmark	SHIFT+F2

Splitter Windows	Keyboard Command
Go to next pane	F6
Go to previous pane	SHIFT+F6

Debugger Operations	Keyboard Command
Start Debugging	CTRL+F5
Stop Debugging	SHIFT+F5
Step Over	F10
Step Into	F11
Run to Cursor	CTRL+F10
Step Out	SHIFT+F11
Describe from Cursor	CTRL+D
Insert or Remove Breakpoint	F9
Toggle (Enable or Disable) Breakpoint	CTRL+F9
Edit Breakpoint	ALT+F9
Go	F5
Restart	CTRL+SHIFT+F5

Debugger Windows	Keyboard Command
Open or Close Watch Window	ALT+3
Open or Close Variables Window	ALT+4
Open or Close Call Stack Window	ALT+5
Open or Close Dependency Tree Window	ALT+6

Other Windows	Keyboard Command
Go to the Result Tab	CTRL+ALT+R
Go to the Query Tab	CTRL+ALT+Q

Other Windows	Keyboard Command
Open the Describe window (for highlighted object)	CTRL+D
Toggle between Workspaces	CTRL+W
Toggle between Datasource Explorer and ISQL Window.	CTRL+ALT+E

Full Screen Mode

Rapid SQL has full screen mode capabilities so you can conceal the application framework and use the entire monitor area. Full screen mode hides any other applications running on the computer and uses every available pixel for the application. Main menu functionality is accessible through keyboard commands when you use full screen mode.

Activating Full Screen Mode

Rapid SQL offers two ways to activate full screen mode:

1 On the **View** menu, click **Full Screen**.

OR

On the **Main** toolbar, click **Full Screen**.

Rapid SQL expands the application to fit the entire monitor area.

NOTE: The Full Screen mode icon is a stand-alone floating toolbar.

Dismissing Full Screen Mode

1 Click **Full Screen** to expand the application to fit the entire monitor area.

TIP: If you closed the Full Screen mode toolbar, right-click the top of the Rapid SQL desktop to bring the toolbar back.

2 Click **Full Screen** to restore the application to the default size.

Specifying Rapid SQL application and feature options

Rapid SQL lets you customize the application configuration for your specific needs. All Rapid SQL application settings are available in the Options Editor, which is organized in a tabular format based on feature sets. The table below describes the options and functionality on the Options Editor tabs:

Auto format options	Specifies the style and spacing of SQL statements in an ISQL windows.
Browsers options	Lets you specify appearance of browser windows.
Code Analyst options	Lets you set dependency profiling level, allram and threshold, and oracle options for Code Analyst.
Connection options	Specifies the timeout parameters, packet size for a connection, and ANSI to OEM settings.
Data Editor options	Specifies settings for Data Editor.
Explorer options	Sets defaults for the organization of objects in the Datasource Explorer.
Datasource options	Specifies how to store the data source registry on the local machine.

DDL extract options	Specifies whether or not Rapid SQL should include DROP statements when extracting the schema of different database object types.
Debug options	Sets the duration of your debug initialization and debug session, enable or disable DBMS_OUTPUT, and enable the refresh option.
Directories options	Sets the default directories for placing the output of different operations such as HTML reports or schema extractions.
Editor options	Sets defaults for general ISQL display, enabling syntax highlighting and line numbers, command history parameters, formatting, file tracking, and auto-save intervals for ISQL Windows.
General options	Sets defaults for automatic login, restoring the last session, and other general application options.
ISQL options	Sets defaults for the maximum allowable errors before aborting the execution of a SQL script, executing selected text, and the position of Query and Results tabs.
Java options	Specifies load Java files and drop Java files.
JDBC options	Lets you specify Java Virtual Machine options in addition to the JDBC driver location for each platform.
Logging options	Sets defaults for SQL Logging.
Perf Center options	Specifies Performance Center's integration with Rapid SQL.
Query Builder options	Specifies global settings for Query Builder.
Results (ISQL) options	Specifies auto format result sets, sets the display and format of Result Windows, and the mail file type and default fonts.
SMTP mail options	Lets you specify defaults for your outgoing mail notifications.
Version Control options	Lets you specify the version control system you want Rapid SQL to work with.

To specify options for the Rapid SQL application or a particular feature:

1 On the **File** menu, click **Options**.

Rapid SQL opens the Options Editor.

2 Click the tab corresponding to the feature you want to customize.

Refer to the table above for a description of the available tabs. Consult the referenced topic for detailed descriptions of the feature options available.

3 Set feature options on the tab and then click **OK**.

NOTE: If there is an open document, Rapid SQL opens the **Update Document Statement Properties** dialog box. The Update Document Statement Properties dialog box lets you override changes you made to a current document or documents with new setting you made in the Options Editor.

Auto format options

NOTE: This option is for Oracle users only.

After opening the Options editor (see Specifying Rapid SQL application and feature options), you can make changes to the **Auto Format** tab.

>

The Auto Format Tab of the Options Editor lets you specify the style and spacing of SQL statements in an ISQL windows when you choose to auto format Oracle objects. The options you set on the Auto Format Tab of the Options Editor apply to all SQL statement operations. Before you can set Auto Format options, you must open the Options Editor. The table below describes the options and functionality on the **Auto Format** Tab:

Interface Element	Options and settings		
Style tab:		Lets you specify the character case of Oracle **Keywords** (such as BEGIN, LOOP, and INSERT), non-Oracle keywords such as **Variables** and object names, Oracle **Built-ins**, and **Built-in Packages** (such as DBMS_SQL or DBMS_OUTPUT).	
Spacing tab:	**Tabspace Options**	Presents two mutually exclusive option sets:	
		Keep Tabs and **Extra tabs**	Keeps the original tabs from the original PL/SQL script and optionally lets you add a specified number of tabs to the original script.
		Insert Spaces and **Spaces Per Tab**	Replaces tabs from the original PL/SQL script with a specified number of spaces.
	Whitespace Retention	Lets you retain white space.	
	Indent Size	Specifies the number of spaces a line indents after a line wrap.	
	Right Margin	Specifies the maximum number of characters per line.	
	Defaults	Resets the options on page to the original settings.	
Stacking tab:	**Parameter Stacking**	**Standard (Wrapped)** displays the embedded script parameters in a staggered list while **Compact (Stacked)** displays the embedded script parameters by line.	
	Column Stacking	Standard (Wrapped) displays the embedded script columns in a staggered list while Compact (Stacked) displays the embedded script parameters by line.	
	Defaults	Resets parameter and column stacking options to default, compact (stacked.)	

Browsers options

After opening the Options editor (see Specifying Rapid SQL application and feature options), you can make changes to the **Browsers** tab.

The Browsers Tab of the Options Editor lets you set a number of options for your browser windows, including browser appearance, mail file type options, and default object owner.The table below describes Browser options:

Interface Element	Option	Description	Default
Window	**Show Toolbar**	Toggles the Browser window toolbar. Commands can also be activated from the shortcut menu that displays when you right-click in an open Browser window.	Selected
	Show Status Bar	Toggles the status bar at the bottom of the Browser window. The status bar displays the cell location of the current focus and the number of rows in the Browser window itself.	Selected
	Detailed Listing	Toggles detail columns for a given object type. Each object contains object specific details, such as creation date, segment, and so on. When Detailed Listing is turned off, only the names of objects and the numbers of rows of data for a table are displayed.	Not selected

Interface Element	Option	Description	Default
	Text Color	Sets the text color for all Browsers of that object type. Select the row appropriate to a particular object type, then click a color in the Text column. Remember that text colors appear best against contrasting background colors, such as black on white.	Available
	Background Color	Sets the background color for all Browsers of that object type. Select the row appropriate to a particular object type, then click a color in the Background column. Remember that text colors appear best against contrasting background colors, such as black on white.	Available
Browser File	**Mail File Type**	Specifies what file type you want the browser file saved as when sent as e-mail to another user on a MAPI compliant mail system. The valid types are the proprietary Rapid SQL Results type, Tab delimited, Comma separated, and HTML, which formats the results in a simple HTML table.	Results
Default Owner	**All Owners**	Indicates that the Browser Window should default to displaying database objects in the browsers for all owners in the database.	Not Selected
	Current User	Indicates that the Browser Window should default to displaying database objects owned exclusively by the current user.	Selected
	Specific Owner	Indicates that the Browser Window should default to displaying only the database objects owned by a specific owner. If you select this option, you must provide an owner name in the box.	Not Selected

Code Analyst options

After opening the Options editor (see Specifying Rapid SQL application and feature options), you can set preferences for Code Analyst. The table below describes Code Analyst options:

Area	Option	Description
Dependency profiling level	All Dependencies	Code Analyst witll use all levels of dependencies when profiling the session.
	Dependencies up to level	Lets you specify how many levels of dependencies the Code Analyst will use when profiling the session.
Oracle	List Package objects	Code Analyst lists the procedures within a package and functions that are found in the Oracle database.
	Use SQL Profiler	Code Anlsyt uses Oracle's DBMS_Profiler package to collect time metrics. Code Analyst displays the actual run time on the database, and does not include the time it takes to get to the server.
Alarms and Thresholds	Object Type	Lets you set an alarm for each type of object that is collected. The end result would be that An additional field would allow the user to exclude those process that use 100%.
	Alarm %	Lets you specify the percentage of total run time a line of code takes when an alarm appears. If the object took more than specified percent of total time, Code Analyst alerts the user by changing the color of the text.
	Ignore 100%	Lets you ignore lines of code that take all of the total run time.

Area	Option	Description
	Show Code Analyst Confirmation Dialog	When you create or execute a session, Code Analyst displays a message that the Code Analyst will run longer than the actual code. You can also select the "Please do not show me this dialog again" option in the dialog box.

Connection options

After opening the Options editor (see Specifying Rapid SQL application and feature options), you can configure a number of server parameters for interacting with your data sources on the Connection tab.

NOTE: Setting Connection Options are available for Microsoft SQL Server and Sybase ASE.

The table below describes the options and functionality on the Connection Tab:

Option	Description	Default
Login Timeout	Specifies the number of seconds that the application should wait for a response to a connection request from server. If server does not respond within the specified period, the application aborts the connection and returns an error message.	30
Query Timeout	Specifies the number of seconds that the application should wait for a response to a query from the server. If the server does not respond within the specified period, the application terminates its query process and returns an error.	0
Packet Size	Specifies the network packet size to be used when communicating with the server, in bytes.	512
Max Connections (ctlib)	For Sybase, lets you specify the maximum number of CTLIB connections allowed.	
Client Character Set	Character set of client computer.	Local character set
Host Name	Name of the client computer.	Local name
Use Quoted Identifiers	If you plan to use delimited identifiers, select this option.	Not selected

Data Editor options

After opening the Options editor (see Specifying Rapid SQL application and feature options), you can make changes to the **Data Editor** tab.

NOTE: Option parameters set in the Options Editor override options set within Query Builder and Data Editor.

The table below describes the options and functionality on the **Data Editor** Tab:

Interface Element	Option	Description	Default
Default Execution Mode	**Live Mode** lets you execute changes one row at a time. **Batch Mode** lets you make unlimited changes prior to execution. Batch Mode offers three sub-options: **Ignore errors-continue processing**, **Prompt on Error**, and **Stop after error(s)** (number of errors allowed before stopping execution)		Live Mode
Data Editor File	**Mail File Type**	Sets the default mail output style as Results, Tab Delimited, Comma Separated, or HTML.	Results
	Include column titles when saving	Includes column titles when saving.	Not selected
Grid Font	Customizes font style, and size for the Data Editor and the Results Grid.		Available
Printer Font	Sets font style, and size for printing output.		Available
Auto Format (Best Fit)	Fits formatting to match your desktop.		Selected
Begin and End Transaction Statements	Adds a beginning and ending transaction on each statement.		Selected
Default Date/Time Format	Displays the current date/time format and lets you customize the date/time display.		Results
	Use Calendar Control as default	If selected, Rapid SQL uses the Calendar Control window.	Not selected
	2 digit year system setting warning	If selected, Rapid SQL sends a warning when you use a two digit year system setting.	Selected
Confirmation Dialog Options	Enabling **Show Delete Confirmation Dialog**, **Show Update Confirmation Dialog**, or **Show Update LOB Confirmation Dialog** lets you display a confirmation dialog box when you use a delete command, update a row, or update a LOB, repectively..		Selected

Datasource options

After opening the Options editor (see Specifying Rapid SQL application and feature options), you can make changes to the **Datasource** tab. The table below describes the options and functionality on the **Datasource** Tab:

Option	Description	Default
Recent Datasource List Contains	Lets you specify number of **Datasources** to display in the data source list.	6
Check Server Component When Connect to DB2/OS390 Database	**IBM DB2 for OS/390 ONLY:** Lets you select option to check server component when you connect to a database.	Selected
Default to Alias Usage When Defining New Datasources		
Re-sort the Datasource Combo based on Connection state	When this box is checked, list of data sources on the Datasource toolbar identifies the currently connected data sources above all others. When this box is unchecked, data sources are listed in strict alphabetical order.	Selected

Explorer options

After opening the Options editor (see Specifying Rapid SQL application and feature options), you can make changes to the **Explorer** tab. The Explorer Tab of the Options Editor lets you configure how objects are organized in the Datasource Explorer.

The table below describes the options and functionality on the **Explorer** Tab:

Option	Description	Default
Organize by Object Owner	Groups objects, by object type, for each user. This display mode is most efficient if you are working with databases containing a high number of objects.	Not selected
Organize by Object Type	Groups objects by object type for all users in the same list.	Selected
Show Only My Objects	Shows only the objects you own in the Datasource Explorer. Available if you are organizing the Datasource Explorer by object type.	Not selected
Show System Objects	Shows all system objects in the Datasource Explorer.	Not selected
Refresh after Object Commands	Refreshes the Explorer automatically after an object has been modified or created.	Selected
Retain View Setting on Close	Select to retain the current state of the Datasource Explorer so that it opens the same way the next time you start Rapid SQL.	Selected

DDL extract options

After opening the Options editor (see Specifying Rapid SQL application and feature options), you can make changes to the **DDL Extract** tab.The DDL Extraction Tab of the Options Editor lets you specify common and DBMS-specific DDL Extract options.

Common options

The table below describes the options and functionality on the **DDL Extract** Tab, main view, of the Options Editor:

Option	Description
Extract to multiple windows	Select to extract the schema for each object into separate DDL windows. **NOTE:** This option only works when you extract DDL for multiple objects.
Extract in dependency order	This is the default. When you select a number of objects as part of an extraction job, this option ensures objects will be extracted in the proper dependency order. If the option is not selected, errors may result when you execute the script. It's also true, however, that loading the dependencies can add significant overhead when you are extracting numerous objects.
Script Use Statement	This option is for Sybase. Optimizes extraction through generating Use statements in the generated script.

DBMS-specific DDL Extract options

The DB2, DB2 (OS/390), Oracle, SQL Server, and Sybase views of the DDL Extract tab let you specify:

- The object types to include DROP statements for
- The default dependent object types for each object type included in extraction/migration operations

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You can choose to include DROP statements before you perform ad hoc DDL extractions. You can use this feature to modify and to re-compile database objects. To recompile a database object, drop it before recreating it. This option drops any existing objects of the same name before recreating the object. The data in the existing table is not saved when you specify a DROP statement for extracted DDL.

CAUTION: Because dropping an object is a destructive action, you should carefully consider including drop statements before activating this option.

The table below shows the object types you can include a DROP statement with when performing an ad hoc DDL extraction:

Option	DB2 for OS/390 and z/OS	DB2 for Windows, Unix, and Linux	Oracle	SQL Server	Sybase
Aliases	Yes (default)	Yes (default)			
Constraints	Yes	Yes	Yes	Yes	Yes
Database	Yes				
Defaults				Yes (default)	Yes (default)
Functions	Yes (default)	Yes (default)		Yes	
Indexes	Yes (default)	Yes (default)	Yes (default)	Yes (default)	Yes (default)
Packages		Yes (default)			
Procedures	Yes (default)	Yes (default)		Yes (default)	Yes (default)
Rules				Yes (default)	Yes (default)
Sequences		Yes (default)	Yes (default)		
Structure Types		Yes (default)			
Synonyms	Yes (default)		Yes (default)		
Tables	Yes (default)	Yes	Yes	Yes	Yes
Triggers	Yes (default)	Yes (default)		Yes (default)	Yes (default)
Users			Yes	Yes	Yes
User Datatypes				Yes (default)	Yes (default)
Views	Yes (default)	Yes (default)		Yes (default)	Yes (default)

Debug options

After opening the Options editor (see Specifying Rapid SQL application and feature options), you can make changes to the **Debug** tab. The Debug Tab of the Options Editor lets you set the duration of your debug initialization and debug session, enable or disable DBMS_OUTPUT, and enable the refresh option.

The table below describes the options and functionality on the **Debug** Tab:

Tab	Option	Description	Default
General	**Dependency Tree Option**	Lets you specify pre-fetch levels.	Pre-Fetch All Dependencies
Profiler	**Profiler Time Unit**	Lets you select a unit of milliseconds, seconds or minutes.	Milliseconds
	Save Profiler Reports	Lets you save profiler reports and type or browse for the report path.	Not Selected

Tab	Option	Description	Default
Oracle	**Initialization Timeout (seconds)**	Specifies the point at which the application stops trying to initialize the debugger. If it cannot initialize the debugger in the specified time, it displays message in the Debug Output window.	60
	Debug Session Timeout (seconds)	Specifies the point at which the application terminates your debug session due to idle time.	7200
	Enable DBMS Output	Enables the Oracle built-in package, DBMS_OUTPUT, letting you send messages from stored procedures, packages, and triggers.	Selected
	Refresh Dependencies for each run	Refreshes the dependencies each time you run the debugger.	Not selected
	Compile with Debug Option	Select options to compile dependent objects while debugging.	Compile dependent options
DB2	**Debug Session Timeout (seconds)**	Specifies the point at which the application terminates your debug session due to idle time.	300
	Compile with Debug Option before Debug Session	Lets you specify options.	Prompt Always

Directories options

After opening the Options editor (see Specifying Rapid SQL application and feature options), you can make changes to the **Directory** tab. Rapid SQL lets you configure Directory Options to use default directories when performing certain operations.

The table below describes the options and functionality on the **Directories** Tab:

Option	Description	Default
ETSQLX Job Configuration Files	Specifies the location of any ETSQLX job configuration files you have set on your local machine.	C:\Documents and Settings*user_name*\My Documents\Embarcadero\RapidSQL\Directories\ETSQLXJobCfg
Report Templates	Specifies the location of the HTML templates the application uses when generating reports.	C:\Program Files\Embarcadero\RSQL760\HtmlTpl
Schema Extraction	Specifies the name and location of the default directory for placing the output from schema extraction operations.	C:\Documents and Settings*user_name*\My Documents\Embarcadero\Rapid
Version Control Working Directory	Specifies directory where the version control file will be opened to when the file is opened from the version control system. This is the directory where the version control file is stored when you use the Get Latest Version or Check Out functionality from the VC Files Tab. It will also be the folder used for files in the VC Files Tab when they are opened, executed, checked in, or their checkouts are undone.	C:\Documents and Settings*user_name*\My Documents\Embarcadero\Rapid
User SQL Scripts	Specifies the name and location of the default directory for SQL Scripts.	C:\Documents and Settings*user_name*\My Documents\Embarcadero\RapidSQL\UserSQLScripts

Option	Description	Default
#include Files	Specifies the name and location of the directory searched for files specified by a #include directive in the ISQL editor, Procedure Object Editor, or Package Body Object Editor if there are no paths specified on the Datasource Properties tab of the Datasource Registration Editor. For more information, see Data Source Registration.	C:\Documents and Settings*user_name*\My Documents\Embarcadero\Directories\IncludeFiles

Editor options

After opening the Options editor (see Specifying Rapid SQL application and feature options), you can make changes to the **Editor** tab. Rapid SQL lets you set these ISQL Window options:

- Appearance of the editor
- Syntax coloring and font for SQL scripts
- File tracking
- Line numbers
- Auto-save
- Parameters for the command history feature

The table below describes the options and functionality on the **Editor** Tab:

Group	Option	Description	Default
Window	**Show Toolbar** and **Show Status Bar**	Enables/disables these ISQL Window user interface elements.	Selected
	Auto-Reload File	If File Tracking is enabled, indicates that the application should automatically reload a file that has been externally modified without prompting you. If you turn this option off, Rapid SQL prompts you before reloading your file if external changes have been saved.	Not selected
	File Tracking	Indicates that the ISQL Editor should use the File Tracking Facility to monitor the status of a file. If a file has been modified and saved outside the application, the application loads the most current version of the file into the IISQL Editor based on the options set for Auto-Reload File (see above.)	Selected
	Maximize on new or open	Indicates that Rapid SQL should maximize the ISQL Editor. If you already have an active MDI Window that is maximized, the default behavior is to maximize a new child window. To deactivate this option, ensure you do not have any active MDI Windows, such as the Explorer.	Selected
	Auto-Save File	Indicates that files in the IISQL Editor should automatically be saved at the indicated time interval.	Selected (5 minutes)
Formatting	**Auto Indent**	Sets automatic indentation for each carriage return, new line in your SQL script.	Selected
	Expand Tabs and **Tab Size**	Sets tabs as the specified number of spaces in result sets.	Selected (4)
Appearance	**Enable Syntax Highlighting**	Sets syntax highlighting on so that all keywords and comments are colored for easier reading and debugging.	Selected
	Show Line Numbers	Places line numbers in the left column of an ISQL Window.	Selected

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Group	Option	Description	Default
	Enable Outlining	Enables and disables outlining.	Selected
	Enable Text Wrapping	Enables and disables a typical text wrap feature.	Selected
	Background Color	Sets the background color of the ISQL window.	White
	Editor Font and **Printer Font**	Sets the font face, style, and size displayed in the editor and for printing scripts from the ISQL Window.	Available
	Syntax Coloring	Sets syntax coloring for keywords, comments, quotes, and default text for various file types and scripts from the Syntax Coloring dialog box.	Available
Command History	**Save Most Recent**	Specifies the number of commands you want to save in the Command History list in the top of the ISQL Window toolbar. The maximum value is 99.	15
	Save File Before Overwriting	Specifies the action you want the application to take when selecting a command from the Command History box. You have the option to be reminded to save a file before overwriting (Ask First), to automatically save a file before overwriting (Always), or to automatically overwrite the file with the command (Never).	Ask First

General options

After opening the Options editor (see Specifying Rapid SQL application and feature options), you can make changes to the **General** tab. The General tab of the Options Editor lets you specify general application options. The table below describes the options and functionality on the **General** Tab:

Option	Description	Default
Confirm on Exit	Instructs Rapid SQL to issue a message confirming the operation before exiting the application.	Selected
Max Editors in a Single Open Operation	Specifies the maximum number of editors allowable from a single Open operation.	5
Max Entries in Output Window	Specifies the maximum number of messages that can appear in the Output Window before the contents are flushed. This option conserves memory resources. You can clear the Output window or raise the maximum number allowed at any time.	1500
DBA Views (Oracle)	Allows users with DBA role/privileges to view Data Dictionary Usage.	Selected
ALLViews (Oracle)	Allows all users regardless of assigned privileges to view Data Dictionary Usage.	Not selected
Preserve Case in Object Identifiers (Oracle)	Preserves case of the database object.	Not selected

ISQL options

After opening the Options editor (see Specifying Rapid SQL application and feature options), you can make changes to the **ISQL** tab. The table below describes the options and functionality on the **ISQL** Tab:

Tab	Settings
Main	**Max Errors Before Aborting Execution** - Sets the maximum number of errors allowed before aborting the execution of a script. A zero indicates that the option is inactive and that you recognize no limit to the number of errors allowed. Rapid SQL refers to this value when step executing SQL scripts. **Execute Selected Text** - Executes a portion of a selected SQL script. **Check Syntax When Executing** - For DB2, required to execute DB2 call statements in the ISQL Window. **Automatically lock connection** - When disabled, a prompt to commit or rollback the transaction is displayed when you close the ISQL editor window. Enabling this options disables the prompts and locks the connection automatically. **Prompt to lock database connection** - Locks the database connection on execution . **Tabs** - Sets the appearance of the ISQL Window tabs to either the top or bottom of the ISQL Window. **File Association** - Specifies whether the application should open an unknown file type automatically into an ISQL Window or prompt you with a message that Rapid SQL does not recognize the file type. **Query Plan Layout** - Sets the default orientation of a graphical query plan. For more information, see Query Options.
Oracle	**Enable DBMS Output** - Lets you specify **Buffer** size. 0 is the default. **Auto-Commit changes** - Applies auto commit status changes to all open windows. **View xmltype as clob** - When enabled, xmltype columns are displayed as CLOBs in the Results grid and the Data editor. Without this option selected, SELECT statements that qualify xmltype columns produce an **OciTypeBinder** conversion error. With the option selected, the SELECT submitted by Rapid SQL is modified to include a getclobval() method call.
DB2	**Set Isolation Level** - Sets the default for the value of the **Isolation Level** option on the Query Options dialog. For details, see Query Options. **Auto-Commit changes** - Applies auto commit status changes to all open windows. **Create Explain plan tables if required** - If set to TRUE, Explain Plan tables are created, as necessary. If set to FALSE and you don't manually create tables, Explain Plan operations will fail. **Create explain plan tables on the SYSTOOLS schema** - If set to TRUE, Explain Plan tables are created on the SYSTOOLS schema. If the tables already exist in the user's default schema, Rapid SQL continues to use those tables. Refer to DB2 documentation for a listing of Explain Plan tables that must be deleted in order to use the SYSTOOLS option. If set to FALSE, Explain Plan tables are created under the user's default schema.
Sybase	**Auto-Commit changes** - Applies auto commit status changes to all open windows.
SQL Server	**Enable Set Query Options** - Sets the default value of the **Send Set Options** setting on the Query Options dialog. For details, see Query Options. Changing this value does not affect ISQL sessions currently open. **Auto-Commit changes** - Applies auto commit status changes to all open windows.

Java options

After opening the Options editor (see Specifying Rapid SQL application and feature options), you can make changes to the **Java** tab. The table below describes the options and functionality on the **Java** Tab:

NOTE: Options differ by platform.

Interface Element	Option	Description	Default
Load Java files	**Use the DBMS_JAVA package**	Lets you schedule your SQL.	Selected
	Use batch file (oracle_home/bin/loadJava.bat)	Uses batch file (oracle_home/bin/loadJava.bat)	Not selected
	Default Encoding option	Leave blank to use the default.	Default
Drop Java files	**Use the DBMS_JAVA package**	Lets you schedule your SQL.	Selected
	Use batch file (oracle_home/bin/dropJava.bat)	Uses batch file (oracle_home/bin/dropJava.bat)	Not selected

JDBC options

After opening the Options editor (see Specifying Rapid SQL application and feature options), you can make changes to the **JDBC** tab.

Rapid SQL requires a JDBC connection. You have the ability, with this panel of the Options Editor, to set or change options that apply to platform-specific JDBC drivers and to the Java virtual machine (JVM) that is running on the client. The table below describes the options and functionality of the **JDBC** tab:

Option	Description	Default
JVM Options:		
Initial Heap Size	Set the size, in MB, for the repository where live and dead objects comingle with free memory. If memory runs out, JVM executions stop so the garbage can be collected and expunged. Each platform responds differently, so trial and error can help you maximize performance	64 MB
Maximum Heap Size	Set the upper limit for your heap size.	64 MB
Additional Options	Add options here ONLY in consultation with Embarcadero Technical Support	N/A
Default JDBC Driver		
DBMS Type	Select the DBMS appropriate to the driver you want to review/adjust from the drop-down list.	
Search	Click **...** to open the JDBC Driver Editor where you can see what drivers for the given platform are available to you. You can assign the JDBC Driver you selected as a default for all platform-specific data sources.	
Sybase		
JConnect metadata procedures are installed on all servers	**NOTE:** Sybase documentation recommends that if you have transactional components that use jConnect caches, you need to make sure the jConnect Database Metadata stored procedures are installed on the database server. Please consult Sybase documentation for more information.	

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Logging options

After opening the Options editor (see Specifying Rapid SQL application and feature options), you can make changes to the **Logging** tab. The Logging tab lets you set defaults that specify the behavior and placement of SQL Logging and Output Logging.

The table below describes the options and functionality on the **Logging** Tab:

Option	Description	Default
Log all SQL Statements to a File	Indicates that the application should log all of the SQL that it executes to a file. SQL logging provides an audit trail for Rapid SQL. You can examine this log to determine the SQL executed to complete a task.	Not selected
Logfile Path	If you choose to log the SQL generated by the application, specify the drive, directory, and file name.	None
Max File Size	Specifies the maximum size for the logfile. When the logfile reaches this threshold, it automatically starts deleting lines in the logfile (starting with the oldest statements) to remain within the specified size limit.	1024 KB
Truncate	Empties the entire contents of the logfile.	Not available
Log all Output Messages to a File	Indicates that the application should log all server messages sent to the Output window. This type of logging lets you monitor only messages issued by the server versus all SQL logged by the application. You can examine this log to determine all messages the server issued.	Not selected
Logfile Path	If you choose to log the server messages generated in the Output window, specify the drive, directory, and file name.	None
Max File Size	Specifies the maximum size for the output logfile. When the output logfile reaches this threshold, it automatically starts deleting lines in the file (starting with the oldest statements) to remain within the specified size limit.	1024 KB
Truncate	Empties the entire contents of the output logfile.	Not available

Perf Center options

After opening the Options editor (see Specifying Rapid SQL application and feature options), you can make changes to the **Performance Center** tab. Rapid SQL lets you customize Performance Center's integration with Rapid SQL. The table below describes the options and functionality on the Perf Center Tab:

Option	Description	Default
Computer Name or IP Address	Specify where the Performance Center Server is installed.	localhost
Port Number	Specify the port for the Apache server or IIS web server.	80
Test	Verifies the settings.	
Connect to the server using	Specify if you want Rapid SQL to open the **Web Client** or the Performance Center file (**PerfCntr.exe**) within Rapid SQL.	Web Client

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Query Builder options

After opening the Options editor (see Specifying Rapid SQL application and feature options), you can make changes to the Query Builder tab. Option parameters set on the Options Editor elicit a prompt if there are different options set on an open individual session. Global options override properties set within individual Query Builder sessions.

The table below describes the options and functionality on the **Query Builder** Tab:

Interface Element	Option	Description	Default
Code Generation	**Generate Use Database statement**	Adds a line of SQL code indicating which database or instance is used in the statement.	Selected
	Generate owner names	Adds a line of SQL code showing the table owner name as part of the query.	Selected
	Include Row Count limits	Includes the output row limit set in the Execution settings.	Not selected
	Generate SQL/92 if supported by DBMS	SQL/92 is a standard for relational database management systems.	Not selected
Execution	To set the maximum number of rows in your result set, type the number in the dialog box. This lessens congestion of server processes when queries execute by setting row count limits.		1000 rows
General	**Show Column Data types in Query Diagram**	Reveals the data type in each column for tables in the SQL Diagram pane.	Not selected
	Confirm on Item delete	Opens a Confirm Delete dialog box when an item is deleted.	Selected
	Auto Populate Views	Checks syntax every time an execute statement, refresh or copy statement begins.	Not Selected
	Auto Format	Automatically sets style and spacing of display.	Selected
Auto Join	**Run Automatically**	Automatically detects names and data types, and create joins for multiple tables.	Selected
	Require Indexes	Joins only indexed columns. Requires an indexed column for joins.	Selected
	Require same data type	Automatically joins columns with the same data type.	Selected
Syntax Checker	**Automatic Syntax Check**	Automatically checks SELECT and CREATE VIEW statements for errors.	Selected
	Warn on non index join	Returns a warning when it detects a join against a non-indexed column, or a column not participating in a primary key	Not selected
Display	Lets you sets the style, size, and color of **Column Font** and **Title Font**. Also lets you set the background **Table Color** for the SQL Diagram Pane.		Available

Results (ISQL) options

After opening the Options editor (see Specifying Rapid SQL application and feature options), you can make changes to the **Results** tab. The table below describes the options and functionality on the **Results** Tab:

Interface Element	Options and descriptions	
Results Option pane	**Result Window**	**Single Window** - Displays all results in one tabbed result window. Multiple result sets together in the window. Single Window and Multiple Windows options are mutually exclusive. **Multiple Windows** - Displays multiple result sets one result set per window. **Attached to Editor** - Sets results as tabbed windows attached to the ISQL window. Used in conjunction with Single Window option or Multiple Window option. Attached and Unattached options are mutually exclusive. **Unattached** - Sets results appear separate from the ISQL Window. Used in conjunction with Single Window option or Multiple Windows option. **Reuse Window** - Sets new result sets to overwrite any current result sets in an open Result Window. Only valid for Single and Attached to Editor combination.
	Results File	**Mail File Type** - Selects the file type to use when sending result sets via a MAPI-compliant mail package. Valid formats include the proprietary Results type, Tab delimited, Comma separated, and HTML. **Schedule File Type** - Selects the schedule file type. Valid formats include Tab delimited, Comma separated, and HTML. **Include column titles when saving** - Includes column titles when saving a result set. If this option is turned off, column titles Rapid SQL does not save result sets.
	Result Set Options	**Default Rowcount** - Lets you limit the number of rows returned to the result window of the ISQL window (default 0). **Sybase and SQL Server: Text Size (bytes)** - Lets you specify the text size (default 8192). **Oracle:LONG Size (bytes)** - Lets you specify the LONG size (default 8192). **LOB Preview: Text Size (bytes)** - Specifies the length of the preview of LOB column data (default 4096).
Format pane	**Column Formatting**	**Auto Format (Best Fit)** - Sets column widths automatically to accommodate the longest piece of data in a column. Large queries depend on the longest row formatting, so activating this option can affect performance. **Use pre-defined column** - Lets you select column type and character length
	Enable Date/Time Format	Lets you select the date/time format.
	Format	**Standard Grid** - Displays all result sets in a standard grid format. Rapid SQL displays result sets in grid format in IISQL Editors that are opened after you have selected this option. Rapid SQL does not display IISQL Editors that are already open. **HTML** - Displays all result sets as HTML tables. Rapid SQL displays result sets in HTML format in ISQL Editors that are opened after you have selected this option. Rapid SQL does not display ISQL Editors that are already open. **ASCII Text** - Displays all result sets as ASCII Text. Rapid SQL displays result sets in ASCII Text format in ISQL Editors that are opened after you have selected this option. Rapid SQL does not display ISQL Editors that are already open. **Grid Font** and **Printer Font** buttons - Opens a Font dialog box, letting you select the font, style, and size for the result sets grid or printed result sets.

SMTP mail options

After opening the Options editor (see Specifying Rapid SQL application and feature options), you can make changes to the **SMTP Mail** tab. The SMTP Mail Tab of the Options Editor lets you specify outgoing notification e-mail message options.

The table below describes the options and functionality on the **SMTP Mail** tab:

Option	Description	Default
Name	Name that appear as the e-mail sender.	Name you specified during installation.
E-mail Address	Address to send e-mails from Rapid SQL.	E-mail address you specified during installation.
Authentication	Lets you specify authentication options.	None
User Name	User name for authentication.	Not available
Password	Password for authentication.	Not available
Host Name	SMTP server for outgoing messages. For Microsoft Outlook, select Tools, and then Accounts. On the Mail Tab, select target account, and then click Properties. On Servers Tab, copy the Outgoing Mail(SMPT) and paste.	Host Name you specified during installation.
Port Number	Port number you connect to on your outgoing SMTP server.	25
Test	Opens an SMTP Configuration Test e-mail addressed to your e-mail address. Click Send Mail to send the e-mail.	Available
Bind to	Your IP address the message is bound to.	ANY_IP_ADDRESS
Encoding	E-mail encoding.	Western Europe (ISO)
Send messages Mime encoded	Messages encoded using Multipurpose Internet Mail Extensions (MIME) support enriched content and attachments.	Selected
Send all messages as HTML	Messages include text formatting.	Selected
Auto Connect to the Internet	Rapid SQL connects to internet at launch.	Selected

Version Control options

After opening the Options editor (see Specifying Rapid SQL application and feature options), you can make changes to the **Version Control** tab. The **Version Control** Tab of the Options Editor lets you select which version control system you want Rapid SQL to use as the underlying version control system.The table below describes Version Control options:

Item	Description	Default
Specify Version Control System	Lists the Version Control systems that integrate with Rapid SQL. Select the option button for the product you want Rapid SQL to use.	None
Optional Fields	If you select Microsoft Visual SourceSafe, Rapid SQL uses your default SourceSafe database unless you override this setting by entering the path for the SourceSafe file associated with the desired database. To use a SourceSafe database other than the default, provide a user name, password, and the location of a scrsafe.ini file.	Optional

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Using

Using shows how to use each component of the application. Using breaks each process and procedure into simple step-by-step instructions.

Using is divided into sections. The table below describes each section:

Section	Description
Datasource Management	This section describes the purpose of datasources, the process of establishing datasource connections, and managing your datasources and datasource groups.
Supported Objects	This section describes the different platform objects the application supports.
Object Editors	This section describes Object editors. Editors let you modify existing objects.
Functionality	This section describes the different platform object functionalities.
SQL Scripting	This section describes the SQL scripting environment, that lets you write, debug, test and deploy solid SQL code for your database applications.
Permissions Management	This section describes the Permissions Management features.

Datasource Management

After installing Rapid SQL, you must set up datasources to establish reusable connections to your database servers. A datasource is a database connection profile that is similar to the connection information that you have stored in your SQL.INI or WIN.INI files. Rapid SQL stores information about the datasource specification in the system registry and provides a visual interface for maintaining it.

The Datasource Registration Wizard guides you through the required steps to establish a connection to your server and makes the process of setting up datasources, easier. For details, see Registering Datasources.

This section describes the function of datasources, the process of establishing datasource connections and managing your datasources and datasource groups.

Datasources

A datasource is a database connection profile. A datasource includes:

- Name
- Connection String
- Default User ID
- Optional Password Specification

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All database operations are performed through datasources. You can create a datasource profile for each database instance (or database server) in your enterprise, and you can create multiple datasource profiles with different logins for a single database. The table below describes the data items stored for each datasource:

Data Item	Description
Name	A unique, user-defined name for the datasource.
Connection String	For Oracle: the SQL*Net connect string, for Sybase ASE: the database server name.
Default User	Default user ID to use when logging in to the datasource. Can be null.
Default Password	Default password to use when logging in to the datasource. This is encrypted. Can be null.
Auto-Connect Flag	If Yes, then automatically login using default user and password. If No, open Login dialog box.
Default Database	**SYBASE ASE ONLY:** Database to automatically use after logging in.

Available Functionality

Rapid SQL offers the following functionality for the Datasource Explorer:

- Change Group
- Connect
- Disconnect
- Drop
- Edit Datasource Registration
- New LUW Datasource
- Register Datasource
- Unregister Datasource

Related Topics

- Selecting Datasources
- Viewing Datasource Properties

Datasource Catalog

The Datasource Catalog is a collection of defined datasources. It is stored in the system registry of your computer. All Embarcadero database management products share the datasource catalog, which means that when you set up your datasource catalog using one product such as Rapid SQL, the same list of datasources is available in other Embarcadero Technologies products. Any changes you make to the datasource catalog are reflected in all Embarcadero database management products.

Sharing a Datasource Catalog

You can configure Embarcadero database applications to use a datasource catalog stored in the system registry of your machine (local).

You can determine the location of your datasource catalog by inspecting the application status bar. The 'Catalog' indicator displays 'Local' if the catalog is stored in your local system registry.

When you configure the location of the datasource catalog, you are affecting all Embarcadero datasource applications as they all read and maintain the same datasource catalog.

NOTE: You need the proper permissions to read/write registry entries on another computer. See your network administrator if you have problems.

Automatically Discovering Datasources

The first time you run Rapid SQL a dialog box displays, giving you the option to Auto-Discover all configured datasources. If you click Yes, the Rapid SQL Auto-Discover feature searches the DBMS configuration files on your computer and automatically discovers all the datasources that you are licensed for. For example, if you have a cross-platform license, Discover Datasources finds all unregistered datasources. If you have an Oracle only license, Discover Datasources finds all unregistered Oracle datasources.

NOTE: Microsoft SQL Server datasources are registered through a Windows NT system call to your network. Provide login information (user name and password) the first time you connect to a datasource.

NOTE: IBM DB2 LUW for Linux, Unix, and Windows databases use ODBC/CLI or DB2 (attach) to connect. Therefore, you need the proper ODBC/CLI Connection established in order for the auto-discover feature to find your IBM DB2 LUW for Linux, Unix, and Windows databases, including registering the DB2 datasource to ODBC as a system datasource. Although your datasources are auto-discovered, provide login information (user name and password) the first time you connect to a datasource.

In addition to Auto-Discovering your database servers, the application creates Datasource Groups based on RDBMS type. Each registered datasource is placed in its respective Datasource Group. For example, all Microsoft SQL Server datasources are added to the Microsoft SQL Server Group. Each registered datasource is placed in its respective Datasource Group.

For more information on how to configure your datasources, see Working with Datasources.

Changing Datasource Groups

Rapid SQL lets you change datasource groups by:

- Dragging the datasource between groups.
- Invoking the Change Group dialog box.

Dragging and Dropping Between Groups

1. On the **Datasource Explorer**, left-click the datasource group you want to move, drag it over the folder for the new group, and release the pointer.

Using the Change Group Dialog Box

Disconnect your datasource before changing groups.

1. On the **Datasource Explorer**, right-click the datasource you want to move, and then click **Change Group**.

   Rapid SQL opens the Change Group dialog box.

2. In the **Select Group tree**, click new group.

>

3 Click **OK**.

Rapid SQL changes groups.

For more information, see Datasource Groups.

Connect

Rapid SQL lets you set datasources to automatically connect each time you open the application.The first time you start the application, Rapid SQL prompts you to register your datasources. During this process, you can select the Auto Connect check box, which automatically connects all registered datasource each subsequent time you open the application.

If you did not check the Auto Connect box, or if you clicked No when prompted to connect to a database after registering, you must connect manually, each time you want to access that datasource, using the Datasource Login dialog box. If you later want to automatically connect your datasources, you can use the Edit Datasource on Catalog dialog box.

TIP: To configure your datasource to login automatically, use the Edit Registration dialog box.

The table below describes the options and functionality on the Datasource Login dialog box:

Option	Description
Login ID	Lets you type the Login ID.
Password	Lets you type the password.
Auto Connect	Select to automatically connect to the datasource in the future, select the check box.

For more information, see Completing the Datasource Login Dialog Box.

Completing the Datasource Login Dialog Box

To complete the Datasource Login dialog box, do the following:

1 On the **Datasource** menu, click **Connect**.

OR

On the **Datasource** tool bar, click **Connect**.

OR

On the **Datasource Explorer** tool bar, click **Connect**.

OR

On the **Datasource Explorer**, right-click the datasource, and then click **Connect**.

OR

On the **Datasource Explorer**, double-click the datasource.

Rapid SQL opens the Datasource Login dialog box.

2 In **Login ID** type the Login ID.

3 In **Password** type the password.

4 Select **Auto Connect** to automatically connect to the datasource in the future.

5 Click **Connect**.

Rapid SQL opens the Datasource Landing Page in the right pane of the application.

For more information, see Working with Datasources.

Disconnect

When you disconnect from a server, the application immediately breaks the connection between any open ISQL Windows, the servers, and databases. Although your ISQL Windows are still visible, the connections are no longer valid. If you attempt to execute a script, Rapid SQL attempts to reconnect to a registered datasource, if available.

For more information, see Completing the Disconnect Dialog Box.

Completing the Disconnect Dialog Box

To complete the Datasource Login dialog box, do the following:

1 On the **Datasource** menu, click **Disconnect**.

OR

On the **Datasource** tool bar, click **Disconnect**.

OR

On the **Datasource Explorer** tool bar, click **Disconnect**.

In the right pane of the **Datasource Explorer** window, right-click the datasource, and then click **Disconnect**.

Rapid SQL opens a dialog box asking if you want to commit all pending transactions for that connection or to rollback all before disconnecting. You cannot disconnect if there is an uncommitted transaction.

2 Click **Yes**.

Rapid SQL confirms you want to disconnect and closes the dialog box.

Discover Datasource

Rapid SQL discovers datasources residing on your system that are not currently registered datasources through a Windows NT system call to your network. The Discover Datasource dialog box includes a list, which includes the name of the server or instance and the type of DBMS of all unregistered datasources found on your network or local machine. Once discovered, you have the option to register datasources.

Completing the Discover Datasources Dialog Box

1 On the **Datasource** menu, click **Discover Datasource**.

Rapid SQL opens the Discover Datasources dialog box.

2 Select the check box next to the datasource you want to register.

3 Click **Select All** to select all the datasources on the list.

>

4 Click **Register**.

Rapid SQL registers the datasource or datasources selected.

5 Click **OK**.

Rapid SQL closes the Rapid SQL message.

For more information, see:

Datasources

Working with Datasources

Edit Datasource

The table below describes the options and functionality on the Edit Datasource dialog box:

Tab	Option	Description
Definition	Name	Type the new datasource name. *This option is grayed out if you have an active datasource connection. **NOTE:** The datasource name cannot include a "\" because this name is used in the registry setting for the datasource, and the function that sets the registry uses the backslash as a delimiter. The backslash means go to a new level in the registry key.
	DBMS Type	Click the list box next to the DBMS Type box, and then click the new DBMS type.
	Connect String	For Oracle: the SQL*Net connect string, for Sybase ASE: the database server name.
	User ID	Lets you type the new login. *Remember to change the Password.
	Password	If you change the Login ID, change the password as well.
	Login As	ORACLE ONLY: Lets you select one of three Oracle login modes: Default - Establishes connection with no system roles. SYSDBA - Lets you perform all DBA-related functions, like startup and shutdown. **NOTE:** SYSDBA is required for the SYS id when you log into a 9i instance. SYSOPER - Lets you perform many DBA-related functions, like startup and shutdown.
	Default Schema ID	DB2 ONLY: Lets you set the current schema (SQLID) as part of the datasource connection properties. This lets you users to set the implicit schema for unqualified object references to schema different from the user's login id.
	Default Database	Lets you type the new database name.
	Auto-Connect	Select the Auto-Connect check box. Stores the password in encrypted form in the registry, which could expose you to security risks.
	Test Database Connection	Click to confirm that the datasource connection information is accurate and valid.
Group	Select the datasource group folder	Lets you select the datasource group folder to change the datasource group.
JDBC Connection	Supply information about the host computer	Lets you specify the JDBC (Java Database Connectivity) host name. Java Database Connectivity is a Java API that enables Java programs to execute SQL statements.
	Acquire Parameters	Lets you view JDBC (Java Database Connectivity) connection parameters.
	Test Connection	Lets you test the JDBC (Java Database Connectivity) connection.

NOTE: Any modifications you make in the Edit Datasource dialog box affects your datasource registration information in all Embarcadero database management tools.

For more information, see Completing the Edit Datasource Dialog Box.

>

Completing the Edit Datasource Dialog Box

1 On the **Datasource** menu, click **Edit Registration**.

OR

On the **Registration** tool bar, click **Edit Registration**.

OR

On the **Datasource Explorer** tool bar, click **Command**, and then click **Edit Registration**.

OR

On the **Datasource Explorer**, right-click the datasource, and then click **Edit Registration**.

Rapid SQL opens the Edit Datasource on Catalog dialog box.

For more information, see:

Datasources

Working with Datasources

2 On the **Datasource Explorer** menu, click **Extract**.

OR

On the **Datasource Explorer** tool bar, click **Command**, and then click **Extract**.

OR

In the right pane of the **Datasource Explorer** window, right-click the server configuration parameters, and then click **Extract**.

Managing Datasources

The Manage Datasources dialog box:

- Lets you manage and datasources throughout your enterprise from a single vantage point.
- Displays in grid format all relevant registered datasource information.
- Unifies complicated and widespread information about your datasources.
- Lets you directly access other datasource features such as adding, modifying, deleting and discovering datasources.

Completing the Manage Datasources Dialog Box

1 On the **Datasource** menu, click **Manage Datasources**.

Rapid SQL opens the Manage Datasources dialog box.

The Manage Datasources grid format lets you access and view datasource specifications. The table below describes the options and functionality on the grid:

Column	Description
Datasource Name	Uses an explorer-like interface to display all registered datasources and their groups. You can navigate this column in the same manner as the datasource explorer, by clicking on nodes to expand or collapse your view of the datasources.

>

Column	Description
Connect String	Displays the full connection string for the datasource.
Default User Id	Displays the Default User ID for the datasource.
Auto-Connect?	Indicates whether the Auto Connect feature is turned on or off.
Host Computer	Displays the name of the Host Computer if one has been configured.
Default Schema	Displays view default schemas for your DB2 datasources.

For more information, see:

Datasources

Using the Manage Datasources Dialog Box

Manage Datasources Dialog Box

The Manage Datasource dialog box lets you access most datasource management tasks. The Manage Datasource dialog box lets you:

- Register datasources
- Edit datasources
- Discover datasources
- Delete datasources

Editing a Datasource

1. On the **Datasource** menu, click **Manage Datasources**.

   Rapid SQL opens the Manage Datasources dialog box.

2. Click a datasource from the **Datasource Name** column, and then click the **Edit** button.

   OR

   Double-click the datasource from the grid.

   Rapid SQL opens the Edit Registration dialog box.

Discovering Datasources

1. On the **Datasource** menu, click **Manage Datasources**.

   Rapid SQL opens the Manage Datasources dialog box.

2. Click a datasource from the **Datasource Name** column, and then click **Discover**.

   Rapid SQL opens the Discover Datasource dialog box.

Deleting a Datasource

1. On the **Datasource** menu, click **Manage Datasources**.

   Rapid SQL opens the Manage Datasources dialog box.

2. Click one or more datasource(s) from the **Deleting a Datasource Name** column.

>

3 Click **Delete**.

Rapid SQL displays a message.

4 Click **Yes**.

Rapid SQL confirms you want to unregister the datasource.

For more information, see Managing Datasources.

Managing Datasource Properties

The Datasource Properties dialog box displays the name, type, version, status and mode of the datasource. The Datasource Properties box also lets you view the middleware or connectivity software that is being used to establish a particular datasource connection. You can use this information to troubleshoot connectivity problems, determining vital information such as the server version, connectivity library used, and library version and date.

Completing the Datasource Properties Dialog Box

1 On the **Datasource Explorer**, click a datasource with an established connection.

2 On the **Datasource** menu, click **Properties**.

Rapid SQL opens the Datasource Properties dialog box.

For more information, see:

Datasources

Working with Datasources

Registering Datasources

Each database instance must be registered. Whether you are registering a new data source or editing preexisting connection information, you use the Datasource Registration dialog box.

To register a new data source:

On the toolbar, click **Datasource,** and then click **Register Datasource** from the drop-down list.

OR

On the **Explorer**, right-click **Managed Datasources,** and then click **Register Datasource**.

To edit registration information:

On the toolbar, click **Datasource**, and then click **Edit Registration** from the drop-down menu.

OR

On the **Explorer**, right-click on the appropriate data source, and select **Edit Datasource Registration** from the drop-down list.

The table below describe the fields you will encounter when registering a data source or editing the connectivity information:

Panel/Tab	Option	Description
Database Type	Select the radio box corresponding to the DBMS type for the data source	

Panel/Tab	Option	Description
Connection Information	For detailed descriptions of the options on this tab, see Data Source connection information on page 80.	
Advanced (only available on clicking the **Advanced** button on the **Connection Information** tab)	**JDBC Driver**	You should see the JDBC Driver that's appropriate to the platform. If you select **...**, the JDBC Driver Editor opens letting you browse to a new or possibly undetected JDBC driver. For details, see JDBC Driver Editor. **NOTE:** If you select a driver other than the default, you'll be queried about whether you want that driver to be used for data sources you register going forward. Data sources already registered will not be affected.
	Connection URL	The connection URL cannot be edited--it's for reference only.
	URL Check	Indicates whether the connection URL is valid or not.
Security Parameters	**User ID**	The User ID that Rapid SQL will use to connect to the data source.
	Password	The password associated with the User ID.
	Connect As: (Oracle)	When relevant, choose the appropriate user/administrator level.
	Domain:	For MS SQL only. Identify the domain if the user has restricted access.
	Auto connect?	Spares the user from reentering the password every time you connect.
	Connect using Windows Authentication or **Connect using OS Authentication** (IBM DB2 for Windows, Unix, and Linux, MySQL, Oracle, SQL Server)	Login to the server is verified using Windows/OS authentication
	Connect using Kerberos Authentication (Sybase)	If this option is selected, login to the server is verified using Kerberos authentication. **NOTE**: This is only available of the **Use alias information in the SQL.INI file/Sybase Server** option on the **Connection Information** tab is selected. For details, see Data Source connection information.
	Test Connection	When you test the connection, you're testing both the native and JDBC connectivity. If the connection fails, read the error message and backtrack as necessary.
Datasource Properties	In the **#Include Search Directories** enter one or more paths on this datasource, which will be searched for files in conjunction with use of the **#include** directive in the ISQL editor, Procedure Object Editor, or Package Body Object Editor. Separate multiple paths using semicolons. For example: `c:\myscripts;c:\Program Files\Scripts` For more information on use of the #incliude directiive, see SQL Preprocessor. Note that if there are no entries specified here, the directory specified on the **Directories** tab of the Options editor will be searched. For more informtion, see Directories options.	
Database Group	Select the data source folder under which you want this data source to appear.	

>

After clicking **Finish**, you are prompted to connect to the newly registered data source.

NOTE: On initial connection to a Sybase Cluster edition data source, you are offered the choice to connect to the entire cluster. If you select **NO**, your connection scope is an instance. This choice sets the default connection scope for this data source. You can subsequently change the connection scope for the data source by editing the data source.

NOTE: After you successfully connect to a data source, you can see the name of the host and the connection string information displayed at the bottom of the Rapid SQL window. For Oracle and Sybase ASE, should a question arise, you can see if perhaps you set up the data source NOT to use the alias file. You can also use these cues to remind yourself that if you changed the alias file, that change will not be reflected here unless you very specifically made a change to the defaults in the Options Editor-JDBC tab.

Data Source connection information

The following table lists the **Connection Information** tab options, DBMS-by-DBMS, available when registering or editing a data source.

DBMS	Option	Description
IBM DB2 for WIndows, Unix, and Linux	**Server**	The name of the server.
	Schema ID	This is an optional field. If you want to include the current schema as part of the data source connection properties, you can set the implicit schema for unqualified object references to a schema different from the user's login id.
	Function Path	This is an optional field. If you choose, you can enter the appropriate function path name so the search scope of functions will not be limited to the IBM DB2 library.
	Datasource Name:	This field is automatically populated with the server name, but you can rename it to whatever you want.
SQL Server	**Use Network Library Configuration**	When you select this, you can connect to a Net-Library that is listening on the server that is configured to either the Named Pipes or TCP/IP protocols.
	Alias	This box is enabled only when you opt to use the Network Library Configuration
	Protocol: TCP/IP or Named Pipes	You need to select one or the other to register a SQL Server database.
	Host	Enabled only when you have not selected an Alias from the Network Library.
	Port (optional)/Pipe Name	Depending on your section, you can optionally indicate the port for TCP/IP or the pipe name depending on your means of connection.
	Default DB (optional)	Optionally give the default name for the database.
	Datasource Name	The field is automatically populated with the host name, but you can rename to whatever you want.
MySQL	**Server**	Enter the name of the host, for example doctest01.
	Port (optional)	The default port is 3306. You do not need to enter this information.
	Default Database	You must enter the name of the default database.
	Datasource Name	This field is automatically populated with the server name, but you can rename it to whatever you want.

>

DBMS	Option	Description
Oracle	**Use TNS Names Alias/Oracle Alias**	If this option is checked, look for the Alias you want to register from the drop-down list. The remaining fields will automatically populate. If it is unchecked, you must manually enter the requisite information.
	Host	Manually enter the name of the host machine.
	Port	The default is 1521, but you can change it to wherever the Oracle listener is set up.
	SID/Service Name / Type: SERVICE_NAME or SID	Enter the SID or Service Name to correspond with the option you select.
	Instance Name	The specific name used to identify the Oracle instance (the SGA and the Oracle processes).
	Datasource Name	The field is automatically populated with the host name, but you can change it.
Sybase	**Use alias information in the SQL.INI file/Sybase Server**	If this option is selected, choose a name from the drop-down list in the Sybase Server field.
	Use SSL encryption	If this option is selected, the JDBC connection will be established using SSL encryption
	Host	If you selected the Alias option, this field automatically populates. Otherwise, you need to manually enter the name of the host.
	Port	There is no default for this optional field.
	Default DB (optional)	Optionally give the default name for the database.
	Datasource	This field automatically populates with the server name. You can change it to whatever you want.
	Connection scope (Cluster Edition only)	Lets you specify a connection to the entire cluster or to a single instance.

For context information, see Registering Datasources.

JDBC Driver Editor

The following table lists the controls available on the JDBC Driver Editor dialog. You use this dialog when defining or editing a data source.

Required Information	Description
Driver Type	The database platform.
Driver List	You see what platform-specific drivers are available to you and which driver (highlighted) is currently associated with the server you are connecting to.
Driver Name	
Driver Class	The name of the class the driver uses for creating connections to the server.
Version	The driver's version.
Driver supports the use of native aliases	Rapid SQL cannot detect whether the driver you are using can support native aliases. You need to know by checking the driver's documentation.

>

Required Information	Description
Required jars	Rapid SQL detects the required jars and lists the path to them in the little window. You can select or add new jar files as required by your driver.

Selecting Datasources

The Rapid SQL Select Datasource dialog box lets you select a datasource and connect to it.

Completing the Select Datasource Dialog Box

1. On the **Datasource** menu, click **Select** to open the **Select Datasource** dialog box.
2. Click the **Datasource** list box, and then click the target datasource.
3. Click **Connect** to connect to the datasource.
4. Click the **Database** list, and then click the target database.
5. Click **OK** to close the **Select Datasource** dialog box.

For more information, see:

Datasources

Working with Datasources

Unregistering Datasource

Rapid SQL lets you unregister datasources when you no longer need them.

> **TIP:** Removing a datasource from Rapid SQL does not delete the physical database. It simply removes the datasource definition, and connection information, from the Rapid SQL catalog.

1. On the **Datasource** menu, click **Unregister**.

   OR

   On the **Registration** tool bar, click **Unregister**.

   OR

   On the **Datasource Explorer**, right-click the datasource, and then click **Unregister Datasource**.

   Rapid SQL opens a dialog box.

2. Click **Yes**.

   Rapid SQL confirms you want to unregister the datasource.

> **NOTE:** The datasource manager is shared across Embarcadero's database management products. When you remove a datasource in any of Embarcadero's database management tools the datasource is removed across all relevant products.

For more information, see:

Datasources

Working with Datasources

Datasource Groups

Rapid SQL lets you define datasource groups to organize the datasources in your enterprise. Datasource Groups behave as folders in the Windows Explorer, allowing you to group related datasources together. If you manage or monitor many Microsoft SQL Servers, datasource groups are a great mechanism for alleviating desktop clutter.

Anywhere that datasources are presented in a hierarchical tree format, datasource group folders expand to display one or more contained datasources. Upon installation of the first Embarcadero database management product, an initial datasource group is called Managed Datasources. You can rename this group.

Available Functionality

Rapid SQL offers the following functionality for Datasource Groups:

- Delete
- New Datasource Group
- Rename Datasource Group

Delete

Rapid SQL lets you remove database groups that you no longer need to access, or that have become obsolete.

1 On the **Datasource Explorer**, click the datasource.

2 On the **Datasource Explorer** tool bar, click **Delete**.

OR

Click the **Delete** button.

OR

Right-click the datasource, and then click **Remove Datasource Group**.

Rapid SQL removes the Datasource Groups.

3 Click **Yes**.

Rapid SQL confirms you want to remove the Datasource Group.

For more information, see Datasource Groups.

New Datasource Group

Rapid SQL lets you define datasource groups to organize the datasources in your enterprise. Datasource Groups behave as folders in the Windows Explorer, allowing you to group related datasources together. If you manage or monitor many Microsoft SQL Servers, datasource groups are a great mechanism for alleviating desktop clutter.

Anywhere that datasources are presented in a hierarchical tree format, datasource group folders expand to display one or more contained datasources. Upon installation of the first Embarcadero database management product, an initial datasource group is called Managed Datasources. You can rename this group.

Completing the New Datasource Group Dialog Box

1 On the **Datasource Explorer**, right-click the datasource group folder, and then click **New Datasource Group**.

Rapid SQL opens the New Datasource Group dialog box.

2 In the **Datasource Group Name** box, type the new name of the datasource group.

3 Click **OK**.

Rapid SQL closes the New Datasource Group dialog box.

Rename Datasource Group

Rapid SQL lets you:

- Rename a datasource group.
- Change the members of a datasource group.
- Change the group to which a datasource belongs.

Completing the Rename Datasource Group

1 On the **Datasource Explorer**, right-click the datasource group folder, and then click **Rename Datasource Group**.

Rapid SQL opens the Rename Datasource Group.

2 In the **Datasource Group Name** box, type the new name of the datasource group.

3 Click **OK**.

Rapid SQL closes the Rename Datasource Group dialog box.

>

4 On the **Datasource** menu, click **Shutdown**.On the **Datasource** menu, click **Configure**.

Option	Description
Normal	Shuts down the server in an orderly fashion. disables logins, and waits for currently executing Transact-SQL statements and stored procedures to finish.
Immediate	Shuts down the server immediately. does not perform checkpoints in every database. The server terminates all user processes and rolls back any active transactions.

OR

On the **Utilities** tool bar, click **Configure** to open the **Server Configuration** dialog box.

OR

On the **Datasource Explorer** tool bar, click **Configure** to open the **Server Configuration** dialog box.

Option	Description
Edit Button	Click to modify the target parameter. Opens the Edit Configuration dialog box.
New Value	Lets you type the value for the parameter.

Option	Description
New Value	Lets you type the value for the parameter.

On the **Datasource** menu, click **Session Recording**.

OR

On the **Main** tool bar, click **Session Recording**.On the **Datasources** menu, click **Session Recording**.

Option	Description
Session Name	Lets you type the name of the session.
Session File	Lets you type the location and session file name or click the browse button. uses *.ses file extension for session files.

OR

On the **Main** tool bar, click **Session Recording**. On the **File** menu, click **Open**.

OR

On the **Main** tool bar, click **Open**. On the **Datasource** menu, click **Find Object**.

OR

On the **Main** tool bar, click **Find**.

OR

On the **Datasource Explorer**, right-click a database, and then click **Find Object**.

Changing an ODBC Datasource to a Native Datasource

Option	Description
Object to Find	Lets you type the target string of text. You can also click the list to choose from a list of up to ten previous search strings.
Type of Object	Lets you select the target database object type.
Object Owner	Lets you select the target database object owner.
Search Direction	Lets you select a search direction: From Beginning Down Up
Case-Sensitive Search	Select to perform the search with the same capitalization as the search string.
Find Entire String Only	Select to perform the search using the entire search string, not partial strings.
Search My Objects Only	Select to perform the search only on your database objects.

CAUTION: The section below refers only to Microsoft SQL Server connectivity.

Microsoft SQL Server uses ODBC to connect to Microsoft SQL Servers. Rapid SQL requires native connectivity. To connect through Rapid SQL, register your Microsoft SQL Server(s) using native connectivity in the Microsoft SQL Server Client Utility.

To change your ODBC servers to native connectivity, do the following:

1 Open the Microsoft SQL Server **Client Network Utility** dialog box, CLICONFG.exe.

2 On the **General Tab**, click **Add**.

Microsoft SQL Server opens the Add Network Library Configuration dialog box.

The table below describes the options and functionality on the Add Network Library Configuration dialog box:

Option	Description
Server alias	In the box, type the unique name of the server.
Network libraries	In the box, click the appropriate option button to specify the network library that connects to the server.
Computer name	In the box, type the name of the target computer.
Port number	In the box, type the port number of the target computer.

3 Click **OK**.

Rapid SQL returns to the Client Network Utility dialog box.

4 In the **Client Network Utility** dialog box, click **Apply**.

Rapid SQL adds the server.

>

5 Open **Rapid SQL** and the Datasource Registration Wizard.

For more information, see Datasources.

Supported Objects

Rapid SQL lets you manage database objects across different database platforms. The table below indicates the objects that Rapid SQL supports by platform:

Objects	IBM DB2 LUW for Open Systems	IBM DB2 LUW for OS/390	Microsoft SQL Server	Oracle	Sybase ASE
Aliases	X	X	X		X
Check Constraints	X	X	X	X	X
Clusters				X	
Database Links				X	X
Databases			X		X
DBRM		X			
Defaults			X		X
Extended Procedures					X
Foreign Keys	X	X	X	X	X
Functions	X	X	X	X	X
Indexes	X	X	X	X	X
Java Classes				X	
Java Resources				X	
Java Sources				X	
Libraries				X	
Logins			X		
Materialized Query Tables	X				
Materialized Views				X	
Materialized View Logs				X	
Outlines				X	

Objects	IBM DB2 LUW for Open Systems	IBM DB2 LUW for OS/390	Microsoft SQL Server	Oracle	Sybase ASE
Package Bodies				X	
Packages	X	X		X	
Plans		X			
Primary Keys	X	X	X	X	X
Procedures	X	X	X	X	X
Profiles				X	
Rollback Segments				X	
Rules			X		X
Segments			X		X
Sequences				X	
Snapshots				X	
Snapshot Logs				X	
Stogroups		X			
Structured Types	X	X			
Summary Tables	X				
Synonyms				X	
System Indexes	X	X	X	X	X
System Tables	X	X	X	X	X
Tables	X	X	X	X	X
Triggers	X	X	X	X	X
Type Bodies				X	
Types				X	
Unique Keys	X	X	X	X	X
User Datatypes	X	X	X		X
Users	X	X	X	X	X
Views	X	X	X	X	X

Aliases

NOTE: This object is supported by IBM DB2 LUW for Linux, Unix, and Windows, IBM DB2 LUW for OS/390 and z/OS, Microsoft SQL Server, and Sybase ASE.

Aliases let you assume the permissions of another database user without creating a separate user identity. You can use an alias when a users requires only temporary access to a database. You can also use an alias to mask a user's identity.

Available Functionality

Rapid SQL offers the following functionality for this object:

- Drop
- Extract
- Filter
- New
- Open
- Report

Check Constraints

NOTE: This object is supported by all platforms.

Check constraints are data values that are acceptable in a column. They are logical expressions that verify column values meet defined acceptance criteria.

Available Functionality

Rapid SQL offers the following functionality for this object:

NOTE: Functionalities differ by platform.

- Drop
- Extract
- Filter
- New
- Open
- Rename
- Report
- Status

Clusters

NOTE: This object is supported by Oracle only.

Clusters provide an optional method of storing table data. A cluster comprises of a group of tables that share the same data blocks, and which are grouped together because they share common columns and are often used together. The related columns of tables stored in a cluster are known as the cluster key.

There are two types of clusters:

- Index
- Hash

Index clusters store the cluster data together and index the cluster key, which should make them faster at retrieving a range of data rows.

Hash clusters apply hashing functions to the cluster key to determine the physical location of a data row, which should make them faster at retrieving specific data rows.

NOTE: To place a table on a cluster, 6 include the ON CLUSTER syntax within the CREATE TABLE statement. Placing a table on a cluster precludes you from placing it on a tablespace or defining the associated storage parameters.

Available Functionality

Rapid SQL offers the following functionality for this object:

- Allocate Extent
- Analyze
- Deallocate Unused Space
- Drop
- Extract
- New
- Open
- Report
- Truncate

Database Links

NOTE: This object is supported by Oracle and Sybase only.

Database links are named schema objects that describe a path from one database to another. Database links are implicitly used when a reference is made to a global object name in a distributed database. To use a database link, either it is public or you own it.

NOTE: Oracle syntax does not let you alter an existing database link. To change its definition, drop and re-create it.

Available Functionality

Rapid SQL offers the following functionality for this object:

- Drop
- Extract
- New
- Open
- Rename
- Report

Databases

NOTE: Databases are available for Microsoft SQL Server and Sybase ASE. For Oracle and IBM DB2 LUW for Linux, Unix, and Windows, IBM DB2 LUW for OS/390 and z/OS databases are called Instances.

Databases are a collection of tables, or a collection of index spaces and tablespaces. The goals of a database system are straightforward but challenging. In general, a database aims to manage large amounts of data in a multi-user environment. It should achieve high performance while letting many users access the same information concurrently without compromising data integrity. A database also must protect against unauthorized access and provide reliable solutions for failure recovery.

For more information, see Available Functionality.

IBM DB2 LUW for Linux, Unix, and Windows Instances

Databases are a collection of tables, or a collection of index spaces and tablespaces. The goals of a database system are straightforward but challenging. In general, a database aims to manage large amounts of data in a multi-user environment. It should achieve high performance while letting many users access the same information concurrently without compromising data integrity. A database also must protect against unauthorized access and provide reliable solutions for failure recovery.

For more information, see Available Functionality.

Microsoft SQL Server Databases

Databases are a collection of tables, or a collection of index spaces and tablespaces. The goals of a database system are straightforward but challenging. In general, a database aims to manage large amounts of data in a multi-user environment. It should achieve high performance while letting many users access the same information concurrently without compromising data integrity. A database also must protect against unauthorized access and provide reliable solutions for failure recovery.

For more information, see Available Functionality.

IBM DB2 LUW for OS/390 and z/OS Instances

Databases are a collection of tables, or a collection of index spaces and tablespaces. The goals of a database system are straightforward but challenging. In general, a database aims to manage large amounts of data in a multi-user environment. It should achieve high performance while letting many users access the same information concurrently without compromising data integrity. A database also must protect against unauthorized access and provide reliable solutions for failure recovery.

For more information, see Available Functionality.

Sybase ASE Databases

Databases are a collection of tables, or a collection of index spaces and tablespaces. The goals of a database system are straightforward but challenging. In general, a database aims to manage large amounts of data in a multi-user environment. It should achieve high performance while letting many users access the same information concurrently without compromising data integrity. A database also must protect against unauthorized access and provide reliable solutions for failure recovery.

>

Available Functionality for Databases

Rapid SQL offers the following functionality for databases:

NOTE: Functionalities differ by platform.

- Checkpoint
- Coalesce
- DBCC
- Detach/Attach
- Drop
- Filter
- Extract
- Move Log
- New
- Open
- Rename
- Report
- Set Online/Offline
- Shrink
- Update Statistics

DBRM

NOTE: This object is supported by IBM DB2 LUW for OS/390 and z/OS only.

A Database Request Module (DBRM) is an application containing information on SQL statements extracted from the DB2 precompiler. A DBRM refers to a specific database and is stored outside of the DB2 directory.

Available Functionality

Rapid SQL offers the following functionality for this object:

- Drop
- Extract
- New
- Open
- Report

Defaults

NOTE: This object is supported by Microsoft SQL Server and Sybase only.

>

Defaults promote data integrity by supplying a default value to a table column if the user does not explicitly provide one. They are reusable objects that you can bind to table columns or user datatypes.

Available Functionality

Rapid SQL offers the following functionality for this object:

- Drop
- Extract
- New
- Open
- Rename
- Report

Extended Procedures

NOTE: This object is supported by Sybase ASE only.

Extended Procedures are dynamic link libraries that can be used to load and execute application routines written in other programming languages, such as C or Visual Basic. Extended Procedures function and appear in the same manner as normal stored procedures in that you can pass parameters to them and obtain results.

NOTE: Extended Procedures can only be accessed on the Master database.

Available Functionality

Rapid SQL offers the following functionality for this object:

- Dependencies
- Drop
- Execute
- Extract
- New
- Open
- Rename
- Report

Foreign Keys

NOTE: This object is supported by all platforms.

Foreign keys enforce referential integrity between tables by verifying the existence of foreign key values in the parent table before letting you insert or update foreign key values in the child table.

>

Available Functionality

Rapid SQL offers the following functionality for this object:

NOTE: Functionality differs by platform.

- Drop
- Extract
- Filter
- New
- Open
- Rename
- Report
- Status

Functions

NOTE: This object is supported by all platforms.

Functions are subroutines that you define. Functions are useful for reusable application logic. You can use functions to determine the best methods for controlling access and manipulation of the underlying data contained in an object.

The table below describes the types of user-defined functions that Rapid SQL lets you create:

Function	Description
Column or External Table Function	You can write in a host programming language, such as C. This function can act on a table and returns a table value rather than a scalar value.
External Scalar Function	You can write in a language other than SQL, such as C++ or Java and returns a scalar value to the program. This type of function is referenced by the CREATE FUNCTION statement and can be used to perform computations on data contained in the database but cannot directly reference the data.
OLEDB Function	Accesses OLE DB data in user-defined OLE DB external tables.
Sourced Function	Inherits the semantics of another function and can be an operator.
Template Function	Partial functions that do not contain any executable code. Mainly used in a federated database to map the template function to a data source function -Oracle, SQL Server, Sybase, etc. A function mapping needs to be created in conjunction with the template function.

Available Functionality

Rapid SQL offers the following functionality for this object:

NOTE: Functionalities differ by platform.

- Create Synonym

- Dependencies
- Drop
- Extract
- Filter
- Generate Anonymous Block
- New
- Open
- Report

Indexes

NOTE: This object is supported by all platforms.

Indexes are optional structures associated with tables. You can create indexes specifically to speed SQL statement execution on a table. When properly used, Indexes are the primary means of reducing disk I/O. Indexes are logically and physically independent of the data in the associated table. Unique Indexes guarantee that no two rows of a table have duplicate values in the columns that define the index.

For more information, see:

IBM DB2 LUW for Linux, Unix, and Windows Indexes

IBM DB2 LUW for OS/390 and z/OS Indexes

Microsoft SQL Server Indexes

Oracle Indexes

Sybase ASE

Available Functionality

IBM DB2 LUW for Linux, Unix, and Windows Indexes

IBM DB2 LUW for Linux, Unix, and Windows offers two types of indexes:

- Unique
- Non-Unique

Unique Indexes guarantee that no two rows of a table have duplicate values in the columns that define the index.

For more information, see Available Functionality.

Microsoft SQL Server Indexes

Microsoft SQL Server offers two types of indexes: clustered and non-clustered. Clustered indexes physically sort table data to match their logical order. Non-clustered indexes only order the table data logically. In a database, an index lets you speed queries by setting pointers that allow you to retrieve table data without scanning the entire table. An index can be unique or non-unique.

Microsoft SQL Server creates indexes as B-Trees, which are a series of pointers mapping index pages to their underlying data pages. As tables and, therefore, indexes grow, the number of levels in the B-Tree increases. The B-Tree of a clustered index is shorter than that of a non-clustered index because the leaf level of a clustered index is the data page.

A sound indexing strategy is critical to overall system performance. One pitfall to avoid is placing many indexes on a table without regard for their cumulative cost. Remember that indexes improve read but slow write performance because Microsoft SQL Server must update more information in the system catalog. Consequently, extra indexes can actually slow overall performance if data modification occurs frequently on the table. To determine the efficacy of indexes, you should tune your queries using SHOWPLAN and IO STATISTICS and analyze the selectivity of indexes using DBCC SHOW_STATISTICS.

Rapid SQL separates system indexes from user-defined indexes in the Datasource Explorer to ensure that system indexes are not accidentally altered or dropped.

For more information, see Available Functionality.

Oracle Indexes

Oracle offers two types of indexes. The table below describes these indexes:

Index	Description
Table	A table index is defined on an individual table.
Cluster	A cluster index is defined on a set of tables physically stored together in a cluster. In an Oracle database, both table and cluster indexes use a B-tree structure.

The indexing strategy, particularly with large, active tables, is critical to overall system performance. The optimal definition and number of indexes for a given table is determined by the mix of access paths to that table performing insert, update, delete and select operations. For example, adding or changing an index can speed up your selects but slow your inserts, updates and deletes. Careful tuning and testing helps you achieve the best overall performance.

> **TIP:** Indexes generally improve read operations in a database, but you should not place too many indexes on some tables. Since Oracle must maintain each index along with its referenced table, placing too many indexes on a table that is the object of much insert, update, and delete activity, can actually degrade performance.

Even when an index exists on a table, the way a SQL statement is coded can actually disallow the use of the index. To prevent this from happening, follow these rules of thumb:

- Try not to use SQL statements that include the NOT IN, NOT LIKE, <>, IS NULL operators because they typically suppress the use of indexes.
- When referencing concatenated indexes with queries, be sure the leading column in the index is used. If it isn't, the index won't be used at all.
- Avoid using functions in WHERE predicates.

If you must use functions, and you are using Oracle8i, investigate the use of function-based indexes.

For more information, see Available Functionality.

>

Index Partitions

Index partitions are similar to table partitions. There are three types of partitioned indexes that Oracle supports:

1. Local prefixed
2. Local nonprefixed
3. Global prefixed

NOTE: An index cannot be partitioned if it is a cluster index or if the index is defined on a clustered table.

Local prefixed and nonprefixed indexes

A local partitioned index has keys that refer to rows in a single table partition. A local partitioned index is automatically partitioned to mirror the underlying table. The number of partitions or subpartitions and the partition bounds for the partitioned index correspond with the partitions on the table. Oracle maintains this correspondence. If the table partitions are altered, the index partitions are altered accordingly.

A local partitioned index is prefixed if it is partitioned on the same column as the underlying table. The local partitioned index is nonprefixed if it is partitioned on a different column.

Global prefixed indexes

A global partitioned index can refer to rows in more than one table partition or subpartition. Global partitioned indexes are more difficult to manage than local partitioned indexes because any change in the underlying table partition affects all partitions in a global index. As a result, there is increased partition maintenance.

NOTE: A global index can only be range partitioned but it can be defined on any kind of partitioned table.

IBM DB2 LUW for OS/390 and z/OS Indexes

IBM DB2 LUW for OS/390 and z/OS offers two types of indexes:

- Unique
- Non-Unique

Unique Indexes guarantee that no two rows of a table have duplicate values in the columns that define the index.

Non-Unique indexes let table rows have duplicate values in the columns that define the indexes.

For more information, see Available Functionality.

Sybase ASE Indexes

Sybase ASE offers two types of indexes: clustered and non-clustered. Clustered indexes physically sort table data to match their logical order. Non-clustered indexes only order the table data logically. In a database, an index lets you speed queries by setting pointers that let you retrieve table data without scanning the entire table. An index can be unique or non-unique.

Sybase ASE creates indexes as B-Trees, which are a series of pointers mapping index pages to their underlying data pages. As tables and, therefore, indexes grow, the number of levels in the B-Tree increases. The B-Tree of a clustered index is shorter than that of a non-clustered index because the leaf level of a clustered index is the data page.

A sound indexing strategy is critical to overall system performance. One pitfall to avoid is placing many indexes on a table without regard for their cumulative cost. Remember that indexes improve read but slow write performance because Sybase ASE must update more information in the system catalog. Consequently, extra indexes can actually slow overall performance if data modification occurs frequently on the table. To determine the efficacy of indexes, you should tune your queries using SHOWPLAN and IO STATISTICS and analyze the selectivity of indexes using DBCC SHOW_STATISTICS.

>

Available Functionality for Indexes

Rapid SQL offers the following functionality for indexes:

NOTE: Functionality differs by platform.

- Analyze
- Allocate Extent
- Convert to Partitioned
- Deallocate Unused Space
- Drop
- DBCC
- Estimate Size
- Extract
- Filter
- New
- Open
- Place
- Rebuild (Oracle)
- Rename
- Reorganize
- Report
- Update Statistics

Instance

NOTE: This object is support for IBM DB2 and Oracle.

Rapid SQL places Instance as the first level of information under the Datasource node in the Database Explorer. Instance includes:

- DB Manager Configuration
- Datasources

Available Functionality

Rapid SQL offers the following functionality for this object:

- New LUW Database

Java Classes

NOTE: This object is supported by Oracle 8i or later only.

>

The Java Classes contain compiled Java code. Java Classes are made up of a group of data items, with associated functions that perform operations. The data items are called fields or variables; the functions are referred to as methods.

> **TIP:** Oracle is shipped with a JVM(Java Virtual Machine). The JVM provided by Oracle sits atop the Oracle RDBMS and interacts directly with the RDBMS instead of the operating system.

Available Functionality

- Drop

Java Resources

> **NOTE:** This object is supported by Oracle only.

The Java Resources node of the Explorer tab offers support for browsing Java resources.

Available Functionality

- Drop

Java Sources

> **NOTE:** This object is supported by Oracle 8i or later only.

Java Sources contain the uncompiled Java source code.

> **TIP:** Oracle is shipped with a JVM(Java Virtual Machine). The JVM provided by Oracle sits atop the Oracle RDBMS and interacts directly with the RDBMS instead of the operating system.

Available Functionality

- Compile
- Create
- Edit
- Load Java
- Drop

Job Queues

> **NOTE:** This object is supported by Oracle only.

Job Queues are built-in mechanisms that let you schedule a variety of SQL-based or command-line driven tasks.

Available Functionality

Rapid SQL offers the following functionality for this object:

- Run
- New

>

- Open
- Enable
- Disable

Libraries

NOTE: This object is supported by Oracle only.

Libraries are an object type introduced in Oracle8 that represent a call to an operating system shared library. After the call is made, libraries can be used by SQL or PL/SQL to link to external procedures or functions. Libraries are only to be used on operating systems that support shared libraries and dynamic linking. Libraries serve as pointers or aliases to physical operating system shared library files and do not have existence as a physical object on their own, rather they rely on the physical existence of the files in the external operating system library to which they refer. To access the function or procedures stored in the library, you need execute privileges at the operating system level where the shared library resides.

Available Functionality

Rapid SQL offers the following functionality for this object:

- Drop
- Extract
- New
- Open
- Rename
- Report

Logins

NOTE: This object is supported by Microsoft SQL Server and Sybase only.

Logins let you access your account. Your login account controls access to the server and all of the databases within it. Only the System Administrator or System Security Officer can create logins. Once you can log into a server, you need additional privileges to access user databases. Specifically, each database owner adds the login as a user or alias to the database.

NOTE: Logins are available for Microsoft SQL Server and Sybase ASE.

Microsoft SQL Server Logins

Logins let you access your account. Your login account controls access to the server and all of the databases within it. Only the System Administrator or System Security Officer can create logins. Once you can log into a server, you need additional privileges to access user databases. Specifically, each database owner adds the login as a user or alias to the database.

For more information, see Available Functionality.

Sybase ASE Logins

Logins let you access your account. Your login account controls access to the server and all of the databases within it. Only the System Administrator or System Security Officer can create logins. Once you can log into a server, you need additional privileges to access user databases. Specifically, each database owner adds the login as a user or alias to the database.

For more information, see Available Functionality.

Available Functionality

Rapid SQL offers the following functionality for this object:

- Change Password
- Drop
- Extract
- New
- Open
- Report

Materialized Query Tables

NOTE: This object is supported by IBM DB2 LUW for Linux, Unix, and Windows version 8.

A materialized query table is a table whose definition is based on the result of a query. The materialized query table typically contains pre-computed results based on the data existing in the table or tables that its definition is based on. If the SQL compiler determines that a query will run more efficiently against a materialized query table than the base table or tables, the query quickly executes against the materialized query table.

Available Functionality

Rapid SQL offers the following functionality for this object:

- Create Insert Statements
- Create Synonym
- Drop
- Edit Data
- Extract
- New
- Open
- Refresh Summary Table
- Rename
- Report

>

Materialized Views

NOTE: This object is supported by Oracle only.

Materialized views are used to dynamically copy data between distributed databases. There are two types of materialized views:

- Complex
- Simple

Complex materialized views copy part of a master table or data from more than one master table. Simple materialized views directly copy a single table. You cannot directly update the underlying data contained in materialized views.

NOTE: Materialized Views are only in Oracle 8.1 or later. If you are using Oracle 8.0 or earlier, see Snapshots.

Available Functionality

Rapid SQL offers the following functionality for this object:

- Create Synonym
- Drop
- Extract
- New
- Open
- Rename
- Report

Materialized View Logs

NOTE: This object is supported by Oracle only.

Materialized View logs are tables that maintain a history of modifications to the master table, and they are used to refresh simple materialized views. When you create a materialized view log, Oracle automatically creates a log table to track data changes in the master table and a log trigger to maintain the data in the log table.

NOTE: Materialized View Logs are in Oracle 8i or later. If you are using Oracle 8.0 or earlier, see Snapshot Logs.

Available Functionality

Rapid SQL offers the following functionality for this object:

- Drop
- Extract
- New
- Open
- Report

Oracle Job Queues

NOTE: This object is supported by Oracle only.

Oracle job queues are built-in mechanisms in the Oracle database that let you schedule a variety of SQL-based or command-line driven tasks. Basically, they are database-driven schedulers.

Available Functionality

Rapid SQL offers the following functionality for this object:

- Drop
- Extract
- New
- Open
- Report

Outlines

NOTE: This object is supported by Oracle 8.1 or later only.

Outlines are a set of results for the execution plan generation of a particular SQL statement. When you create an outline, plan stability examines the optimization results using the same data used to generate the execution plan. That is, Oracle uses the input to the execution plan to generate an outline, and not the execution plan itself.

Available Functionality

Rapid SQL offers the following functionality for this object:

- Change Category
- Drop
- Extract
- New
- Open
- Reassign by Category
- Rebuild
- Rename
- Report

Packages

NOTE: This object is supported by IBM DB2 LUW for Linux, Unix, and Windows, IBM DB2 for OS/390 and z/OS, and Oracle only.

Packages contain all the information needed to process SQL statements from a single source file. You can use packages to process and call batches of SQL. Depending on the platform, packages can include:

- Procedures
- Functions
- Types
- Variables
- Constants
- Exceptions
- Cursors
- Subprograms

Packages offer a number of important advantages over using standalone procedures and functions, including the ability to:

- Modify package objects without recompiling dependent database objects.
- Declare global variables and cursors that can be shared within the package.
- Grant privileges more efficiently.
- Load multiple package objects into memory at once.

Packages usually have two parts: a header or specification and a body, although sometimes the body is unnecessary. The package header declares the members of the package while the body details the logic underlying each of the package components.

Available Functionality

Rapid SQL offers the following functionality for this object:

NOTE: Functionalities differ by platform.

- Bind
- Create Synonym
- Dependencies
- Drop
- Explain Plan
- Extract
- Filter
- New
- Open
- Rebind
- Report

Package Bodies

NOTE: This object is supported by Oracle only.

>

Package Bodies implement the package specification in that the package body includes the definition of every cursor and subprogram declared in the package specification. While Package Bodies are listed as a separate object in the Datasource Explorer, they are created on the Packages Editor in conjunction with Packages.

Available Functionality

Rapid SQL offers the following functionality for this object:

- Create Synonym
- Dependencies
- Drop
- Extract
- New
- Open
- Report

Plans

NOTE: This object is supported by IBM DB2 LUW for OS/390 and z/OS only.

A Plan is an executable application created in the bind process. It can include one or more packages or debris.

Available Functionality

Rapid SQL offers the following functionality for this object:

- Bind
- Copy Object Names
- Drop
- Filter
- Free
- Open
- Rebind
- Report

Primary Keys

NOTE: This object is supported by all platforms.

Primary Keys are a set of table columns that can uniquely identify every row of a table.

Available Functionality

Rapid SQL offers the following functionality for this object:

NOTE: Functionalities differ by platform.

- Drop
- Extract
- Filter
- New
- Open
- Rename
- Report
- Status

Procedures

NOTE: This object is supported by all platforms.

Procedures are a reusable block of PL/SQL, stored in the database, that applications can call. Procedures streamline code development, debugging and maintenance by being reusable. Procedures enhance database security by letting you write procedures granting users execution privileges to tables rather than letting them access tables directly.

NOTE: Only IBM DB2 LUW for OS/390 and z/OS SQL stored procedures created by Rapid SQL, DBArtisan, or IBM's Stored Procedure Builder can be retrieved by Rapid SQL or DBArtisan.

Sybase ASE

Procedures perform procedural logic in your Sybase ASE applications. They are batches of SQL statements that are compiled and stored in the system catalog. Procedures execute faster than embedded SQL statements because they are pre-compiled and have execution plans for use by the optimizer. When you create a procedure, Sybase ASE builds a query tree, which it stores in a system table. When you execute a procedure for the first time, Sybase ASE loads it from the system table, compiles, and optimizes it. Sybase ASE places the resulting query plan in the procedure cache where it remains on a most recently used basis. In addition to better performance, procedures yield other benefits, including easier code maintenance, additional security and reduced network traffic.

In addition, Rapid SQL now supports extended procedures. Extended procedures are dynamic link libraries that can be used to load and execute application routines written in other programming languages, such as C or Visual Basic. Extended procedures function and appear in the same manner as normal procedures in that you can pass parameters to them and obtain results.

Available Functionality

Rapid SQL offers the following functionality for this object:

NOTE: Functionalities differ by platform.

- Create Synonym
- Drop
- Extract
- Filter
- Generate Anonymous Block
- New
- Open

- Rename
- Report

Profiles

NOTE: This object is supported by Oracle only.

Profiles are a mechanism for allocating system and database resources to users. Profiles let you specify limits on:

- Number of sessions
- CPU time
- Connect time
- Idle time
- Logical reads and space in the SGA's shared pool

You can assign profiles to one or more users. The database's default profile and all of its resource limits are assigned to users without a specific profile assignment.

Available Functionality

Rapid SQL offers the following functionality for this object:

- Drop
- Extract
- New
- Open
- Report

Rollback Segments

Microsoft SQL Server 7	
Column Name	**Description**
Remote Server Name	Name of the server
Net Name	Reserved (name of the server)
Product Name	Product name for the remote server(e.g. Microsoft SQL Server)
Ole Provider Name	Name of the Ole provider accessing the server

Sybase ASE	
Column Name	**Description**
Remote Server Name	Name of the server
Network Name	Name of the network on which the Remote Server resides
Timeouts	Shows whether or not the Timeout option has been enabled. If it is set to 1 then the site handler for the remote login will timeout if there is no remote user activity for one minute.

Column Name	Description
Role Name	Name of the role
Role Type	Whether the role is a standard Microsoft SQL Server role or an application role
Created	When the role was created
Updated	When the role was last updated

Column Name	Description
Role Name	Name of the role
Password Required	Password authentication for the role. The valid values are Yes (specific password required), No (no password required), External (password is authenticated through the operating system) or Global (password is authenticated through the security domain central authority).

Column Name	Description
Role Name	Name of the role

NOTE: This object is supported by Oracle only.

Rollback segments manage all transactions in your Oracle databases. They maintain read consistency among concurrent users in a database and can rollback transactions. They are transaction logs that maintain discrete records of changes to data. By maintaining a history of data changes, rollback segments can rollback uncommitted transactions so that data is rolled back to their prior state.

TIP: Databases with large user bases and intensive data manipulation characteristics can benefit from having multiple rollback tablespaces that are placed on different server drives or file systems. This strategy aids in the reduction of I/O and rollback segment contention.

Because all changes are logged to a rollback segment, they can become a performance bottleneck as the number of concurrent users and transaction activity increases. You can tune rollback segment performance by creating additional ones to handle increased traffic. To determine whether rollback segment performance is satisfactory, you should monitor the ratio of gets to waits. If you see that the number of waits is climbing, create another rollback segment to further spread concurrency.

NOTE: The analysis for determining when to add a rollback segment can be quite complicated. As a rule-of-thumb, however, many DBAs simply plan on allocating a rollback segment for every four concurrent users.

The proper sizing of rollback segments is critical to their overall performance. Performance degrades whenever a rollback segment must extend, wrap or shrink in response to transaction loads. Ideally, you want to make their extents as small as possible while ensuring that each transaction fits into a single extent, which in practice is very difficult to achieve.

NOTE: You should carefully monitor each rollback segments for the occurrence of extends, wraps and shrinks. If you see a high level of extends and wraps, then the rollback segment is probably too small. If you see a high level of shrinks, then you should increase the rollback segment's optimal size.

Available Functionality

Rapid SQL offers the following functionality for this object:

- Drop
- Extract
- New
- Open
- Report
- Shrink

Rules

NOTE: This object is supported by Microsoft SQL Server and Sybase only.

Rules promote data integrity by allowing you to validate the values supplied to a table column. They are reusable objects that you can bind to table columns or user datatypes. For example, you can create a rule, bind it to a column in a table and have it specify acceptable values that can be inserted into that column.

Available Functionality

Rapid SQL offers the following functionality for this object:

- Drop
- Extract
- New
- Open
- Rename
- Report

>

Segments

NOTE: This object is supported by Sybase only.

Segments are a mechanism for placing tables and indexes on specific logical partitions. You create segments on one or more fragments of a database. You can map segments to specific database fragments, which in turn reside on specific hard disks; and, mapping segments lets you increase i/o throughput by placing intensively used tables and indexes on different physical devices. You can allocate tables and indexes to segments by including placement statements at the end of CREATE TABLE or CREATE INDEX statements.

Available Functionality

Rapid SQL offers the following functionality for this object:

- Drop
- Extract
- New
- Open
- Report

Sequences

Sequences are programmable database objects that generate a definable sequence of values. Once defined, a sequence can be made available to many users. A sequence can be accessed and incremented by multiple users with no waiting. A sequence can be used to automatically generate primary key values for tables. When you create a sequence, you can define its initial value, increment interval and maximum value.

Available Functionality

Rapid SQL offers the following functionality for this object:

- Create Alias
- Create Synonym
- Dependencies
- Drop
- Extract
- Filter
- New
- Open
- Rename
- Report
- Restart

Snapshots

NOTE: This object is supported by Oracle only.

>

Snapshots are used to dynamically copy data between distributed databases. There are two types of snapshots:

- Complex
- Simple

NOTE: Snapshots are available in Oracle 8.0 and earlier. For Oracle 8i or later, see Materialized Views.

Complex snapshots copy part of a master table or data from more than one master table. Simple snapshots directly copy a single table. You cannot directly update the underlying data contained in snapshots.

NOTE: To use snapshots, use the Oracle 7 Distributed Option.

Available Functionality

Rapid SQL offers the following functionality for this object:

- Create Synonym
- Drop
- Extract
- New
- Open
- Rename
- Report

Snapshot Logs

NOTE: This object is supported by Oracle only.

Snapshot logs are tables that maintain a history of modifications to the master and they are used to refresh simple snapshots. When you create a snapshot log, Oracle automatically creates a log table to track data changes in the master table and a log trigger to maintain the data in the log table.

NOTE: Snapshot Logs are available in Oracle 8.0 or earlier. For Oracle 8i or later, see Materialized View Logs.

Available Functionality

Rapid SQL offers the following functionality for this object:

- Drop
- Extract
- New
- Open
- Report

Stogroups

NOTE: This object is supported by IBM DB2 LUW for OS/390 and z/OS only.

>

Stogroups are storage groups, named sets of volumes on which DB2 LUW for OS/390 data is stored.

Available Functionality

Rapid SQL offers the following functionality for this object:

- Drop
- Extract
- Filter
- New
- Open
- Report

Structured Types

NOTE: This object is supported by IBM DB2 LUW for Linux, Unix, and Windows and IBM DB2 LUW for OS/390 and z/OS only.

Structured types define an abstract data type or object composed of a collection of similar types of data. For example, create an structured type that defines a full address rather than the pieces of an address, such as city, state and postal code. An structured type stores the pieces of an address in a single type, storing them in the same location and allowing the full address to be accessed and manipulated as single unit rather than multiple units.

Structured types are useful for ensuring uniformity and consistency as they are defined as single encapsulated entity that can be reused in other structured types and objects. They also offer flexibility by allowing for the creation of objects that represent real-world situations which is limited in relational objects.

Available Functionality

Rapid SQL offers the following functionality for this object:

- Dependencies
- Drop
- Extract
- Filter
- New
- Report

Summary Tables

NOTE: This object is supported by IBM DB2 LUW for Linux, Unix, and Windows version 7.

A summary table is a table whose definition is based on the result of a query. The summary table typically contains pre-computed results based on the data existing in the table or tables that its definition is based on. If the SQL compiler determines that a query will run more efficiently against a summary table than the base table or tables, the query quickly executes against the materialized query table.

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Available Functionality

Rapid SQL offers the following functionality for this object:

- Create Synonym
- Drop
- Extract
- New
- Open
- Rename
- Report

Synonyms

NOTE: This object is supported by IBM DB2 LUW for OS/390 and z/OS and Oracle only.

Synonyms are an alternate name for an object in the database. Depending on the platform, you can define synonyms on tables, views, sequences, procedures, functions, packages and materialized views. There are two types of synonyms:

- Public
- Private

Public synonyms can be used by everyone in the database. Private synonyms belong to the synonym owner.

Synonyms simplify object names and let you:

- Reference an object without needing to specify its owner.
- Reference a remote object without needing to specify its database.
- Alias an object so its purpose becomes more understandable.

Available Functionality

Rapid SQL offers the following functionality for this object:

- Drop
- Extract
- Filter
- New
- Open
- Rename
- Report

Tables

NOTE: This object is supported by all platforms.

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Tables are a the basic unit of data storage. Tables store all the data accessible to users in rows and columns. Each column has a name, datatype and other associated properties. After you define a table, users can insert valid data into the table, which you can later query, update and delete.

NOTE: Available Functionality

Rapid SQL offers the following functionality for this object:

NOTE: Functionalities differ by platform.

- Activate Logging
- Allocate Extent
- Analyze
- Build Query
- Clone
- Convert to Partitioned
- Copy Name
- Create Alias
- Create Insert Statements
- Create Like
- Create Synonym
- Create View
- DBCC
- Deallocate Unused Space
- Dependencies
- Disable Triggers
- Enable Triggers
- Drop
- Edit Data
- Estimate Size
- Extract
- Generate Packages
- Generate Procedures
- Generate Statements
- Indexes
- Lock
- New
- Open

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- Place
- Quiesce Tablespaces
- Rename
- Reorganize
- Report
- Schema
- Select * From
- Triggers
- Truncate
- Update Statistics

Tablespaces

NOTE: This object is supported by IBM DB2 LUW for OS/390 and z/OS, IBM DB2 LUW for Linux, Unix, and Windows, and Oracle only.

Tablespaces are storage structures that act as partitions for the database. You can create a tablespace to store table data and other objects related to table performance such as indexes or large object data. Tablespaces are used to manage large complex databases. Once you have created a tablespace, you can place objects on it.

TIP: Create separate tablespaces for your tables and indexes and put each tablespace on a different drive or file system. Segmenting tables and their corresponding indexes in this manner helps eliminate I/O contention at the server level.

NOTE: IBM DB2 LUW for Linux, Unix, and Windows lets you assign a location for table or index data directly to physical storage devices. Each tablespace can also be broken down into a collection of containers which are the actual physical storage files or devices. You can then spread the data or database objects across multiple file systems, thereby giving you the necessary space for objects that require it.

Once you have created a tablespace, you can place individual tables and indexes on it. Because tablespaces map to physical drives, you can improve i/o performance by placing tables and their indexes on physically separated table spaces.

Available Functionality

Rapid SQL offers the following functionality for this object:

NOTE: Functionalities differ by platform.

- Change Status
- Coalesce
- Drop
- Extract
- Filter
- New

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- Open
- Quiesce (IBM DB2 LUW for Linux, Unix, and Windows)
- Rename
- Report
- Switch Online

Triggers

NOTE: This object is supported by all platforms.

Triggers are a special type of procedure that automatically fire when defined data modification operations (insert, update or delete) occur on a target table. Triggers fire after an insert, update or delete, but belong to the same transaction as the data modification operation.

Because triggers fire automatically and are part of the same transaction as the initiating SQL statement, they are often used to enforce referential integrity in a database. For example, an insert trigger can validate that a foreign key value exists in the primary key of the parent table. Similarly, you can write a trigger to cascade the deletion or update of data in a parent table to all corresponding data rows in child tables.

While triggers are a powerful data validation mechanism, they do complicate the task of debugging and tuning SQL. Because triggers fire inside transactions, they hold open transactions, contributing to concurrency problems. Accordingly, you should move all non-critical data validation outside of triggers to shorten transaction lengths to their minimum.

Available Functionality

Rapid SQL offers the following functionality for this object:

NOTE: Functionalities differ by platform.

- Dependencies
- Disable/Enable
- Drop
- Extract
- Filter
- New
- Open
- Rename
- Report

Types

NOTE: This object is supported by Oracle only.

Types define an abstract data type or object composed of a collection of similar types of data. For example, create an object type that defines a full address rather than the pieces of an address, such as city, state and postal code. An object type stores the pieces of an address in a single type, storing them in the same location and allowing the full address to be accessed and manipulated as single unit rather than multiple units.

Object types are useful for ensuring uniformity and consistency as they are defined as single encapsulated entity that can be reused in other object types and objects. They also offer flexibility by allowing for the creation of objects that represent real-world situations which is limited in relational objects.

You can choose to create a type that is incomplete, complete, a VARRAY, or a nested table or any combination of the above. An incomplete type specifies no attributes and can be used for circular references such as person - female. It lets the type be referenced before it is complete. The VARRAY type can be used to store small sets of related data. For example, if you have ten offices (each one with a different description) at a particular division in your company, you could create a VARRAY of 10 to hold the details of these offices. The values for a VARRAY type must be fixed and known and small values as they are stored in RAW format. A nested table type can be used when data is repeated for the same entity an unknown number of times and storage is a concern.

Available Functionality

Rapid SQL offers the following functionality for this object:

- Dependencies
- Drop
- Extract
- New
- Open
- Report

Type Bodies

NOTE: This object is supported by Oracle only.

Type Bodies implement object type specification by containing the definition of every cursor and subprogram declared in the object type specification. While Type Bodies are listed as a separate object in the Datasource Explorer, they are created on the Types Editor in conjunction with Types.

Available Functionality

Rapid SQL offers the following functionality for this object:

- Dependencies
- Drop
- Extract
- New
- Open
- Report

Unique Keys

NOTE: This object is supported by all platforms.

Unique keys can enforce logical keys that are not chosen as the primary key. They enforce uniqueness for specified columns in a table.

Available Functionality

Rapid SQL offers the following functionality for this object:

NOTE: Functionalities differ by platform.

- Drop
- Extract
- Filter
- New
- Open
- Rename
- Report
- Status

User Datatypes

NOTE: This object is supported by IBM DB2 LUW for Linux, Unix, and Windows, IBM DB2 LUW for OS/390 and z/OS, Microsoft SQL Server, and Sybase only.

User-defined datatypes promote domain consistency by streamlining the definition of commonly used table columns in a database. You can build a customized datatype from system datatypes and bind defaults and rules to it to enhance integrity. When you reference the user datatype in a column, the column assumes all of the properties of the user datatype.

Available Functionality

Rapid SQL offers the following functionality for this object:

NOTE: Functionalities differ by platform.

- Drop
- Extract
- Filter
- New
- Open
- Rename
- Report

Users

NOTE: This object is supported by all platforms.

A user is an individual with access to the DBMS.

For more information, see:

- IBM DB2 LUW for Linux, Unix, and Windows Users
- IBM DB2 LUW for OS/390 and z/OS Users
- Microsoft SQL Server Users
- Oracle Users
- Sybase ASE Users
- Available Functionality

IBM DB2 LUW for Linux, Unix, and Windows Users

IBM DB2 LUW for Linux, Unix, and Windows relies on your machine's operating system to define users for the server. You create and maintain users through your operating system. For example, for Windows NT, you create users in the User Manager.

For more information, see Available Functionality.

IBM DB2 LUW for OS/390 and z/OS Users

IBM DB2 LUW relies on the operating system you are running to define users for the server. This means that users are created and maintained through your operating system. For example, if you are running Windows NT, the User Manager is the utility where users should be created.

For more information, see Available Functionality.

Microsoft SQL Server Users

Microsoft SQL Server controls access at the database level by requiring the System Administrator or Database Owner to add a login as a database user or alias. After you create a database user, you can implement further security by the granting or revoking the privileges for that user on specific database objects. To consolidate the process of granting or revoking permissions to many users, the database owner can assign users to groups.

For more information, see Available Functionality.

Oracle Users

To access an Oracle database, you need a user account authenticated with a password. A user account is what Oracle uses to permit access by the user. You can assign the following optional properties to the user:

- Default tablespace
- Temporary tablespace
- Quotas for allocating space in tablespaces
- Profile containing resource limits

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For more information, see Available Functionality.

Sybase ASE Users

Sybase ASE controls access at the database level by requiring the System Administrator or Database Owner to add a login as a database user or alias. After you create a database user, you can implement further security by granting or revoking the privileges for that user on specific database objects. To consolidate the process of granting or revoking permissions to many users, the database owner can assign users to groups.

For more information, see Available Functionality.

Available Functionality for Users

Rapid SQL offers the following functionality for users:

NOTE: Functionalities differ by platform.

- Change Password
- Drop
- Extract
- Filter
- New
- Open
- Report

Views

NOTE: This object is supported by all platforms.

Views are SQL queries stored in the system catalog that customize the display of data contained in one or more tables. Views behave like tables because you can query views and perform data manipulation operations on them. However, views do not actually store any data. Instead, they depend on data contained in their base tables. Views let you:

- View a customized selection of data from one or more tables. As a result, you can display data more cogently to different sets of users, even though the underlying data is the same.
- Restricting access to a defined set of rows and columns.

Available Functionality

Rapid SQL offers the following functionality for this object:

NOTE: Functionalities differ by platform.

- Build Query
- Copy Name
- Create Alias

- Create Synonym
- Dependencies
- Drop
- Filter
- Extract
- Generate Select Statements
- New
- Open
- Rename
- Report
- Select * From

Object Editors

Rapid SQL stores information about server and object types in object editors. An editor is a tabbed dialog box that groups related information together. Each editor contains a context-sensitive Commands menu with pertinent functionality for the object. Many of the object editors contain a DDL Tab. This tab displays the underlying target object's SQL.

TIP: The Object Editor tool bar has a refresh button, that lets you refresh Object Editor contents, clear the Object Editors, and log SQL if SQL Logging is turned on.

TIP:

If an objects has dependent objects, such as tables, triggers, procedures and views, you can view and access their dependent objects in the editor.

Related Topics:

IBM DB2 LUW for Linux, Unix, and Windows Object Editors

IBM DB2 LUW for OS/390 and z/OS Object Editors

Microsoft SQL Server Object Editors

Oracle Object Editors

Sybase ASE Object Editors

IBM DB2 LUW for Linux, Unix, and Windows Object Editors

Rapid SQL includes an Object Editor for all supported IBM DB2 LUW for Linux, Unix, and Windows objects. To see an Editor for a specific object, click the corresponding link in the table below:

NOTE: If an objects has dependent objects, such as tables, triggers, procedures and views, you can view and access their dependent objects in the editor.

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Aliases Editor	Check Constraints Editor	Foreign Keys Editor	Functions Editor
Indexes Editor	Materialized Query Table Editor	Packages Editor	Primary Keys Editor
Procedures Editor	Tables Editor	Tablespaces Editor	Triggers Editor
Unique Keys Editor	User Datatypes Editor	Views Editor	

Aliases Editor for IBM DB2 LUW for Linux, Unix, and Windows

The Aliases Editor lets you:

- Enter a comment.
- View alias DDL.

> **TIP:** The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Aliases Editor:

- Definition
- Comment
- DDL

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

Aliases Editor for IBM DB2 LUW for Linux, Unix, and Windows - Definition Tab

The Definition Tab of the Aliases Editor displays object type, owner and name for any alias on the datasource.

For more information, see Aliases Editor.

Aliases Editor for IBM DB2 LUW for Linux, Unix, and Windows - Comment Tab

The Comment Tab of the Aliases Editor lets you enter a comment which can be up to 254 characters long. The comments are stored in the REMARKS column of the objects' system catalog table.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Aliases Editor.

Aliases Editor for IBM DB2 LUW for Linux, Unix, and Windows - DDL Tab

The DDL Tab of the Aliases Editor lets you view the SQL code for every alias on the current datasource. To view DDL for another alias, click the lists, click the target owner, and then click the target alias.

> **TIP:** To turn line numbers on and off, right-click any line, and then select Line Numbers.

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After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Aliases Editor.

Check Constraints Editor for IBM DB2 LUW for Linux, Unix, and Windows

The Check Constraints Editor lets you:

- View and modify check constraints.
- View check constraint DDL.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Check Constraints Editor:

- Definition
- DDL

Check Constraints Editor for IBM DB2 LUW for Linux, Unix, and Windows - Definition Tab

The table below describes the options and functionality on the Definition Tab on the Check Constraints Editor:

Option	Description
Owner	To change the check constraint owner, click the Owner list, and then click the new owner.
Table	To change the table on which the check constraint is placed, click the Table list, and then click the new table.
Check Condition	To modify the check constraint condition, in the text box, type the new check condition.
Table Columns button	Click to open the Paste Columns for Check Constraint dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Check Constraints Editor.

Check Constraints Editor for IBM DB2 LUW for Linux, Unix, and Windows - DDL Tab

The DDL Tab of the Check Constraints Editor lets you view the SQL code for every check constraint on the current datasource. To view DDL for another check constraint, click the lists, click the target owner, and then click the target check constraint.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Check Constraints Editor.

Databases Editor for IBM DB2 LUW for Linux, Unix, and Windows

The Databases Editor lets you:

- Manage database placement.
- Manage database options.
- Manage database space.
- View database DDL.

> **TIP:** The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Databases Editor:

- Placement
- Options
- Space
- DDL

Databases Editor for IBM DB2 LUW for Linux, Unix, and Windows - Placement Tab

The Placement Tab of the Databases Editor lets you manage following for database on the current datasource:

- Database Owner
- Database File

When changing the database owner (dbo) select the check box to transfer the existing aliases of users who could act as the old dbo (including their permissions) to the new dbo.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Databases Editor.

Databases Editor for IBM DB2 LUW for Linux, Unix, and Windows - Options Tab

The Options Tab of the Databases Editor lets you view and modify the database options for every database on the current datasource. To set database options for all future databases, set the database options on the model database.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Databases Editor.

Databases Editor for IBM DB2 LUW for Linux, Unix, and Windows - Space Tab

The Space Tab of the Databases Editor lets you view pie charts showing the data space usage and the transaction log (if available) space usage for every database on the current datasource.

> **TIP:** Double-click a slice in the pie chart for detailed statistics.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

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For more information, see Databases Editor.

Databases Editor for IBM DB2 LUW for Linux, Unix, and Windows - DDL Tab

The DDL Tab of the Databases Editor lets you view the SQL code for every database on the current datasource. To view DDL for another database, click the list, and then click the target database.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Databases Editor.

- Foreign Keys Editor for IBM DB2 LUW for Linux, Unix, and Windows

The Foreign Keys Editor lets you:

- Manage foreign key columns.
- View foreign key DDL.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Foreign Keys Editor:

- Columns
- DDL

Foreign Keys Editor for IBM DB2 LUW for Linux, Unix, and Windows - Columns Tab

The Columns Tab of the Foreign Keys Editor lets you manage columns for every foreign key on the current datasource. The table below describes the options and functionality on the columns tab of the Foreign Keys Editor:

Option	Description
Table Owner	To change the table owner, click the list, and then click the new table owner.
Table Name	To change the table name, click the list, and then click the new table name.
Primary/Unique Key	To change the primary/unique key, click the list, and then click the new primary/unique key.
On Delete	To change the constraint state action on delete, click the list, and then click the new action.
On Update	To change the constraint state action on update, click the list, and then click the new action.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Foreign Keys Editor.

Foreign Keys Editor for IBM DB2 LUW for Linux, Unix, and Windows - DDL Tab

The DDL Tab of the Foreign Keys Editor lets you view the SQL code for every foreign key on the current datasource. To view DDL for another foreign key, click the lists, click the target owner, and then click the target foreign key.

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After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Foreign Keys Editor.

Functions Editor for IBM DB2 LUW for Linux, Unix, and Windows

The Functions Editor lets you:

- View and modify function definitions.
- Manage function dependencies.
- Manage function privileges.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Functions Editor:

- Parameters
- Definition
- Comment
- Dependencies
- Privileges
- DDL

Functions Editor for IBM DB2 LUW for Linux, Unix, and Windows - Parameters Tab

The Parameters Tab of the Functions Editor lets you:

- Add parameters
- Insert parameters
- Modify parameters

The table below describes the options and functionality on the Parameters Tab of the Functions Editor:

Option	Description
Owner	Lets you select any owner on the connected datasource.
Function	Lets you select any function on the connected datasource.
Specific Name	Lets you select any function by specific name on the connected datasource.
Add Button	Click to open the Add Parameter dialog box.
Insert Button	Click to open the Rapid SQL opens the Insert Parameter dialog box.
Edit Button	Click to open the Modify Parameter dialog box.

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Option	Description
Drop Button	Click do delete the parameter.
Up	Click to move the parameter up in the grid.
Down	Click to move the parameter down in the grid.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Functions Editor.

Functions Editor for IBM DB2 LUW for Linux, Unix, and Windows - Definition Tab

The Definition Tab of the Functions Editor lets you modify a function to change its definition by constructing a DROP and CREATE FUNCTION script. The table below describes the options and functionality on the Definition Tab of the Functions Editor:

NOTE: Options differ by type of function.

Option	Description
Owner	Lets you select any owner on the connected datasource.
Function	Lets you select any function on the connected datasource.
Specific Name	Lets you select any function by specific name on the connected datasource.
External Name	To change the external name of the function, type the new external name.
Language	To change the language in which the function body is written, select the new language. If the function body is written in C, select DB2SQL. If the function body is written in JAVA, select DB2GENERAL. **NOTE:** If the function body is written in OLEDB, this parameter cannot be changed.
Parameter Style	To change the parameter style of the function, select the new parameter style. **NOTE:** If the function body is written in OLEDB, this parameter cannot be changed.
Deterministic	Select to make the function return different results from calls with the same parameters.
Fenced	Select to make the function run in a memory space separate from the database.
Null Call	Select to make the function executed if a null value is passed as an argument.
External Action	

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Option	Description
Scratchpad	**IBM DB2 LUW for Linux, Unix, and Windows 8 ONLY:** Lets you type the length of the scratchpad. **NOTE:** External scalar and external table functions default is 100.
Contains SQL	If deselected, the Function has the parameter NO SQL.
Reads SQL	If deselected, the Function has the parameter NO SQL.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Functions Editor.

Functions Editor for IBM DB2 LUW for Linux, Unix, and Windows - Comment Tab

The Comment Tab of the Functions Editor lets you enter a comment which can be up to 254 characters long. The comments are stored in the REMARKS column of the objects' system catalog table.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Functions Editor.

Functions Editor for IBM DB2 LUW for Linux, Unix, and Windows - Dependencies Tab

The Dependencies Tab of the Functions Editor lets you manage database objects dependent on each function on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target view is dependent on these objects.
Referenced Objects	These objects are dependent on the target view.

TIP: Click one of the referenced objects to open that object's editor.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Functions Editor.

Functions Editor for IBM DB2 LUW for Linux, Unix, and Windows - Privileges Tab

The Privileges Tab of the Functions Editor lets you manage permissions for every function on the current datasource.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

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The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Rapid SQL, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Functions Editor

Functions Editor for IBM DB2 LUW for Linux, Unix, and Windows - DDL Tab

The DDL Tab of the Functions Editor lets you view the SQL code for every function on the current datasource. To view DDL for another table, click the lists, click the target owner, and then click the target table.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Functions Editor.

Indexes Editor for IBM DB2 LUW for Linux, Unix, and Windows

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Rapid SQL, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

The Index Editor lets you:

- Manage index columns.

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- View and modify index attributes.
- Manage index storage.
- Add a comment.
- View index DDL.

  TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Indexes Editor:

- Columns
- Properties
- Storage
- Comment
- Privileges
- DDL

Indexes Editor for IBM DB2 LUW for Linux, Unix, and Windows - Columns Tab

The Columns Tab of the Indexes Editor lets you manage columns for every index on the current datasource. The Columns Tab lets you:

- Add columns
- Insert columns
- Edit columns
- Drop columns
- Order columns

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Indexes Editor.

Indexes Editor for IBM DB2 LUW for Linux, Unix, and Windows - Properties Tab

The Properties Tab of the Indexes Editor lets you set properties. The table below describes the options and functionality on the Properties Tab of the Indexes Editor:

Option	Description
Index Properties	Lets you switch between unique and non-unique indexes.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Indexes Editor.

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Indexes Editor for IBM DB2 LUW for Linux, Unix, and Windows - Storage Tab

The Storage Tab of the Indexes Editor lets you manage storage for every index on the current datasource. The table below describes storage options:

Option	Description
Data Block Storage	Lets you select parameters.
Extents	The unit of space allocated to an object whenever the object needs more space. Initial Extent - The initial space extent (in bytes) allocated to the object. Next Extent - The next extent (in bytes) that the object will attempt to allocate when more space for the object is required. Minimum Extents - The appropriate minimum extents value for the object. Maximum Extents - The appropriate maximum extents value for the object. Percent Increase - Magnifies how an object grows and, can materially affect available free space in a tablespace. Select a value in the corresponding box.
Free Lists	Lets you select parameters.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Indexes Editor.

Indexes Editor for IBM DB2 LUW for Linux, Unix, and Windows - Comment Tab

The Comment Tab of the Indexes Editor lets you enter a comment which can be up to 254 characters long.The comments are stored in the REMARKS column of the objects' system catalog table.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Indexes Editor.

Indexes Editor for IBM DB2 LUW for Linux, Unix, and Windows - Privileges Tab

The Privileges Tab of the Indexes Editor lets you manage permissions for every index on the current datasource.

This Tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.

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Icon	Label	Description
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Rapid SQL, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Indexes Editor

Indexes Editor for IBM DB2 LUW for Linux, Unix, and Windows - DDL Tab

The DDL Tab of the Indexes Editor lets you view the SQL code for every index on the current datasource. To view DDL for another index, click the lists, click the target owner, and then click the target index.

For more information, see Indexes Editor.

Materialized Query Tables Editor for IBM DB2 LUW for Linux, Unix, and Windows

The Materialized Query Tables Editor lets you:

- Manage table columns.
- Manage table constraints.
- Manage performance constraints.
- Manage table storage.
- Add a comment.
- Manage table dependencies.
- Manage table privileges.
- View table DDL.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Materialized Query Tables Editor:

- Columns
- Definition
- Performance
- Space
- Comment

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- Dependencies
- Privileges
- DDL

Materialized Query Tables Editor for IBM DB2 LUW for Linux, Unix, and Windows - Columns Tab

The Columns Tab of the Materialized Query Tables Editor lets you manage columns for every table on the current datasource. The Columns Tab lets you:

- Add columns
- Insert columns
- Edit columns
- Drop columns
- Order columns

The table below describes the options and functionality on the Columns Tab of the Materialized Query Tables Editor:

Option	Description
Add Button	Select the column and click to open the Add Column dialog box.
Edit Button	Select the column and click to open the Modify Column dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Materialized Query Tables Editor.

Materialized Query Tables Editor for IBM DB2 LUW for Linux, Unix, and Windows - Definition Tab

The Definition Tab of the Materialized Query Tables Editor lets you manage the SQL for every table on the current datasource. The table below describes the options and functionality on the Definition Tab of the Materialized Query Tables Editor:

Option	Description
Base Query	Lets you view and modify the base query.
Materialized Query Table Options	Lets you select options.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Materialized Query Tables Editor.

Materialized Query Tables Editor for IBM DB2 LUW for Linux, Unix, and Windows - Performance Tab

The Performance Tab of the Materialized Query Tables Editor lets you manage performance for every table on the current datasource. The table below describes performance options:

Option	Description
Tablespace Placement	Displays placement information.
Log Options	Lets you select log options: Data Capture - Lets you select none or change to include LONGVAR columns. **NOTE:** If you select the Data Capture option, the table name / column name cannot be longer than 18 bytes.
Add Button	Click to open the Select Columns for Partition Dialog Box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Materialized Query Tables Editor.

Select Columns for Partition Dialog Box

The Select Columns for Partition Dialog Box lets you select any or all target columns for partitioning.

Completing the Select Columns for Partition Dialog Box

1. In the **Columns** window, do one of the following:
   - To select a single column, click the target column.
   - To select multiple columns, click the first target column, then press CTRL, and then click all remaining target columns.
   - To select all available columns, click **Select All**.
2. Click OK.

   Rapid SQL selects the target columns for partitioning and closes the Select Columns for Partitioning Dialog Box.

For more information, see Materialized Query Tables Editor.

Materialized Query Tables Editor for IBM DB2 LUW for Linux, Unix, and Windows - Space Tab

The Storage Tab of the Materialized Query Tables Editor lets you manage storage for every table on the current datasource. The table below describes storage options:

Option	Description
Page Information	Displays parameters.
Row Information	Displays parameters.
Append Table Data	Select to append table data at the end of the last table page.
Cardinality Varies	Select if cardinality varies at runtime.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

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For more information, see Materialized Query Tables Editor.

Materialized Query Tables Editor for IBM DB2 LUW for Linux, Unix, and Windows - Comment Tab

The Comment Tab of the Materialized Query Tables Editor lets you enter explanatory comments to a table. The comment can be up to 254 characters long. The comments are stored in the REMARKS column of the objects' system catalog table.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Materialized Query Tables Editor.

Materialized Query Tables Editor for IBM DB2 LUW for Linux, Unix, and Windows - Dependencies Tab

The Dependencies Tab of the Materialized Query Tables Editor lets you manage database objects dependent on each table on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target procedure is dependent on these objects.
Referenced Objects	These objects are dependent on the target procedure.

TIP: Click one of the referenced objects to open that object's editor.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Materialized Query Tables Editor.

Materialized Query Tables Editor for IBM DB2 LUW for Linux, Unix, and Windows - Privileges Tab

The Privileges Tab of the Materialized Query Tables Editor lets you manage permissions for every table on the current datasource.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.

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Icon	Label	Description
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Rapid SQL, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Materialized Query Tables Editor

Materialized Query Tables Editor for IBM DB2 LUW for Linux, Unix, and Windows - DDL Tab

The DDL Tab of the Materialized Query Tables Editor lets you view the SQL code for every table on the current datasource. To view DDL for another table, click the lists, click the target owner, and then click the target table.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Materialized Query Tables Editor.

Packages Editor for IBM DB2 LUW for Linux, Unix, and Windows

The Packages Editor lets you:

- View and modify package dependencies.
- Add a comment.
- View and manage package privileges.

TIP: The Object Editor tool bar refresh button lets you refresh Object Editor contents, clear the Object Editors, and log SQL if SQL Logging is turned on.

The following tabs are available in the Packages Editor:

- Dependencies
- Comment
- Privileges

Packages Editor for IBM DB2 LUW for Linux, Unix, and Windows - Definition Tab

The Definition Tab of the Aliases Editor displays definition data for any package on the datasource.

For more information, see Packages Editor.

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Packages Editor for IBM DB2 LUW for Linux, Unix, and Windows - Dependencies Tab

The Dependencies Tab of the Packages Editor lets you manage database objects dependent on each package on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target procedure is dependent on these objects.
Referenced Objects	These objects are dependent on the target procedure.

TIP: Click one of the referenced objects to open that object's editor.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Packages Editor.

Packages Editor for IBM DB2 LUW for Linux, Unix, and Windows - Comment Tab

The Comment Tab of the Packages Editor lets you add explanatory comments to a package. The comment can be up to 254 characters long. The comments are stored in the REMARKS column of the objects' system catalog table.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Packages Editor.

Packages Editor for IBM DB2 LUW for Linux, Unix, and Windows - Privileges Tab

The Privileges Tab of the Packages Editor lets you manage permissions for every package on the current datasource.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Rapid SQL, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

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After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Packages Editor

Primary Keys Editor for IBM DB2 LUW for Linux, Unix, and Windows

The Primary Keys Editor lets you:

- Manage primary key columns.
- View primary key DDL.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Primary Keys Editor:

- Columns
- DDL

Primary Keys Editor for IBM DB2 LUW for Linux, Unix, and Windows - Columns Tab

The Columns Tab of the Primary Keys Editor lets you specify the columns in the index for any primary key on the datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Primary Keys Editor.

Primary Keys Editor for IBM DB2 LUW for Linux, Unix, and Windows - DDL Tab

The DDL Tab of the Primary Keys Editor lets you view the SQL code for every primary key on the current datasource. To view DDL for another primary key, click the lists, click the target owner, and then click the target primary.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Primary Keys Editor.

Procedures Editor for IBM DB2 LUW for Linux, Unix, and Windows

The Procedures Editor lets you:

- View and modify procedure definitions.
- Manage procedure dependencies.
- Manage procedure parameters.

- Manage procedure partitions.
- Manage procedure privileges.
- Add a comment.
- View procedure DDL.

The following tabs are available in the Procedures Editor:

- Definition
- Dependencies
- Parameters
- Partitions
- Privileges
- Comment
- DDL

Procedures Editor for IBM DB2 LUW for Linux, Unix, and Windows - Definition Tab

The Definition Tab of the Procedures Editor lets you modify a procedure to change its definition. To modify a procedure, Rapid SQL must drop then re-create the procedure.

The table below describes the options and functionality of the Definition Tab of the Procedure Editor:

External Name	To change the external name of the function, in the box, type the new external name.
Result Sets	To change the estimated upper bound for result sets returned by the procedure, in the box, type the new upper bound number.
Language	To change the language in which the function body is written, click the list, and then click the new language. Options for Language are: C, Java, COBOL, and OLE (OLE is available for IBM DB2 LUW for Linux, Unix, and Windows 8 only.)
Parameter Style	To change the parameter style of the function, click the list, and then click the new parameter style. Options for Parameter Style are: DB2DARI, DB2GENERAL, DB2SQL, GENERAL, GENERAL w/NULLS, JAVA, and SQL. **NOTE:** SQL is available for IBM DB2 LUW for Linux, Unix, and Windows 8 only.
SQL Data	Lets you change the option: Modifies, No, Contains, Reads, and SQL.

Fenced	To make the function run in a memory space separate from the database, select the check box. **NOTE:** Threadsafe is available for IBM DB2 LUW for Linux, Unix, and Windows 8 only.
Parameter type	To change the parameter type of the function, click the list, and then click the new parameter type. Options for Parameter type are Sub and Main.
Deterministic	To make the function return different results from calls with the same parameters, select the check box.
Inherit Special Registers	**IBM DB2 LUW 8 ONLY**: To inherit special registers, select the check box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Procedures Editor.

Procedures Editor for IBM DB2 LUW for Linux, Unix, and Windows - Dependencies Tab

The Dependencies Tab of the Procedures Editor lets you manage database objects dependent on each procedure on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target procedure is dependent on these objects.
Referenced Objects	These objects are dependent on the target procedure.

TIP: Click one of the referenced objects to open that object's editor.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Procedures Editor.

Procedures Editor for IBM DB2 LUW for Linux, Unix, and Windows - Parameters Tab

The table below describes the options and functionality on the Parameters Tab of the Procedures Editor:

Option	Description
Add Button	Click to open the Add Parameter dialog box.
Insert Button	Click to open the Insert Parameter dialog box.
Edit Button	Click to open the Modify Parameter dialog box.

NOTE: You cannot use host variables in the CALL statement for the name of the procedure.

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After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Procedures Editor.

Procedures Editor for IBM DB2 LUW for Linux, Unix, and Windows - Partitions Tab

The Partitions Tab of the Procedures Editor lets you partition procedures on the current datasource. The table below describes the option of this tab:

Option	Description
Partition Button	Click to open the Convert to Partitioned Index Wizard.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Procedures Editor.

Procedures Editor for IBM DB2 LUW for Linux, Unix, and Windows - Privileges Tab

The Privileges and System Privileges tabs of the Object Editor let you manage permissions for every user on the current datasource.

These tabs display if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. On the Object Privileges Tab, Rapid SQL populates each row of the table with every available database object. On the System Privileges Tab, Rapid SQL populates each row of the table with the system privileges. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Rapid SQL, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

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Revoking Permissions

Procedures Editor

Procedures Editor for IBM DB2 LUW for Linux, Unix, and Windows - Comment Tab

The Comment Tab of the Procedures Editor lets you enter a comment. Comments can be up to 254 characters long. The comments are stored in the REMARKS column of the objects' system catalog table.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Procedures Editor.

Procedures Editor for IBM DB2 LUW for Linux, Unix, and Windows - DDL Tab

The DDL Tab of the Procedures Editor lets you view the SQL code for every table on the current datasource. To view DDL for another table, click the lists, click the target owner, and then click the target table.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Procedures Editor.

Sequences Editor for IBM DB2 LUW for Linux, Unix, and Windows

The Sequences Editor lets you:

- Manage parameters for every sequence on the current datasource.
- Manage database objects dependent on each sequence on the current datasource.
- View sequence DDL.

TIP: The Object Editor tool bar refresh button lets you refresh Object Editor contents, clear the Object Editors, and log SQL if SQL Logging is turned on.

The following tabs are available in the Sequences Editor:

- Definition
- Dependencies
- DDL

Sequences Editor for IBM DB2 LUW for Linux, Unix, and Windows - Definition Tab

The Definition Tab of the Sequences Editor lets you manage parameters for every sequence on the current datasource. The table below describes the options and functionality on the Definition Tab of the Sequences Editor:

Option	Description
Parameters	Increment By - Lets you specify the interval between sequence numbers. This integer value can be any positive or negative integer, but it cannot be 0. This value can have 28 or fewer digits. The absolute of this value must be less than the difference of MAXVALUE and MINVALUE. If this value is negative, then the sequence descends. If the increment is positive, then the sequence ascends. If you omit this clause, the interval defaults to 1. Minimum Value - Lets you specify the minimum value of the sequence. This integer value can have 28 or fewer digits. Maximum Value - Lets you specify the maximum value the sequence can generate. This integer value can have 28 or fewer digits.
Current/Next Sequence Numbers	Lets you make the sequence cycle and continue to generate numbers.
Options	Generate Numbers in Order - Useful when you are using the sequence number as a timestamp.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Sequences Editor.

Sequences Editor for IBM DB2 LUW for Linux, Unix, and Windows - Dependencies Tab

The Dependencies Tab of the Sequences Editor lets you manage database objects dependent on each sequence on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target sequence is dependent on these objects.
Referenced Objects	These objects are dependent on the target sequence.

TIP: Click one of the referenced objects to open that object's editor.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Sequences Editor.

Sequences Editor for IBM DB2 LUW for Linux, Unix, and Windows - DDL Tab

The DDL Tab of the Sequences Editor lets you view the SQL code for every sequence on the current datasource. To view DDL for another sequence, click the lists, click the target owner, and then click the target sequence.

For more information, see Sequences Editor.

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Structured Types Editor for IBM DB2 LUW for Linux, Unix, and Windows

The Structured Types Editor lets you:

- Manage attributes for every structured type on the current datasource.
- View structured type DDL.

  TIP: The Object Editor tool bar refresh button lets you refresh Object Editor contents, clear the Object Editors, and log SQL if SQL Logging is turned on.

The following tabs are available in the Sequences Editor:

- Attributes
- Methods
- Method Body
- DDL

Structured Types Editor for IBM DB2 LUW for Linux, Unix, and Windows - Attributes Tab

The Attributes Tab of the Structured Types Editor lets you manage attributes for every structured type on the current datasource.

For more information, see Structured Types Editor.

Structured Types Editor for IBM DB2 LUW for Linux, Unix, and Windows -Methods Tab

The Methods Tab of the Structured Types Editor lets you create and manage methods. A database method of a structured type is a relationship between a set of input data values and a set of result values, where the first input value (or subject argument) has the same type, or is a subtype of the subject type (also called the subject parameter), of the method. For example, a method called CITY, of type ADDRESS, can be passed input data values of type VARCHAR, and the result is an ADDRESS (or a subtype of ADDRESS).

For more information, see Structured Types Editor.

Structured Types Editor for IBM DB2 LUW for Linux, Unix, and Windows - Method Body Tab

The Method Body Tab of the Structured Types Editor lets you type a method body associated with a method.

For more information, see Structured Types Editor.

Structured Types Editor for IBM DB2 LUW for Linux, Unix, and Windows - DDL Tab

The DDL Tab of the Structured Types Editor lets you view the SQL code for every structured type on the current datasource. To view DDL for another structured type, click the lists, click the target owner, and then click the target structured type.

For more information, see Structured Types Editor.

Tables Editor for IBM DB2 LUW for Linux, Unix, and Windows

The Tables Editor lets you:

- Manage table columns.

- Manage table constraints.
- Manage performance constraints.
- Manage table storage.
- Add a comment.
- Manage table dependencies.
- Manage table privileges.
- View table DDL.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Tables Editor:

- Columns
- Constraints
- Performance
- Space
- Comment
- Dependencies
- Privileges
- DDL

Altering Tables for IBM DB2 LUW for Linux, Unix, and Windows

The ALTER TABLE command of Transact-SQL is limited to adding NULL columns to the end of a table and to adding or dropping constraints. Unfortunately, this scenario does not address many requirements of administrators and developers who need to add, delete or modify columns more broadly:

- Add columns anywhere in a table, not just the end
- Add columns that do not permit a NULL value.
- Change the NULL/NOT NULL status of table columns
- Change column datatypes to other compatible types
- Change the length of datatypes
- Delete a column

Due to the limitations of the ALTER TABLE command, the only way to make broader modifications is to write SQL scripts that step through all desired changes. To perform an enhanced table alter, Rapid SQL constructs an SQL script that completes the following steps:

1. Renames the existing table so that the original and its data remain intact
2. Builds a CREATE TABLE statement with the new table definition, including declared defaults, primary key and check constraints
3. Builds an INSERT statement to copy data from the original, renamed table to the new one
4. Builds foreign keys on the new table

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5 Reapplies any privileges granted on the table

6 Rebuilds all dependencies on the new table, including indexes, triggers, procedures, packages, functions and views. When rebuilding procedures, functions, packages and views, Rapid SQL also rebuilds any permissions on them.

For more information, see Columns Tab of the Tables Editor.

Tables Editor for IBM DB2 LUW for Linux, Unix, and Windows - Columns Tab

The Columns Tab of the Tables Editor lets you manage columns for every table on the current datasource. The Columns Tab lets you:

- Add columns
- Insert columns
- Edit columns
- Drop columns
- Order columns

The table below describes the options and functionality on the Columns Tab of the Tables Editor:

Option	Description
Add Button	Select the column and click to open the Add Column dialog box.
Edit Button	Select the column and click to open the Modify Column dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tables Editor.

Tables Editor for IBM DB2 LUW for Linux, Unix, and Windows - Constraints Tab

The Constraints Tab of the Tables Editor lets you manage constraints for every table on the current datasource. Rapid SQL arranges the constraints in a tree structure. The tree contains folders which contain all constraints associated with the target table. The objects are organized in folders based on the type of constraint:

- Primary Key
- Unique Key
- Check Constraint
- Foreign Key

TIP: Double-click a constraint to open a dialog box with detailed information on the target constraint.

The table below describes the options and functionality on the Constraints Tab of the Table Editor:

Option	Description
Add Button	Click the constraint folder and then click the button to open the Index Constraint dialog box.

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Option	Description
Edit Button	Click the constraint folder and then click the button to open the Index Constraint dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tables Editor.

Tables Editor for IBM DB2 LUW for Linux, Unix, and Windows - Performance Tab

The Performance Tab of the Tables Editor lets you manage performance for every table on the current datasource. The table below describes performance options:

Option	Description
Tablespace Placement	Displays placement information.
Log Options	Lets you select log options: Data Capture - Lets you select none or change to include LONGVAR columns. **NOTE:** If you select the Data Capture option, the table name / column name cannot be longer than 18 bytes.
Add Button	Click to open the Select Columns for Partition Dialog Box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tables Editor.

Select Columns for Partition Dialog Box

The Select Columns for Partition Dialog Box lets you select any or all target columns for partitioning.

Completing the Select Columns for Partition Dialog Box

1 In the **Columns** window, do one of the following:

- To select a single column, click the target column.
- To select multiple columns, click the first target column, then press CTRL, and then click all remaining target columns.
- To select all available columns, click **Select All**.

2 Click **OK**.

Rapid SQL selects the target columns for partitioning and closes the Select Columns for Partitioning Dialog Box.

For more information, see Tables Editor.

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Tables Editor for IBM DB2 LUW for Linux, Unix, and Windows - Space Tab

The Storage Tab of the Tables Editor lets you manage storage for every table on the current datasource. The table below describes storage options:

Option	Description
Page Information	Displays parameters.
Row Information	Displays parameters.
Append Table Data	Select to append table data at the end of the last table page.
Cardinality Varies	Select if cardinality varies at runtime.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tables Editor.

Tables Editor for IBM DB2 LUW for Linux, Unix, and Windows - Comment Tab

The Comment Tab of the Tables Editor lets you enter explanatory comments to a table. The comment can be up to 254 characters long. The comments are stored in the REMARKS column of the objects' system catalog table.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tables Editor.

Tables Editor for IBM DB2 LUW for Linux, Unix, and Windows - Dependencies Tab

The Dependencies Tab of the Tables Editor lets you manage database objects dependent on each table on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target procedure is dependent on these objects.
Referenced Objects	These objects are dependent on the target procedure.

TIP: Click one of the referenced objects to open that object's editor.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tables Editor.

Tables Editor for IBM DB2 LUW for Linux, Unix, and Windows - Privileges Tab

The Privileges Tab of the Tables Editor lets you manage permissions for every table on the current datasource.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

>

There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Rapid SQL, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Tables Editor

Tables Editor for IBM DB2 LUW for Linux, Unix, and Windows - DDL Tab

The DDL Tab of the Tables Editor lets you view the SQL code for every table on the current datasource. To view DDL for another table, click the lists, click the target owner, and then click the target table.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tables Editor.

Tablespaces Editor for IBM DB2 LUW for Linux, Unix, and Windows

The Tablespaces Editor lets you:

- Add containers.
- Manage performance.
- Add a comment.
- View tablespace DDL.

TIP: The Object Editor tool bar refresh button lets you refresh Object Editor contents, clear the Object Editors, and log SQL if SQL Logging is turned on.

>

To modify a tablespace:

1 Open an object editor on the tablespace to be modified.

2 Use the following table as a guide to setting properties and performing tasks as you pass through the steps of the wizard:

Step	Settings and tasks	
Properties	**Tablespace properties**	**Type** - Select REGULAR, LARGE, TEMPORARY, or USER TEMPORARY. **Use Automatic Storage** and **Managed By** let you specify whether storage is managed automatically, by the database, or by the system. **Database Partition Group** - lets you select a database partition group. **Buffer Pool** - lets you select a buffer pool. **Drop Recovery** - For REGULAR type tablesapces, lets you enable/disable drop recovery.
	Performance properties	This group lets you specify or select the **Page SIze**, **Extent Size**, **Prefetch Automatic**, **Prefetch Size**,**Overhead**, **Transfer Rate**, and **File System Caching** properties.
	Automatic Storage properties	This group lets you specify or select the **AutoResize**, **Initial Size**, **Increase Size**, **Max Size Unlimited**, and **Max Size** attributes.
Container	For each container in the tablespace, in the **Container Properties** area, provide the following container properties: **Database Partitions**, **Type** (FILE or DEVICE), **Name**, and **Size**, and then click the **New** button. Use the **Delete** button to drop a selected container.	
Comment	Optionally link a comment to this object.	
Space	The **Space** tab of the Tablespace Editor lets you view the table usage and the distribution of space for every tablespace on the current data source.	
Objects	The **Objects** tab of the Tablespace Editor lets you view database objects stored on a tablespace.	
Permissions	For each specific permission to be granted to a login or group, select the cell corresponding to the login/group and specific permission, and click the **Grant** button. To revoke a privilege, select a cell showing a Granted permission and click **Revoke**.	
DDL View	Preview the DDL and if necessary navigate backward through the steps to make corrections. Finally, use the **Execute** button to create the new object.	

Triggers Editor for IBM DB2 LUW for Linux, Unix, and Windows

The Triggers Editor lets you:

- View and modify trigger definitions.
- Manage trigger dependencies.
- Add a comment.
- View trigger DDL.

> **TIP:** The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Triggers Editor:

- Definition
- Type

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- Comment
- Dependencies

Triggers Editor for IBM DB2 LUW for Linux, Unix, and Windows - Definition Tab

The Definition Tab of the Triggers Editor lets you modify a trigger. To modify a trigger, Rapid SQL must drop then create the trigger. The table below describes the options and functionality on the Definition Tab of the Triggers Editor:

Option	Description
Trigger Definition	In the text box, type the changes to the trigger body.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Triggers Editor.

Triggers Editor for IBM DB2 LUW for Linux, Unix, and Windows - Type Tab

The Type Tab of the Triggers Editor lets you view the SQL code for every trigger on the current datasource. To view DDL for another trigger, click the lists, click the target owner, and then click the target trigger.

For more information, see Triggers Editor.

Triggers Editor for IBM DB2 LUW for Linux, Unix, and Windows - Comment Tab

The Comment Tab of the Triggers Editor lets you enter a comment which can be up to 254 characters long. The comments are stored in the REMARKS column of the objects' system catalog table.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Triggers Editor.

Triggers Editor for IBM DB2 LUW for Linux, Unix, and Windows - Dependencies Tab

The Dependencies Tab of the Triggers Editor lets you manage database objects dependent on each trigger on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target procedure is dependent on these objects.
Referenced Objects	These objects are dependent on the target procedure.

TIP: Click one of the referenced objects to open that object's editor.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

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For more information, see Triggers Editor.

Unique Keys Editor for IBM DB2 LUW for Linux, Unix, and Windows

The Unique Keys Editor lets you:

- Manage unique key columns.
- View unique key DDL.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Unique Keys Editor:

- Columns
- DDL

Unique Keys Editor for IBM DB2 LUW for Linux, Unix, and Windows - Columns Tab

The Columns Tab of the Unique Keys Editor lets you manage columns for every unique key on the current datasource. The Columns tab lets you:

- Add columns
- Insert columns
- Edit columns
- Drop columns
- Order columns

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Unique Keys Editor.

Unique Keys Editor for IBM DB2 LUW for Linux, Unix, and Windows - DDL Tab

The DDL Tab of the Unique Keys Editor lets you view the SQL code for every unique key on the current datasource. To view DDL for another unique key, click the lists, click the target owner, and then click the target unique key.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Unique Keys Editor.

User Datatypes Editor for IBM DB2 LUW for Linux, Unix, and Windows

The User Datatypes Editor lets you:

- View user datatype definitions.
- Add a comment.

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- View user datatype DDL.

  TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the User Datatypes Editor:

- Definition
- Comment
- DDL

User Datatypes Editor for IBM DB2 LUW for Linux, Unix, and Windows - Definition Tab

The Definition Tab of the User Datatypes Editor lets you modify a user datatype to change its base datatype properties.

The table below describes the options and functionality on the Definition Tab of the User Datatypes Editor:

Option	Description
Base Datatype	To modify the base datatype properties, click the list, and then click the new base datatype.
Size	To change the base datatype size, in the new box, type the new base datatype size.
Width	To change the base datatype size, in the new box, type the new base datatype width.
Unit	To change the base datatype unit, click the list, and then click the new base datatype unit.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see User Datatypes Editor.

User Datatypes Editor for IBM DB2 LUW for Linux, Unix, and Windows - Comment Tab

The Comment Tab of the User Datatypes Editor lets you enter a comment which can be up to 254 characters long. The comments are stored in the REMARKS column of the objects' system catalog table.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see User Datatypes Editor.

User Datatypes Editor for IBM DB2 LUW for Linux, Unix, and Windows - DDL Tab

The DDL Tab of the User Datatypes Editor lets you view the SQL code for every user datatype on the current datasource. To view DDL for another user datatype, click the lists, click the target owner, and then click the target user datatype.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

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For more information, see User Datatypes Editor.

- Objects
- Users Editor for IBM DB2 LUW for Windows/Unix - Objects Tab

The Objects Tab of the Users Editor lets you view information for every object on the current datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

Views Editor for IBM DB2 LUW for Linux, Unix, and Windows

The Views Editor lets you:

- Manage view columns.
- View and modify view definitions.
- Add a comment.
- Manage view privileges.
- Manage objects dependent on views.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Views Editor:

- Definition
- Columns
- Comment
- Dependencies
- Privileges

Views Editor for IBM DB2 LUW for Linux, Unix, and Windows - Definition Tab

The Definition Tab of the Views Editor lets you modify a view. To modify a view, Rapid SQL must drop then create the view.

The table below describes the options and functionality on the Definition Tab of the Views Editor:

Option	Description
View Text	In the box, type the changes.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Views Editor.

Views Editor for IBM DB2 LUW for Linux, Unix, and Windows - Dependencies Tab

The Dependencies Tab of the Views Editor lets you manage database objects dependent on each view on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target procedure is dependent on these objects.
Referenced Objects	These objects are dependent on the target procedure.

TIP: Click one of the referenced objects to open that object's editor.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Views Editor.

Views Editor for IBM DB2 LUW for Linux, Unix, and Windows - Columns Tab

The Columns Tab of the Views Editor lets you manage columns for every table on the current datasource. The Columns Tab lets you:

- Add columns
- Insert columns
- Edit columns
- Drop columns
- Order columns

The table below describes the information that Rapid SQL displays on the Columns Tab of the Views Editor:

Column Name	Description
Name	the name of the column in the target table.
Datatype	The datatype for the column in the target table. If applicable, Rapid SQL displays the precision in parentheses.
Nulls	The table definition permits nulls in the target table column. Null has no explicitly assigned value. Null is not equivalent to zero or blank. A value of null is not considered to be greater than, less than, or equivalent to any other value, including another value of null.
Default	The name of the column included in the table.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Views Editor.

Views Editor for IBM DB2 LUW for Linux, Unix, and Windows - Comment Tab

The Comment Tab of the Views Editor lets you enter a comment which can be up to 254 characters long. The comments are stored in the REMARKS column of the objects' system catalog table.

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After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Views Editor.

Views Editor for IBM DB2 LUW for Linux, Unix, and Windows - Privileges Tab

The Privileges Tab of the Views Editor lets you manage permissions for every view on the current datasource.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Rapid SQL, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Views Editor

IBM DB2 LUW for OS/390 and z/OS Object Editors

Rapid SQL includes an Object Editor for all supported IBM DB2 LUW for OS/390 and z/OS objects. To see an Editor for a specific object, click the corresponding link in the table below:

NOTE: If an objects has dependent objects, such as tables, triggers, procedures and views, you can view and access their dependent objects in the editor.

Aliases Editor | Check Constraints Editor | Foreign Keys Editor | Functions Editor

Indexes Editor	Packages Editor	Primary Keys Editor	Procedures Editor
Tables Editor	Tablespaces Editor	Triggers Editor	Unique Keys Editor
User Datatypes Editor	Users Editor	Views Editor	

Aliases Editor for IBM DB2 LUW for OS/390 and z/OS

The Aliases Editor lets you:

- Enter a comment.
- View alias DDL.

> **TIP:** The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Aliases Editor:

- Comment
- DDL

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

Aliases Editor for IBM DB2 LUW for OS/390 and z/OS - Comment Tab

The Comment Tab of the Aliases Editor lets you enter a comment which can be up to 254 characters long. The comments are stored in the REMARKS column of the objects' system catalog table.

> **TIP:** To filter the Owner and Object lists, click the Filter button next to each list. the application opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Aliases Editor.

Aliases Editor for IBM DB2 LUW for OS/390 and z/OS - DDL Tab

The DDL Tab of the Aliases Editor lets you view the SQL code for every alias on the current datasource. To view DDL for another alias, click the lists, click the target owner, and then click the target alias.

> **TIP:** To filter the Owner and Object lists, click the Filter button next to each list. the application opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Aliases Editor.

Check Constraints Editor for IBM DB2 LUW for OS/390 and z/OS

The Check Constraints Editor lets you:

- View and modify check constraints.
- View check constraint DDL.

The following tabs are available in the Check Constraints Editor:

- Definition
- DDL

Check Constraints Editor for IBM DB2 LUW for OS/390 and z/OS - Definition Tab

The table below describes the options and functionality on the Definition Tab on the Check Constraints Editor:

Option	Description
Owner	To change the check constraint owner, click the Owner list, and then click the new owner.
Table	To change the table on which the check constraint is placed, click the Table list, and then click the new table.
Check Condition	To modify the check constraint condition, in the text box, type the new check condition.
Table Columns button	Click to open the Paste Columns for Check Constraint dialog box.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. the application opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Check Constraints Editor.

Check Constraints Editor for IBM DB2 LUW for OS/390 and z/OS - DDL Tab

The DDL Tab of the Check Constraints Editor lets you view the SQL code for every check constraint on the current datasource. To view DDL for another check constraint, click the lists, click the target owner, and then click the target check constraint.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. the application opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Check Constraints Editor.

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Databases Editor for IBM DB2 LUW for OS/390 and z/OS

The Databases Editor lets you:

- Alter the database CCSI.
- Manage database privileges.
- Manage database dependencies.
- View database DDL.

> **TIP:** The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Databases Editor:

- Definition
- System Privileges
- Dependencies
- DDL

Databases Editor for IBM DB2 LUW for OS/390 and z/OS - Definition Tab

The Definition Tab of the Databases Editor lets you manage the parameters for the database.

> **TIP:** To filter the Owner and Object lists, click the Filter button next to each list. the application opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Databases Editor.

Databases Editor for IBM DB2 LUW for OS/390 and z/OS - System Privileges

The Privileges Tab of the Databases Editor lets you manage privileges for every database on the current datasource.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

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The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Rapid SQL, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. the application opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Databases Editor.

Databases Editor for IBM DB2 LUW for OS/390 and z/OS - Dependencies

The Dependencies Tab of the Databases Editor lets you manage database objects dependent on each database on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target view is dependent on these objects.
Referenced Objects	These objects are dependent on the target view.

TIP: Click one of the referenced objects to open that object's editor.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. the application opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Databases Editor.

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Databases Editor for IBM DB2 LUW for OS/390 and z/OS - DDL Tab

The DDL Tab of the Databases Editor lets you view the SQL code for every database on the current datasource. To view DDL for another database, click the list, and then click the target database.

> **TIP:** To filter the Owner and Object lists, click the Filter button next to each list. the application opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Databases Editor.

Foreign Keys Editor for IBM DB2 LUW for OS/390 and z/OS

The Foreign Keys Editor lets you:

- Manage foreign key columns.
- View foreign key DDL.

> **TIP:** The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Foreign Keys Editor:

- Columns
- DDL

Foreign Keys Editor for IBM DB2 LUW for OS/390 and z/OS - Columns Tab

The Columns Tab of the Foreign Keys Editor lets you manage columns for every foreign key on the current datasource. The table below describes the options and functionality on the columns Tab of the Foreign Keys Editor:

Option	Description
Table Owner	To change the table owner, click the list, and then click the new table owner.
Table Name	To change the table name, click the list, and then click the new table name.
Primary/Unique Key	To change the primary/unique key, click the list, and then click the new primary/unique key.
On Delete	To change the constraint state action on delete, click the list, and then click the new action.
On Update	To change the constraint state action on update, click the list, and then click the new action.

> **TIP:** To filter the Owner and Object lists, click the Filter button next to each list. the application opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Foreign Keys Editor.

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Foreign Keys Editor for IBM DB2 LUW for OS/390 and z/OS - DDL Tab

The DDL Tab of the Foreign Keys Editor lets you view the SQL code for every foreign key on the current datasource. To view DDL for another foreign key, click the lists, click the target owner, and then click the target foreign key.

> **TIP:** To filter the Owner and Object lists, click the Filter button next to each list. the application opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Foreign Keys Editor.

Functions Editor for IBM DB2 LUW for OS/390 and z/OS

The Functions Editor lets you:

- View and modify function definitions.
- Manage function dependencies.
- Manage function privileges.

> **TIP:** The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Functions Editor:

- Parameters
- Definition
- Comment
- Dependencies
- Privileges
- DDL

Functions Editor for IBM DB2 LUW for OS/390 and z/OS - Parameters Tab

The Parameters Tab of the Functions Editor lets you:

- Add parameters
- Insert parameters
- Modify parameters

The table below describes the options and functionality on the Parameters Tab of the Functions Editor:

Option	Description
Add Button	Click to open the Add Parameter dialog box.
Insert Button	Click to open the Rapid SQL opens the Insert Parameter dialog box.
Edit Button	Click to open the Modify Parameter dialog box.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. the application opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Functions Editor.

Functions Editor for IBM DB2 LUW for OS/390 and z/OS - Definition Tab

The Definition Tab of the Functions Editor lets you modify a function to change its definition by constructing a DROP and CREATE FUNCTION script. The table below describes the options and functionality on the Definition Tab of the Functions Editor:

Option	Description
External Name	To change the external name of the function, type the new external name.
Language	To change the language in which the function body is written, select the new language. If the function body is written in C or OLE, select DB2SQL. If the function body is written in JAVA, select DB2GENERAL.
Parameter Style	To change the parameter style of the function, select the new parameter style.
Deterministic	Select to make the function return different results from calls with the same parameters.
Fenced	Select to make the function run in a memory space separate from the database.
Null Call	Select to make the function executed if a null value is passed as an argument.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. the application opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Functions Editor.

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Functions Editor for IBM DB2 LUW for OS/390 and z/OS - Comment Tab

The Comment Tab of the Functions Editor lets you enter a comment which can be up to 254 characters long. The comments are stored in the REMARKS column of the objects' system catalog table.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. the application opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Functions Editor.

Functions Editor for IBM DB2 LUW for OS/390 and z/OS - Dependencies Tab

The Dependencies Tab of the Functions Editor lets you manage database objects dependent on each function on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target view is dependent on these objects.
Referenced Objects	These objects are dependent on the target view.

TIP: Click one of the referenced objects to open that object’s editor.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. the application opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Functions Editor.

Functions Editor for IBM DB2 LUW for OS/390 and z/OS - Privileges Tab

The Privileges Tab of the Functions Editor lets you manage permissions for every function on the current datasource.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

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The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Rapid SQL, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. the application opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Functions Editor

Functions Editor for IBM DB2 LUW for OS/390 and z/OS - DDL Tab

The DDL Tab of the Functions Editor lets you view the SQL code for every function on the current datasource. To view DDL for another table, click the lists, click the target owner, and then click the target table.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. the application opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Functions Editor.

Groups Editor for IBM DB2 LUW for OS/390 and z/OS

The Groups Editor lets you:

- Manage group privileges.
- View group DDL.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL. The following tabs are available in the Groups Editor:

The following tabs are available in the Groups Editor:

- Object Privileges

>

- System Privileges
- DDL

Groups Editor for IBM DB2 LUW for OS/390 and z/OS - Privileges and System Privileges Tabs

The Privileges and System Privileges tabs of the Groups Editor let you manage permissions for every user on the current datasource.

These tabs display if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. On the Groups Privileges Tab, Rapid SQL populates each row of the table with every available database object. On the System Privileges Tab, Rapid SQL populates each row of the table with the system privileges. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Rapid SQL, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. the application opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Groups Editor

Groups Editor for IBM DB2 LUW for OS/390 and z/OS - DDL Tab

The DDL Tab of the Groups Editor lets you view the SQL code for every table on the current datasource. To view DDL for another table, click the lists, click the target owner, and then click the target table.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. the application opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Groups Editor.

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Indexes Editor for IBM DB2 LUW for OS/390 and z/OS

The Indexes Editor lets you:

- Manage index columns.
- View and modify index attributes.
- Manage index storage.
- Add a comment.
- Manage index privileges.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Indexes Editor:

- Columns
- Properties
- Storage
- Comment
- Privileges

Indexes Editor for IBM DB2 LUW for OS/390 and z/OS - Columns Tab

The Columns Tab of the Indexes Editor lets you manage columns for every index on the current datasource. The Columns Tab lets you:

- Add columns
- Insert columns
- Edit columns
- Drop columns
- Order columns

TIP: To filter the Owner and Object lists, click the Filter button next to each list. the application opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Indexes Editor.

Indexes Editor for IBM DB2 LUW for OS/390 and z/OS - Properties Tab

The Properties Tab of the Indexes Editor lets you set properties. The table below describes the options and functionality on the Properties Tab of the Indexes Editor:

Option	Description
Index Properties	Lets you switch between unique and non-unique indexes.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Indexes Editor.

Indexes Editor for IBM DB2 LUW for OS/390 and z/OS - Storage Tab

The Storage Tab of the Indexes Editor lets you manage storage for every index on the current datasource. The table below describes storage options:

Option	Description
Data Block Storage	Lets you select parameters.
Extents	The unit of space allocated to an object whenever the object needs more space. Initial Extent - The initial space extent (in bytes) allocated to the object. Next Extent - The next extent (in bytes) that the object will attempt to allocate when more space for the object is required. Minimum Extents - The appropriate minimum extents value for the object. Maximum Extents - The appropriate maximum extents value for the object. Percent Increase - Magnifies how an object grows and, can materially affect available free space in a tablespace. Select a value in the corresponding box.
Free Lists	Lets you select parameters.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Indexes Editor.

Indexes Editor for IBM DB2 LUW for OS/390 and z/OS - Comment Tab

The Comment Tab of the Indexes Editor lets you enter a comment which can be up to 254 characters long.The comments are stored in the REMARKS column of the objects' system catalog table.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

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After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Indexes Editor.

Indexes Editor for IBM DB2 LUW for OS/390 and z/OS - Privileges Tab

The Privileges Tab of the Indexes Editor lets you manage permissions for every index on the current datasource.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Rapid SQL, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Indexes Editor

Nodegroups Editor for IBM DB2 LUW for OS/390 and z/OS

The Nodegroups Editor lets you:

- Manage nodegroup partitions.
- Add a comment.
- View nodegroup DDL.

The following tabs are available in the Nodegroups Editor:

- Partitions

>

- Comment
- DDL

Nodegroups Editor for IBM DB2 LUW for OS/390 and z/OS - Partitions Tab

The Partitions Tab of the Nodegroups Editor lets you partition objects on the current datasource. The table below describes the option of this tab:

Option	Description
Partitions NOT in nodegroup grid	To add a partition to a nodegroup, click the nodegroup you want to add to the group or click the Select All button.
Partitions in nodegroup grid	To remove a partition from a nodegroup, click the nodegroup you want to remove from the group or click the Select All button.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Nodegroups Editor.

Nodegroups Editor for IBM DB2 LUW for OS/390 and z/OS - Comment Tab

The Comment Tab of the Nodegroups Editor lets you add explanatory comments to a nodegroup. The comments can be up to 254 characters long. The comments are stored in the REMARKS column of the objects' system catalog table.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL the Preview:Alter dialog box.

For more information, see Nodegroups Editor.

Nodegroups Editor for IBM DB2 LUW for OS/390 and z/OS - DDL Tab

The DDL Tab of the Nodegroups Editor lets you view the SQL code for every nodegroup on the current datasource. To view DDL for another nodegroup, click the lists, click the target owner, and then click the target nodegroup.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Nodegroups Editor.

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Packages Editor for IBM DB2 LUW for OS/390 and z/OS

The Packages Editor lets you:

- View package properties.
- View bind parameters.
- View plans.
- View package contents.
- View and modify package dependencies.
- View run-time environments information.
- Add a comment.
- View and manage package privileges.

> **TIP:** The Object Editor tool bar refresh button lets you refresh Object Editor contents, clear the Object Editors, and log SQL if SQL Logging is turned on.

The following tabs are available in the Packages Editor:

- Properties
- Bind Parameters
- Plan/Packets
- Statements
- Dependencies
- Comment
- Privileges
- Environments
- Commands

Packages Editor for IBM DB2 LUW for OS/390 and z/OS - Properties Tab

The Properties Tab of the Packages Editor displays properties of any package on the datasource.

> **TIP:** To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Packages Editor.

Packages Editor for IBM DB2 LUW for OS/390 and z/OS - Bind Parameters Tab

The Bind Tab of the Packages Editor displays bind parameters of any package on the datasource.

> **TIP:** To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

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After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Packages Editor.

Packages Editor for IBM DB2 LUW for OS/390 and z/OS - Plan/Packets Tab

The Plan/Packets Tab of the Packages Editor displays the plans that contain the package if the package was bound individually, or as part of a complete collection id.

The table below describes the options and functionality on the Plan/Packets Tab of the Packages Editor:

Option	Description
Edit	Click to open the Editor for any selected plan(s).
Rebind	Click to open the Rebind Plan dialog box.
Free	Click to open the Free Plan dialog box.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Packages Editor.

Packages Editor for IBM DB2 LUW for OS/390 and z/OS - Statements Tab

The Statements Tab of the Packages Editor shows the contents of any package statement on the datasource.

The table below describes the options and functionality on the Statements Tab of the Packages Editor:

Option	Description
Explain	Click to copy the selected statement(s) to an ISQL window. Press CTL+A to select all statements.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Packages Editor.

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Packages Editor for IBM DB2 LUW for OS/390 and z/OS - Dependencies Tab

The Dependencies Tab of the Packages Editor lets you manage database objects dependent on each package on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target procedure is dependent on these objects.
Referenced Objects	These objects are dependent on the target procedure.

The table below describes the options and functionalities on the Dependencies Tab of the Packages Editor:

Option	Description
Open	Click to open the editor for the selected object.
Drop	Click to generate drop statements for the selected object(s) and open a dialog window asking for confirmation of destructive action.
Select All	Click to select all objects.
Unselect All	Click to unselect all objects.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Packages Editor.

Packages Editor for IBM DB2 LUW for OS/390 and z/OS - Comment Tab

The Comment Tab of the Packages Editor lets you add explanatory comments to a package. The comment can be up to 254 characters long. The comments are stored in the REMARKS column of the objects' system catalog table.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Packages Editor.

Packages Editor for IBM DB2 LUW for OS/390 and z/OS - Privileges Tab

The Privileges Tab of the Packages Editor lets you manage permissions for every package on the current datasource.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

>

The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Rapid SQL, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Packages Editor

Packages Editor for IBM DB2 LUW for OS/390 and z/OS - Environments Tab

The Environments Tab of the Packages Editor displays run-time environments information for every package on the datasource.

The table below describes the options and functionality on the Environments Tab of the Packages Editor:

Option	Functionality
Edit	Click to open the Connection Editor.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Packages Editor.

>

Packages Editor for IBM DB2 LUW for OS/390 and z/OS - Commands Tab

The Commands Tab of the Packages Editor displays the command that originally built the package, for every package on the datasource.

> **TIP:** To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Packages Editor.

Plans Editor for IBM DB2 LUW for OS/390 and z/OS

The Plans Editor lets you:

- View plan properties.
- View DBRM information.
- Manage packages.
- View entire contents.
- Manage dependencies.
- Manage privileges.
- View run-time environments information.
- View the command that originally built the plan.

The following tabs are available in the Plans Editor:

- Definition
- DBRMs
- Packages
- DBRM/Packages
- Dependencies
- Privileges
- Environments
- Commands

Plans Editor for IBM DB2 LUW for OS/390 and z/OS - Definition Tab

The Definition Tab of the Plans Editor displays properties of any plan on the datasource.

> **TIP:** To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

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For more information, see Plans Editor.

Plans Editor for IBM DB2 LUW for OS/390 and z/OS - DBRMs Tab

The DBRMs Tab of the Plans Editor displays DBRM information for any DBRM on the datasource.

The table below describes the options and functionality on the DBRMs Tab of the Plans Editor:

Option	Description
Open	Click to open the selected DBRM.
Explain	Click to copy the contents of the DBRM to an ISQL window. The Explain output displays in the report pane.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Plans Editor.

Plans Editor for IBM DB2 LUW for OS/390 and z/OS - Packages Tab

The Packages Tab of the Plans Editor displays the packages that are included in the plan.

The table below describes the options and functionality on the Packages Tab of the Plans Editor:

Option	Description
Edit	Click to open the Editor for any selected package(s).
Rebind	Click to open the Rebind Package dialog box.
Free	Click to open the Free Package dialog box.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Plans Editor.

Plans Editor for IBM DB2 LUW for OS/390 and z/OS - DBRM/Packages Tab

The DBRM/Packages Tab of the Plans Editor displays the entire contents of the plan, DBRMs and packages, in a single display. The first column contains either a 'D' for DBRM or 'P' for packages.

The table below describes the options and functionality on the DBRM/Packages Tab of the Plans Editor:

>

Option	Description
Edit	Click to open the Editor for any selected package(s) or DBRM.
Rebind	Click to open the Rebind Package dialog box. Has no effect on the selected DBRM(s).
Free	Click to open the Free Package dialog box. Has no effect on the selected DBRM(s).

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Plans Editor.

Plans Editor for IBM DB2 LUW for OS/390 and z/OS - Dependencies Tab

The Dependencies Tab of the Plans Editor lets you manage database objects dependent on each plan on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target procedure is dependent on these objects.
Referenced Objects	These objects are dependent on the target procedure.

The table below describes the options and functionalities on the Dependencies Tab of the Plans Editor:

Option	Description
Open	Click to open the editor for the selected object.
Drop	Click to generate drop statements for the selected object(s) and open a dialog window asking for confirmation of destructive action.
Select All	Click to select all objects.
Unselect All	Click to unselect all objects.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Plans Editor.

Plans Editor for IBM DB2 LUW for OS/390 and z/OS - Privileges Tab

The Privileges Tab of the Plans Editor lets you manage permissions for every plan on the current datasource.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

> **TIP:** To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Plans Editor

Plans Editor for IBM DB2 LUW for OS/390 and z/OS - Environments Tab

The Environments Tab of the Plans Editor displays run-time environments information for every plan on the datasource.

> **TIP:** To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Plans Editor.

Plans Editor for IBM DB2 LUW for OS/390 and z/OS - Commands Tab

The Commands Tab of the Plans Editor displays the command that originally built the plan, for every plan on the datasource.

> **TIP:** To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Plans Editor.

Primary Keys Editor for IBM DB2 LUW for OS/390 and z/OS

The Primary Keys Editor lets you:

- Manage primary key columns.
- View primary key DDL.

> **TIP:** The refresh button lets you refresh or clear the editor's contents, and log SQL.

>

The following tabs are available in the Primary Keys Editor:

- Columns
- DDL

Primary Keys Editor for IBM DB2 LUW for OS/390 and z/OS - Columns Tab

Rapid SQL lets you modify a primary key to change any of its specifications. To modify a primary key constraint, Rapid SQL drops then recreates the primary key constraint.

The table below describes the options and functionality of the Columns Tab of the Primary Keys Editor:

Option	Description
Owner	To change the primary key owner, click the list, and then click the new owner.
Table	To change the table, click the list, and then click the new table.
Primary Key Constraint	To change the primary key constraint, click the list, and then click the primary key constraint.
Specify the Columns in this Index	To add and to remove primary key columns, select the columns, and then click the Right and Left arrows.
Index Columns	To reorder the primary key columns, select the columns, and then click the Up and Down arrows.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Primary Keys Editor.

Primary Keys Editor for IBM DB2 LUW for OS/390 and z/OS - DDL Tab

The DDL Tab of the Primary Keys Editor lets you view the SQL code for every primary key on the current datasource. To view DDL for another primary key, click the lists, click the target owner, and then click the target primary.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Primary Keys Editor.

Procedures Editor for IBM DB2 LUW for OS/390 and z/OS

The Procedures Editor lets you:

- View and modify procedure definitions.
- Manage procedure dependencies.
- Manage procedure parameters.
- Manage procedure partitions.
- Manage procedure privileges.
- Add a comment.
- View procedure DDL.

The following tabs are available in the Procedures Editor:

- Definition
- Dependencies
- Parameters
- Partitions
- Privileges
- Comment
- DDL

Procedures Editor for IBM DB2 LUW for OS/390 and z/OS - Definition Tab

The Definition Tab of the Procedures Editor lets you modify a procedure to change its definition. To modify a procedure, Rapid SQL must drop then re-create the procedure.

The table below describes the options and functionality of the Definition Tab of the Procedure Editor:

External Name	To change the external name of the function, in the box, type the new external name.
Result Sets	To change the estimated upper bound for result sets returned by the procedure, in the box, type the new upper bound number.
Language	To change the language in which the function body is written, click the list, and then click the new language. If the function body is written in C or OLE, select DB2SQL If the function body is written in JAVA, select DB2GENERAL.
Parameter Style	To change the parameter style of the function, click the list, and then click the new parameter style.
Deterministic	To make the function return different results from calls with the same parameters, select the check box.
Fenced	To make the function run in a memory space separate from the database, select the check box.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Procedures Editor.

Procedures Editor for IBM DB2 LUW for OS/390 and z/OS - Dependencies Tab

The Dependencies Tab of the Procedures Editor lets you manage database objects dependent on each procedure on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target procedure is dependent on these objects.
Referenced Objects	These objects are dependent on the target procedure.

TIP: Click one of the referenced objects to open that object's editor.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

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For more information, see Procedures Editor.

Procedures Editor for IBM DB2 LUW for OS/390 and z/OS - Parameters Tab

The table below describes the options and functionality on the Parameters Tab of the Procedures Editor:

Option	Description
Add Button	Click to open the Add Parameter dialog box.
Insert Button	Click to open the Insert Parameter dialog box.
Edit Button	Click to open the Modify Parameter dialog box.

NOTE: You cannot use host variables in the CALL statement for the name of the procedure.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Procedures Editor.

Procedures Editor for IBM DB2 LUW for OS/390 and z/OS - Partitions Tab

The Partitions Tab of the Procedures Editor lets you partition procedures on the current datasource. The table below describes the option of this tab:

Option	Description
Partition Button	Click to open the Convert to Partitioned Index Wizard.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Procedures Editor.

Procedures Editor for IBM DB2 LUW for OS/390 and z/OS - Privileges Tab

The Privileges and System Privileges tabs of the Object Editor let you manage permissions for every user on the current datasource.

These tabs display if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

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There is a table on every Privileges Tab. On the Object Privileges Tab, Rapid SQL populates each row of the table with every available database object. On the System Privileges Tab, Rapid SQL populates each row of the table with the system privileges. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Rapid SQL, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Procedures Editor

Procedures Editor for IBM DB2 LUW for OS/390 and z/OS - Comment Tab

The Comment Tab of the Procedures Editor lets you enter a comment. Comments can be up to 254 characters long. The comments are stored in the REMARKS column of the objects' system catalog table.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Procedures Editor.

Procedures Editor for IBM DB2 LUW for OS/390 and z/OS - DDL Tab

The DDL Tab of the Procedures Editor lets you view the SQL code for every table on the current datasource. To view DDL for another table, click the lists, click the target owner, and then click the target table.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

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After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Procedures Editor.

Synonyms Editor for IBM DB2 LUW for OS/390 and z/OS

The Synonyms Editor lets you:

- View base object information.
- Manage database objects dependent on each synonym.
- View synonym DDL.

TIP: The Object Editor tool bar refresh button lets you refresh Object Editor contents, clear the Object Editors, and log SQL if SQL Logging is turned on.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

The following tabs are available in the Synonyms Editor:

- Definition
- Dependencies
- DDL

Synonyms Editor for IBM DB2 LUW for OS/390 and z/OS - Definition Tab

The Definition Tab of the Synonyms Editor lets you view base object information for every synonym on the current datasource.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Synonyms Editor.

Synonyms Editor for IBM DB2 LUW for OS/390 and z/OS - Dependencies Tab

The Dependencies Tab of the Synonyms Editor lets you manage database objects dependent on each synonym on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target synonym is dependent on these objects.
Referenced Objects	These objects are dependent on the target synonym.

TIP: Click one of the referenced objects to open that object's editor.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Synonyms Editor.

Synonyms Editor for IBM DB2 LUW for OS/390 and z/OS - DDL Tab

The DDL Tab of the Synonyms Editor lets you view the SQL code for every synonym on the current datasource. To view DDL for another synonym, click the lists, click the target owner, and then click the target synonym.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Synonyms Editor.

Stogroups Editor for IBM DB2 LUW for OS/390 and z/OS

The Stogroups Editor lets you:

- View and modify volumes.
- Manage function privileges.
- View stogroup DDL.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tab is available in the Stogroups Editor:

- DDL

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Stogroups Editor for IBM DB2 LUW for OS/390 and z/OS - DDL Tab

The DDL Tab of the Stogroups Editor lets you view the SQL code for every storage group on the current datasource. To view DDL for another storage group, click the lists, click the target owner, and then click the target storage group.

> **TIP:** To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Stogroups Editor.

Tables Editor for IBM DB2 LUW for OS/390 and z/OS

The Tables Editor lets you:

- Manage table columns.
- Manage table constraints.
- Manage performance constraints.
- Manage table storage.
- Add a comment.
- Manage table dependencies.
- Manage table privileges.
- View table DDL.

> **TIP:** The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Tables Editor:

- Columns
- Constraints
- Performance
- Storage
- Comment
- Dependencies
- Privileges
- DDL

Altering Tables for IBM DB2 LUW for OS/390 and z/OS

The ALTER TABLE command of Transact-SQL is limited to adding NULL columns to the end of a table and to adding or dropping constraints. Unfortunately, this scenario does not address many requirements of administrators and developers who need to add, delete or modify columns more broadly:

- Add columns anywhere in a table, not just the end
- Add columns that do not permit a NULL value.

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- Change the NULL/NOT NULL status of table columns
- Change column datatypes to other compatible types
- Change the length of datatypes
- Delete a column

Due to the limitations of the ALTER TABLE command, the only way to make broader modifications is to write SQL scripts that step through all desired changes. To perform an enhanced table alter, Rapid SQL constructs an SQL script that completes the following steps:

1. Renames the existing table so that the original and its data remain intact
2. Builds a CREATE TABLE statement with the new table definition, including declared defaults, primary key and check constraints
3. Builds an INSERT statement to copy data from the original, renamed table to the new one
4. Builds foreign keys on the new table
5. Reapplies any privileges granted on the table
6. Rebuilds all dependencies on the new table, including indexes, triggers, procedures, packages, functions and views. When rebuilding procedures, functions, packages and views, Rapid SQL also rebuilds any permissions on them

For more information, see Columns Tab of the Tables Editor.

Tables Editor for IBM DB2 LUW for OS/390 and z/OS - Columns Tab

The Columns Tab of the Tables Editor lets you manage columns for every table on the current datasource. The Columns Tab lets you:

- Add columns
- Insert columns
- Edit columns
- Drop columns
- Order columns

The table below describes the options and functionality on the Columns Tab of the Tables Editor:

Option	Description
Add Button	Select the column and click to open the Add Column dialog box.
Edit Button	Select the column and click to open the Modify Column dialog box.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tables Editor.

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Tables Editor for IBM DB2 LUW for OS/390 and z/OS - Constraints Tab

The Constraints Tab of the Tables Editor lets you manage constraints for every table on the current datasource. Rapid SQL arranges the constraints in a tree structure. The tree contains folders which contain all constraints associated with the target table. The objects are organized in folders based on the type of constraint:

- Primary Key
- Unique Key
- Check Constraint
- Foreign Key

TIP: Double-click a constraint to open a dialog box with detailed information on the target constraint.

The table below describes the options and functionality on the Constraints Tab of the Table Editor:

Option	Description
Add Button	Click the constraint folder and then click the button to open the Index Constraint dialog box.
Edit Button	Click the constraint folder and then click the button to open the Index Constraint dialog box.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tables Editor.

Tables Editor for IBM DB2 LUW for OS/390 and z/OS - Performance Tab

The Performance Tab of the Tables Editor lets you manage performance for every table on the current datasource. The table below describes performance options:

Option	Description
Parallel Query Option	Lets you select parameters.
Logging	Lets you select parameters.
Cache	Lets you select parameters.
Add Button	Click to open the Select Columns for Partition Dialog Box.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tables Editor.

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Select Columns for Partition Dialog Box for IBM DB2 LUW for OS/390 and z/OS

The Select Columns for Partition Dialog Box lets you select any or all target columns for partitioning.

Completing the Select Columns for Partition Dialog Box

1 In the **Columns** window, do one of the following:

- To select a single column, click the target column.
- To select multiple columns, click the first target column, then press CTRL, and then click all remaining target columns.
- To select all available columns, click **Select All**.

2 Click **OK**.

Rapid SQL selects the target columns for partitioning and closes the Select Columns for Partitioning Dialog Box.

For more information, see Tables Editor.

Tables Editor for IBM DB2 LUW for OS/390 and z/OS - Storage Tab

The Storage Tab of the Tables Editor lets you manage storage for every table on the current datasource. The table below describes storage options:

Option	Description
Data Block Storage	Lets you select parameters.
Extents	The unit of space allocated to an object whenever the object needs more space. Initial Extent - The initial space extent (in bytes) allocated to the object. Next Extent - The next extent (in bytes) that the object will attempt to allocate when more space for the object is required. Minimum Extents - The appropriate minimum extents value for the object. Maximum Extents - The appropriate maximum extents value for the object. Percent Increase - Magnifies how an object grows and, can materially affect available free space in a tablespace. Select a value in the corresponding box.
Free Lists	Lets you select parameters.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tables Editor.

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Tables Editor for IBM DB2 LUW for OS/390 and z/OS - Comment Tab

The Comment Tab of the Tables Editor lets you enter explanatory comments to a table. The comment can be up to 254 characters long. The comments are stored in the REMARKS column of the objects' system catalog table.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tables Editor.

Tables Editor for IBM DB2 LUW for OS/390 and z/OS - Dependencies Tab

The Dependencies Tab of the Tables Editor lets you manage database objects dependent on each table on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target procedure is dependent on these objects.
Referenced Objects	These objects are dependent on the target procedure.

TIP: Click one of the referenced objects to open that object's editor.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tables Editor.

Tables Editor for IBM DB2 LUW for OS/390 and z/OS - Privileges Tab

The Privileges Tab of the Tables Editor lets you manage permissions for every table on the current datasource.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

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The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Rapid SQL, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Tables Editor

Tables Editor for IBM DB2 LUW for OS/390 and z/OS - DDL Tab

The DDL Tab of the Tables Editor lets you view the SQL code for every table on the current datasource. To view DDL for another table, click the lists, click the target owner, and then click the target table.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tables Editor.

Tablespaces Editor for IBM DB2 LUW for OS/390 and z/OS

The Tablespaces Editor lets you:

- Add containers.
- Manage performance.
- Add a comment.
- View tablespace DDL.

TIP: The Object Editor tool bar refresh button lets you refresh Object Editor contents, clear the Object Editors, and log SQL if SQL Logging is turned on.

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The following tabs are available in the Tablespaces Editor:

- Container
- Partition
- Definition
- Space
- Objects
- Privileges
- Performance
- Comment
- DDL

Tablespaces Editor for IBM DB2 LUW for OS/390 and z/OS - Container Tab

The Container Tab of the Tablespace Editor lets you add containers to a tablespace.

NOTE: This option is only available for database managed tablespaces.

The table below describes the options and functionality on the Container Tab of the Tablespaces Editor:

Option	Description
Add Button	Click to open the Add Container dialog box.
Edit Button	Click to open the Change Container Size dialog box.

TIP: When you partition tablespaces across multiple nodes, the Tablespace Editor shows all relevant tablespace information, including node placement, all in one tab. In addition, you can add and edit file or device containers across the primary and sub nodes of the EEE environment. For Database Managed Space tablespaces, you can assign and update container size parameters in KB, MB, GB and Page increments.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tablespaces Editor.

Add Container/Modify Dialog Box for IBM DB2 LUW for OS/390 and z/OS

The table below describes the options and functionality on the Add Container dialog box:

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Option	Description
File or Device	Select the media to be used by clicking an option button.
File	In the box, type the name and location of the device directory or click the Browse button.
Pages	In the box, type the number of pages in the container.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tablespaces Editor.

Tablespaces Editor for IBM DB2 LUW for OS/390 and z/OS - Partition Tab

The Partition Tab of the Tablespace Editor lets you partition tablespace on the current datasource. The table below describes the options and functionality on the Partitions Tab of the Tablespaces Editor:

Option	Description
Clone	Click to open the Clone Partition dialog box.
Edit	Click to open the Partition Editor.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tablespaces Editor.

Tablespaces Editor for IBM DB2 LUW for OS/390 and z/OS - Definition Tab

The Definition Tab of the Tablespaces Editor lets you manage the parameters for the tablespace.

For more information, see Tablespaces Editor.

Tablespace Editor - Space Tab

The Space Tab of the Tablespace Editor lets you view the table usage and the distribution of space for every tablespace on the current datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tablespaces Editor.

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Tablespace Editor - Objects Tab

The Objects Tab of the Tablespace Editor lets you view information for every object on the current datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tablespaces Editor.

Tablespace Editor - Privileges Tab

The Privileges Tab of the Tablespace Editor lets you manage permissions for every tablespace on the current datasource.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Rapid SQL, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Tablespaces Editor

Tablespaces Editor for IBM DB2 LUW for OS/390 and z/OS - Performance Tab

The Performance Tab of the Tablespaces Editor lets you manage performance for every tablespace on the current datasource. The table below describes performance options

Option	Description
Prefetch	To change the prefetch size, in the box, type the new prefetch size.

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Option	Description
Overhead	To change the overhead rate, in the box, type the new overhead rate in milliseconds.
Transfer Rate	To change the transfer rate, in the box, type the new transfer rate in milliseconds.
Bufferpool	To change the bufferpool, click the list, and then click the new bufferpool.

Option	Description
Prefetch	To change the prefetch size, in the box, type the new prefetch size.
Overhead	To change the overhead rate, in the box, type the new overhead rate in milliseconds.
Transfer Rate	To change the transfer rate, in the box, type the new transfer rate in milliseconds.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tablespaces Editor.

Tablespaces Editor for IBM DB2 LUW for OS/390 and z/OS - Comment Tab

The Comment Tab of the Tablespaces Editor lets you enter a comment which can be up to 254 characters long. The comments are stored in the REMARKS column of the objects' system catalog table.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tablespaces Editor.

Tablespaces Editor for IBM DB2 LUW for OS/390 and z/OS - DDL Tab

The DDL Tab of the Tablespaces Editor lets you view the SQL code for every tablespace on the current datasource. To view DDL for another table, click the lists, click the target owner, and then click the target table.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tablespaces Editor.

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Triggers Editor for IBM DB2 LUW for OS/390 and z/OS

The Triggers Editor lets you:

- View and modify trigger definitions.
- Manage trigger dependencies.
- Add a comment.
- View trigger DDL.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Triggers Editor:

- Definition
- Dependencies
- Comment
- DDL

Triggers Editor for IBM DB2 LUW for OS/390 and z/OS - Definition Tab

The Definition Tab of the Triggers Editor lets you modify a trigger. To modify a trigger, Rapid SQL must drop then create the trigger. The table below describes the options and functionality on the Definition Tab of the Triggers Editor:

Option	Description
Trigger Definition	In the text box, type the changes to the trigger body.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Triggers Editor.

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Triggers Editor for IBM DB2 LUW for OS/390 and z/OS - Dependencies Tab

The Dependencies Tab of the Triggers Editor lets you manage database objects dependent on each trigger on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target procedure is dependent on these objects.
Referenced Objects	These objects are dependent on the target procedure.

TIP: Click one of the referenced objects to open that object's editor.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Triggers Editor.

Triggers Editor for IBM DB2 LUW for OS/390 and z/OS - Comment Tab

The Comment Tab of the Triggers Editor lets you enter a comment which can be up to 254 characters long. The comments are stored in the REMARKS column of the objects' system catalog table.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Triggers Editor.

Triggers Editor for IBM DB2 LUW for OS/390 and z/OS - DDL Tab

The DDL Tab of the Triggers Editor lets you view the SQL code for every trigger on the current datasource. To view DDL for another trigger, click the lists, click the target owner, and then click the target trigger.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Triggers Editor.

Unique Keys Editor for IBM DB2 LUW for OS/390 and z/OS

The Unique Keys Editor lets you:

- Manage unique key columns.

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- View unique key DDL.

  TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Unique Keys Editor:

- Columns
- DDL

Unique Keys Editor for IBM DB2 LUW for OS/390 and z/OS - Columns Tab

The Columns Tab of the Unique Keys Editor lets you manage columns for every unique key on the current datasource. The Columns Tab lets you:

- Add columns
- Insert columns
- Edit columns
- Drop columns
- Order columns

  TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Unique Keys Editor.

Unique Keys Editor for IBM DB2 LUW for OS/390 and z/OS - DDL Tab

The DDL Tab of the Unique Keys Editor lets you view the SQL code for every unique key on the current datasource. To view DDL for another unique key, click the lists, click the target owner, and then click the target unique key.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Unique Keys Editor.

User Datatypes Editor for IBM DB2 LUW for OS/390 and z/OS

The User Datatypes Editor lets you:

- View user datatype definitions.
- Add a comment.
- View user datatype DDL.

  TIP: The Refresh button lets you refresh or clear the editor's contents, and log SQL.

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The following tabs are available in the User Datatypes Editor:

- Definition
- Comment
- DDL

User Datatypes Editor for IBM DB2 LUW for OS/390 and z/OS - Definition Tab

The Definition Tab of the User Datatypes Editor lets you modify a user datatype to change its base datatype properties.

The table below describes the options and functionality on the Definition Tab of the User Datatypes Editor:

Option	Description
Base Datatype	To modify the base datatype properties, click the list, and then click the new base datatype.
Size	To change the base datatype size, in the new box, type the new base datatype size.
Width	To change the base datatype size, in the new box, type the new base datatype width.
Unit	To change the base datatype unit, click the list, and then click the new base datatype unit.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see User Datatypes Editor.

User Datatypes Editor for IBM DB2 LUW for OS/390 and z/OS - Comment Tab

The Comment Tab of the User Datatypes Editor lets you enter a comment which can be up to 254 characters long. The comments are stored in the REMARKS column of the objects' system catalog table.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see User Datatypes Editor.

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User Datatypes Editor for IBM DB2 LUW for OS/390 and z/OS - DDL Tab

The DDL Tab of the User Datatypes Editor lets you view the SQL code for every user datatype on the current datasource. To view DDL for another user datatype, click the lists, click the target owner, and then click the target user datatype.

> **TIP:** To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see User Datatypes Editor.

Users Editor for IBM DB2 LUW for OS/390 and z/OS

The Users Editor lets you:

- Manage user privileges.
- Manage user dependencies.
- View user DDL.

> **TIP:** The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Users Editor:

- Objects
- System Privileges
- Dependencies
- DDL

Users Editor for IBM DB2 LUW for OS/390 and z/OS - Objects Tab

The Objects Tab of the Users Editor lets you manage database objects associated with every user on the current datasource. Rapid SQL organizes the objects in a tree structure with folders containing the objects.

> **TIP:** To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Users Editor.

Users Editor for IBM DB2 LUW for OS/390 and z/OS - System Privileges Tab

The System Privileges tabs of the Users Editor lets you manage permissions for every user on the current datasource.

These tabs display if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. On the System Privileges Tab, Rapid SQL populates each row of the table with the system privileges. The legend, on every Privileges Tab, explains the marks in the table.

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The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Rapid SQL, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Users Editor

Users Editor for IBM DB2 LUW for OS/390 and z/OS - Dependencies Tab

The Dependencies Tab of the Users Editor lets you manage database objects dependent on each user on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target procedure is dependent on these objects.
Referenced Objects	These objects are dependent on the target procedure.

TIP: Click one of the referenced objects to open that object's editor.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Users Editor.

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Users Editor for IBM DB2 LUW for OS/390 and z/OS - DDL Tab

The DDL Tab of the Users Editor lets you view the SQL code for every user on the current datasource. To view DDL for another user, click the lists, click the target owner, and then click the target user.

> **TIP:** To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Users Editor.

Views Editor for IBM DB2 LUW for OS/390 and z/OS

The Views Editor lets you:

- Manage view columns.
- View and modify view definitions.
- Add a comment.
- Manage view privileges.
- Manage objects dependent on views.

> **TIP:** The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Views Editor:

- Definition
- Columns
- Comment
- Dependencies
- Privileges

Views Editor for IBM DB2 LUW for OS/390 and z/OS - Definition Tab

The Definition Tab of the Views Editor lets you modify a view. To modify a view, Rapid SQL must drop then create the view.

The table below describes the options and functionality on the Definition Tab of the Views Editor:

Option	Description
View Text	In the box, type the changes.

> **TIP:** To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

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For more information, see Views Editor.

Views Editor for IBM DB2 LUW for OS/390 and z/OS - Dependencies Tab

The Dependencies Tab of the Views Editor lets you manage database objects dependent on each view on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target procedure is dependent on these objects.
Referenced Objects	These objects are dependent on the target procedure.

TIP: Click one of the referenced objects to open that object's editor.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Views Editor.

Views Editor for IBM DB2 LUW for OS/390 and z/OS - Columns Tab

The Columns Tab of the Views Editor lets you manage columns for every table on the current datasource. The Columns Tab lets you:

- Add columns
- Insert columns
- Edit columns
- Drop columns
- Order columns

The table below describes the information that Rapid SQL displays on the Columns Tab of the Views Editor:

Column Name	Description
Name	the name of the column in the target table.
Datatype	The datatype for the column in the target table. If applicable, Rapid SQL displays the precision in parentheses.
Nulls	The table definition permits nulls in the target table column. Null has no explicitly assigned value. Null is not equivalent to zero or blank. A value of null is not considered to be greater than, less than, or equivalent to any other value, including another value of null.
Default	The name of the column included in the table.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

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After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Views Editor.

Views Editor for IBM DB2 LUW for OS/390 and z/OS - Comment Tab

The Comment Tab of the Views Editor lets you enter a comment which can be up to 254 characters long. The comments are stored in the REMARKS column of the objects' system catalog table.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Views Editor.

Views Editor for IBM DB2 LUW for OS/390 and z/OS - Privileges Tab

The Privileges Tab of the Views Editor lets you manage permissions for every view on the current datasource.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Rapid SQL, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Views Editor

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Microsoft SQL Server Object Editors

Rapid SQL includes an Object Editor for all supported Microsoft SQL Server objects. To see an Editor for a specific object, click the corresponding link in the table below:

NOTE: If an objects has dependent objects, such as tables, triggers, procedures and views, you can view and access their dependent objects in the editor.

Aliases Editor	Check Constraints Editor	Databases Editor	Defaults Editor
Extended Procedures Editor	Foreign Keys Editor	Indexes Editor	Primary Keys Editor
Procedures Editor	Rules Editor	Tables Editor	Triggers Editor
Unique Keys Editor	Users Editor	User Datatypes Editor	User Messages Editor
Views Editor			

Aliases Editor for Microsoft SQL Server

The Aliases Editor lets you:

- View and modify definition of the alias.
- View alias DDL.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

Check Constraints Editor for Microsoft SQL Server

The Check Constraints Editor lets you:

- View and modify check constraints.
- View check constraint DDL.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The table below describes the tabs available in the Check Constraints Editor:

Tab	Description
Definition	Lets you view and modify the check condition, enable/disable the check constraint (Microsoft SQL Server 7.0 or later) and manage columns for the check constraint.
DDL	Lets you view the SQL code for every check constraint on the current datasource. To view DDL for another check constraint, click the lists, click the target owners and/or tables, and then click the target check constraint.

The following functionality is available on the Check Constraints Editor Command menu:

- Rename
- Status

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Box	Description
Device Number	The unique number for the database device.
Default Device	Whether the database device is the default device. CREATE and ALTER DATABASE commands that do not specify a location use the default database device.
Physical Name	The name of the Windows file for the target database device.
Description	**OPTIONAL:** Any user-defined comments for the target database device.
First Virtual Page	The first page number for the target database device.
Last Virtual Page	The last page number for the target database device.

Option	Description
Device Name	Displays the database device name.
Mirror Name	Lets you specify the mirror name.
Serial Writes	Forces serial writes to the mirror device.
Contiguous	Specifies a contiguous mirror device used when the initial medium becomes full, allowing continuation of the backup operation.

Option	Description
Device Name	Displays the database device name.
Mirror Name	Displays the mirror name.
Mirror Side	Lets you specify the primary or secondary device. Primary - Selects the database device mirror side. Secondary - Selects the mirror device mirror side.
Unmirroring Mode	Lets you specify the unmirror as temporary or permanent. Retain - Sets the unmirror as temporary. Remove - Sets the unmirror as permanent.

Databases Editor for Microsoft SQL Server

The Databases Editor lets you:

- Manage database placement.
- Manage database options.
- Manage database space.
- View database DDL.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Databases Editor:

- Placement
- Transaction Log (Microsoft SQL Server 7.0 or later)

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- Options
- Space
- DDL

The following functionality is available on the Databases Editor Command menu:

- Rename
- Update Statistics
- DBCC
- Checkpoint
- Shrink
- Set Online/Offline

Databases Editor for Microsoft SQL Server - Placement Tab

The Placement Tab of the Databases Editor lets you manage following for database on the current datasource:

- Database Owner
- Database File

When changing the database owner (dbo) select the check box to transfer the existing aliases of users who could act as the old dbo (including their permissions) to the new dbo.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Databases Editor.

Databases Editor for Microsoft SQL Server - Transaction Log Tab

The Transaction Log Tab of the Databases Editor lets you manage transaction logs for every database on the current datasource. Transaction Logs are available in Microsoft SQL Server 7.0 or later.

The table below describes the options and functionality on the Transaction Log Tab of the Databases Editor:

Column	Description
Name	The name of the target database.
Physical Name	The name and path of the target transaction log files. For example, d:\MSSQL7\data\Picadilly_log.LDF.
Size	The current size of the target transaction log file, in MB.
Max Size	Indicates the maximum size that the transaction log files can become, in MB.
File Growth	Indicates the growth of the transaction log files, in percentage.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Databases Editor.

Databases Editor for Microsoft SQL Server - Options Tab

The Options Tab of the Databases Editor lets you view and modify the database options for every database on the current datasource. The table below describes the available database options:

Option	Description
ANSI null default	Specifies whether database columns are designed as NULL or NOT NULL by default.
ANSI nulls	Controls database default nullability. For ANSI compatibility, selecting the ANSI null default database option, changes the database default to NULL. When this option is selected, all user-defined data types or columns that are not explicitly defined as NOT NULL during a CREATE TABLE or ALTER TABLE statement default to allow null values. Columns that are defined with constraints follow constraint rules regardless of this setting. This option is for Microsoft SQL Server 7.0 or later.
ANSI padding	Controls the way the column stores values shorter than the defined size of the column, and the way the column stores values that have trailing blanks in char, varchar, binary, and varbinary data.
ANSI warnings	Controls ANSI warnings. When selected, errors or warnings are issued when conditions such as "divide by zero" occur or null values appear in aggregate functions. When not selected, no warnings are raised when null values appear in aggregate functions, and null values are returned when conditions such as "divide by zero" occur. This option must be selected when you create or manipulate indexes on computed columns or indexed views. This option is for Microsoft SQL Server 7.0 or later.
arithabort	Terminates a query when an overflow or divide-by-zero error occurs during query execution.
auto create statistics	Specifies that any missing statistics needed by a query for optimization are built automatically during optimization. This option is for Microsoft SQL Server 7.0 or later.
auto update statistics	Specifies that any out of date statistics needed by a query for optimization are built automatically during optimization. This option is for Microsoft SQL Server 7.0 or later.
auto close	Specifies that the database is shut down after its resources are freed and all users exit. This option is for Microsoft SQL Server 7.0 or later.
auto shrink	Specifies that the database files are candidates for automatic, periodic shrinking. This option is for Microsoft SQL Server 7.0 or later.

Option	Description
concat null yields null	Specifies behavior when concatenating a null value. When selected, if one of the operands in a concatenation operation is NULL, the result of the operation is NULL. For example, concatenating the character string "This is" and NULL results in the value NULL, rather than the value "This is". When not selected, concatenating a null value with a character string yields the character string as the result; the null value is treated as an empty character string. This option must be selected when you create or manipulate indexes on computed columns or indexed views. This option is for Microsoft SQL Server 7.0 or later.
cursor close on commit	Specifies the cursor behavior and scope. When selected, any open cursors are closed automatically (in compliance with SQL-92) when a transaction is committed. By default, this setting is OFF and cursors remain open across transaction boundaries, closing only when the connection is closed or when they are explicitly closed. This option is for Microsoft SQL Server 7.0 or later.
db chaining	Configures cross-database ownership chaining for the instance of SQL Server. This security enhancement was added in SQL Server 2000 SP3 to allow you to manage cross-database security. This server option allows you to control cross-database ownership chaining at the database level or to allow cross-database ownership chaining for all databases.
dbo use only	Allows only the database owner access to the database.
default to local cursor	Specifies the cursor behavior and scope. When this option is selected, and a cursor is not defined as GLOBAL when it is created, the scope of the cursor is local to the batch, stored procedure, or trigger in which the cursor was created. The cursor name is valid only within this scope. The cursor can be referenced by local cursor variables in the batch, stored procedure, or trigger, or a stored procedure OUTPUT parameter. The cursor is implicitly deallocated when the batch, stored procedure, or trigger terminates, unless it was passed back in an OUTPUT parameter. If it is passed back in an OUTPUT parameter, the cursor is deallocated when the last variable referencing it is deallocated or goes out of scope. This option is for Microsoft SQL Server 7.0 or later.
merge publish	Specifies the database merge replication behavior. When selected, the database can be used for merge replication publications. When not selected, the database cannot be published for merge replication. By default, merge publish is false. This option is for Microsoft SQL Server 7.0 or later.
numeric roundabout	Specifies the level of error reporting generated when rounding in an expression causes a loss of precision.
offline	Specifies the status of the database. When selected, the database is closed and shutdown cleanly and marked offline. You should use this option when a database is to be distributed on removable media. The database cannot be modified while the database is offline. When not selected, the database is open and available for use.

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Option	Description
published	Specifies database publishing. When replication is installed, this option permits the tables of a database to be published for replication. When selected, this option enables publication. When not selected, this option disables publishing, drops all publications, and unmarks all transactions that were marked for replication in the transaction log.
quoted identifier	Specifies that Microsoft SQL Server enforces ANSI rules regarding quotation marks. This option specifies that double quotation marks can be used for identifiers, such as column and table names. Character strings must be enclosed in single quotation marks. This option is for Microsoft SQL Server 7.0 or later.
read only	Prevents users from modifying, but not retrieving data from the database.
recursive triggers	Enables recursive firing of triggers. This option is for Microsoft SQL Server 7.0 or later.
select into/bulkcopy/pllsort	Permits operations (such as fast bulk copy) that do not keep a complete record of the transaction in the transaction log.
single user	Restricts database access to one user at a time.
subscribed	Specifies database subscriptions. When selected, the database can be subscribed for publication. When not selected, the database cannot be subscribed for publication.
torn page detection	Specifies that incomplete pages can be detected. This option is for Microsoft SQL Server 7.0 or later.
trunc log on chkpt	Causes Microsoft SQL Server to truncate the transaction log every time the automatic checkpoint process occurs. Truncate does not occur on manual checkpoints.

TIP: The Compatible level option sets certain database behaviors to be compatible with the specified earlier version of Microsoft® SQL Server. The compatibility level affects the behaviors in the specified database, not the entire server.To set database options for all future databases, set the database options on the model database.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Databases Editor.

Databases Editor for Microsoft SQL Server - Space Tab

The Space Tab of the Databases Editor lets you view pie charts showing the data space usage and the transaction log (if available) space usage for every database on the current datasource.

TIP: Double-click a slice in the pie chart for detailed statistics.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Databases Editor.

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Databases Editor for Microsoft SQL Server - DDL Tab

The DDL Tab of the Databases Editor lets you view the SQL code for every database on the current datasource. To view DDL for another database, click the list, and then click the target database.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Databases Editor.

Defaults Editor for Microsoft SQL Server

The Defaults Editor lets you:

- View and modify default expressions.
- View default DDL.
- Manage default bindings.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Defaults Editor:

- Definition
- Bindings

TIP: The Defaults Editor Command menu offers the Rename functionality.

Defaults Editor for Microsoft SQL Server - Definition Tab

The Definition Tab of the Defaults Editor lets you do the following for every default on the current datasource:

- View and modify the default value
- View the DDL

To view DDL for another default, click the lists, click the target owner, and then click the target default.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Defaults Editor.

Defaults Editor for Microsoft SQL Server- Bindings Tab

The Bindings Tab of the Defaults Editor lets you manage object bindings for every default on the current datasource. Microsoft SQL Server lets you bind a default to user-defined datatypes and to columns in any table in a database (if the default value is appropriate to the datatype of the column.)

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see

Defaults Editor

Bind and Unbind Objects to Default Dialog Boxes

Bind and Unbind Objects to Default Dialog Boxes for Microsoft SQL Server

The table below describes the options and functionality on the Bind Objects to Default dialog box:

Option	Description
Default	Displays the default name.
Bind Type	Lets you choose the type of bind. Select a column or a datatype bind. Do not modify existing columns - If you select Datatypes, you can specify not to modify existing columns.
Table	If you select columns as the bind type, you can select the table from where the columns are bound.
Objects to be bound box	Displays the objects available to bind.
Select/Unselect All button	Lets you select or deselect all the objects in the Objects to be bound box. To select multiple objects, shift-click and select the target objects.

The table below describes the options and functionality on the Unbind Objects to Default dialog box:

Option	Description
Bound Objects	Select the table column(s) or user datatype(s) that you want to unbind.

Extended Procedures Editor for Microsoft SQL Server

The Procedures Editor lets you:

- View and modify extended procedure definitions.
- Manage extended procedure dependencies.
- Manage extended procedure privileges.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

NOTE: Procedures are on the master database.

The following tabs are available in the Procedures Editor:

- Definition
- Dependencies
- Privileges

The following functionality is available on the Procedures Editor Command menu:

- Rename
- Execute

Procedures Editor for Microsoft SQL Server - Definition Tab

The Definition Tab of the Procedures Editor lets you do the following for every extended procedure on the current datasource:

>

- View and modify the dynamic-link library (DLL) name
- View the data definition language (DDL)

To view DDL for another extended procedure, click the lists, click the target owner, and then click the target extended procedure.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Procedures Editor.

Procedures Editor for Microsoft SQL Server - Dependencies Tab

The Dependencies Tab of the Procedures Editor lets you manage database objects dependent on each extended procedure on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target extended procedure is dependent on these objects.
Referenced Objects	These objects are dependent on the target extended procedure.

TIP: Click one of the referenced objects to open that object's editor.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Procedures Editor.

Procedures Editor for Microsoft SQL Server - Privileges Tab

The Privileges Tab of the Extended Stored Procedures Editor lets you manage permissions for every extended procedure on the current datasource.

The table below describes the options and functionality on the Privileges Tab.

Option	Description
User	Lets you select the object user.
Object Type	Lets you select the object type.
Owner	Lets you select the object owner.
Privilege Level	Lets you select the privilege level.
Grant	Opens the Grant Privilege(s) To dialog box.
Revoke	Opens the Revoke Privilege(s) From dialog box.
Deny	**MICROSOFT SQL SERVER ONLY:** Opens the Deny Privileges From dialog box.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

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There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Procedures Editor

Foreign Keys Editor for Microsoft SQL Server

The Foreign Keys Editor lets you:

- Manage foreign key columns.
- View foreign key DDL.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Foreign Keys Editor:

- Columns
- DDL

TIP: The Foreign Keys Editor Command menu offers the Rename functionality.

Foreign Keys Editor for Microsoft SQL Server - Columns Tab

The Columns Tab of the Foreign Keys Editor lets you:

- View and modify the column mapping foreign keys.
- Enable/Disable foreign keys.
- Select the Not for Replication option foreign keys.

To view column information for another foreign key, click the lists, click the target database, owner, table, and/or primary/unique key, and then click the target foreign key.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Foreign Keys Editor.

Foreign Keys Editor for Microsoft SQL Server - DDL Tab

The DDL Tab of the Foreign Keys Editor lets you view the SQL code for every foreign key on the current datasource. To view DDL for another foreign key, click the lists, click the target owners and/or tables, and then click the target foreign key.

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After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Foreign Keys Editor.

Functions Editor for Microsoft SQL Server

The Functions Editor lets you:

- View and modify function definitions.
- Manage function dependencies.
- Manage function privileges.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

NOTE: Functions are available in Microsoft SQL Server 8.0 or later.

The following tabs are available in the Functions Editor:

- Definition
- Dependencies
- Privileges

TIP: The Functions Editor Command menu offers the Rename functionality.

Functions Editor for Microsoft SQL Server - Definition Tab

The Definition Tab of the Functions Editor lets you do the following for every function on the current datasource:

- View and modify the dynamic-link library (DLL)
- View the data definition language (DDL)

To view DDL for another function, click the lists, click the target owner, and then click the target function.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Functions Editor.

Functions Editor for Microsoft SQL Server - Dependencies Tab

The Dependencies Tab of the Functions Editor lets you manage database objects dependent on each function on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target function is dependent on these objects.
Referenced Objects	These objects are dependent on the target function.

TIP: Click one of the referenced objects to open that object's editor.

>

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Functions Editor.

Functions Editor for Microsoft SQL Server - Privileges Tab

The Privileges Tab of the Functions Editor lets you manage permissions for every function on the current datasource.

The table below describes the options and functionality on the Privileges Tab.

Option	Description
User	Lets you select the object user.
Object Type	Lets you select the object type.
Owner	Lets you select the object owner.
Privilege Level	Lets you select the privilege level.
Grant	Opens the Grant Privilege(s) To dialog box.
Revoke	Opens the Revoke Privilege(s) From dialog box.
Deny	**MICROSOFT SQL SERVER ONLY:** Opens the Deny Privileges From dialog box.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Functions Editor

Indexes Editor for Microsoft SQL Server

The Indexes Editor lets you:

- Manage index columns.
- View and modify index attributes.
- Manage index storage.
- Manage index statistics.

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- View index DDL.

  TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Indexes Editor:

- Columns
- Attributes
- Storage
- Statistics
- DDL

The following functionality is available on the Indexes Editor Command menu:

- Rename
- Update Statistics
- DBCC

Indexes Editor for Microsoft SQL Server - Columns Tab

The Columns Tab of the Indexes Editor lets you manage columns for every index on the current datasource. Rapid SQL sorts all column information into two boxes. The box on the left lists all columns in the selected table. The box on the right lists target table columns in the index. The table below describes the options and functionality on the Columns Tab of the Indexes Editor:

Column Name	Description
Column	Name of the column in the target table.
Datatype	Datatype for the column in the target table. If applicable, Rapid SQL displays the precision in parentheses.
Nulls	The table definition permits nulls in the target table column. Null has no explicitly assigned value. Null is not equivalent to zero or blank. A value of null is not considered to be greater than, less than, or equivalent to any other value, including another value of null.
Index columns	The name of the column included in the index.
Asc. Sort	Whether the index definition requires that Microsoft SQL Server sort the table in ascending order. This option is for Microsoft SQL Server 7.0 or later.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Indexes Editor.

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Indexes Editor for Microsoft SQL Server - Attributes Tab

The Attributes Tab of the Indexes Editor lets you manage attributes for every index on the current datasource. The table below describes the options and functionality on the Attributes Tab of the Indexes Editor:

Attribute	Index Type	Description
Unique	General	Indicates whether the target index is a unique constraint.
Clustered	General	Indicates whether the target index is a clustered, the physical order and the logical order are the same.
Ignore Duplicate Keys	General	Indicates whether the target index ignores duplicate key values. If you select his option, the transaction that generated the duplicate key values can continue.
Statistics Recompute	General	Indicates that index statistics are automatically recomputed as the index is updated. Microsoft does not recommend this.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Indexes Editor.

Indexes Editor for Microsoft SQL Server - Storage Tab

The Storage Tab of the Indexes Editor lets you manage storage for every index on the current datasource. The table below describes the options and functionality on the Storage Tab of the Indexes Editor:

Option	Description
Filegroup	Lets you specify the filegroup on which to place the index.
Fill Factor	Lets you specify a percentage that indicates how full Microsoft SQL Server should make the leaf level of each index page during index creation. When an index page fills up, Microsoft SQL Server must take time to split the index page to make room for new rows, which is quite expensive. For update-intensive tables, a properly chosen Fill factor value yields better update performance than an improper Fill factor value.
Pad Index	Lets you specify the space to leave open on each page (node) in the intermediate levels of the index. This option is useful only when a Fill factor is specified, because the Pad Index option uses the percentage specified by Fill factor.
Sort in Tempdb	Lets you specify that the intermediate sort results used to build the index stores in the tempdb database. This option can reduce the time needed to create an index if tempdb is on a different set of disks than the user database, but it increases the amount of disk space used during the index build. This option is for Microsoft SQL Server 8.0 or later.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Indexes Editor.

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Indexes Editor for Microsoft SQL Server - Statistics Tab

The Statistics Tab of the Indexes Editor lets you view the page and row statistics for every index on the current datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Indexes Editor.

Indexes Editor for Microsoft SQL Server - DDL Tab

The DDL Tab of the Indexes Editor lets you view the SQL code for every index on the current datasource. To view the DDL for another index, click the lists, click the target owners and/or tables, and then click the target owner and/or index.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Indexes Editor.

Logins Editor for Microsoft SQL Server

The Logins Editor lets you:

- View and modify login definitions.
- Manage users for logins.
- Manage roles for logins.
- Manage login accounts.
- View login DDL.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Logins Editor:

- Properties
- Users
- Server Roles
- DDL

The following functionality is available on the Logins Editor Command menu:

- Change Password
- Create Like

Logins Editor for Microsoft SQL Server - Properties Tab

The Properties Tab of the Logins Editor lets you view and modify information for every login on the current server. The table below describes the options and functionality on the Properties tab of the Logins Editor:

Box	Description
Default Database	The database that Microsoft SQL Server places the target user into when they log in to the target server.
Default Language	The language that Microsoft SQL Server uses to displays the target login's system messages.
Is currently Logged In	The login status of the target login.
Enabled	Lets you enable/disable the login.
Password	For STANDARD account types,you can modufy the password.
Check Policy, **Check expiration**, and **Must change**	For STANDARD account types, use these properties to modify the corresponding SQL Server Enforce password policy and Enforce password expiration properties.
Certificate	For CERTIFICATE account types, you can select a new certificate.
Asymmetric Key	For ASYMMETRIC KEY account types, you can select a new **Asymmetric key**.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Logins Editor.

Logins Editor for Microsoft SQL Server - Users Tab

The Users Tab of the Logins Editor lets you manage each login's user account(s) for every database on the current server. Before a login name can access a user database, it must be added as a user or alias to that database by the system administrator or database owner.

For more information, see Logins Editor.

Logins Editor for Microsoft SQL Server - Server Roles Tab

The Roles Tab of the Logins Editor lets you manage every login's role(s). The tab includes a table listing every role of which the target login is a member. This tab lets you:

- Grant roles.
- Revoke roles.

NOTE: The Roles Tab of the Logins Editor is available for Microsoft SQL Server 7.0 or later.

For more information, see Logins Editor.

Logins Editor for Microsoft SQL Server - DDL Tab

The DDL Tab of the Logins Editor lets you view the SQL code for every login on the current datasource. To view DDL for another login, click the list and then click the target login.

For more information, see Logins Editor.

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Primary Keys Editor for Microsoft SQL Server

The Primary Keys Editor lets you:

- Manage primary key columns.
- Manage primary key attributes.
- Manage primary key storage.
- Manage primary key statistics.
- View primary key DDL.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Primary Keys Editor:

- Columns
- Attributes
- Storage
- Statistics
- DDL

TIP: The Primary Keys Editor Command menu offers the Rename functionality.

Primary Keys Editor for Microsoft SQL Server - Columns Tab

The Columns Tab of the Primary Keys Editor lets you manage columns for every primary key on the current datasource. Rapid SQL sorts all column information into two boxes. The box on the left lists all columns in the selected table. The box on the right lists target table columns in the primary key. The table below describes the options and functionality on the Columns Tab of the Primary Keys Editor:

Column Name	Description
Column	The name of the column in the target table.
Datatype	The datatype for the column in the target table. If applicable, Rapid SQL displays the precision in parentheses.
Nulls	The table definition permits nulls in the target table column. Null has no explicitly assigned value. Null is not equivalent to zero or blank. A value of null is not considered to be greater than, less than, or equivalent to any other value, including another value of null.
Index columns	The name of the column included in the primary key.
Asc. Sort	Whether the index definition requires that Microsoft SQL Server sort the table in ascending order. This option is for Microsoft SQL Server 7.0 or later.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Primary Keys Editor.

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Primary Keys Editor for Microsoft SQL Server - Attributes Tab

The Attributes Tab of the Primary Keys Editor lets you manage attributes for every primary key on the current datasource. The table below describes the options and functionality on the Attributes Tab of the Primary Keys Editor:

Attribute	Index Type	Description
Unique	General	Indicates whether the target primary key is a unique constraint.
Clustered	General	Indicates whether the target primary key is a clustered, the physical order and the logical order are the same.
Ignore Duplicate Keys	General	Indicates whether the target primary key ignores duplicate key values. If you select his option, the transaction that generated the duplicate key values can continue.
Statistics Recompute	General	Indicates that index statistics are automatically recomputed as the index is updated. Microsoft does not recommend this.
None	Non-Unique Clustered	Indicates that no special options should apply when processing duplicate rows. For non-unique clustered primary keys only.
Ignore Duplicate Rows	Non-Unique Clustered	Indicates that Microsoft SQL Server should ignore duplicate rows when process transactions with duplicate rows. For non-unique clustered primary keys only.
Allow Duplicate Rows	Non-Unique Clustered	Indicates that Microsoft SQL Server should process transaction with duplicate rows. For non-unique clustered primary keys only.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Primary Keys Editor.

Primary Keys Editor for Microsoft SQL Server - Storage Tab

The Storage Tab of the Primary Keys Editor lets you manage storage for every primary key on the current datasource. The table below describes the options and functionality on the Storage Tab of the Primary Keys Editor:

Option	Description
Segment	Lets you specify the segment on which to place the target primary key.
Fill Factor	Lets you specify the fill factor that specifies how full each index page can be. If no fill factor is specified, Microsoft SQL Server uses the database's default fill factor.
Pad Index	If you specified a Fill factor of more than 0 percent, and you selected the option to create a unique index, you can specify to use the same percentage you specified in Fill Factor as the space to leave open on each interior node. By default, Microsoft SQL Server sets a 2 row index size.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

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For more information, see Primary Keys Editor.

Primary Keys Editor for Microsoft SQL Server - Statistics Tab

The Statistics Tab of the Primary Keys Editor lets you view the page and row statistics for every primary key on the current datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Primary Keys Editor.

Primary Keys Editor for Microsoft SQL Server - DDL Tab

The DDL Tab of the Primary Keys Editor lets you view the SQL code for every primary key on the current datasource. To view DDL for another primary key, click the lists, click the target owner and/or table, and then click the target primary key.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Primary Keys Editor.

Procedures Editor for Microsoft SQL Server

The Procedures Editor lets you:

- View and modify procedure definitions.
- Manage procedure privileges.
- Manage procedure dependencies.

The following tabs are available in the Procedures Editor:

- Definition
- Privileges
- Dependencies

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following functionality is available on the Procedures Editor Command menu:

- Rename
- Execute

Procedures Editor - Definition Tab

The Definition Tab of the Procedures Editor lets you view the SQL code for every procedure on the current datasource. To view DDL for another procedure, click the lists, click the target owner, and then click the target procedure.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

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For more information, see Procedures Editor.

Procedures Editor - Privileges Tab

The Privileges Tab of the Procedures Editor lets you manage permissions for every procedure on the current datasource.

The table below describes the options and functionality on the Privileges Tab.

Option	Description
User	Lets you select the object user.
Object Type	Lets you select the object type.
Owner	Lets you select the object owner.
Privilege Level	Lets you select the privilege level.
Grant	Opens the Grant Privilege(s) To dialog box.
Revoke	Opens the Revoke Privilege(s) From dialog box.
Deny	**MICROSOFT SQL SERVER ONLY:** Opens the Deny Privileges From dialog box.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Procedures Editor

Procedures Editor - Dependencies Tab

The Dependencies Tab of the Procedures Editor lets you manage database objects dependent on each procedure on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target procedure is dependent on these objects.
Referenced Objects	These objects are dependent on the target procedure.

TIP: Click one of the referenced objects to open that object's editor.

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After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Procedures Editor.

The table below describes the options and functionality on the Privileges Tab.

Option	Description
Local Server	The unique server name that users must supply when executing remote procedure calls.
Publication Server	Specifies database publishing. When replication is installed, this option permits the tables of a database to be published for replication. When selected, this option enables publication. When not selected, this option disables publishing, drops all publications, and unmarks all transactions that were marked for replication in the transaction log.
Distribution Server	Enables the remote server to be a distribution server.
Subscription Server	Specifies database subscriptions. When selected, the database can be subscribed for publication. When not selected, the database cannot be subscribed for publication.
Publisher/Subscriber	Enables the remote server to be a publisher/subscriber server.
Collation Compatible Server	Indicates Change DIstributed Query execution against remote servers. If you select this option, Microsoft SQL Server assumes that all characters in the remote server are compatible with the local server, with regard to character set and collation sequence (or sort order). This option is for Microsoft SQL Server 7.0 or later.
Data Access Server	Indicates whether the target remote server is enabled for distributed query access. This option is for Microsoft SQL Server 7.0 or later.
RPC Out Server	Enables the remote server to execute stored procedures on the local server using a remote procedure call (RPC). This option is for Microsoft SQL Server 7.0 or later.

Option	Description
Remote Server Name	Displays the remote server name.
Remote Login Name	Lets you specify a remote login name. Select the All box if you want to use this name for all remote logins.
Local Login Name	Lets you select a local user name.
Trusted Remote Login	Lets you specify this remote login as a trusted login.

Option	Description
User	Lets you select the object user.
Object Type	Lets you select the object type.
Owner	Lets you select the object owner.
Privilege Level	Lets you select the privilege level.
Grant	Opens the Grant Privilege(s) To dialog box.
Revoke	Opens the Revoke Privilege(s) From dialog box.

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Option	Description
Deny	**MICROSOFT SQL SERVER ONLY:** Opens the Deny Privileges From dialog box.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

After making changes on the tab, on the editor tool bar, click Alter.

Rules Editor for Microsoft SQL Server

The Rules Editor lets you:

- View and modify rule definitions.
- Manage rule bindings.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Rules Editor:

- Definition
- Bindings

TIP: The Rules Editor Command menu offers the Rename functionality.

Rules Editor for Microsoft SQL Server - Definition Tab

The Definition Tab of the Rules Editor lets you view the SQL code for every rule on the current datasource. To view DDL for another rule, click the lists, click the target owner, and then click the target rule.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Rules Editor.

Rules Editor for Microsoft SQL Server - Bindings Tab

The Bindings Tab of the Rules Editor lets you manage object bindings for every rule on the current datasource. Microsoft SQL Server lets you bind a rules to user-defined datatypes and to columns in any table in a database (if the default value is appropriate to the datatype of the column.)

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Rules Editor.

Tables Editor for Microsoft SQL Server

The Tables Editor lets you:

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- Manage table columns.
- Manage table constraints.
- Manage table storage.
- Manage table space.
- Manage table partitions.
- Manage table dependencies.
- Manage table privileges.
- View table DDL.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Tables Editor:

- Columns
- Constraints
- Storage
- Space
- Dependencies
- Privileges
- Full-Text Indexing Tab (Microsoft SQL Server 8.0 or later)
- DDL

The following functionality is available on the Tables Editor Command menu:

- Rename
- Edit Data
- Build Query
- Update Statistics
- Create Like
- DBCC
- Indexes
- Triggers
- Truncate
- Disable Triggers (Microsoft SQL Server 7.0 or later)
- Enable Triggers (Microsoft SQL Server 7.0 or later)

Tables Editor for Microsoft SQL Server - Columns Tab

The Columns Tab of the Tables Editor lets you manage columns for every table on the current datasource. The Columns Tab lets you:

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- Add columns
- Insert columns
- Edit columns
- Drop columns
- Order columns

The table below describes the options and functionality on the Columns Tab of the Tables Editor:

Column Name	Description
Name	the name of the column in the target table.
Datatype	The datatype for the column in the target table. If applicable, Rapid SQL displays the precision in parentheses.
Nulls	The table definition permits nulls in the target table column. Null has no explicitly assigned value. Null is not equivalent to zero or blank. A value of null is not considered to be greater than, less than, or equivalent to any other value, including another value of null.
Default	The name of the column included in the table.
Default Binding	Lets you bind a default to the column, instead of declaring it.
Rule Binding	Lets you bind a rule to the column.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Add Column dialog box

Modify Column dialog box

Tables Editor

Tables Editor for Microsoft SQL Server - Constraints Tab

The Constraints Tab of the Tables Editor lets you manage constraints for every table on the current datasource. Rapid SQL arranges the constraints in a tree structure. The tree contains folders which contain all constraints associated with the target table. The objects are organized in folders based on the type of constraint:

- Check Constraint
- Foreign Key
- Primary Key
- Unique Key

In the tree, double-click a constraint to open a dialog box with detailed information on the target constraint.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Index Constraint dialog box

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Tables Editor

Tables Editor for Microsoft SQL Server- Storage Tab

The Storage Tab of the Tables Editor lets you manage storage for every table on the current datasource. The table below describes the options and functionality on the Storage Tab of the Tables Editor:

Option	Description
Filegroup	View on which filegroup within the database the table is stored. This is for Microsoft SQL Server 7.0 or later.
Text Image Filegroup	View on which filegroup within the database on which to place any text, image, and/or next columns. This is for Microsoft SQL Server 7.0 or later.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tables Editor.

Tables Editor for Microsoft SQL Server - Space Tab

The Space Tab of the Tables Editor lets you view the table usage and the distribution of table space for every table on the current datasource.

TIP: Double-click a slice in the pie chart for detailed statistics.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tables Editor.

Tables Editor for Microsoft SQL Server - Dependencies Tab

The Dependencies Tab of the Tables Editor lets you manage database objects dependent on each table on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target view is dependent on these objects.
Referenced Objects	These objects are dependent on the target view.

TIP: Click one of the referenced objects to open that object's editor.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tables Editor.

Tables Editor for Microsoft SQL Server - Privileges Tab

The Privileges Tab of the Tables Editor lets you manage permissions for every table on the current datasource.

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The table below describes the options and functionality on the Privileges Tab.

Option	Description
User	Lets you select the object user.
Object Type	Lets you select the object type.
Owner	Lets you select the object owner.
Privilege Level	Lets you select the privilege level.
Grant	Opens the Grant Privilege(s) To dialog box.
Revoke	Opens the Revoke Privilege(s) From dialog box.
Deny	**MICROSOFT SQL SERVER ONLY:** Opens the Deny Privileges From dialog box.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Tables Editor

Tables Editor for Microsoft SQL Server - Full-Text Indexing Tab

The Full-Text Indexing Tab of the Tables Editor lets you use the Microsoft SQL Server full-text service for every table on the current datasource that permits the Microsoft full-text service.

The full-text index feature provides support for sophisticated word searches in character string data. A full-text index stores information about significant words and their location within a given column. This information is used to quickly complete full-text queries that search for rows with particular words or combinations of words.

NOTE: This tab is available for Microsoft SQL Server 8.0 or later.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tables Editor.

Tables Editor for Microsoft SQL Server - DDL Tab

The DDL Tab of the Tables Editor lets you view the SQL code for every table on the current datasource. To view DDL for another table, click the lists, click the target owner, and then click the target table.

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After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tables Editor.

Triggers Editor for Microsoft SQL Server

The Triggers Editor lets you:

- View and modify trigger definitions.
- Manage trigger dependencies.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Triggers Editor:

- Definition
- Dependencies

The following functionality is available on the Triggers Editor Command menu:

- Disable Trigger (Microsoft SQL Server 7.0 or later)
- Enable Trigger (Microsoft SQL Server 7.0 or later)

Triggers Editor for Microsoft SQL Server - Definition Tab

The Definition Tab of the Triggers Editor lets you do the following for every default on the current datasource:

- View and modify the trigger status (Microsoft SQL Server 7.0 or later)
- View the DDL

To view DDL for another trigger, click the lists, click the target owner and/or table, and then click the target trigger.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Triggers Editor.

Triggers Editor for Microsoft SQL Server - Dependencies Tab

The Dependencies Tab of the Triggers Editor lets you manage database objects dependent on each trigger on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target view is dependent on these objects.
Referenced Objects	These objects are dependent on the target view.

TIP: Click one of the referenced objects to open that object's editor.

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After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Triggers Editor.

Unique Keys Editor for Microsoft SQL Server

The Unique Keys Editor lets you:

- Manage unique key columns.
- Manage unique key attributes.
- Manage unique key storage.
- Manage unique key statistics.
- View unique key DDL.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Unique Keys Editor:

- Columns
- Attributes
- Storage
- Statistics
- DDL

TIP: The Unique Keys Editor Command menu lets you Rename a unique key:

Unique Keys Editor for Microsoft SQL Server - Columns Tab

The Columns Tab of the Unique Keys Editor lets you manage columns for every unique key on the current datasource. Rapid SQL sorts all column information into two boxes. The box on the left lists all columns in the selected table. The box on the right lists target table columns in the table. The table below describes the options and functionality on the Columns Tab of the Unique Keys Editor:

Column Name	Description
Column	The name of the column in the target table.
Datatype	the datatype for the column in the target table. If applicable, Rapid SQL displays the precision in parentheses.
Nulls	The table definition permits nulls in the target table column. Null has no explicitly assigned value. Null is not equivalent to zero or blank. A value of null is not considered to be greater than, less than, or equivalent to any other value, including another value of null.
Index Columns	The name of the column included in the unique key.
Asc. Sort	Whether the unique key definition requires that Microsoft SQL Server sort the table in ascending order. This is for Microsoft SQL Server 7.0 or later.

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After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Unique Keys Editor.

Unique Keys Editor for Microsoft SQL Server - Attributes Tab

The Attributes Tab of the Unique Keys Editor lets you manage attributes for every unique key on the current datasource. The table below describes the available attributes:

Attribute	Index Type	Description
Unique	General	Indicates whether the target index is a unique constraint.
Clustered	General	Indicates whether the target index is a clustered, the physical order and the logical order are the same.
Ignore Duplicate Keys	General	Indicates whether the target index ignores duplicate key values. If you select his option, the transaction that generated the duplicate key values can continue.
Statistics Recompute	General	Indicates that index statistics are automatically recomputed as the index is updated. Microsoft does not recommend this.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Unique Keys Editor.

Unique Keys Editor for Microsoft SQL Server - Storage Tab

The Storage Tab of the Unique Keys Editor lets you manage storage for every unique key on the current datasource. The table below describes the options and functionality on the Storage tab of the Unique Keys Editor:

Option	Description
Filegroup	Lets you specify the filegroup on which to place the index. This is for Microsoft SQL Server 7.0 or later.
Fill Factor	Lets you specify a percentage that indicates how full Microsoft SQL Server should make the leaf level of each index page during index creation. When an index page fills up, Microsoft SQL Server must take time to split the index page to make room for new rows, which is quite expensive. For update-intensive tables, a properly chosen Fill factor value yields better update performance than an improper Fill factor value.
Pad Index	Lets you specify the space to leave open on each page (node) in the intermediate levels of the index. This option is useful only when a Fill factor is specified, because the Pad Index option uses the percentage specified by Fill factor.

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After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Unique Keys Editor.

Unique Keys Editor for Microsoft SQL Server - Statistics Tab

The Statistics Tab of the Unique Keys Editor lets you view the page and row statistics for every unique key on the current datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Unique Keys Editor.

Unique Keys Editor for Microsoft SQL Server - DDL Tab

The DDL Tab of the Unique Keys Editor lets you view the SQL code for every unique key on the current datasource. To view DDL for another unique key, click the list, target owner and/or table, and then click target unique key.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Unique Keys Editor.

Users Editor for Microsoft SQL Server

The Users Editor lets you:

- View and modify user definitions.
- Manage user privileges.
- Manage dependent objects for users.
- View user DDL.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Users Editor:

- Definition
- Object Privileges
- System Privileges
- Objects
- DDL

The following functionality is available on the Unique Keys Editor Command menu:

- Create Like

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Users Editor for Microsoft SQL Server - Definition Tab

The Definition Tab of the Users Editor lets you manage roles for every user on the current datasource. To manage roles for another user, click the list, and then click the target user.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Users Editor.

Users Editor for Microsoft SQL Server - Object Privileges and System Privileges Tab

The Object Privileges and System Privileges tabs of the Users Editor let you manage permissions for every user on the current datasource.

The table below describes the options and functionality on the Privileges Tab.

Option	Description
User	Lets you select the object user.
Object Type	Lets you select the object type.
Owner	Lets you select the object owner.
Privilege Level	Lets you select the privilege level.
Grant	Opens the Grant Privilege(s) To dialog box.
Revoke	Opens the Revoke Privilege(s) From dialog box.
Deny	**MICROSOFT SQL SERVER ONLY:** Opens the Deny Privileges From dialog box.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Users Editor

Users Editor for Microsoft SQL Server - Objects Tab

The Objects Tab of the Users Editor lets you manage database objects associated with every segment on the current datasource. Rapid SQL organizes the objects in a tree structure with three folders containing all of the following associated objects:

- Defaults

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- Indexes
- Procedures
- Rules
- Tables
- Triggers
- User Defined Datatypes
- Views

TIP: Click one of the objects to open that object's editor.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Users Editor.

Users Editor for Microsoft SQL Server - DDL Tab

The DDL Tab of the Users Editor lets you view the SQL code for every user on the current datasource. To view DDL for another user, click the list, and then click the target user.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Users Editor.

User Datatypes Editor for Microsoft SQL Server

The User Datatypes Editor lets you:

- View user datatype definitions.
- View objects associated with user datatypes.
- View user datatype DDL.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

User Datatypes Editor for Microsoft SQL Server - Definition Tab

The Definition Tab of the User Datatypes Editor lets you view and modify information for every user datatype on the current datasource. The Definition Tab displays detailed information on the base datatype and any defaults and/or rules.

For more information, see User Datatypes Editor for Microsoft SQL Server.

User Datatypes Editor for Microsoft SQL Server - Usage Tab

The Usage Tab of the User Datatypes Editor displays hierarchy information for every user datatype on the current datasource. To view hierarchy information for another user datatype, check the lists, click the target owner, and then click the target user datatype.

For more information, see User Datatypes Editor for Microsoft SQL Server.

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User Datatypes Editor for Microsoft SQL Server - DDL Tab

The DDL Tab lets you view the SQL code for every user datatype on the current datasource. To view DDL for another user datatype, click the lists, click the target owner, and then click the target user datatype.

For more information, see User Datatypes Editor for Microsoft SQL Server.

User Messages Editor for Microsoft SQL Server

NOTE: User Messages are only on the master database.

The User Messages Editor lets you:

- View and modify user message information.
- Manage user message bindings.
- View user message DDL.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the User Messages Editor:

- Information
- DDL

User Messages Editor for Microsoft SQL Server - Information Tab

The Information Tab of the User Messages Editor lets you view, add, and edit every user message on the current datasource. The Information Tab displays the language and contents of user messages.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see User Messages Editor.

User Messages Editor for Microsoft SQL Server - DDL Tab

The DDL Tab of the User Messages Editor lets you view the SQL code for every user message on the current datasource. To view DDL for another user message, click the list, and then click the target user message.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see User Messages Editor.

Views Editor for Microsoft SQL Server

The Views Editor lets you:

- Manage view columns.
- View and modify view definitions.
- Manage view privileges.

- Manage objects dependent on views.
- View DDL for views.

  TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Views Editor:

- Columns
- Definition
- Privileges
- Dependencies

The following functionality is available on the Views Editor Command menu:

- Triggers (Microsoft SQL Server 8.0 or later)
- Indexes (Microsoft SQL Server 8.0 or later)
- Build Query
- Rename

Views Editor for Microsoft SQL Server - Columns Tab

The Columns Tab of the Views Editor lets you view column information for every view on the current datasource. The table below describes the options and functionality on the Columns Tab of the Tables Editor:

Column Name	Description
Column Name	the name of the column in the target view.
Datatype	Datatype for the column in the target view. If applicable, Rapid SQL displays the precision in parentheses.
Nulls	The table definition permits nulls in the target table column. Null has no explicitly assigned value. Null is not equivalent to zero or blank. A value of null is not considered to be greater than, less than, or equivalent to any other value, including another value of null.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Views Editor.

Views Editor for Microsoft SQL Server - Definition Tab

The Definition Tab of the Views Editor lets you view the SQL code for every view on the current datasource. To view DDL for another view, click the lists, click the target owner, and then click the target view.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Views Editor.

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Views Editor for Microsoft SQL Server - Privileges Tab

The Privileges Tab of the Views Editor lets you manage permissions for every view on the current datasource.

The table below describes the options and functionality on the Privileges Tab.

Option	Description
User	Lets you select the object user.
Object Type	Lets you select the object type.
Owner	Lets you select the object owner.
Privilege Level	Lets you select the privilege level.
Grant	Opens the Grant Privilege(s) To dialog box.
Revoke	Opens the Revoke Privilege(s) From dialog box.
Deny	**MICROSOFT SQL SERVER ONLY:** Opens the Deny Privileges From dialog box.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

After making changes on the tab, on the editor tool bar, click Alter.

For more information, see:

Granting Permissions

Revoking Permissions

Views Editor

Views Editor for Microsoft SQL Server - Dependencies Tab

The Dependencies Tab of the Views Editor lets you manage database objects dependent on each view on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target view is dependent on these objects.
Referenced Objects	These objects are dependent on the target view.

TIP: Click one of the referenced objects to open that object's editor.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Views Editor.

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Oracle Object Editors

Rapid SQL includes an Object Editor for all supported Oracle objects. To see an Editor for a specific object, click the corresponding link in the table below.

NOTE: If an objects has dependent objects, such as tables, triggers, procedures and views, you can view and access their dependent objects in the editor.

Check Constraints Editor	Clusters Editor	Database Links Editor	Foreign Keys Editor
Functions Editor	Indexes Editor	Libraries Editor	Materialized Views Editor
Materialized View Logs Editor	Outlines Editor	Package Bodies Editor	Packages Editor
Primary Keys Editor	Procedures Editor	Profiles Editor	Rollback Segments Editor
Roles Editor	Sequences Editor	Snapshots Editor	Snapshot Logs Editor
Synonyms Editor	Tables Editor		
Tablespaces Editor	Triggers Editor	Type Bodies Editor	Types Editor
Unique Keys Editor	Users Editor	Views Editor	

Check Constraints Editor for Oracle

The Check Constraints Editor lets you:

- View and modify check constraint definitions.
- View check constraint DDL.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The table below describes the tabs available in the Check Constraints Editor:

Tab	Description
Definition	Lets you view and modify the check condition, and manage columns for the check constraint.
DDL	Lets you view the SQL code for every check constraint on the current datasource. To view DDL for another check constraint, click the lists, click the target owners and/or tables, and then click the target check constraint.

The following functionality is available on the Check Constraints Editor Command menu:

- Rename
- Status

Clusters Editor for Oracle

The Clusters Editor lets you:

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- View and modify clusters.
- View and modify storage parameters.
- View and modify cluster performance.
- View and modify cluster space.
- View table dependencies.
- View cluster DDL.

TIP: The Clusters Editor tool bar refresh button lets you refresh Clusters Editor contents, clear the Clusters Editors, and log SQL if SQL Logging is turned on.

The following tabs are available in the Clusters Editor:

- Columns
- Storage
- Performance
- Space
- Tables
- DDL

The following functionality is available on the Clusters Editor Command menu:

- Analyze
- Allocate Extent
- Truncate
- Deallocate Unused Space

Clusters Editor for Oracle - Columns Tab

The Columns Tab of the Clusters Editor lets you view and manage general properties and hash specifications for every cluster on the current datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Clusters Editor.

Clusters Editor for Oracle - Storage Tab

The Storage Tab of the Clusters Editor lets you manage storage for every cluster on the current datasource. The table below describes the options and functionality on the Storage Tab of the Clusters Editor:

Option	Description
Data Block Storage	Each transaction that updates a data block requires a transaction entry. Initial - The initial parameter ensures that a minimum number of concurrent transactions can update a data block, avoiding the overhead of allocating a transaction entry dynamically. Maximum - The maximum parameter limits concurrency on a data block.

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Option	Description
Extents	The unit of space allocated to an object whenever the object needs more space. Initial Extent - The initial space extent (in bytes) allocated to the object. Next Extent - The next extent (in bytes) that the object will attempt to allocate when more space for the object is required. Minimum Extents - The appropriate minimum extents value for the object. Maximum Extents - The appropriate maximum extents value for the object. Percent Increase - Magnifies how an object grows and, can materially affect available free space in a tablespace. Select a value in the corresponding box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Clusters Editor.

Clusters Editor for Oracle - Performance Tab

The Performance Tab of the Clusters Editor lets you manage performance for every cluster on the current datasource. The table below describes the options and functionality on the Performance Tab of the Clusters Editor:

Option	Description
Parallel Query Option	Lets you process queries using many query server processes running against multiple CPUs, which provides substantial performance gains such as reduction of the query completion time.
Cache	Keeps the blocks in memory by placing it at the most recently used end. This option is useful for small lookup tables.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Clusters Editor.

Clusters Editor for Oracle - Space Tab

The Space Tab of the Clusters Editor lets you view the usage and the distribution of space for every cluster on the current datasource. The table below describes the options and functionality on the Space Tab of the Clusters Editor:

Option	Description
Space Utilization	Lets you specify the percent of space reserved for future updates.
Free Lists	Lets you manage the allocation of data blocks when concurrent processes are issued against the cluster. Identifying multiple free lists can reduce contention for free lists when concurrent inserts take place and potentially improve the performance of the cluster.

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Option	Description
Extents	The unit of space allocated to an object whenever the object needs more space. Initial Extent - The initial space extent (in bytes) allocated to the object. Next Extent - The next extent (in bytes) that the object will attempt to allocate when more space for the object is required. Minimum Extents - The appropriate minimum extents value for the object. Maximum Extents - The appropriate maximum extents value for the object. Percent Increase - Magnifies how an object grows and, can materially affect available free space in a tablespace. Select a value in the corresponding box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Clusters Editor.

Clusters Editor for Oracle - Tables Tab of the

The LOB Space Tab of the Clusters Editor lets you view the table for every cluster on the current datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Clusters Editor.

Clusters Editor for Oracle - DDL Tab

The DDL Tab of the Clusters Editor lets you view the SQL code for every cluster on the current datasource. To view DDL for another cluster, click the lists, click the target owner, and then click the cluster.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Clusters Editor.

Database Links Editor for Oracle

The Database Links Editor lets you:

- View and modify database link definitions.
- View database link DDL.

The following tabs are available in the Database Links Editor:

- Definition
- DDL

TIP: The Database Links Editor tool bar refresh button lets you refresh Database Links Editor contents, clear the Database Links Editors, and log SQL if SQL Logging is turned on.

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The following functionality is available on the Database Links Editor Command menu:

- Rename

Database Links Editor for Oracle - Definition Tab

The Definition Tab of the Database Links Editor displays connection string information for every database link on the current datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Database Links Editor.

Database Links Editor for Oracle - DDL Tab

The DDL Tab of the Database Links Editor lets you view the SQL code for every database link on the current datasource. To view DDL for another database link, click the lists, click the target owner, and then click the target database link.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Database Links Editor.

Foreign Keys Editor for Oracle

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Rapid SQL, a user cannot revoke a privilege that has been granted by a role.

The Foreign Keys Editor lets you:

- Manage foreign key columns.
- View foreign key DDL.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Foreign Keys Editor:

- Columns
- DDL

TIP: The Foreign Keys Editor Command menu offers the Rename functionality.

Foreign Keys Editor - Columns Tab

The Columns Tab of the Foreign Keys Editor lets you:

- View and modify the column mapping foreign keys.
- Enable/Disable foreign keys.

The table below describes the options and functionality on the Columns Tab of the Foreign Keys Editor:

Option	Description
Referenced Table	To view column information for another foreign key, click the lists, click the target database, owner, table, and/or primary/unique key, and then click the target foreign key.
Constraint Status	Enabled - Select to make the foreign key cascade the deletion of any primary key values in the parent table to corresponding foreign key values in child tables. Delete Cascade - Select if you do not want the foreign key to cascade the deletion of any primary key values in the parent table to corresponding foreign key values in child tables.
Columns Mapping	Displays the map between the foreign key columns and the child and parent tables.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Foreign Keys Editor.

Foreign Keys Editor for Oracle - DDL Tab

The DDL Tab of the Foreign Keys Editor lets you view the SQL code for every foreign key on the current datasource. To view DDL for another foreign key, click the lists, click the target owners and/or tables, and then click the target foreign key.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Foreign Keys Editor.

Functions Editor for Oracle

The Functions Editor lets you:

- View and modify function definition.
- View and modify function information.
- View and manage function dependencies.
- View and manage function privileges.

TIP: The Functions Editor tool bar refresh button lets you refresh Functions Editor contents, clear the Functions Editors, and log SQL if SQL Logging is turned on.

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The following tabs are available in the Functions Editor:

- Definition
- Information
- Dependencies
- Privileges

The following functionality is available on the Functions Editor Command menu:

- Create Synonym

Functions Editor for Oracle - Definition Tab

The Definition Tab of the Functions Editor lets you view the SQL code for every function on the current datasource. To view DDL for another function, click the lists, click the target owner, and then click the target function.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Functions Editor.

Functions Editor for Oracle - Information Tab

The Information Tab of the Functions Editor displays the status and size information for every function on the current datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Functions Editor.

Functions Editor for Oracle - Dependencies Tab

The Dependencies Tab of the Functions Editor lets you manage database objects dependent on each function on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target function is dependent on these objects.
Referenced Objects	These objects are dependent on the target function.

TIP: Click one of the referenced objects to open that object's editor.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Functions Editor.

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Functions Editor for Oracle - Privileges Tab

The Privileges Tab of the Functions Editor lets you manage permissions for every function on the current datasource.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Rapid SQL, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Functions Editor

Indexes Editor for Oracle

The Indexes Editor lets you:

- Manage index columns.
- View and modify index properties.
- Manage index storage.
- Manage index statistics.
- Manage index partitions.
- View index DDL.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Indexes Editor:

- Columns
- Properties

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- Storage
- Space
- Partitions
- DDL

The following functionality is available on the Indexes Editor Command menu:

- Analyze
- Allocate Extent
- Deallocate Unused Space
- Rebuild
- Rename
- Convert to Partitioned
- Estimate Size

Indexes Editor for Oracle - Columns Tab

The Columns Tab of the Indexes Editor lets you manage columns for every index on the current datasource. Rapid SQL sorts all column information into two boxes. The box on the left lists all columns in the selected table. The box on the right lists target table columns in the index. The table below describes the options and functionality on the Columns Tab of the Indexes Editor:

Column Name	Description
Column	Name of the column in the target index.
Datatype	Datatype for the column in the target index. If applicable, Rapid SQL displays the precision in parentheses.
Nulls	The table definition permits nulls in the target table column. Null has no explicitly assigned value. Null is not equivalent to zero or blank. A value of null is not considered to be greater than, less than, or equivalent to any other value, including another value of null.
Index columns	The name of the column included in the index.
Asc. Sort	Displays if the index definition sorts the index in ascending order.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Indexes Editor.

Indexes Editor for Oracle - Properties Tab

The Properties Tab of the Indexes Editor lets you set properties.

TIP: The Parallel server query option lets you process queries, using many query server processes, running against multiple CPU's. This option provides substantial performance gains such as reduction of the query completion time.

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After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Indexes Editor.

Indexes Editor for Oracle - Storage Tab

The Storage Tab of the Indexes Editor lets you manage storage for every index on the current datasource. The table below describes the options and functionality on the Storage Tab of the Indexes Editor:

Option	Description
Data Block Storage	Each transaction that updates an index block requires a transaction entry. Initial - Ensures that a minimum number of concurrent transactions can update an index block, avoiding the overhead of allocating a transaction entry dynamically. Maximum - The maximum parameter limits concurrency on an index block.
Extents	The unit of space allocated to an object whenever the object needs more space. Initial Extent - The initial space extent (in bytes) allocated to the object. Next Extent - The next extent (in bytes) that the object will attempt to allocate when more space for the object is required. Minimum Extents - The appropriate minimum extents value for the object. Maximum Extents - The appropriate maximum extents value for the object. Percent Increase - Magnifies how an object grows and, can materially affect available free space in a tablespace. Select a value in the corresponding box.
Free Lists	Lets you select or type the value. The default and minimum value is 1. You should increase this number if multiple processes access the same data block.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Indexes Editor.

Indexes Editor for Oracle - Space Tab

The Space Tab of the Indexes Editor lets you manage space allocations for every index on the current datasource. The table below describes the options and functionality on the Space Tab of the Indexes Editor:

Option	Description
Space Utilization	Lets you specify the percent of space reserved for future updates.
Statistics	Lets you select parameters.

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Option	Description
Extents	The unit of space allocated to an object whenever the object needs more space. Initial Extent - The initial space extent (in bytes) allocated to the object. Next Extent - The next extent (in bytes) that the object will attempt to allocate when more space for the object is required. Minimum Extents - The appropriate minimum extents value for the object. Maximum Extents - The appropriate maximum extents value for the object. Percent Increase - Magnifies how an object grows and, can materially affect available free space in a tablespace. Select a value in the corresponding box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Indexes Editor.

Indexes Editor for Oracle - Partitions Tab

The Partitions Tab of the Indexes Editor lets you partition tables on the current datasource.

The table below describes the options and functionality on the Partitions Tab of the Indexes Editor:

NOTE: Options vary for partitioned and non-partitioned tables.

Option	Description
Locality	Displays the locality, whether the partitioned index is local or global.
Alignment	Displays whether this partitioned index is prefixed or non-prefixed.
Partitioning Method	Displays the partitioning method, including Range-Hash Composite or Range-List Composite. Hash partitions partition the table according to a hash function. Composite partitions use both range and hash types, first partitioning the data by a range of values, and then further dividing the partitions into subpartitions by way of a hash function. List partitioning lets you control how rows map to partitions. You can specify a list of discrete values for the partitioning column in the description for each partition.
Partitioning Columns	Displays partitioning columns.
Subpartitioning Columns	Displays subpartitioning columns.
Partitions	Click Edit to open the Partition dialog box. Click Drop to drop a partition.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

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For more information, see Indexes Editor.

Coalesce Partition for Oracle

The Coalesce Partitions dialog box lets you coalesce an index or table partition. Coalescing an index partition lets you decrease fragmentation.

NOTE: You can only coalesce a hash table partition. Coalescing is not available for range, range-list, or composite partitions.

The table below describes the options and functionality on the Coalesce Partition dialog box:

Option	Description
Name	Lists the indexes selected for coalescing.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Completing a Dialog Box.

Mark Index Partition Unusable for Oracle

The Mark Index Partition Unusable dialog box lets you mark index partitions as unusable.

Important Notes

If you are preparing to drop or rebuild an index, mark local indexes as unusable. If you want to make unusable indexes valid or to recover space and improve performance, rebuild the unusable indexes.

The table below describes the options and functionality on the Mark Index Unusable dialog box:

Option	Description
Partition Box	Select the partitions that have the indexes that you want to mark unusable.

For more information, see Completing a Dialog Box.

Rebuild Unusable Index Partition/Mark Local Indexes Unusable for Oracle

This dialog box lets you rebuild your indexes and subpartitions for composite-partitioned tables without having to drop and recreate them, or specify the indexes for partitions to mark unusable. The table below describes the options and functionality on the dialog box:

Option	Description
Local indexes for partitions to be rebuilt	Lets you specify the indexes to rebuild the partitions
Local indexes for partitions to be marked unusable	Lets you specify the indexes for partitions to mark unusable

For more information, see Completing a Dialog Box.

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Split Partition for Oracle

The Split Partition dialog box lets you divide a single partition into two partitions. You can split partitions if a single partition is causing maintenance problems because it is too large.

Important Notes

- You cannot split a local index partition defined on a hash or composite table.
- Make sure that you specify an upper bound for the column that is lower than the upper bound for that column in the original partition. The note at the bottom of the First New Partition Upper Bound dialog box shows the upper bound for the original partition in parentheses.

The table below describes the options and functionality on the Split Partition dialog box:

Option	Description
Specify the noninclusive upper bound for the first new partition	Lets you specify the non-inclusive upper bound for the partitioning columns. Not available for the local index.
Define the attributes for the two new partitions	Lets you add, edit, or drop the partition. The Add and Edit buttons open the Add/Modify Partition dialog box.
Parallelize the split operation group box	Degree - Click the number of query server processes that should be used in the operation. Instances - Click the number indicating how you want the parallel query split among servers.

For more information, see Completing a Dialog Box.

Indexes Editor for Oracle - DDL Tab

The DDL Tab of the Indexes Editor lets you view the SQL code for every index on the current datasource. To view the DDL for another index, click the lists, click the target owners and/or tables, and then click the target owner and/or index.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Indexes Editor.

Job Queue Editor for Oracle

The Job Queue lets you:

- Alter the job's definition (code).
- Change the job's schedule and status.
- View display the DDL/command used to create the job.

TIP: The Object Editor tool bar refresh button lets you refresh Object Editor contents, clear the Object Editors, and log SQL if SQL Logging is turned on.

The following tabs are available in the Libraries Editor:

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Job Queue Editor for Oracle - Definition Tab

The Definition Tab of the Job Queue Editor lets you alter the job's definition (code).

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Job Queue Editor.

Job Queue Editor for Oracle - Properties Tab

The Properties Tab of the Job Queue Editor lets you change the job's schedule and status.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Job Queue Editor.

Job Queue Editor for Oracle - DDL Tab

The DDL Tab of the Job Queue Editor displays the DDL/command used to create the job.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Job Queue Editor.

Libraries Editor for Oracle

The Libraries Editor lets you:

- View and modify library definition.
- Manage library dependencies.
- Manage library privileges.
- View library DDL.

TIP: The Object Editor tool bar refresh button lets you refresh Object Editor contents, clear the Object Editors, and log SQL if SQL Logging is turned on.

The following tabs are available in the Libraries Editor:

- Definition
- Dependencies
- Privileges
- DDL

The following functionality is available on the Libraries Editor Command menu:

- Rename

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Libraries Editor for Oracle - Definition Tab

The Definition Tab of the Libraries Editor displays information for every library on the current datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Libraries Editor.

Libraries Editor for Oracle - Dependencies Tab

The Dependencies Tab of the Libraries Editor lets you manage database objects dependent on each library on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target library is dependent on these objects.
Referenced Objects	These objects are dependent on the target library.

TIP: Click one of the referenced objects to open that object's editor.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Libraries Editor.

Libraries Editor for Oracle - Privileges Tab

The Privileges Tab of the Libraries Editor lets you manage permissions for every library on the current datasource.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Rapid SQL, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

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For more information, see:

Granting Permissions

Revoking Permissions

Libraries Editor

Libraries Editor for Oracle - DDL Tab

The DDL Tab of the Libraries Editor lets you view the SQL code for every library on the current datasource. To view DDL for another table, click the lists, click the target owner, and then click the target table.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Libraries Editor.

Materialized Views Editor for Oracle

The Materialized Views Editor lets you:

- View and modify materialized view information.
- Modify materialized view partitions.

TIP: The Object Editor tool bar refresh button lets you refresh Object Editor contents, clear the Object Editors, and log SQL if SQL Logging is turned on.

The following tabs are available in the Materialized Views Editor:

- Information
- Partitions
- Dependencies
- Privileges
- DDL

Materialized Views Editor for Oracle - Information Tab

The Information Tab of the Materialized Views Editor displays the status and size information for every materialized view on the current datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Materialized Views Editor.

Materialized Views Editor for Oracle - Partitions Tab

The Partitions Tab of the Materialized Views Editor lets you partition tables on the current datasource. The table below describes the options and functionality on the Partitions Tab of the Materialized Views Editor:

NOTE: Options vary for partitioned and non-partitioned tables.

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Option	Description
Partitioning Method	Displays the partitioning method, including Range-Hash Composite or Range-List Composite. Hash partitions partition the table according to a hash function. Composite partitions use both range and hash types, first partitioning the data by a range of values, and then further dividing the partitions into subpartitions by way of a hash function. List partitioning lets you control how rows map to partitions. You can specify a list of discrete values for the partitioning column in the description for each partition.
Row Movement	If its key is updated, migrates the row to a new partition.
Partitioning Columns	Displays partitioning columns.
Subpartitioning Columns	Displays subpartitioning columns.
Partitions	Click Add or Edit to open the Partition dialog box. Click Drop to drop a partition.
Subpartition Template	If the partitioning type is Range-Hash Composite, displays a list of subpartitions in the subpartition template. Click Add, Insert, or Edit to open the Subpartition dialog box. Click Drop to drop a subpartition.

The following functionality is available on the Command menu:

- Allocate Extent
- Deallocate Unused Space
- Mark Local Indexes Unusable
- Rebuild Unusable Local Indexes
- Split Partition

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Materialized Views Editor.

Materialized Views Editor for Oracle - Dependencies Tab

The Information Tab of the Materialized Views Editor displays the dependencies for every materialized view on the current datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Materialized Views Editor.

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Materialized Views Editor for Oracle - Privileges Tab

The Information Tab of the Materialized Views Editor displays the privileges for every materialized view on the current datasource.

For more information, see:

Granting Permissions

Revoking Permissions

Materialized Views Editor

Materialized Views Editor for Oracle - DDL Tab

The Information Tab of the Materialized Views Editor displays DDL for every materialized view on the current datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Materialized Views Editor.

Materialized Views Editor for Oracle - Storage Tab

The Storage Tab of the Materialized Views Editor lets you manage storage for every Materialized View on the current datasource. The table below describes the options and functionality on the Storage Tab of the Materialized Views Editor:

Option	Description
Data Block Storage	Each transaction that updates a data block requires a transaction entry. Initial Extent - Ensures that a minimum number of concurrent transactions can update a data block, avoiding the overhead of allocating a transaction entry dynamically. Maximum - Limits concurrency on a data block.
Extents	The unit of space allocated to an object whenever the object needs more space. Initial Extent - The initial space extent (in bytes) allocated to the object. Next Extent - The next extent (in bytes) that the object will attempt to allocate when more space for the object is required. Minimum Extents - The appropriate minimum extents value for the object. Maximum Extents - The appropriate maximum extents value for the object. Percent Increase - Magnifies how an object grows and, can materially affect available free space in a tablespace. Select a value in the corresponding box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Materialized Views Editor.

Materialized Views Editor for Oracle - Query Tab

The Query Tab of the Materialized Views Editor displays SQL for every materialized view on the current datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Materialized Views Editor.

Materialized View Logs Editor for Oracle

The Materialized View Logs Editor lets you:

- View materialized view log information.
- Manage materialized view log storage.
- Manage materialized view log performance.
- Manage materialized view log dependencies.
- View materialized view log DDL.

TIP: The Object Editor tool bar refresh button lets you refresh Object Editor contents, clear the Object Editors, and log SQL if SQL Logging is turned on.

The following tabs are available in the Materialized View Logs Editor:

- Information
- Storage
- Performance
- Dependencies
- DDL

Materialized View Logs Editor for Oracle - Information Tab

The Information Tab of the Materialized View Logs Editor displays logfile information for every materialized view log on the current datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Materialized View Logs Editor.

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Materialized View Logs Editor for Oracle - Storage Tab

The Storage Tab of the Materialized View Logs Editor lets you manage storage for every materialized view log on the current datasource. The table below describes the options and functionality on the Storage Tab of the Materialized View Logs Editor:

Option	Description
Data Block Storage	Each transaction that updates a data block requires a transaction entry. Initial Extent - Ensures that a minimum number of concurrent transactions can update a data block, avoiding the overhead of allocating a transaction entry dynamically. Maximum - Limits concurrency on a data block.
Extents	The unit of space allocated to an object whenever the object needs more space. Initial Extent - The initial space extent (in bytes) allocated to the object. Next Extent - The next extent (in bytes) that the object will attempt to allocate when more space for the object is required. Minimum Extents - The appropriate minimum extents value for the object. Maximum Extents - The appropriate maximum extents value for the object. Percent Increase - Magnifies how an object grows and, can materially affect available free space in a tablespace. Select a value in the corresponding box.
Column Filtering	Lets you select the filter columns to be recorded in the materialized view log. You can specify only one primary key, one ROWID and one filter column list per materialized view log. The ROWID is a globally unique identifier for a row in a database. It is created at the time the row is inserted into a table, and destroyed when it is removed from a table.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Materialized View Logs Editor.

Materialized View Logs Editor for Oracle - Performance Tab

The Performance Tab of the Materialized View Logs Editor lets you manage performance for every materialized view log on the current datasource. The table below describes the options and functionality on the Performance Tab of the Materialized View Logs Editor:

Option	Description
Parallel Query Option	The Parallel server query option lets you process queries using many query server processes running against multiple CPUs. This option provides substantial performance gains such as reduction of the query completion time. Degree - Lets you type a value indicating the number of query server processes that should be used in the operation. Instances - Lets you type a value indicating how you want the parallel query partitioned between the Parallel Servers.
Logging	Select to create a log for all Materialized View updates.

Option	Description
Cache	Select if you want Oracle to put data you access frequently at the most recently used end of the list in the buffer cache when a full table scan is performed. This option is useful for small lookup tables.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Materialized View Logs Editor.

Materialized View Logs Editor for Oracle - Dependencies Tab

The Dependencies Tab of the Materialized View Logs Editor lets you manage database objects dependent on each materialized view log on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the options and functionality on the Dependencies Tab of the Materialized View Logs Editor:

Relationship	Description
Referencing Objects	The target view is dependent on these objects.
Referenced Objects	These objects are dependent on the target view.

TIP: Click one of the referenced objects to open that object's editor.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Materialized View Logs Editor.

Materialized View Logs Editor for Oracle - DDL Tab

The DDL Tab of the Materialized View Logs Editor lets you view the SQL code for every materialized view log on the current datasource. To view DDL for another materialized view log, click the lists, click the target owner, and then click the target materialized view log.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Materialized View Logs Editor.

Outlines Editor for Oracle

The Outlines Editor lets you:

- View and modify outline definition.
- View outline information.
- View outline DDL.

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If an objects has dependent objects, such as tables, triggers, procedures and views, you can view and access their dependent objects in the editor.

TIP: The Object Editor tool bar refresh button lets you refresh Object Editor contents, clear the Object Editors, and log SQL if SQL Logging is turned on.

NOTE: The only SQL statements possible with stored outlines are SELECT, DELETE, UPDATE, INSERT…SELECT, and CREATE TABLE…AS SELECT.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

Package Bodies Editor for Oracle

The Package Bodies Editor lets you:

- View package body DDL.

TIP: The Object Editor tool bar refresh button lets you refresh Object Editor contents, clear the Object Editors, and log SQL if SQL Logging is turned on.

The following tab is available in the Package Bodies Editor:

- DDL

Package Bodies Editor for Oracle - DDL Tab

The DDL Tab of the Package Bodies Editor lets you view the SQL code for every package bodies on the current datasource. To view DDL for another package body, click the lists, click the target owner, and then click the target package body.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Package Bodies Editor.

Packages Editor for Oracle

The Packages Editor lets you:

- View and modify header specifications.
- View and modify body specifications.
- View and modify package size.
- View and modify package dependencies.
- View and manage package privileges.

TIP: The Object Editor tool bar refresh button lets you refresh Object Editor contents, clear the Object Editors, and log SQL if SQL Logging is turned on.

The following tabs are available in the Packages Editor:

- Header

- Body
- Information
- Dependencies
- Privileges

Packages Editor for Oracle - Header Tab

The Header Tab of the Packages Editor lets you modify the package header specifications.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Packages Editor.

Packages Editor for Oracle - Body Tab

The Body Tab of the Packages Editor lets you modify the package body specifications.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Packages Editor.

Packages Editor for Oracle - Information Tab

The Information Tab of the Packages Editor displays the status and size information for every package on the current datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Packages Editor.

Packages Editor for Oracle - Dependencies Tab

The Dependencies Tab of the Packages Editor lets you manage database objects dependent on each package on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target package is dependent on these objects.
Referenced Objects	These objects are dependent on the target package.

TIP: Click one of the referenced objects to open that object's editor.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Packages Editor.

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Packages Editor for Oracle - Privileges Tab

The Privileges Tab of the Packages Editor lets you manage permissions for every package on the current datasource.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Rapid SQL, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Packages Editor

Primary Keys Editor for Oracle

The Primary Keys Editor lets you:

- Manage primary key columns.
- Manage primary key properties.
- Manage primary key storage.
- Manage primary key partitions.
- View primary key DDL.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Primary Keys Editor:

- Columns
- Properties
- Storage

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- Space
- Partitions
- DDL

TIP: The Primary Keys Editor Command menu offers the Rename functionality.

Primary Keys Editor for Oracle - Columns Tab

The Columns Tab of the Primary Keys Editor lets you manage columns for every primary key on the current datasource. Rapid SQL sorts all column information into two boxes. The box on the left lists all columns in the selected table. The box on the right lists target table columns in the primary key. The table below describes the options and functionality on the Columns Tab of the Primary Keys Editor:

Column Name	Description
Column	The name of the column in the target primary key.
Datatype	The datatype for the column in the target primary key. If applicable, Rapid SQL displays the precision in parentheses.
Nulls	The table definition permits nulls in the target table column. Null has no explicitly assigned value. Null is not equivalent to zero or blank. A value of null is not considered to be greater than, less than, or equivalent to any other value, including another value of null.
Index columns	The name of the column included in the primary key.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Primary Keys Editor.

Primary Keys Editor for Oracle - Properties Tab

The Properties Tab of the Primary Keys Editor lets you set properties. The table below describes the options and functionality on the Properties Tab of the Primary Keys Editor:

Option	Description
Index Constraints Properties	Lets you select properties.
Index Constraint Status	Enable - Enables the constraint immediately after building it. Disable - Disables the constraint immediately after building it.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Primary Keys Editor.

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Primary Keys Editor for Oracle - Storage Tab

The Storage Tab of the Primary Keys Editor lets you manage storage for every primary key on the current datasource. The table below describes the options and functionality on the Storage Tab of the Primary Keys Editor:

Option	Description
Data Block Storage	Tablespace - Lets you select the tablespace for the primary key. **NOTE:** You should never place primary keys on the SYSTEM tablespace. Percent Free - Lets you type the appropriate percent free value for the primary key. Initial Transactions - Lets you type the appropriate initial transactions value for the primary key. Max Transactions - Lets you type the appropriate maximum transactions value for the primary key.
Extents	The unit of space allocated to an object whenever the object needs more space. Initial Extent - The initial space extent (in bytes) allocated to the object. Next Extent - The next extent (in bytes) that the object will attempt to allocate when more space for the object is required. Minimum Extents - The appropriate minimum extents value for the object. Maximum Extents - The appropriate maximum extents value for the object. Percent Increase - Magnifies how an object grows and, can materially affect available free space in a tablespace. Select a value in the corresponding box.
Freelists	Free list groups separate the data structures associated with the free space management of a table into disjoint sets that are available for individual instances. With free list groups, the performance issues among processes working on different instances is reduced because data blocks with sufficient free space for inserts are managed separately for each instance.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Primary Keys Editor.

Primary Keys Editor for Oracle - Space Tab

The Space Tab of the Primary Keys Editor lets you manage space allocations for every primary key on the current datasource. The table below describes the options and functionality on the Space Tab of the Primary Keys Editor:

Option	Description
Space Utilization	Lets you specify the percent of space reserved for future updates.
Statistics	Lets you select parameters.

Option	Description
Extents	The unit of space allocated to an object whenever the object needs more space. Initial Extent - The initial space extent (in bytes) allocated to the object. Next Extent - The next extent (in bytes) that the object will attempt to allocate when more space for the object is required. Minimum Extents - The appropriate minimum extents value for the object. Maximum Extents - The appropriate maximum extents value for the object. Percent Increase - Magnifies how an object grows and, can materially affect available free space in a tablespace. Select a value in the corresponding box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Primary Keys Editor.

Primary Keys Editor for Oracle - Partitions Tab

The Partitions Tab of the Primary Keys Editor lets you partition primary keys on the current datasource. The table below describes the options and functionality on the Partitions Tab of the Primary Keys Editor:

Option	Description
Partition Button	Click to open the Convert to Partitioned Index Wizard.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Primary Keys Editor.

Primary Keys Editor for Oracle - DDL Tab

The DDL Tab of the Primary Keys Editor lets you view the SQL code for every primary key on the current datasource. To view DDL for another primary key, click the lists, click the target owner and/or table, and then click the target primary key.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Primary Keys Editor.

Procedures Editor for Oracle

The Procedures Editor lets you:

- View and modify procedure definitions.
- Manage procedure dependencies.

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- Manage procedure privileges.

  TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Procedures Editor:

- Definition
- Information
- Dependencies
- Privileges

The following functionality is available on the Procedures Editor Command menu:

- Rename
- Execute

Procedures Editor for Oracle - Definition Tab

The Definition Tab of the Procedures Editor lets you view the SQL code for every procedure on the current datasource. To view DDL for another procedure, click the lists, click the target owner, and then click the target procedure.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Procedures Editor.

Procedures Editor for Oracle - Information Tab

The Information Tab of the Procedures Editor displays the status and size information for every procedure on the current datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Procedures Editor.

Procedures Editor for Oracle - Dependencies Tab

The Dependencies Tab of the Procedures Editor lets you manage database objects dependent on each procedure on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target procedure is dependent on these objects.
Referenced Objects	These objects are dependent on the target procedure.

TIP: Click one of the referenced objects to open that object's editor.

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After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Procedures Editor.

Procedures Editor for Oracle - Privileges Tab

The Privileges Tab of the Procedures Editor lets you manage permissions for every procedure on the current datasource.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Rapid SQL, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Procedures Editor

Profiles Editor for Oracle

The Profiles Editor lets you:

- Manage profile limits.
- Manage users.
- View profile DDL.

TIP: The Object Editor tool bar refresh button lets you refresh Object Editor contents, clear the Object Editors, and log SQL if SQL Logging is turned on.

The following tabs are available in the Profiles Editor:

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- Resources
- Users
- DDL

Profiles Editor for Oracle - Resources Tab

The Resources Tab of the Profiles Editor lets you manage profile limits. The table below describes the options and functionality on the Resources Tab of the Profiles Editor:

Option	Description
General Limits	Lets you specify general limits.
Session Limits	Lets you specify the limit on the amount of private space a session can allocate in the shared pool of the SGA.
Time Limits	Lets you specify the limit on total connection time per session.
Call Limits	Lets you specify the CPU time limit for a call (a parse, execute, or fetch), expressed in hundredths of seconds.
Login Limits	Lets you specify the number of failed attempts to log in to the user account before the account is locked.
Password Limits	Lets you specify the number of days the same password can be used for authentication. The password expires if it is not changed within this period, and further connections are rejected.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Profiles Editor.

Profiles Editor for Oracle - Users Tab

The Users Tab of the Profiles Editor lets you manage users for every profile on the current datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Profiles Editor.

Profiles Editor for Oracle - DDL Tab

The DDL Tab of the Profiles Editor lets you view the SQL code for every profile on the current datasource. To view DDL for another profile, click the lists, click the target owner, and then click the target profile.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Profiles Editor.

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Redo Log Groups Editor for Oracle

The Redo Log Groups Editor lets you:

- View, Add, and modify Redo Log Members.
- View check constraint DDL.

> **TIP:** The refresh button lets you refresh or clear the editor's contents, and log SQL.

The table below describes the tabs available in the Redo Log Groups Editor:

Tab	Description
Redo Log Members	Lets you View, Add, Edit, and Delete Redo Log Members.
DDL	Lets you view the SQL code for every check constraint on the current datasource. To view DDL for another check constraint, click the lists, click the target owners and/or tables, and then click the target check constraint.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

Add/Edit Redo Log Member for Oracle

The Add/Modify Redo Log Group Member dialog box lets you add Redo Log Members, and edit existing ones. The table below describes the options and functionality on the Add/Modify Redo Log Group Member dialog box:

Option	Description
Redo Log Group Name	Type the Redo Log Group Name in the box, or edit the existing one.
Redo Log Group Member Name	Type the full path of the Redo Log Group Member name, or edit the existing one.

Roles Editor for Oracle

The Roles Editor lets you:

- Manage users for roles.
- Manage role privileges.
- View role DDL.

> **TIP:** The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Roles Editor:

- Authentication
- Users
- Object Privileges
- System Privileges
- DDL

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Roles Editor for Oracle - Authentication Tab

The Authentication Tab of the Roles Editor lets you manage role identity. When creating a role, you must establish certain rules governing its use. You can specify whether or not a role must be identified when used.

If you require role identification, you can authenticate the user externally through the operating system, or with a specific password.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Roles Editor.

Roles Editor for Oracle - Users Tab

The Users Tab of the Roles Editor lets you manage users for every role on the current datasource. A user becomes associated with an application role after running the target application.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Roles Editor.

Roles Editor for Oracle - Object Privileges and System Privileges Tab

The Object Privileges and System Privileges tabs of the Roles Editor let you manage permissions for every role on the current datasource.

These tabs display if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. On the Object Privileges Tab, Rapid SQL populates each row of the table with every available database object. On the System Privileges Tab, Rapid SQL populates each row of the table with the system privileges. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Microsoft SQL Server, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

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Roles Editor

Roles Editor for Oracle - DDL Tab

The DDL Tab of the Roles Editor lets you view the SQL code for every role on the current datasource. To view the DDL for another role, click the lists, and then click the target role.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Roles Editor.

Rollback Segments Editor for Oracle

The Rollback Segments Editor lets you:

- View rollback segment status.
- Manage rollback segment storage.
- View activity levels.
- View rollback segment DDL.

TIP: The Object Editor tool bar refresh button lets you refresh Object Editor contents, clear the Object Editors, and log SQL if SQL Logging is turned on.

The following tabs are available in the Rollback Segments Editor:

- Status
- Storage
- Activity
- DDL

Rollback Segments Editor for Oracle - Status Tab

The Status Tab of the Rollback Segments Editor displays status information for every rollback segment on the current datasource, and lets you place rollback segments online or offline.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Rollback Segments Editor.

Rollback Segments Editor for Oracle - Storage Tab

The Storage Tab of the Object Editor lets you manage storage for every rollback segment on the current datasource.

TIP: Due to their heavy I/O nature, rollback segment placement is best on server drives that experience little activity. Disks configured with RAID5 are typically poor choices for rollback segments. If you use RAID on the server, a RAID0 or 0+1 configuration is best for rollback segments.

>

The table below describes the options and functionality on the Storage Tab of the Rollback Segments Editor:

Option	Description
Extents	The unit of space allocated to an object whenever the object needs more space. Initial Extent - The initial space extent (in bytes) allocated to the object. Next Extent - The next extent (in bytes) that the object will attempt to allocate when more space for the object is required. Minimum Extents - The appropriate minimum extents value for the object. Maximum Extents - The appropriate maximum extents value for the object. Percent Increase - Magnifies how an object grows and, can materially affect available free space in a tablespace. Select a value in the corresponding box.
Extent Detail	Displays extent details.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Rollback Segments Editor.

Rollback Segments Editor for Oracle - Activity Tab

The Activity Tab of the Rollback Segments Editor displays activity levels, and dynamic sizing.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Rollback Segments Editor.

Rollback Segments Editor for Oracle - DDL Tab

The DDL Tab of the Rollback Segments Editor lets you view the SQL code for every rollback segment on the current datasource. To view DDL for another rollback segment, click the lists, click the target owner, and then click the target rollback segment.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Rollback Segments Editor.

Sequences Editor for Oracle

The Sequences Editor lets you:

- Manage parameters for every sequence on the current datasource.
- Manage database objects dependent on each sequence on the current datasource.
- Manage permissions for every sequence on the current datasource.

>

- View sequence DDL.

  TIP: The Object Editor tool bar refresh button lets you refresh Object Editor contents, clear the Object Editors, and log SQL if SQL Logging is turned on.

The following tabs are available in the Sequences Editor:

- Definition
- Dependencies
- Privileges
- DDL

The following functionality is available on the Sequences Editor Command menu:

- Rename
- Create Synonym

Sequences Editor for Oracle - Definition Tab

The Definition Tab of the Sequences Editor lets you manage parameters for every sequence on the current datasource. The table below describes the options and functionality on the Definition Tab of the Sequences Editor:

Option	Description
Parameters	Increment By - Lets you specify the interval between sequence numbers. This integer value can be any positive or negative integer, but it cannot be 0. This value can have 28 or fewer digits. The absolute of this value must be less than the difference of MAXVALUE and MINVALUE. If this value is negative, then the sequence descends. If the increment is positive, then the sequence ascends. If you omit this clause, the interval defaults to 1. Minimum Value - Lets you specify the minimum value of the sequence. This integer value can have 28 or fewer digits. Maximum Value - Lets you specify the maximum value the sequence can generate. This integer value can have 28 or fewer digits.
Current/Next Sequence Numbers	Lets you make the sequence cycle and continue to generate numbers.
Options	Generate Numbers in Order - Useful when you are using the sequence number as a timestamp.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Sequences Editor.

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Sequences Editor for Oracle - Dependencies Tab

The Dependencies Tab of the Sequences Editor lets you manage database objects dependent on each sequence on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target sequence is dependent on these objects.
Referenced Objects	These objects are dependent on the target sequence.

TIP: Click one of the referenced objects to open that object's editor.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Sequences Editor.

Sequences Editor for Oracle - Privileges Tab

The Privileges Tab of the Sequences Editor lets you manage permissions for every sequence on the current datasource.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Rapid SQL, a user cannot revoke a privilege that has been granted by a role.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Sequences Editor

Sequences Editor for Oracle - DDL Tab

The DDL Tab of the Sequences Editor lets you view the SQL code for every sequence on the current datasource. To view DDL for another sequence, click the lists, click the target owner, and then click the target sequence.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Sequences Editor.

Snapshots Editor for Oracle

The Snapshots Editor lets you:

- View status and size information.
- Manage storage.
- Manage privileges.
- View snapshot DDL.

TIP: The Object Editor tool bar refresh button lets you refresh Object Editor contents, clear the Object Editors, and log SQL if SQL Logging is turned on.

The following tabs are available in the Snapshots Editor:

- Information
- Storage
- Privileges
- DDL

Snapshots Editor for Oracle - Information Tab

The Information Tab of the Snapshots Editor displays the status and size information for every snapshot on the current datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Snapshots Editor.

Snapshots Editor for Oracle - Storage Tab

The Storage Tab of the Snapshots Editor lets you manage storage for every snapshot on the current datasource. The table below describes the options and functionality on the Storage Tab of the Snapshots Editor:

Option	Description
Data Block Storage	Each transaction that updates a data block requires a transaction entry. Initial Extent - Ensures that a minimum number of concurrent transactions can update a data block, avoiding the overhead of allocating a transaction entry dynamically. Maximum - Limits concurrency on a data block.

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Option	Description
Extents	The unit of space allocated to an object whenever the object needs more space. Initial Extent - The initial space extent (in bytes) allocated to the object. Next Extent - The next extent (in bytes) that the object will attempt to allocate when more space for the object is required. Minimum Extents - The appropriate minimum extents value for the object. Maximum Extents - The appropriate maximum extents value for the object. Percent Increase - Magnifies how an object grows and, can materially affect available free space in a tablespace. Select a value in the corresponding box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Snapshots Editor.

Snapshots Editor for Oracle - Privileges Tab

The Privileges Tab of the Snapshots Editor lets you manage permissions for every snapshot on the current datasource.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Rapid SQL, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Snapshots Editor

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Snapshots Editor for Oracle - DDL Tab

The DDL Tab of the Snapshots Editor lets you view the SQL code for every snapshot on the current datasource. To view DDL for another snapshot, click the lists, click the target owner, and then click the target snapshot.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Snapshots Editor.

Snapshot Logs Editor for Oracle

The Snapshot Logs Editor lets you:

- View status and size information.
- Manage storage.
- View snapshot log DDL.

TIP: The Object Editor tool bar refresh button lets you refresh Object Editor contents, clear the Object Editors, and log SQL if SQL Logging is turned on.

The following tabs are available in the Snapshot Logs Editor:

- Information
- Storage
- DDL

Snapshot Logs Editor for Oracle - Information Tab

The Information Tab of the Snapshot Logs Editor displays the status and size information for every snapshot log on the current datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Snapshot Logs Editor.

Snapshot Logs Editor for Oracle - Storage Tab

The Storage Tab of the Snapshot Logs Editor lets you manage storage for every snapshot log on the current datasource. The table below describes the options and functionality on the Storage Tab of the Snapshot Logs Editor:

Option	Description
Data Block Storage	Each transaction that updates a data block requires a transaction entry. Initial Extent - Ensures that a minimum number of concurrent transactions can update a data block, avoiding the overhead of allocating a transaction entry dynamically. Maximum - Limits concurrency on a data block.

Option	Description
Extents	The unit of space allocated to an object whenever the object needs more space. Initial Extent - The initial space extent (in bytes) allocated to the object. Next Extent - The next extent (in bytes) that the object will attempt to allocate when more space for the object is required. Minimum Extents - The appropriate minimum extents value for the object. Maximum Extents - The appropriate maximum extents value for the object. Percent Increase - Magnifies how an object grows and, can materially affect available free space in a tablespace. Select a value in the corresponding box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Snapshot Logs Editor.

Snapshot Logs Editor for Oracle - DDL Tab

The DDL Tab of the Snapshot Logs Editor lets you view the SQL code for every snapshot log on the current datasource. To view DDL for another snapshot log, click the lists, click the target owner, and then click the target snapshot log.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Snapshot Logs Editor.

Synonyms Editor for Oracle

The Synonyms Editor lets you:

- View base object information.
- Manage database objects dependent on each synonym.
- View synonym DDL.

TIP: The Object Editor tool bar refresh button lets you refresh Object Editor contents, clear the Object Editors, and log SQL if SQL Logging is turned on.

The following tabs are available in the Synonyms Editor:

- Definition
- Dependencies
- DDL

The following functionality is available on the Synonyms Editor Command menu:

- Rename

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Synonyms Editor for Oracle - Definition Tab

The Definition Tab of the Synonyms Editor lets you view base object information for every synonym on the current datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Synonyms Editor.

Synonyms Editor for Oracle - Dependencies Tab

The Dependencies Tab of the Synonyms Editor lets you manage database objects dependent on each synonym on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target synonym is dependent on these objects.
Referenced Objects	These objects are dependent on the target synonym.

TIP: Click one of the referenced objects to open that object's editor.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Synonyms Editor.

Synonyms Editor for Oracle - DDL Tab

The DDL Tab of the Synonyms Editor lets you view the SQL code for every synonym on the current datasource. To view DDL for another synonym, click the lists, click the target owner, and then click the target synonym.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Synonyms Editor.

Tables Editor for Oracle

The Tables Editor lets you:

- Manage table columns.
- Manage table constraints.
- Manage table storage.
- Manage table space.
- Manage table partitions.
- Manage table dependencies.
- Manage table privileges.

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- View table DDL.

  TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Tables Editor:

- Columns
- Constraints
- Storage
- Performance
- Space
- LOB Space
- Partitions
- Comment
- Dependencies
- Privileges
- DDL

The following functionality is available on the Tables Editor Command menu:

- Rename
- Edit Data
- Build Query
- Create Like
- Analyze
- Allocate Extent
- Deallocate Unused Space
- Indexes
- Triggers
- Create Synonym
- Truncate
- Move/Reorganize
- Convert to Partitioned
- Estimate Size
- Create Insert Statements
- Select*From

>

Tables Editor for Oracle - Columns Tab

The Columns Tab of the Tables Editor lets you manage columns for every table on the current datasource. The Columns Tab lets you:

- Add columns
- Insert columns
- Edit columns
- Drop columns
- Order columns
- Rename columns

The table below describes the options and functionality on the Columns Tab of the Tables Editor:

Column Name	Description
Name	The name of the column in the target table.
Datatype	The datatype for the column in the target table. If applicable, Rapid SQL displays the precision in parentheses. **NOTE:** For Oracle 9i, Rapid SQL supports the XMLType datatype. Rapid SQL also supports the new Timestamp datatypes, including Timestamp, Timestamp with Time Zone, and Timestamp with Local Time Zone.
Nulls	The table definition permits nulls in the target table column. Null has no explicitly assigned value. Null is not equivalent to zero or blank. A value of null is not considered to be greater than, less than, or equivalent to any other value, including another value of null.
Default	The name of the column included in the table.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Add Column Dialog Box

Modify Column Dialog Box

Tables Editor

Tables Editor for Oracle - Constraints Tab

The Constraints Tab of the Tables Editor lets you manage constraints for every table on the current datasource. Rapid SQL arranges the constraints in a tree structure. The tree contains folders which contain all constraints associated with the target table. The objects are organized in folders based on the type of constraint:

- Check Constraint
- Foreign Key
- Primary Key
- Unique Key

In the tree, double-click a constraint to open a dialog box with detailed information on the target constraint.

The table below describes the options and functionality on the Constraints Tab:

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Option	Description
Add	Click to open the Index Constraint dialog box.
Edit	Click to open the Index Constraint dialog box.
Drop	Drops the selected constraint.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Index Constraint Dialog Box

Tables Editor

Tables Editor for Oracle - Storage Tab

The Storage Tab of the Tables Editor lets you manage storage for every table on the current datasource.

TIP: You should never place user tables on the SYSTEM tablespace.

The table below describes the options and functionality on the Storage Tab of the Tables Editor:

Option	Description
Data Block Storage	The storage parameter lets you tune performance by minimizing the occurrence of row migration and chaining caused by update operations that extend the length of rows stored on the data block. Percent Used - Lets you type a value in the corresponding box. Maximum - The maximum parameter limits concurrency on a data block.
Extents	The unit of space allocated to an object whenever the object needs more space. Initial Extent - The initial space extent (in bytes) allocated to the object. Next Extent - The next extent (in bytes) that the object will attempt to allocate when more space for the object is required. Minimum Extents - The appropriate minimum extents value for the object. Maximum Extents - The appropriate maximum extents value for the object. Percent Increase - Magnifies how an object grows and, can materially affect available free space in a tablespace. Select a value in the corresponding box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tables Editor.

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Tables Editor for Oracle - Performance Tab

The Performance Tab of the Tables Editor lets you manage performance for every table on the current datasource. The table below describes the options and functionality on the Performance Tab of the Tables Editor:

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Option	Description
Parallel Query Option	The Parallel server query option lets you process queries using many query server processes running against multiple CPUs, which provides substantial performance gains such as reduction of the query completion time.
Cache	Keeps the blocks in memory by placing it at the most recently used end. This option is useful for small lookup tables.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tables Editor.

Tables Editor for Oracle - Space Tab

The Space Tab of the Tables Editor lets you view the table usage and the distribution of table space for every table on the current datasource.

Option	Description
Space Utilization	Lets you specify the percent of space reserved for future updates.
Row Information	Lets you view row information.
Extents	The unit of space allocated to an object whenever the object needs more space. Initial Extent - The initial space extent (in bytes) allocated to the object. Next Extent - The next extent (in bytes) that the object will attempt to allocate when more space for the object is required. Minimum Extents - The appropriate minimum extents value for the object. Maximum Extents - The appropriate maximum extents value for the object. Percent Increase - Magnifies how an object grows and, can materially affect available free space in a tablespace. Select a value in the corresponding box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tables Editor.

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Tables Editor for Oracle - LOB Space Tab

The LOB Space Tab of the Tables Editor lets you view the table usage and the distribution of LOB table space for every LOB on the current datasource. The table below describes the options and functionality on the LOB Space Tab of the Tables Editor:

Option	Description
Segment Definition	Lets you edit the column name.
Configuration	Lets you edit the column configuration.
Storage	Lets you edit the storage parameters.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tables Editor.

Tables Editor for Oracle - Partitions Tab

The Partitions Tab of the Tables Editor lets you partition tables on the current datasource. The table below describes the options and functionality on the Partitions Tab of the Tables Editor:

Option	Description
Partitioning Method	Displays the partitioning method, including Range-Hash Composite or Range-List Composite. Hash partitions partition the table according to a hash function. Composite partitions use both range and hash types, first partitioning the data by a range of values, and then further dividing the partitions into subpartitions by way of a hash function. List partitioning lets you control how rows map to partitions. You can specify a list of discrete values for the partitioning column in the description for each partition.
Row Movement	If its key is updated, migrates the row to a new partition.
Partitioning Columns	Displays partitioning columns.
Subpartitioning Columns	Displays subpartitioning columns.
Partitions	Click Add or Edit to open the Partition dialog box. Click Drop to drop a partition.
Subpartition Template	If the partitioning type is Range-Hash Composite, displays a list of subpartitions in the subpartition template. Click Add, Insert, or Edit to open the Subpartition dialog box. Click Drop to drop a subpartition.

The following functionality is available on the Command menu:

- Allocate Extent
- Analyze
- Coalesce (Not available for range-list partitions)

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- Deallocate Unused Space
- Exchange
- Mark Local Indexes Unusable
- Rebuild Unusable Local Indexes
- Split Partition
- Truncate

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tables Editor.

Exchange Data and Index Segments Dialog Box

You can use the Tables Editor to convert a partition into a nonpartitioned table by exchanging the data and index segments. You can also convert a nonpartitioned table into partitions in an existing table. Exchanging the data and index segments is most useful when you have nonpartitioned tables that you want to convert to partitions in a partitioned table.

CAUTION: The table and partition being exchanged must have the same number of columns and the column types must match.

The table below describes the options and functionality on the Exchange Data and Index Segments dialog box:

Option	Description
Partition with which to Exchange Table	Select a partition.
Table with which to Exchange Partition	Select a table owner and a non-partitioned, non-clustered table.
Include Indexes	Includes indexes in the exchange.
Validate Proper Collation of Rows	A column's collation sequence is used in any operation that compares values of the column to each other or to constant values.

Merge Partitions Dialog Box

You can use the Tables Editor to merge the contents of two adjacent partitions from a range or composite partitioned table into one. If you want to roll up similar partitions into larger partitions, which act as archives, you can merge them. For example, you can make partitions for the data from each week which you can then merge into a partition for the month.

NOTE: You cannot merge hash partitions.

NOTE: The partition that results from the merge inherits the higher upper bound of the two partitions.

>

The table below describes the options and functionality on the Merge Partitions dialog box:

Option	Description
Partition Definition	Lets you enter a new name to contain the merged partitions. Select two partitions to merge. To select multiple partitions, click SHIFT+click or CTRL+click.
Segment	Displays tablespace parameters.
Physical	Displays physical parameters.
Storage	Displays storage parameters.

Tables Editor for Oracle - Comment Tab

The Comment Tab of the Tables Editor lets you enter a comment which can be up to 2000 characters long. The comments are stored in the REMARKS column of the objects' system catalog table.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tables Editor.

Tables Editor for Oracle - Dependencies Tab

The Dependencies Tab of the Tables Editor lets you manage database objects dependent on each table on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target view is dependent on these objects.
Referenced Objects	These objects are dependent on the target view.

TIP: Click one of the referenced objects to open that object's editor.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tables Editor.

Tables Editor for Oracle - Privileges Tab

The Privileges Tab of the Tables Editor lets you manage permissions for every table on the current datasource.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

>

The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Rapid SQL, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Tables Editor

Tables Editor for Oracle - DDL Tab

The DDL Tab of the Tables Editor lets you view the SQL code for every table on the current datasource. To view DDL for another table, click the lists, click the target owner, and then click the target table.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tables Editor.

Tablespaces Editor for Oracle

The Tablespaces Editor lets you:

- Manage datafiles.
- Manage tablespace storage.
- Manage tablespace space.
- View tablespace contents and objects.
- Manage tablespace quotas.
- View tablespace DDL.

TIP: The Object Editor tool bar refresh button lets you refresh Object Editor contents, clear the Object Editors, and log SQL if SQL Logging is turned on.

The following tabs are available in the Tablespaces Editor:

- Datafile
- Storage
- Space
- Map
- Objects
- Quotas
- DDL

The following functionality is available on the Tablespace Editor Command menu:

- Change Status
- Rename
- Set Default
- Coalesce

Tablespace Editor for Oracle - Datafile Tab

The Datafile Tab of the Tablespace Editor lets you manage every tablespace on the current datasource.

> **TIP:** You can view and manage the Auto-Undo option on the Datafile Tab.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tablespace Editor.

Tablespace Editor for Oracle - Storage Tab

The Storage Tab of the Tablespace Editor lets you manage storage for every tablespace on the current datasource.

> **TIP:** Always create tablespaces for user data and never place user tables and indexes in the SYSTEM tablespace. Placing user objects in the SYSTEM tablespace can degrade performance and introduce space-related headaches to the database.

Oracle8i or later supports locally managed tablespaces, which can all but eliminate the problem of tablespace fragmentation. It totally does away with the storage parameters of MINEXTENTS, MAXEXENTS, PCTINCREASE, and NEXT. With locally managed tablespaces you either specify the initial extent size and let Oracle automatically size all other extents, or specify a uniform extent size for everything.

For users using a version earlier than Oracle 8i and locally managed tablespaces, there are manual methods can employ to assist in the fight against tablespace fragmentation. They include:

- Setting PCTINCREASE to zero for all tablespaces and objects to promote same-sized extents.
- Specifying equal-sized allotments for your INITIAL and NEXT object storage parameters.
- Grouping objects with like growth and storage needs together in their own tablespaces.

> **TIP:** One of the best ways to avoid fragmentation in a tablespace is to pre-allocate the space that your objects will use. If possible, plan for one to two years' growth for each object and allocate your space accordingly. Having initial empty objects will not affect table scan times as Oracle only scans up to the high-water mark (the last used block) in a table.

>

Of all your tablespaces, you want to avoid fragmentation problems in your SYSTEM tablespace the most as this is the major hotbed tablespace for Oracle activities. The easiest way to avoid this is to not allow any user (even the default DBA ID's SYS and SYSTEM) to have access to it. There are three ways to do this:

- Ensure no user has a DEFAULT or TEMPORARY tablespace assignment of SYSTEM.
- Ensure no user has a quota set for SYSTEM.

Ensure no user has been granted the UNLIMITED TABLESPACE privilege.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Tablespace Editor

Tablespace Editor for Oracle - Space Tab

The Space Tab of the Tablespace Editor lets you view the table usage and the distribution of space for every tablespace on the current datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tablespace Editor.

Tablespace Editor for Oracle - Map Tab

The Map Tab of the tablespace editor lets you:

- View of the contents of a tablespace.
- Hover over or select a block of the map to view information on the object that occupies the block and its relevant statistics.
- Scan for honeycomb or bubble space fragmentation.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tablespace Editor.

Tablespace Editor for Oracle - Objects Tab

The Objects Tab of the Tablespace Editor lets you view information for every object on the current datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tablespace Editor.

Tablespace Editor for Oracle - Quotas Tab

The Quotas Tab of the Tablespace editor lets you add and manage quotas for every tablespace on the current datasource:

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After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Tablespace Editor

Add User Quotas on Tablespace Dialog Box

Add/Edit User Quotas on Tablespace Dialog Box

The table below describes the options and functionality on the Add or Edit User Quotas on Tablespace dialog box:

Option	Description
User list	Displays all users. Select a user on which you want to place a quota.
Quota	Lets you set a quota on the selected user. When you assign a quota: Users with privileges to create certain types of objects can create those objects in the specified tablespace. Oracle limits the amount of space that can be allocated for storage of a user's objects within the specified tablespace to the amount of the quota.

Tablespace Editor for Oracle - DDL Tab

The DDL Tab of the Tablespace Editor lets you view the SQL code for every tablespace on the current datasource. To view DDL for another tablespace, click the lists, click the target owner, and then click the target tablespace.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tablespace Editor.

Triggers Editor for Oracle

The Triggers Editor lets you:

- View and modify trigger definitions.
- Manage trigger dependencies.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Triggers Editor:

- Action
- Type
- Information
- Dependencies
- DDL

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Triggers Editor for Oracle - Action Tab

The Action Tab of the Triggers Editor lets you modify the trigger action PL/SQL blook for any trigger on the datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Triggers Editor.

Triggers Editor for Oracle - Type Tab

The Type Tab of the Triggers Editor lets you modify trigger options for any trigger on the datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Triggers Editor.

Triggers Editor for Oracle - Information Tab

The Information Tab of the Triggers Editor displays status and size data for any trigger on the datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Triggers Editor.

Triggers Editor for Oracle - Dependencies Tab

The Dependencies Tab of the Triggers Editor lets you manage database objects dependent on each trigger on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target view is dependent on these objects.
Referenced Objects	These objects are dependent on the target view.

TIP: Click one of the referenced objects to open that object's editor.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Triggers Editor.

Triggers Editor for Oracle - DDL Tab

The DDL Tab of the Triggers Editor lets you view the DDL for every default on the current datasource:

To view DDL for another trigger, click the lists, click the target owner and/or table, and then click the target trigger.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

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For more information, see Triggers Editor.

Type Bodies Editor for Oracle

The Type Bodies Editor lets you:

- View type body status and size.
- Manage dependencies.
- Manage type body permissions.

If an objects has dependent objects, such as tables, triggers, procedures and views, you can view and access their dependent objects in the editor.

> **TIP:** The Object Editor tool bar refresh button lets you refresh Object Editor contents, clear the Object Editors, and log SQL if SQL Logging is turned on.

The following tabs are available in the Type Bodies Editor:

- Information
- Dependencies
- Privileges

Type Bodies Editor for Oracle - Information Tab

The Information Tab of the Type Bodies Editor displays the status and size information for every type body on the current datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Type Bodies Editor.

Type Bodies Editor for Oracle - Dependencies Tab

The Dependencies Tab of the Type Bodies Editor lets you manage database objects dependent on each type body on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target type body is dependent on these objects.
Referenced Objects	These objects are dependent on the target type body.

> **TIP:** Click one of the referenced objects to open that object's editor.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Type Bodies Editor.

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Type Bodies Editor for Oracle - Privileges Tab

The Privileges Tab of the Type Bodies Editor lets you manage permissions for every type body on the current datasource.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Rapid SQL, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Type Bodies Editor

Types Editor for Oracle

The Types Editor lets you:

- Manage the type header text.
- Manage type body text.
- Manage header and body information.
- Manage type dependencies.
- Manage type permissions.

TIP: The Object Editor tool bar refresh button lets you refresh Object Editor contents, clear the Object Editors, and log SQL if SQL Logging is turned on.

The following tabs are available in the Types Editor:

- Header
- Body

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- Information
- Dependencies
- Privileges

Types Editor for Oracle - Header Tab

The Header Tab of the Types Editor lets you manage the type header text for every type on the current datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Types Editor.

Types Editor for Oracle - Body Tab

The Body Tab of the Types Editor lets you create type bodies text for every type on the current datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Types Editor.

Types Editor for Oracle - Information Tab

The Information Tab of the Types Editor displays the header and body information for every type on the current datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Types Editor.

Types Editor for Oracle - Dependencies Tab

The Dependencies Tab of the Types Editor lets you manage database objects dependent on each types on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target types is dependent on these objects.
Referenced Objects	These objects are dependent on the target type.

TIP: Click one of the referenced objects to open that object's editor.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Types Editor.

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Types Editor for Oracle - Privileges Tab

The Privileges Tab of the Types Editor lets you manage permissions for every type on the current datasource.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Rapid SQL, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Types Editor

Unique Keys Editor for Oracle

The Unique Keys Editor lets you:

- Manage unique key columns.
- Manage unique key attributes.
- Manage unique key storage.
- Manage unique key statistics.
- View unique key DDL.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Unique Keys Editor:

- Columns
- Properties
- Storage

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- Space
- Partitions
- DDL

TIP: The Unique Keys Editor Command menu lets you Rename a unique key:

Unique Keys Editor for Oracle - Columns Tab

The Columns Tab of the Unique Keys Editor lets you manage columns for every unique key on the current datasource. Rapid SQL sorts all column information into two boxes. The box on the left lists all columns in the selected unique key. The box on the right lists target unique key columns in the unique key. The table below describes the options and functionality on the Columns Tab of the Unique Keys Editor:

Column Name	Description
Column	The name of the column in the target unique key.
Datatype	the datatype for the column in the target unique key. If applicable, Rapid SQL displays the precision in parentheses.
Nulls	The table definition permits nulls in the target table column. Null has no explicitly assigned value. Null is not equivalent to zero or blank. A value of null is not considered to be greater than, less than, or equivalent to any other value, including another value of null.
Index Columns	The name of the column included in the unique key.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Unique Keys Editor.

Unique Keys Editor for Oracle - Properties Tab

The Properties Tab of the Unique Keys Editor lets you set properties.The table below describes the options and functionality on the Properties Tab of the Unique Keys Editor:

Option	Description
Index Constraints Properties	Lets you select properties.
Index Constraint Status	Enable - Enables the constraint immediately after building it. Disable - Disables the constraint immediately after building it.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Unique Keys Editor.

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Unique Keys Editor for Oracle - Storage Tab

The Storage Tab of the Unique Keys Editor lets you manage storage for every unique key on the current datasource. The table below describes the options and functionality on the Storage Tab of the Unique Keys Editor:

Option	Description
Data Block Storage	The storage parameter lets you tune performance by minimizing the occurrence of row migration and chaining caused by update operations that extend the length of rows stored on the data block. Percent Used - Lets you type a value in the corresponding box. Maximum - The maximum parameter limits concurrency on a data block.
Extents	The unit of space allocated to an object whenever the object needs more space. Initial Extent - The initial space extent (in bytes) allocated to the object. Next Extent - The next extent (in bytes) that the object will attempt to allocate when more space for the object is required. Minimum Extents - The appropriate minimum extents value for the object. Maximum Extents - The appropriate maximum extents value for the object. Percent Increase - Magnifies how an object grows and, can materially affect available free space in a tablespace. Select a value in the corresponding box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Unique Keys Editor.

Unique Keys Editor for Oracle - Space Tab

The Space Tab of the Unique Keys Editor lets you manage space allocations for every unique key on the current datasource. The table below describes the options and functionality on the Space Tab of the Unique Keys Editor:

Option	Description
Space Utilization	Lets you specify the percent of space reserved for future updates.
Free Lists	Free lists let you manage the allocation of data blocks when concurrent processes are issued against the cluster. Identifying multiple free lists can reduce contention for free lists when concurrent inserts take place and potentially improve the performance of the cluster.

Option	Description
Extents	The unit of space allocated to an object whenever the object needs more space. Initial Extent - The initial space extent (in bytes) allocated to the object. Next Extent - The next extent (in bytes) that the object will attempt to allocate when more space for the object is required. Minimum Extents - The appropriate minimum extents value for the object. Maximum Extents - The appropriate maximum extents value for the object. Percent Increase - Magnifies how an object grows and, can materially affect available free space in a tablespace. Select a value in the corresponding box.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Unique Keys Editor.

Unique Keys Editor for Oracle - Partitions Tab

The Partitions Tab of the Unique Keys Editor lets you partition unique keys on the current datasource. The table below describes the options and functionality on the Partitions Tab of the Unique Keys Editor:

Option	Description
Partition Button	Click to open the Convert to Partitioned Index Wizard.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Unique Keys Editor.

Unique Keys Editor for Oracle - DDL Tab

The DDL Tab of the Unique Keys Editor lets you view the SQL code for every unique key on the current datasource. To view DDL for another unique key, click the list, target owner and/or table, and then click target unique key.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Unique Keys Editor.

Users Editor for Oracle

The Users Editor lets you:

- View and modify user definitions.
- Manage user privileges.

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- Manage dependent objects for users.
- View user DDL.

  TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

Use the following table as a guide to setting properties and performing tasks as you pass through the tabs of the editor:

Step	Settings and tasks	
Properties	**Default Tablespace** and **Temporary Tablespace**	Select the default tablespace for objects the user creates and the tablespace to be used for the user's temporary segments. If you do not specify a default tablespace when creating a user, the assigned tablespace will be that set using the Set Default function. For details, see Set Default.
	Profile	The profile you choose affects the amount of database resources available to the user.
	Identified By	REQUIRED_YES - A user identified by password is a local user. REQUIRED_EXTERNAL - This is a user who is validated by an external service like an operating system or third-party service. The login authentication is handled by that external entity. REQUIRED_GLOBAL - The user you're creating is a global user who is authenticated by the enterprise directory service.
	Password	If you specified an **Identified By** value of REQUIRED_YES, provide a password for the user.
	External Name	If you specified an **Identified By** value of REQUIRED_EXTERNAL, provide an external name for the user.
	Account Locked	When enabled, the account cannot be altered by anyone but the creator. It also means that after a specified number of failed attempts to access the database, the database will remain closed to the user for a period of time.
Roles	For each role to be assigned to the user, select the check box beside that role.	
Quotas	To assign a tablespace quota for a user, select a tablespace, select the **Other** radio button, and provide the value in the **Quota** box.	
Objects	Lets you manage database objects associated with every user on the current data source. Rapid SQL organizes the objects in a tree structure with folders containing the objects. Optionally, select an object and click **Edit** to open an object editor on the selected object or select an object and click **Drop** to initiate dropping the selected object.	
Object Permissions and **System Permissions**	Let you grant and revoke permissions.	
DDL View	Preview the DDL and if necessary navigate backward through the steps to make corrections. Finally, use the **Schedule** or **Execute** buttons to create the object.	

The following functionality is available on the Users Editor Command menu:

- Analyze Schema
- Change Password
- Create Like

Views Editor for Oracle

The Views Editor lets you:

- Manage view columns.
- View and modify view definitions.
- Manage view privileges.
- Manage objects dependent on views.
- View DDL for views.

> **TIP:** The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Views Editor:

- Columns
- Definition
- Comment
- Dependencies
- Privileges

The following functionality is available on the Views Editor Command menu:

- Build Query
- Rename

Views Editor for Oracle - Columns Tab

The Columns Tab of the Views Editor lets you view column information for every view on the current datasource. The table below describes the options and functionality on the Columns Tab of the Views Editor:

Column Name	Description
Column Name	Name of the column in the target view.
Datatype	Datatype for the column in the target view. If applicable, Rapid SQL displays the precision in parentheses.
Nulls	The table definition permits nulls in the target table column. Null has no explicitly assigned value. Null is not equivalent to zero or blank. A value of null is not considered to be greater than, less than, or equivalent to any other value, including another value of null.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Views Editor.

Views Editor for Oracle - Definition Tab

The Definition Tab of the Views Editor lets you view the SQL code for every view on the current datasource. To view DDL for another view, click the lists, click the target owner, and then click the target view.

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After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Views Editor.

Views Editor for Oracle - Privileges Tab

The Privileges Tab of the Views Editor lets you manage permissions for every view on the current datasource.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Rapid SQL, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Views Editor

Views Editor for Oracle - Comment Tab

The Comment Tab of the Views Editor lets you enter a comment which can be up to 254 characters long. The comments are stored in the REMARKS column of the objects' system catalog table.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Views Editor.

Views Editor for Oracle - Dependencies Tab

The Dependencies Tab of the Views Editor lets you manage database objects dependent on each view on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target view is dependent on these objects.
Referenced Objects	These objects are dependent on the target view.

TIP: Click one of the referenced objects to open that object's editor.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Views Editor.

Sybase ASE Object Editors

Rapid SQL includes an Object Editor for all supported Sybase ASE objects. To see an Editor for a specific object, click the corresponding link in the table below:

NOTE: If an objects has dependent objects, such as tables, triggers, procedures and views, you can view and access their dependent objects in the editor.

Aliases Editor	Check Constraints Editor	Databases Editor	Defaults Editor
Extended Procedures Editor	Foreign Keys Editor	Groups Editor	Indexes Editor
Logins Editor	Primary Keys Editor	Procedures Editor	Roles Editor
Rules Editor	Segments Editor	Tables Editor	Triggers Editor
Unique Keys Editor	User Datatypes Editor	Users Editor	Views Editor

Aliases Editor for Sybase ASE

The Aliases Editor lets you view and modify the alias definition. The Definition Tab of the Aliases Editor lets you view the SQL code every default on the current datasource. To view DDL for another alias, click the Alias list, click the target alias, and then click the target user name.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

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Check Constraints Editor for Sybase ASE

The Check Constraints Editor lets you:

- View and modify check constraint definitions.
- View check constraint DDL.

> **TIP:** The refresh button lets you refresh or clear the editor's contents, and log SQL.

The table below describes the tabs available in the Check Constraints Editor:

Tab	Description
Definition	Lets you view and modify the check condition and manage columns for the check constraint.
DDL	Lets you view the SQL code for every check constraint on the current datasource. To view DDL for another check constraint, click the lists, click the target owners and/or tables, and then click the target check constraint.

The following functionality is available on the Check Constraints Editor Command menu:

- Rename

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

Databases Editor for Sybase ASE

Box	Description
Device Number	The unique number for the database device.
Default Device	Whether the database device is the default device. CREATE and ALTER DATABASE commands that do not specify a location use the default database device.
Physical Name	The name of the Windows file for the target database device.
Description	**OPTIONAL:** Any user-defined comments for the target database device.
First Virtual Page	The first page number for the target database device.
Last Virtual Page	The last page number for the target database device.

The Databases Editor lets you:

- Manage database placement.
- Manage database options.
- Manage database space.
- View database DDL.

> **TIP:** The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Databases Editor:

- Placement

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- Options
- Space
- DDL

The following functionality is available on the Databases Editor Command menu:

- Rename
- DBCC
- Move Log
- Checkpoint
- Set Online

Databases Editor for Sybase ASE - Placement Tab

The Placement Tab of the Databases Editor lets you manage following for database on the current datasource:

- Database Owner
- Database Device
- Transaction Log

When changing the database owner (dbo) select the check box to transfer the existing aliases of users who could act as the old dbo (including their permissions) to the new dbo.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Databases Editor

Add Database Fragment dialog box

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Databases Editor for Sybase ASE - Options Tab

The Options Tab of the Databases Editor lets you view and modify the database options for every database on the current datasource. The table below describes the options and functionality on the Options tab of the Databases Editor:

Option	Description
abort tran on log full	Kills all user queries that need to write to the transaction log until space in the transaction log is freed.
allow nulls by default	Changes the default settings for table columns from NOT NULL to NULL to comply with ANSI standards.
auto identity	Adds a ten digit identity column to every new table created.
dbo use only	Allows only the database owner access to the database.
ddl in tran	Allows certain commands to create, alter, and drop objects to occur inside a user-defined transactions.
identity in nonunique index	Allows identity columns to be included in indexes that are defined as being nonunique.
no chkpt on recovery	Prevents an automatic checkpoint from occurring after a database is loaded. It is used when a database is copied to a secondary database through the continual dumping and loading of the transaction log.
no free space acctg	Suppresses free space accounting and execution of threshold actions on non-log segments.
read only	Prevents users from modifying, but not retrieving data from the database.
select into/bulkcopy/pllsort	Permits operations (such as fast bulk copy) that do not keep a complete record of the transaction in the transaction log.
single user	Restricts database access to one user at a time.
trunc log on chkpt	Causes Sybase ASE to truncate the transaction log every time the automatic checkpoint process occurs. Truncate does not occur on manual checkpoints.

TIP: To set database options for all future databases, set the database options on the model database.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Databases Editor.

Databases Editor for Sybase ASE - Space Tab

The Space Tab of the Databases Editor lets you view pie charts showing the data space usage and the transaction log space usage for every database on the current datasource.

TIP: Double-click a slice in the pie chart for detailed statistics.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Databases Editor.

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Databases Editor for Sybase ASE - DDL Tab

The DDL Tab of the Databases Editor lets you view the SQL code for every database on the current datasource. To view DDL for another database, click the list, and then click the target database.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Databases Editor.

Defaults Editor for Sybase ASE

The Defaults Editor lets you:

- View and modify default expressions
- View default DDL
- Manage default bindings

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Defaults Editor:

- Definition
- Bindings

The following functionality is available on the Defaults Editor Command menu:

- Rename

Defaults Editor for Sybase ASE - Definition Tab

The Definition Tab of the Defaults Editor lets you do the following for every default on the current datasource:

- View and modify the default expression
- View the DDL

To view DDL for another default, click the lists, click the target owner, and then click the target default.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Defaults Editor.

Defaults Editor for Sybase ASE - Bindings Tab

The Bindings Tab of the Defaults Editor lets you manage object bindings for every default on the current datasource. Sybase ASE lets you bind a default to user-defined datatypes and to columns in any table in a database (if the default value is appropriate to the datatype of the column.)

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Defaults Editor.

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Extended Procedures Editor for Sybase ASE

Tab	Description
Definition	The Definition Tab of the Dump Devices Editor lets you view and modify general information for every dump device on the current datasource. The Definition Tab displays the dump device type, physical name, and size.
DDL	Lets you view the SQL code for every dump device on the current datasource. To view DDL for another dump device, click the list, and then click the target dump device. Rapid SQL uses a color scheme to identify SQL syntax. To customize the color scheme to suit your needs, see Setting ISQL Editor Options.

The Procedures Editor lets you:

- View and modify extended procedure definitions.
- Manage extended procedure dependencies.
- Manage extended procedure privileges.

> **TIP:** The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Procedures Editor:

- Definition
- Dependencies
- Privileges

The following functionality is available on the Procedures Editor Command menu:

- Rename
- Execute

Extended Procedures Editor for Sybase ASE - Definition Tab

The Definition Tab of the Procedures Editor lets you do the following for every extended procedure on the current datasource:

- View and modify the procedure name
- View the DDL

To view DDL for another extended procedure, click the lists, click the target owner, and then click the target extended procedure.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Procedures Editor.

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Extended Procedures Editor for Sybase ASE - Dependencies Tab

The Dependencies Tab of the Procedures Editor lets you manage database objects dependent on each extended procedure on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target extended procedure is dependent on these objects.
Referenced Objects	These objects are dependent on the target extended procedure.

TIP: Click one of the referenced objects to open that object's editor.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Procedures Editor.

Extended Procedures Editor for Sybase ASE - Privileges Tab

The Privileges Tab of the Extended Stored Procedures Editor lets you manage permissions for every extended procedure on the current datasource.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Sybase ASE, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Procedures Editor.

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Foreign Keys Editor for Sybase ASE

The Foreign Keys Editor lets you:

- Manage foreign key columns.
- View foreign key DDL.

> **TIP:** The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Foreign Keys Editor:

- Columns
- DDL

The following functionality is available on the Foreign Keys Editor Command menu:

- Rename

Foreign Keys Editor for Sybase ASE - Columns Tab

The Columns Tab of the Foreign Keys Editor lets you manage columns for every foreign key on the current datasource. The table below describes the options and functionality on the Columns Tab of the Foreign Keys Editor:

Column Name	Description
Foreign Key Columns	Name of the foreign key in the target table.
Referenced Columns	Name of the table columns in the foreign key.

To view column information for another foreign key, click the lists, click the target database, owner, table, and/or primary/unique key, and then click the target foreign key.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Foreign Keys Editor.

Foreign Keys Editor for Sybase ASE - DDL Tab

The DDL Tab of the Foreign Keys Editor lets you view the SQL code for every foreign key on the current datasource. To view DDL for another foreign key, click the lists, click the target owners and/or tables, and then click the target foreign key.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Foreign Keys Editor.

Groups Editor for Sybase ASE

The Groups Editor lets you:

- Manage users for groups.
- Manage group privileges.

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- View group DDL.

  TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Groups Editor:

- Users
- Object Privileges
- System Privileges
- DDL

Groups Editor for Sybase ASE - Users Tab

The Users Tab of the Groups Editor lets you manage members for every group on the current datasource. Use the buttons on this tab to move users in and out of groups.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Groups Editor.

Groups Editor for Sybase ASE - Object Privileges and System Privileges Tabs

The Object Privileges and System Privileges tabs of the Groups Editor let you manage permissions for every group on the current datasource.

These tabs display if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. On the Object Privileges Tab, Rapid SQL populates each row of the table with every available database object. On the System Privileges Tab, Rapid SQL populates each row of the table with the system privileges. The legend, on every Privileges tab, explains the marks in the table.

The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Sybase ASE, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

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Revoking Permissions

Groups Editor

Groups Editor for Sybase ASE - DDL Tab

The DDL Tab of the Groups Editor lets you view the SQL code for every group on the current datasource. To switch owners or groups, click the lists, and then click the target owner and/or group.

After making changes on the Tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Groups Editor.

Indexes Editor for Sybase ASE

The Indexes Editor lets you:

- Manage index columns.
- View and modify index attributes.
- Manage index storage.
- Manage index statistics.
- View index DDL.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Indexes Editor:

- Columns
- Properties
- Partition
- Statistics
- DDL

The following functionality is available on the Indexes Editor Command menu:

- Rename
- Update Statistics
- DBCC
- Place
- Reorganize

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Indexes Editor for Sybase ASE - Columns Tab

The Columns Tab of the Indexes Editor lets you manage columns for every index on the current datasource. Rapid SQL sorts all column information into two boxes. The box on the left lists all columns in the selected table. The box on the right lists target table columns in the index. The table below describes the options and functionality on the Columns Tab of the Indexes Editor:

Column Name	Description
Column	Name of the column in the target table.
Datatype	Datatype for the column in the target table. If applicable, Rapid SQL displays the precision in parentheses.
Nulls	The table definition permits nulls in the target table column. Null has no explicitly assigned value. Null is not equivalent to zero or blank. A value of null is not considered to be greater than, less than, or equivalent to any other value, including another value of null.
Index columns	The name of the column included in the index.
Asc. Sort	Whether the index definition requires that Sybase ASE sort the table in ascending order.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Indexes Editor.

Indexes Editor for Sybase ASE - Properties Tab

3 The Properties Tab of the Indexes Editor lets you manage properties for every index on the current datasource. The table below describes the options and functionality on the Properties Tab of the Indexes Editor::

Group	Settings
Attributes	Lets you set the **Ignore Duplicate Rows**, **Index Type**, **Clustered**, **Ignore Duplicate Key**, and **Maximum Rows Per Page** properties.
Storage	Lets you set **Reserve Page Gap**, **Segment Name**, **Fill Factor**, **Prefetch Strategy**, **MRU Replacement Strategy** settings.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Indexes Editor.

Indexes Editor for Sybase ASE - Partition tab

The **Partitions** tab of the Indexes Editor lets you partition indexes on the current data source. The table below describes the options and functionality on the Partition Tab of the Indexes Editor:

Group	Settings
Properties	Lets you view the **Locality** (Global/Local), **Alignment** (Prefixed/Non-Prefixed), **Partition Type** (including Range-Hash Composite or Range-List Composite), and **Subpartition type** properties.
Columns	Displays partitioning columns.

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Group	Settings
Partition Definitions	Displays details for each partition.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Indexes Editor.

Indexes Editor for Sybase ASE - Statistics Tab

The Statistics Tab of the Indexes Editor lets you view the page and row statistics for every index on the current datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Indexes Editor.

Indexes Editor for Sybase ASE - DDL ViewTab

The DDL Tab of the Indexes Editor lets you view the SQL code for every index on the current datasource. To view the DDL for another index, click the lists, click the target owners and/or tables, and then click the target owner and/or index.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Indexes Editor.

Logins Editor for Sybase ASE

The Logins Editor lets you:

- View and modify login definitions.
- Manage users for logins.
- Manage roles for logins.
- Manage login accounts.
- View login DDL.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Logins Editor:

- Definition
- Users
- Roles
- Accounting
- DDL

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The following functionality is available on the Logins Editor Command menu:

- Change Password

Logins Editor for Sybase ASE - Definition Tab

The Definition Tab of the Logins Editor lets you view and modify information for every login on the current server. The table below describes the options and functionality on the Definition Tab of the Logins Editor:

Option	Description
Full Name	**OPTIONAL:** A user-defined descriptive name for the target login.
Default Database	The database that Sybase ASE places the target user into when they log in to the target server.
Default Language	The language that Sybase ASE uses to displays the target login's system messages.
Password Status	The status, current, expired, of the password.
Last Password Change	The data and time of the last time that the target login's password changed.
Currently Logged In	The login status of the target login.
Account Status	Whether the login is locked or unlocked.

TIP: To identify the login, in the Full Name box, type the actual name of the user who uses the target login.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Logins Editor.

Logins Editor for Sybase ASE - Users Tab

The Users Tab of the Logins Editor lets you manage each login's user account(s) for every database on the current server. Before a login name can access a user database, it must be added as a user or alias to that database by the system administrator or database owner.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Logins Editor.

Logins Editor for Sybase ASE - Roles Tab

The Roles Tab of the Logins Editor lets you manage every login's role(s). The tab includes a table listing every role of which the target login is a member.

The Roles Tab lets you:

- Grant Roles
- Assign Default Roles
- Revoke Roles

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After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Logins Editor.

Logins Editor for Sybase ASE - Accounting Tab

The Accounting Tab of the Logins Editor lets you manage chargeback accounting statistics for every login on the current server. Chargeback accounting statistics are CPU and I/O usage statistics that Sybase ASE accumulates for every login. To start a new accounting period, the system administrator must clear all previous login statistics.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Logins Editor.

Logins Editor for Sybase ASE - DDL Tab

The DDL Tab of the Logins Editor lets you view the SQL code for every login on the current datasource. To view DDL for another login, click the list, and then click the target login.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Logins Editor.

Primary Keys Editor for Sybase ASE

The Primary Keys Editor lets you:

- Manage primary key columns.
- Manage primary key attributes.
- Manage primary key storage.
- Manage primary key statistics.
- View primary key DDL.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Primary Keys Editor:

- Columns
- Attributes
- Storage
- Statistics
- DDL

The following functionality is available on the Primary Keys Editor Command menu:

- Rename

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Primary Keys Editor for Sybase ASE - Columns Tab

The Columns Tab of the Primary Keys Editor lets you manage columns for every primary key on the current datasource. Rapid SQL sorts all column information into two boxes. The box on the left lists all columns in the selected table. The box on the right lists target table columns in the primary key. The table below describes the options and functionality on the Columns Tab of the Primary Keys Editor:

Column Name	Description
Column	The name of the column in the target table.
Datatype	The datatype for the column in the target table. If applicable, Rapid SQL displays the precision in parentheses.
Nulls	The table definition permits nulls in the target table column. Null has no explicitly assigned value. Null is not equivalent to zero or blank. A value of null is not considered to be greater than, less than, or equivalent to any other value, including another value of null.
Index columns	The name of the column included in the primary key.
Asc. Sort	Whether the primary key definition requires that Sybase ASE sort the table in ascending order.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Primary Keys Editor.

Primary Keys Editor for Sybase ASE - Attributes Tab

The Attributes Tab of the Primary Keys Editor lets you manage attributes for every primary key on the current datasource. The table below describes the available attributes:

Attribute	Index Type	Description
Unique	General	Indicates whether the target primary key is a unique constraint.
Clustered	General	Indicates whether the target primary key is a clustered, the physical order and the logical order are the same.
Ignore Duplicate Keys	General	Indicates whether the target primary key ignores duplicate key values. If you select his option, the transaction that generated the duplicate key values can continue.
None	Non-Unique Clustered	Indicates that no special options should apply when processing duplicate rows. For non-unique clustered primary keys only.
Ignore Duplicate Rows	Non-Unique Clustered	Indicates that Sybase ASE should ignore duplicate rows when process transactions with duplicate rows. For non-unique clustered primary keys only.
Allow Duplicate Rows	Non-Unique Clustered	Indicates that Sybase ASE should process transaction with duplicate rows. For non-unique clustered primary keys only.

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After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Primary Keys Editor.

Primary Keys Editor for Sybase ASE - Storage Tab

The Storage Tab of the Primary Keys Editor lets you manage storage for every primary key on the current datasource. The table below describes the options and functionality on the Storage Tab of the Primary Keys Editor:

Option	Description
Segment	Lets you specify the segment on which to place the target primary key.
Reserve Page Gap	Lets you specify the number of pages for a reserve page gap. This reserves empty pages for expansion when additional pages need to be allocated. You should set a reserve page gap to reduce storage fragmentation and reduce the frequency with which you need to recreate indexes or run reorg rebuild on the table.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Primary Keys Editor.

Primary Keys Editor for Sybase ASE - Statistics Tab

The Statistics Tab of the Primary Keys Editor lets you view the page and row statistics for every primary key on the current datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Primary Keys Editor.

Primary Keys Editor for Sybase ASE - DDL Tab

The DDL Tab of the Primary Keys Editor lets you view the SQL code for every primary key on the current datasource. To view DDL for another primary key, click the lists, click the target owner and/or table, and then click the target primary key.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Primary Keys Editor.

Procedures Editor for Sybase ASE

The Procedures Editor lets you:

- View and modify procedure definitions.
- Manage procedure privileges.

>

- Manage procedure dependencies.

  TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Procedures Editor:

- Definition
- Privileges
- Dependencies

The following functionality is available on the Procedures Editor Command menu:

- Rename
- Execute

Procedures Editor for Sybase ASE - Definition Tab

The Definition Tab of the Procedures Editor lets you view the SQL code for every procedure on the current datasource. To view DDL for another procedure, click the lists, click the target owner, and then click the target procedure.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Procedures Editor.

Procedures Editor for Sybase ASE - Privileges Tab

The Privileges Tab of the Procedures Editor lets you manage permissions for every procedure on the current datasource.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Sybase ASE, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

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For more information, see:

Granting Permissions

Revoking Permissions

Procedures Editor

Procedures Editor for Sybase ASE - Dependencies Tab

The Dependencies Tab of the Procedures Editor lets you manage database objects dependent on each procedure on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target procedure is dependent on these objects.
Referenced Objects	These objects are dependent on the target procedure.

TIP: Click one of the referenced objects to open that object's editor.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Procedures Editor.

Roles Editor for Sybase ASE

Option	Description
Network Name	The target remote server's network name.
Local Server	The unique server name that users must supply when executing remote procedure calls.
Time out inactive connections	Indicates if the target server has uses the timeouts option to disable and enable the normal timeout code used by the local server.
Network Password Encryptions	Indicates whether connections with a remote server are to be initiated with a client-side password encryption handshake or with the usual unencrypted password handshake sequence.
Security Model A	Indicates if the target remote server uses the Remote Procedure Call (RPC) Security Model A. With this model, Sybase ASE does not support security services such as message confidentiality via encryption between the local and remote servers. For more information on server security, see the Sybase System Administration Guide.
Security Model B	Indicates if the target remote server uses the RPC Security Model B. With this model, Sybase ASE gets a credential from the security mechanism and uses the credential to establish a secure physical connection with the remote server. With this model, you can choose one or more of the following security services: mutual authentication, message confidentiality, and message integrity. For more information on server security, see the Sybase System Administration Guide.
Security Mechanism	The name for the security mechanism.
Mutual Authentication	This option makes the local server authenticate the remote server by retrieving the credential of the remote server and verifying it with the security mechanism. With this option, the credentials of both servers are authenticated and verified. You must select Security Model B to use this option.
Message Confidentiality	This option means that messages are encrypted when sent to the remote server, and results from the remote server are encrypted. You must select Security Model B to use this option.
Message Integrity	This option means that messages between the servers are checked for tampering. You must select Security Model B to use this option.

The Roles Editor lets you:

- Manage role identification information.
- Manage logins for roles.
- Manage role privileges.
- View role DDL.

NOTE: User-defined roles are available in Sybase ASE 11.5 or later.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Roles Editor:

- Authentication
- Logins/Roles

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- Object Privileges
- System Privileges
- DDL

Roles Editor for Sybase ASE - Authentication Tab

The Authentication Tab of the Roles Editor lets you manage role identification for every role on the current server. To identify the role, supply a password.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Roles Editor.

Roles Editor for Sybase ASE - Logins/Roles Tab

The Logins/Roles Tab of the Roles Editor lets you manage the logins and default roles for every role on the current server.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Roles Editor.

Roles Editor for Sybase ASE - Object Privileges and System Privileges Tabs

The Object Privileges and System Privileges tabs of the Roles Editor let you manage permissions for every role on the current datasource.

These tabs display if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. On the Privileges Tab, Rapid SQL populates each row of the table with every available database object. On the System Privileges Tab, Rapid SQL populates each row of the table with the system privileges. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Sybase ASE, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

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For more information, see:

Granting Permissions

Revoking Permissions

Roles Editor

Roles Editor for Sybase ASE - DDL Tab

The DDL Tab of the Roles Editor lets you view the SQL code for every role on the current datasource. To view the DDL for another role, click the lists, and then click the target role.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Roles Editor.

Rules Editor for Sybase ASE

The Rules Editor lets you:

- View and modify rule definitions.
- Manage rule bindings.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Rules Editor:

- Definition
- Bindings

The following functionality is available on the Rules Editor Command menu:

- Rename

Rules Editor for Sybase ASE - Definition Tab

The Definition Tab of the Rules Editor lets you view the SQL code for every rule on the current datasource. To view DDL for another rule, click the lists, click the target owner, and then click the target rule.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Rules Editor.

Rules Editor for Sybase ASE - Bindings Tab

The Bindings Tab of the Rules Editor lets you manage object bindings for every rule on the current datasource. Sybase ASE lets you bind a rules to user-defined datatypes and to columns in any table in a database (if the default value is appropriate to the datatype of the column.)

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

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For more information, see Rules Editor.

Segments Editor for Sybase ASE

The Segments Editor lets you:

- Manage segment location.
- Manage associated objects.
- Manage segment space.
- Manage segment thresholds.
- View segment DDL.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Segments Editor:

- Location
- Objects
- Space
- Threshold
- DDL

Segments Editor for Sybase ASE - Location Tab

The Location Tab of the Segments Editor lets you extend and drop every segment on the current datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Segments Editor.

Segments Editor for Sybase ASE - Objects Tab

The Objects Tab of the Segments Editor lets you manage database objects associated with every segment on the current datasource. Rapid SQL organizes the objects in a tree structure with three folders containing all of the following associated objects:

- Tables
- Indexes
- Constraints

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Segments Editor.

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Segments Editor for Sybase ASE - Space Tab

The Space Tab of the Segments Editor lets you view the following information for every segment on the current datasource:

- Segment Usage
- Distribution of Segment Space
- Object Space Usage

> **TIP:** Double-click a slice in the pie chart for detailed statistics.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Segments Editor.

Segments Editor for Sybase ASE - Threshold Tab

The Threshold Tab of the Segments Editor lets you manage thresholds for every segment on the current datasource. The table on this tab displays information for the target segment.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Segments Editor.

Add Threshold

The table below describes the options and functionality on the Add Threshold dialog box:

Option	Description
Database Name	Displays the database name.
Segment Name	Displays the segement name.
Free pages	Lets you specify the number of free pages.
Procedure	Lets you type or select a procedure.

For more information, see Segments Editor.

Segments Editor for Sybase ASE - DDL Tab

The DDL Tab of the Segments Editor lets you view the SQL code for every segment on the current datasource. To view DDL for another segment, click the list, and then click the target segment.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Segments Editor.

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Tables Editor for Sybase ASE

The Tables Editor lets you:

- Manage table columns.
- Manage table constraints.
- Manage table storage.
- Manage table space.
- Manage table partitions.
- Manage table dependencies.
- Manage table privileges.
- View table DDL.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Tables Editor:

- Columns
- Constraints
- Storage
- Space
- Partitions
- Dependencies
- Privileges
- DDL

The following functionality is available on the Tables Editor Command menu:

- Rename
- Edit Data
- Build Query
- Update Statistics
- DBCC
- Place
- Truncate
- Reorganize
- Indexes
- Triggers

Tables Editor for Sybase ASE - Columns Tab

The Columns Tab of the Tables Editor lets you manage columns for every table on the current datasource.

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The Columns Tab lets you:

- Add Columns
- Insert Columns
- Edit Columns
- Drop Columns
- Order Columns

The table below describes the options and functionality on the Columns Tab of the Tables Editor:

Column Name	Description
Name	the name of the column in the target table.
Datatype	The datatype for the column in the target table. If applicable, Rapid SQL displays the precision in parentheses.
Nulls	The table definition permits nulls in the target table column. Null has no explicitly assigned value. Null is not equivalent to zero or blank. A value of null is not considered to be greater than, less than, or equivalent to any other value, including another value of null.
Default	The name of the column included in the table.
Default Binding	The name of any default bound to the table.
Rule Binding	The name of any rule bound to the table.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Add Column Dialog Box

Modify Column Dialog Box

Tables Editor

Tables Editor for Sybase ASE - Constraints Tab

The Constraints Tab of the Tables Editor lets you manage constraints for every table on the current datasource. Rapid SQL arranges the constraints in a tree structure. The tree contains folders which contain all constraints associated with the target table. The objects are organized in folders based on the type of constraint:

- Check Constraint
- Foreign Key
- Primary Key
- Unique Key

In the tree, double-click a constraint to open a dialog box with detailed information on the target constraint.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

>

Index Constraint Dialog Box

Tables Editor

Tables Editor for Sybase ASE - Storage Tab

The Storage Tab of the Tables Editor lets you manage storage for every table on the current datasource. The table below describes the options and functionality on the Storage Tab of the Tables Editor:

Option	Description
Segment	Lets you specify the segment on which to place the target table.
Max Rows Per Page	Lets you specify the maximum number of rows for the target table.
Reserve Page Gap	Lets you specify the number of pages for a reserve page gap. This reserves empty pages for expansion when additional pages need to be allocated. You should set a reserve page gap to reduce storage fragmentation and reduce the frequency with which you need to recreate indexes or run reorg rebuild on the table.
Identity Gap	Lets you specify the number of pages for an identity gap. The pages in an identity gap give you control over ID numbers, and potential gaps in them, for the target table.
Replacement Strategy	Lets you specify the Most Recently Used (MRU) replacement strategy. The MRU, or fetch-and-discard replacement strategy, is for pages that a query needs to read only once.
Prefetch	Lets you specify the Prefetch replacement strategy. This replacement strategy is for pages that a query needs to read more than once or for pages that need updating.
Locking Schema	Lets you specify the type of locking strategy. Sybase ASE lets you protect tables, data pages, or data rows currently used by active transactions by locking them. The following locking strategies are available: All Pages - Locks all table pages. Data Pages - Only locks table data pages. Data Rows - Only locks table data rows.
Expected Row Size	Lets you specify the number of expected row size, if you select Data Pages or Data Rows locking strategy.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tables Editor.

Tables Editor for Sybase ASE - Space Tab

The Space Tab of the Tables Editor lets you view the table usage and the distribution of table space for every table on the current datasource.

TIP: Double-click a slice in the pie chart for detailed statistics.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

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For more information, see Tables Editor.

Tables Editor for Sybase ASE - Partitions Tab

The Partitions Tab of the Tables Editor lets you manage partitions for every table on the current datasource. On this tab you can:

- View table partition information (partition ID, first page, control page, and data pages)
- Add table partitions
- Remove table partitions

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tables Editor.

Tables Editor for Sybase ASE - Dependencies Tab

The Dependencies Tab of the Tables Editor lets you manage database objects dependent on each table on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target view is dependent on these objects.
Referenced Objects	These objects are dependent on the target view.

TIP: Click one of the referenced objects to open that object's editor.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tables Editor.

Tables Editor for Sybase ASE - Privileges Tab

The Privileges Tab of the Tables Editor lets you manage permissions for every table on the current datasource.

On this tab, you can see whether a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.

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Icon	Label	Description
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Sybase ASE, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Tables Editor

Tables Editor for Sybase ASE - DDL Tab

The DDL Tab of the Tables Editor lets you view the SQL code for every table on the current datasource. To view DDL for another table, click the lists, click the target owner, and then click the target table.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Tables Editor.

Triggers Editor for Sybase ASE

The Triggers Editor lets you:

- View and modify trigger definitions.
- Manage trigger dependencies.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Triggers Editor:

- Definition
- Dependencies

The following functionality is available on the Triggers Editor Command menu:

- Rename

Triggers Editor for Sybase ASE - Definition Tab

The Definition Tab of the Triggers Editor lets you do the following for every default on the current datasource:

- View and modify the trigger status
- View the DDL

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To view DDL for another trigger, click the lists, click the target owner and/or table, and then click the target trigger.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Triggers Editor.

Triggers Editor for Sybase ASE - Dependencies Tab

The Dependencies Tab of the Triggers Editor lets you manage database objects dependent on each trigger on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target view is dependent on these objects.
Referenced Objects	These objects are dependent on the target view.

TIP: Click one of the referenced objects to open that object's editor.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Triggers Editor.

Unique Keys Editor for Sybase ASE

The Unique Keys Editor lets you:

- Manage unique key columns.
- Manage unique key attributes.
- Manage unique key storage.
- Manage unique key statistics.
- View unique key DDL.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Unique Keys Editor:

- Columns
- Attributes
- Storage
- Statistics
- DDL

The following functionality is available on the Unique Keys Editor Command menu:

- Rename

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Unique Keys Editor for Sybase ASE - Columns Tab

The Columns Tab of the Unique Keys Editor lets you manage columns for every unique key on the current datasource. Rapid SQL sorts all column information into two boxes. The box on the left lists all columns in the selected table. The box on the right lists target table columns in the table. The table below describes the options and functionality on the Columns Tab of the Unique Keys Editor:

Column Name	Description
Column	The name of the column in the target table.
Datatype	the datatype for the column in the target table. If applicable, Rapid SQL displays the precision in parentheses.
Nulls	The table definition permits nulls in the target table column. Null has no explicitly assigned value. Null is not equivalent to zero or blank. A value of null is not considered to be greater than, less than, or equivalent to any other value, including another value of null.
Index columns	The name of the column included in the unique key.
Asc. Sort	Whether the unique key definition requires that Sybase ASE sort the table in ascending order.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Unique Keys Editor.

Unique Keys Editor for Sybase ASE - Attributes Tab

The Attributes Tab of the Unique Keys Editor lets you manage attributes for every unique key on the current datasource. The table below describes the options and functionality on the Attributes Tab of the Unique Keys Editor:

Attribute	Index Type	Description
Unique	General	Indicates whether the target unique key is a unique constraint.
Clustered	General	Indicates whether the target unique key is a clustered, the physical order and the logical order are the same.
Ignore Duplicate Keys	General	Indicates whether the target unique key ignores duplicate key values. If you select his option, the transaction that generated the duplicate key values can continue.
None	Non-Unique Clustered	Indicates that no special options should apply when processing duplicate rows. For non-unique clustered unique keys only.
Ignore Duplicate Rows	Non-Unique Clustered	Indicates that Sybase ASE should ignore duplicate rows when process transactions with duplicate rows. For non-unique clustered unique keys only.
Allow Duplicate Rows	Non-Unique Clustered	Indicates that Sybase ASE should process transaction with duplicate rows. For non-unique clustered unique keys only.

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After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Unique Keys Editor.

Unique Keys Editor for Sybase ASE - Storage Tab

The Storage Tab of the Unique Keys Editor lets you manage storage for every unique key on the current datasource. The table below describes the options and functionality on the Storage Tab of the Unique Keys Editor:

Option	Description
Segment	Lets you specify the segment on which to place the target unique key.
Reserve Page Gap	Lets you specify the number of pages for a reserve page gap. This reserves empty pages for expansion when additional pages need to be allocated. You should set a reserve page gap to reduce storage fragmentation and reduce the frequency with which you need to recreate indexes or run reorg rebuild on the table.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Unique Keys Editor.

Unique Keys Editor for Sybase ASE - Statistics Tab

The Statistics Tab of the Unique Keys Editor lets you view the page and row statistics for every unique key on the current datasource.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Unique Keys Editor.

Unique Keys Editor for Sybase ASE - DDL Tab

The DDL Tab of the Unique Keys Editor lets you view the SQL code for every unique key on the current datasource. To view DDL for another unique key, click the list, target owner and/or table, and then click target unique key.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Unique Keys Editor.

User Datatypes Editor for Sybase ASE

The User Datatypes Editor lets you:

- View user datatype definitions.
- View objects associated with user datatypes.

- View user datatype DDL.

  TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The table below describes the tabs available in the User Datatypes Editor:

Tab	Description
Definition	The Definition Tab of the User Datatypes Editor lets you view and modify information for every user datatype on the current datasource. The Definition Tab displays detailed information on the base datatype and any defaults and/or rules.
Usage	Lets you view all database objects that use the target user datatype.
DDL	Lets you view the SQL code for every user datatype on the current datasource. To view DDL for another user datatype, click the lists, click the target owner, and then click the target user datatype.

The following functionality is available on the User Datatypes Editor Command menu:

- Rename

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

Users Editor for Sybase ASE

The Users Editor lets you:

- View and modify user definitions.
- Manage user privileges.
- Manage dependent objects for users.
- View user DDL.

  TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Users Editor:

- Definition
- Object Privileges
- System Privileges
- Objects
- DDL

Users Editor for Sybase ASE - Definition Tab

The Definition Tab of the Users Editor lets you manage groups for every user on the current datasource. To manage groups for another user, click the list, and then click the target user.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

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For more information, see Users Editor.

Users Editor for Sybase ASE - Object Privileges and System Privileges Tabs

The Object Privileges and System Privileges tabs of the Users Editor let you manage permissions for every user on the current datasource.

On these tabs, you can see whether a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. On the Object Privileges Tab, Rapid SQL populates each row of the table with every available database object. On the System Privileges Tab, Rapid SQL populates each row of the table with the system privileges. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Sybase ASE, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Users Editor

Users Editor for Sybase ASE - Objects Tab

The Objects Tab of the Users Editor lets you manage database objects associated with every segment on the current datasource. Rapid SQL organizes the objects in a tree structure with three folders containing all of the following associated objects:

- Tables
- Indexes
- Constraints

TIP: Click one of the objects to open that object's editor.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Users Editor.

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Users Editor for Sybase ASE - DDL Tab

The DDL Tab of the Users Editor lets you view the SQL code for every user on the current datasource. To view DDL for another user, click the list, and then click the target user.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Users Editor.

Views Editor for Sybase ASE

The Views Editor lets you:

- Manage view columns.
- View and modify view definitions.
- Manage view privileges.
- Manage objects dependent on views.

TIP: The refresh button lets you refresh or clear the editor's contents, and log SQL.

The following tabs are available in the Views Editor:

- Columns
- Definition
- Privileges
- Dependencies

The following functionality is available on the Views Editor Command menu:

- Build Query
- Rename

Views Editor for Sybase ASE - Columns Tab

The Columns Tab of the Views Editor lets you view column information for every view on the current datasource. The table below describes the options and functionality on the Columns Tab of the Views Editor:

Column Name	Description
Column Name	the name of the column in the target view.
Datatype	Datatype for the column in the target view. If applicable, Rapid SQL displays the precision in parentheses.
Nulls	The table definition permits nulls in the target table column. Null has no explicitly assigned value. Null is not equivalent to zero or blank. A value of null is not considered to be greater than, less than, or equivalent to any other value, including another value of null.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

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For more information, see Views Editor.

Views Editor for Sybase ASE - Definition Tab

The Definition Tab of the Views Editor lets you view the SQL code for every view on the current datasource. To view DDL for another view, click the lists, click the target owner, and then click the target view.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Views Editor.

Views Editor for Sybase ASE - Privileges Tab

The Privileges Tab of the Views Editor lets you manage permissions for every view on the current datasource.

This tab displays if a privilege was inherited from a role or group, or if it was granted explicitly by a user. Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.)

There is a table on every Privileges Tab. Rapid SQL populates each row of the table with every user, group, and role in the database. The legend, on every Privileges Tab, explains the marks in the table.

The table below describes the icons in the legend:

Icon	Label	Description
Black check mark	User	The privilege(s) was granted explicitly by a user.
Blue check mark	Group	The privilege(s) was inherited from a group.
Green check mark	Role	The privilege(s) was inherited from a role.
White check mark	Revoked	The privilege(s) was inherited from another source, but has been revoked by a user. In Sybase ASE, a user cannot revoke a privilege that has been granted by a role.
Two black check marks	With Grant	The privilege(s) was granted with the GRANTABLE option.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see:

Granting Permissions

Revoking Permissions

Views Editor

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Views Editor for Sybase ASE - Dependencies Tab

The Dependencies Tab of the Views Editor lets you manage database objects dependent on each view on the current datasource. Rapid SQL arranges the objects in a tree structure. The objects are organized in folders based on the dependency relationship. These folders contain all of the associated objects. The table below describes the dependency relationship types:

Relationship	Description
Referencing Objects	The target view is dependent on these objects.
Referenced Objects	These objects are dependent on the target view.

TIP: Click one of the referenced objects to open that object's editor.

After making changes on the tab, on the editor tool bar, click Alter.

Rapid SQL opens the Preview:Alter dialog box.

For more information, see Views Editor.

Functionality

The table below lists functionality available in Rapid SQL.

Functionality	IBM DB2 LUW for Open Systems	IBM DB2 LUW for z/OS and OS/390	Microsoft SQL Server	Oracle	Sybase ASE
Activate Logging	X				
Add Database Fragment	X	X	X	X	X
Add, Insert, or Modify Column	X	X	X	X	X
Add, Insert, or Modify Parameter	X	X	X	X	X
Add, Insert, or Modify Partition	X	X	X	X	X
Add or Modify Cluster Column				X	
Add or Modify Datafile	X	X	X	X	X
Allocate Extent			X	X	
Analyze	X	X	X	X	
Bind Data Cache					X
Bind Package		X			
Bind Plan		X			

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Functionality	IBM DB2 LUW for Open Systems	IBM DB2 LUW for z/OS and OS/390	Microsoft SQL Server	Oracle	Sybase ASE
Build Query	X	X	X	X	X
Change Category				X	
Change Container Size	X	X	X	X	X
Change Database Comment	X				
Change Password			X	X	
Change Status				X	
Checkpoint			X		X
Clone Partition		X			
Clone Table		X			
Coalesce				X	
Compile				X	
Connection Editor	X	X	X	X	X
Convert to Partitioned				X	
Copy Object Names	X	X	X	X	X
Create Alias	X	X			
Create Insert Statements	X	X	X	X	X
Create or Edit Java Source					
Create Like	X	X	X	X	X
Create or Edit User Accounts	X	X	X	X	X
Create or Modify Check Constraint	X	X	X	X	X
Create or Modify User Message Text	X	X	X	X	X
Create Synonym	X	X		X	
Creating an Object	X	X	X	X	X
DataLink Options		X			
DBCC			X		X

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Functionality	IBM DB2 LUW for Open Systems	IBM DB2 LUW for z/OS and OS/390	Microsoft SQL Server	Oracle	Sybase ASE
Deallocate Unused Space				X	
Dependencies	X	X	X	X	X
Detach/Attach			X		
Disable/Enable Job Queues				X	
Disable/Enable Triggers			X	X	X
Disk Resize					X
Drop	X	X	X	X	X
Edit Data	X	X	X	X	X
Error	X	X	X	X	X
Estimate Size					X
Execute				X	X
Extract	X	X	X	X	X
Filter		X			
Flush Cache	X				
Free Packages		X			
Free Plans		X			
Generate Anonymous Block				X	
Generating Packages, Procedures, and Statements from Tables and Views				X	
Grant Roles	X	X	X	X	X
Impact Analysis	X	X	X	X	X
Index Constraint	X	X	X	X	X
Load Java				X	
Lob Storage Definition	X		X	X	X
Lock	X	X			
Move Log			X		X
Open	X	X	X	X	X
Partitioned Columns				X	

Functionality	IBM DB2 LUW for Open Systems	IBM DB2 LUW for z/OS and OS/390	Microsoft SQL Server	Oracle	Sybase ASE
Partition Upper Bound				X	
Paste Columns for Check Constraints	X	X	X	X	X
Place			X		X
Preview: Create	X	X	X	X	X
Preview	X	X	X	X	X
Quiesce Tablespaces	X	X			
Reassign by Category				X	
Rebind Packages	X	X			
Rebind Plans	X				
Rebuild Indexes				X	
Rebuild Outlines				X	
Redistribute	X				
Refresh Summary Table	X				
Rename	X	X	X	X	X
Reorganize	X	X			X
Report	X	X	X	X	X
Restart	X				
Revoke Role	X	X	X	X	X
Schema	X	X	X	X	X
Select * From	X	X	X	X	X
Set Default				X	
Set Online/Offline					X
Set Tablespaces Quota				X	
Set UNDO Tablespace				X	
Shrink			X	X	
Status			X	X	X

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Functionality	IBM DB2 LUW for Open Systems	IBM DB2 LUW for z/OS and OS/390	Microsoft SQL Server	Oracle	Sybase ASE
Summary Definition	X				
Switch Online	X				
Triggers	X	X	X	X	X
Truncate	X	X	X	X	X
Update Statistics	X	X	X		X

For more information, see Completing a Dialog Box.

Completing a Dialog Box

NOTE: Rapid SQL includes Wizards for creating new objects. For more information see Creating an Object.

1 On the **Database Explorer**, select the target object node.

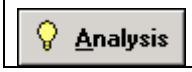
Rapid SQL displays the target objects in the Database Explorer.

2 On the **Database Explorer**, right-click the target object, and then select the target functionality.

Rapid SQL opens the functionality dialog box.

3 Complete the dialog box.

4 Do one of the following:

Button	Description
	Opens the Preview dialog box.
	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
	Executes the task.
	Opens the Impact Analysis dialog box. This option is not available for every dialog box.

For more information, see Functionality.

Creating an Object

Rapid SQL offers easy-to-use wizards and dialog boxes for creating objects.

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Related Topics

IBM DB2 LUW for Linux, Unix, and Windows Object Wizards

IBM DB2 LUW for OS/390 and z/OS Object Wizards

Microsoft SQL Server Object Wizards

Oracle Object Wizards

Sybase ASE Object Wizards

Completing an Object Wizard

Completing an Object Dialog Box

Completing an Object Wizard

1. On the **Datasource Explorer**, select the target object node.
2. In the right pane of the application, right-click the target object, and then click **New**.

   Rapid SQL opens the wizard.
3. Complete the wizard panels, and then click **Finish**.

   Rapid SQL opens the Preview: Create dialog box.

For more information, see Creating an Object.

Completing an Object Creation Dialog Box

1. On the **Datasource Explorer**, select the target object node.
2. In the right pane of the application, right-click the target object, and then click **New**.

   Rapid SQL opens the dialog box.
3. Complete the dialog box, and then click **Finish**.

   Rapid SQL opens the Preview: Create dialog box.

For more information, see Creating an Object.

IBM DB2 LUW for Linux, Unix, and Windows Object Wizards

Alias Wizard	Create Check Constraint Dialog Box	Database Wizard	Foreign Key Wizard
Function Wizard	Index Wizard	Materialized Query Table Wizard	Node Group Wizard
Create Primary Key Constraint Dialog Box	Procedure Wizard	Table Wizard	Tablespace Wizard for IBM DB2 LUW for OS/390 and z/OS

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Trigger Wizard	Type Wizard	Create Unique Key Constraint Dialog Box	User Datatype Wizard
View Wizard			

Alias Wizard for IBM DB2 LUW for Linux, Unix, and Windows

The Alias Wizard lets you create an alias without knowing the underlying commands. As you complete the Alias Wizard process, Rapid SQL constructs the necessary CREATE ALIAS statement based on the information that you supply.

The Alias Wizard:

- Lets you specify the alias and the owner.
- Lets you specify the target object owner, type, and name.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Alias Wizard - Panel 1

Alias Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 1

The table below describes the options and functionality on the first panel of the Alias Wizard.

Option	Description
Who owns the alias to be created?	Lets you select the owner of the alias.
What is the name of the alias?	**NOTE:** Lets you type the name of the alias.

For more information, see:

Completing an Object Wizard

Alias Wizard

Alias Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 2

The table below describes the options and functionality on the second panel of the Alias Wizard.

Option	Description
Target Owner	Lets you select an owner.
Target Alias	Lets you select an existing table, view or alias or you can specify another name.

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Option	Description
Comment	**OPTIONAL:** Lets you enter a comment.

For more information, see:

Completing an Object Wizard

Alias Wizard

Database Wizard for IBM DB2 LUW for Linux, Unix, and Windows

The Database Wizard lets you create a database without requiring you to know any of the underlying commands.

The IBM DB2 LUW for Linux, Unix, and Windows Database Wizard lets you:

- Name the database
- Add catalog containers

Important Notes

- Rapid SQL does not support creating databases for a version 8 server from a version 7 client.

Opening the IBM DB2 LUW for Linux, Unix, and Windows Database Wizard

1 On the **Registration** tool bar, click **New LUW Database**.

OR

On the **Datasource Explorer**, right-click an instance node or the **Datasources** node, and then click **New LUW Database**.

Rapid SQL opens the first panel of the Database Wizard.

Database Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 1

The table below describes the options and functionality on the first panel of the Database Wizard.

Option	Description
What is the name of the database?	Lets you specify a unique name. The database name should be between 1 - 8 characters and must begin with a letter A-Z or #, @, $.
What is the datasource name for the new database?	Lets you type a unique datasource name to appear in the datasource explorer.
What is the alias name of the database.	**OPTIONAL:** Lets you type an alias. The database name should be between 1 - 8 characters and must begin with a letter A-Z or #, @, $.
What is the comment used for the database?	**OPTIONAL:** Lets you type a comment up to 30 characters.

For more information, see IBM DB2 LUW for Linux, Unix, and Windows Database Wizard.

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Database Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 2

The table below describes the options and functionality on the second panel of the Database Wizard.

Option	Description
On what drive/path will the database reside?	**OPTIONAL:** Leave blank if you want Rapid SQL to create the database using the DFTBPATH parameter.
What default tablespace parameters should be used?	**OPTIONAL:** Lets you specify the Default Extent Size and Number of Segments.
What global default parameters should the database use?	**OPTIONAL:** Lets you specify Territory, Codeset, and Collating Sequence.

For more information, see IBM DB2 LUW for Linux, Unix, and Windows Database Wizard.

Database Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Last Panel

The table below describes the options and functionality on the last panel of the Database Wizard.

Option	Description
Add the containers for the tablespace below	Lets you select user containers: Use System Managed Space Use Database Managed Space Add - Click to open the Add Container for Tablespace dialog box. Edit - Click to open the Edit Container for Tablespace dialog box.
What optional default storage parameters should be used.	**OPTIONAL:** Lets you specify the parameters.
Finish	Opens the Preview SQL dialog box.

For more information, see IBM DB2 LUW for Linux, Unix, and Windows Database Wizard.

Add/Edit Container forTablespace

The table below describes the options and functionality on the Add and Edit Container for Tablespace dialog box:

Option	Description
Directory	Lets you type the container directory.
File name	Displays the container file name.

>

For more information, see IBM DB2 LUW for Linux, Unix, and Windows Database Wizard.Foreign Key Wizard for IBM

Option	Description
What is the name of the event monitor?	Lets you type a name.
Do you want to autostart the event monitor when the database starts?	Lets you select an option.
Select the types of events you would like to monitor	Lets you select an event type(s). **NOTE:** Deadlocks with details is only available for IBM DB2 LUW for Windows/Unix 8.

Option	Description
What is the target for the Event Monitor?	Lets you specify the target of the event monitor data. There are three types of target: to file, to pipe, and to table. **NOTE:** To Table option is only available for IBM DB2 LUW for Windows/Unix 8.
When the event monitor if full do you want the database agents to block until the event data is written to the disk?	Lets you specify a blocking option. This option is available only for File and Table output types.
Specify the buffer size for the Event Monitor	**OPTIONAL:** Lets you specify buffer size in pages. This option is available only for File and Table output types.
Specify the maximum number of files and the maximum file size for the Event Monitor.	**OPTIONAL:** Lets you specify maxfiles and maxfilesize in pages. This option is available only for File output type.
How do you want the Event Monitor output written to the file?	Lets you specify an output option.This option is available only for File and Table output types.

Option	Description
Event type	Lets you specify an event type, if any were selected. Event types include Connections, Statements, and Transactions.
Where clause	Lets you type a WHERE clause specific to the event type.

Option	Description
Select the database partition where the event monitor runs and writes the events	Lets you specify a partition.
Where do you want this Event Monitor to collect data?	Available if you selected Deadlock events on Panel 1.

Option	Description
Select the partition(s) for the event monitor to run against.	Lets you select which partition(s) the event monitor runs against.

DB2 LUW for Linux, Unix, and Windows

The Foreign Key Wizard lets you create a foreign key without knowing the underlying commands.

>

The Foreign Key Wizard lets you:

- Name the foreign key constraint
- Identify the parent table and the referenced constraint.
- Map the column pairs between the parent and child tables.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Foreign Key Wizard - Panel 1

Foreign Key Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 1

The table below describes the options and functionality on the first panel of the Foreign Key Wizard.

Option	Description
Which table will host the constraint?	Lets you select the owner and table.
What will be the name of this new constraint?	Lets you select a constraint name. System Generated Name - DB2 automatically generates a name. User Specified Constraint Name - You type the name.
What action should dependent table take when a row of parent table is deleted?	Lets you select an action. No Action Restrict Cascade Set Null
What action what action should dependent table take when a row of parent table is updated?	Lets you select and action. No Action Restrict

For more information, see:

Completing an Object Wizard

Foreign Key Wizard

Foreign Key Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 2

The table below describes the options and functionality on the second panel of the Foreign Key Wizard.

>

Option	Description
Select the parent table to reference?	Lets you select the table owner and the parent table owner.
Table Name	Lets you select the parent table name.
Select the parent table constraint	Lets you select the primary and unique key constraints you want to reference.

For more information, see:

Completing an Object Wizard

Foreign Key Wizard

Foreign Key Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 3

The table below describes the options and functionality on the third panel of the Foreign Key Wizard.

Completing Panel 3

Option	Description
Select column associations	Lets you map the foreign key columns between the child and parent tables.

For more information, see:

Completing an Object Wizard

Foreign Key Wizard

Function Wizard for IBM DB2 LUW for Linux, Unix, and Windows

The Function Wizard lets you create a function without knowing the underlying commands. As you complete the Function Wizard process, Rapid SQL constructs the necessary CREATE FUNCTION statement based on the information that you supply.

The Function Wizard lets you:

- Specify the function name, owner, and type.
- Specify the datatypes for the parameters of the new function.
- Specify special options of how and when the function should act.

Important Note

- To create a user-defined function, need CREATE ANY privileges or IMPLICIT_SCHEMA authority on the database if the schema does not already exist.

For more information, see:

Completing an Object Wizard

Function Wizard - Panel 1

>

Function Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 1

The table below describes the options and functionality on the first panel of the Function Wizard.

Option	Description
Who will own the function to be registered?	Lets you select the function owner.
What is the name of the function?	Lets you enter the function name.
What is the unique name of the function?	**OPTIONAL:** Lets you enter the unique name.
What type of function would you like to register?	Lets you select the type of function: External Scaler External Table OLEDB - Accesses OLE DB data in user-defined OLE DB external tables. Sourced SQL Language Template

For more information, see:

Completing an Object Wizard

Function Wizard

Function Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 2

The tables below describe the options and functionality on the second panel of the Function Wizard.

NOTE: The options differ for external scalar/ table functions, sourced functions, and template functions. Options for OLEDB functions are the same options for external scalar/ table functions.

External Scaler/Table Function	Description
Specify language in which the body of the user-defined function is written:	Lets you select the language.

>

External Scaler/Table Function	Description
Specify the either the name of the library containing the function or the full name of the function:	Lets you type the full path of the library or click the Browse button. **NOTE:** If you are using C language, specify the full library path and the function name, otherwise IBM DB2 LUW Database Manager assumes the function is under the IBM DB2 LUW library. NOTE: If you are using Java script, specify the Class ID and the function name, otherwise IBM DB2 LUW Database Manager assumes the function is under the IBM DB2 LUW library. **NOTE:** If you are using OLE language, specify the full library path and the function name, otherwise IBM DB2 LUW Database Manager assumes the function is under the IBM DB2 LUW library.
What is the name of the entry point function to be invoked?	**OPTIONAL:** Lets you enter the name of the entry point function.

Sourced Function	Description
Select the source function which will implement the function being created:	Lets you select the source function.
Name and Parameters	Lets you select the name and parameters for the function. Name - Select the name from the list. Parameters - If the function has multiple parameters, select the parameters from the list.
Specific Name	Lets you select the function by a specific name.

Template Function	Description
Add Button	Opens the Add Parameter dialog box, which lets you specify the datatypes for the function's parameters.
Edit button	Opens the Modify Parameter dialog box that lets you cast the datatype to a different datatype.

For more information, see:

Completing an Object Wizard

Function Wizard

>

Function Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 3

The tables below describe the options and functionality on the third panel of the Function Wizard.

NOTE: If you do not need to modify or specify any parameters for the function, this panel is optional.

NOTE: The options differ for external scalar/ table functions and sourced functions and template functions. Options for OLEDB functions are the same options for external scalar/ table functions.

External Scaler/Table Function	Description
Add Button	Opens the Add Parameter dialog box, which lets you specify the datatypes for the function's parameters.

Sourced Function	Description
Specify the datatypes for the new function's parameters:	Lets you select the target function parameter datatype.
Edit button	**OPTIONAL:** Opens the Modify Parameter dialog box that lets you cast the datatype to a different datatype.
Specify the datatype for the new function's return value:	Lets you accept the default or enter a datatype.

Template Function	Description
Specify the datatype to be returned to the invoking statement	Lets you select the return datatype.
Specify the datatype returned by the function code if it differs from the return type above	Lets you select the cast datatype.

For more information, see:

Completing an Object Wizard

Function Wizard

Function Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 4

The tables below describe the options and functionality on the fourth panel of the Function Wizard.

NOTE: This panel is only available for external scalar and table functions. The panel options differ for scaler and table functions.

>

External Scaler Function Option	Description
Specify the datatype to be returned to the invoking statement:	Lets you select the return datatype and set the width and scale. As Locator - Lets you set the parameter as a locator.
Specify the datatype returned by the function code if it differs from the return type above:	**OPTIONAL:** Only necessary if the return type of the new function is to be different than the program that implements the function.

External Table Function Option	Description
Add Button	Opens the Add Parameter dialog box, which lets you specify the columns to be returned.
Insert Button	Opens the Insert Parameter dialog box, which lets you specify the columns to be returned.
Edit Button	Opens the Edit Parameter dialog box, which lets you specify the columns to be returned.
Drop Button	Lets you drop a column.

For more information, see:

Completing an Object Wizard

Function Wizard

Function Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 5

The table below describes the options and functionality on the fifth panel of the Function Wizard.

Option	Description
Does the function take any action that changes the state of an object not managed by the database manager?	Click the Yes or No Option button.
Does the function depend on some state values that do not effect the results?	Click the Yes or No option button.
Would you like the function to be called in the event that there is a null argument?	If you click the No option button, a NULL argument is not passed to the function and the result of the function is considered NULL automatically.
Would you like a scratchpad to be provided for this function?	**NOTE:** Only available for EXTERNAL TABLE or EXTERNAL SCALAR functions.

For more information, see:

>

Completing an Object Wizard

Function Wizard

Function Wizard for IBM DB2 LUW for Linux, Unix, and Windows -Panel 6

The tables below describe the options and functionality on the sixth panel of the Function Wizard.

NOTE: The options differ for external scalar and external table functions. Options for OLEDB functions are the same options for external table functions.

External Scaler Function Option	Description
Would you like a final call to be made to the external function?	Click Yes or No.
Do you want the invocation of the function to be parallelizable for a single reference to the function?	Click Yes or No.
Do not want certain specific information known by IBM DB2 LUW to be passed on to the function as an additional invocation-time argument?	Click Yes or No.

External Table Function Option	Description
You can help the DB2 optimizer by providing an estimate of the number of rows to returned by the function.	Default for optimizer is 0.
To make enabled check box should be checked.	Click Yes or No for static dispatch option. Default is yes. **NOTE:** Static dispatch is for the External Table function and is for IBM DB2 LUW for Linux, Unix, and Windows version 8 only.

For more information, see:

Completing an Object Wizard

Function Wizard

Index Wizard for IBM DB2 LUW for Linux, Unix, and Windows

The Index Wizard lets you create an index without knowing the underlying commands.

The Index Wizard lets you:

>

- Specify the table owner and name.
- Specify the index owner and name.
- Lets you create a unique index and provide a comment for the index.
- Lets you identify the index location and order.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Index Wizard - Panel 1

Index Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 1

The table below describes the options and functionality on the first panel of the Index Wizard:

Option	Description
Who owns the table to be indexed?	Lets you select a table owner.
What is the name of the table to be indexed?	Lets you enter a table name.
Who owns the index to be created?	Lets you select the index owner.
What is the name of the index?	Lets you enter an index name.

For more information, see:

Completing an Object Wizard

Index Wizard

Index Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 2

The table below describes the options and functionality on the second panel of the Index Wizard.

Option	Description
Unique	Index enforces uniqueness on the values of the table's index key.
Cluster	Specifies that the index is the clustering index of the table. The cluster factor of a clustering index is maintained or improved dynamically as data is inserted into the associated table, by attempting to insert new rows physically close to the rows for which the key values of this index are in the same range.

>

Option	Description
Allow reverse scans	Specifies that an index can support both forward and reverse scans; that is, in the order defined by the wizard and in the opposite (or reverse) order.
Percentage of free space left on index	Lets you type or select the percentage of each index page to leave as free space when building the index, from 0 to 99.
Minimum percentage of used space left on index pages	Lets you type or select the minimum percentage of space used on an index leaf page. If, after a key is removed from an index leaf page, the percentage of space used on the page is at or below integer percent, an attempt is made to merge the remaining keys on this page with those of a neighboring page. If there is sufficient space on one of these pages, the merge is performed and one of the pages is deleted. The value of integer can be from 0 to 99.
Comment	**OPTIONAL:** Lets you enter a comment.

For more information, see:

Completing an Object Wizard

Index Wizard

Index Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 3

The table below describes the options and functionality on the third panel of the Index Wizard.

Option	Description
Select the Index Columns:	Lets you select the table columns to include in the index and reorder the index columns.

For more information, see:

Completing an Object Wizard

Index Wizard

Index Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 4

The table below describes the options and functionality on the last panel of the Index Wizard.

Option	Description
Please select index extension name	Lets you select the index extension name.

>

Option	Description
The CREATE INDEX EXTENSION statement creates an extension object for use with indexes on tables that have structured type or distinct type columns.	Lets you type the CREATE INDEX EXTENSION statement.

For more information, see:

Completing an Object Wizard

Index Wizard

Index Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 4

The table below describes the options and functionality on the last panel of the Index Wizard.

Option	Description
Enter a comment.	**OPTIONAL:** Lets you enter a comment for the table.

For more information, see:

Completing an Object Wizard

Index Wizard

Materialized Query Table Wizard for IBM DB2 LUW for Linux, Unix, and Windows

The Materialized Query Table Wizard lets you create a table without knowing the underlying commands.

The Materialized Query Table Wizard lets you:

- Name the table and owner
- Lets you set logging options for the table and to provide table comments.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Materialized Query Table Wizard - Panel 1

Materialized Query Table Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 1

The table below describes the options and functionality on the first panel of the Materialized Query Table Wizard.

NOTE: These options are only available if the tablespace you selected is a database managed tablespace.

>

Option	Description
Who owns the table?	Lets you select the table owner.
What is the name of the table?	Lets you enter the table name.
Select a tablespace on which to place the table:	**OPTIONAL:** Click the list and then click the double space.
Specify separate tablespaces for index and long data below:	**OPTIONAL:** Lets you separate indexes or long data from the table. Indexes Long data

For more information, see:

Completing an Object Wizard

Materialized Query Table Wizard

Materialized Query Table Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 2

In the second panel of the Materialized Query Table Wizard, the Add Column dialog box opens immediately to let you add and define table columns.

The table below describes the options and functionality on the second panel of the Materialized Query Table Wizard.

Option	Description
Add the columns belonging to this table	Add - Click to open the Add Column dialog box. Insert - Click to open the Insert Column dialog box. Edit - Click to open the Modify Column dialog box. Drop - Click to delete the column.

For more information, see:

Completing an Object Wizard

Materialized Query Table Wizard

Materialized Query Table Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 3

The table below describes the options and functionality on the third panel of the Materialized Query Table Wizard.

Option	Description
Specify the query on which this table is based.	Lets you type the SQL query on which the materialized table is based.

For more information, see:

Completing an Object Wizard

>

Materialized Query Table Wizard

Materialized Query Table Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 4

The table below describes the options and functionality on the fourth panel of the Materialized Query Table Wizard.

Option	Description
Definition Only	Lets you select definition options, Include Column Defaults and Include Identity Column Attributes.After you complete the wizard, Rapid SQL opens the Tables Editor.
Refreshable	Lets you select refresh options. After you complete the wizard, Rapid SQL opens the Material Query Tables Editor.

For more information, see:

Completing an Object Wizard

Materialized Query Table Wizard

Materialized Query Table Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 5

The table below describes the options and functionality on the fifth panel of the Materialized Query Table Wizard.

Option	Description
Would you like extra information regarding SQL changes to this table to be written to the log?	Lets you specify if you want the wizard to save changes to a log.
Would you like to skip logging changes made to this table by Insert... and Alter Table operations in the same unit of work in which this table is created?	Lets you specify if you want the wizard to skip logging changes.
What type of table lock would you like when it is being accessed?	Lets you select a table lock.

For more information, see:

Completing an Object Wizard

Materialized Query Table Wizard

Materialized Query Table Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 6

The table below describes the options and functionality on the sixth panel of the Materialized Query Table Wizard.

Option	Description
What percent of free space to leave for load and reorganization?	Lets you specify the number of pages of free space.
Do you want data to append to the end of the table?	Lets you specify if you want data to append at the end of the table.
Do you want the access plan to this table to be based on existing statistics and optimization level?	Lets you specify optimization options.
Enter a comment	**OPTIONAL:** Lets you type a comment.

For more information, see:

Completing an Object Wizard

Materialized Query Table Wizard

Node Group Wizard for IBM DB2 LUW for Linux, Unix, and Windows

The Node Group Wizard lets you create a node group without knowing the underlying commands. When you create a nodegroup, name the nodegroup and select the partitions to include in the nodegroup.

Important Notes

- None

The table below describes the options and functionality on the Node Group Wizard.

Option	Description
What is the name of the nodegroup?	Lets you enter the nodegroup name.
Select partitions in the nodegroup:	Lets you select the check boxes that correspond with the target partitions or click the Check All button.

For more information, see Completing an Object Wizard.

Create Primary Key Constraint Dialog Box for IBM DB2 LUW for Linux, Unix, and Windows

The Create Primary Key Constraint dialog box lets you create a primary key without knowing the underlying commands. When you create a primary key, specify the owner and table on which you want to place the primary key constraint.

Important Notes

- None

The table below describes the options and functionality on the Create Primary Key Constraint Dialog Box.

>

Option	Description
Owner	Lets you select the primary key constraint owner.
Table	Lets you select the table you want to place the primary key constraint.
Constraint Name	Lets you enter the name of the constraint, which can be up to 30 characters long and must be unique across the entire database.
Specify Columns in Constraint:	Lets you select, reorder, and remove the primary key columns.

For more information, see Completing an Object Wizard.

Procedure Wizard for IBM DB2 LUW for Linux, Unix, and Windows

The Procedure Wizard lets you create a procedure without knowing the underlying commands.

The Procedure Wizard lets you:

- Name the procedure and specify its body.
- Set the language of the procedure and the location of the library or class containing the procedure.
- Specify the datatypes for the parameters of the stored procedure.
- Apply special options to the procedure, such as whether the procedure should always run in separate address space than the database.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Procedure Wizard - Panel 1

Procedure Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 1

The table below describes the options and functionality on the first panel of the Procedure Wizard.

Option	Description
Who will own the procedure to be registered?	Lets you select the procedure owner.
What is the name of the procedure?	Lets you enter the procedure name.
What is the unique name of the procedure?	**OPTIONAL:** Lets you enter the unique name.

For more information, see:

>

Completing an Object Wizard

Procedure Wizard

Procedure Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 2

The table below describes the options and functionality on the second panel of the Procedure Wizard.

Option	Description
Specify the language in which the procedure routine is written	Lets you select the language: C, JAVA, COBOL, OLE, or SQL.
Specify the either the name of the library containing the procedure or the full name of the procedure:	Lets you enter the full path of the library of click the browse button. NOTE: If you are using C language, specify the full library path and the procedure name, otherwise IBM DB2 LUW Database Manager assumes the procedure is under the IBM DB2 LUW library. NOTE: If you are using Java script, specify the Class ID and the procedure name, otherwise IBM DB2 LUW Database Manager assumes the procedure is under the IBM DB2 LUW library.
What is the name of the entry point procedure to be invoked?	**OPTIONAL:** Lets you enter the name of the entry point function.

For more information, see:

Completing an Object Wizard

Procedure Wizard

Procedure Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 3

The table below describes the options and functionality on the third panel of the Procedure Wizard.

NOTE: If you do not need to modify or specify any parameters for the procedure, this panel is optional.

Option	Description
Add Button	Opens the Add Parameter dialog box, which lets you specify the datatypes for the new procedure's parameters.
Edit Button	Opens the Modify Parameter dialog box, which lets you specify the datatypes for the new procedure's parameters.
Delete Button	Lets you delete the parameter.

For more information, see:

Completing an Object Wizard

>

Procedure Wizard

Procedure Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 4

The table below describes the options and functionality on the fourth panel of the Procedure Wizard.

Option	Description
Indicate the estimated upper bound of returned result sets:	**OPTIONAL:** To indicate the estimated upper bound of returned result sets, type the upper bound value in the corresponding box
What level of data access for the SQL statements in the procedure?	Lets you select an option: Modifies SQL Data (default), Contains SQL Data, No SQL, and Reads SQL Data.
Does this procedure depend on some state values that effect the results (deterministic)?	Click Yes or No.

For more information, see:

Completing an Object Wizard

Procedure Wizard

Procedure Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 5

NOTE: The panel is only available for IBM DB2 LUW for Linux, Unix, and Windows 8.

The table below describes the options and functionality on the fifth panel of the Procedure Wizard.

Option	Description
Do you want the initial values to be from the runtime environment (inherited registers)?	Lets you user specify the Inherit Special Registers parameter for SQL procedure.
Would you like this procedure to be fenced?	Lets you select yes or no. If you select yes, Threadsafe is not an option for OLE Language.For Fenced procedures, Threadsafe is the default for Java Language. All other languages, Not Threadsafe is the default. For Not Fenced procedures, Threadsafe is the default.

>

Option	Description
Specify how the parameters are handled in the stored procedure	Lets you select an option: DB2DARI, DB2GENERAL, DB2SQL, GENERAL, GENERAL WITH NULLS, JAVA, and SQL. DB2GENERAL is for Java Language only. DB2SQL is for C, COBOL, or OLE Language only. GENERAL is for C Language only. GENERAL WITH NULLS is for C or COBOL Language only. JAVA is for Java Language only. SQL is for C, COBOL, or OLE Language only.
How do you want the stored procedure to expect the parameters?	Default for routine is Subroutine. Main Routine is valid for C or COBOL Language and Parameter Style GENERAL, GENERAL WITH NULLS, SQL, or DB2SQL only.

For more information, see:

Completing an Object Wizard

Procedure Wizard

Procedure Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 6

NOTE: The panel is only available for IBM DB2 LUW for Linux, Unix, and Windows 8.

The table below describes the options and functionality on the sixth panel of the Procedure Wizard.

Option	Description
Would you like certain specific information known by DB2 to be passed to the function as an additional invocation-time argument?	Lets you select yes or no.
Do you want the initial values to be from the runtime environment (inherited registers)?	Lets you select yes or no.

For more information, see:

Completing an Object Wizard

Procedure Wizard

>

Sequence Wizard for IBM DB2 LUW for Linux, Unix, and Windows

The Sequence Wizard lets you create a sequence without knowing the underlying commands. As you complete the Sequence Wizard, Rapid SQL constructs the necessary CREATE SEQUENCE statement from the information that you have supplied. When finished, you can instruct Rapid SQL to compile the sequence on the target Rapid SQL database or to write a script file containing the CREATE SEQUENCE statement.

The Sequence Wizard lets you:

- Specify the name and owner of the sequence.
- Set both the value of the sequence, and an interval and ranges for incrementing it.
- Cache the sequence, cycle the sequence when it reaches its minimum or maximum values, and guarantee that Rapid SQL generates sequence numbers in the order of request.

Important Notes

- To create a sequence, it must belong to your schema or you need CREATE SEQUENCE privilege.

For more information, see:

Completing an Object Wizard

Sequence Wizard - Panel 1

Sequence Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 1

The table below describes the options and functionality on the first panel of the Sequence Wizard.

Option	Description
Who owns the sequence?	Lets you select the owner.
What is the sequence name?	Lets you type the name.
What numeric datatype should the Sequence use?	Lets you select a numeric datatype.

For more information, see:

Completing an Object Wizard

Sequence Wizard

Sequence Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 2

The table below describes the options and functionality on the second panel of the Sequence Wizard.

Option	Description
What is the first sequence number to be generated?	Start With - Lets you type the value.
What is the interval between sequence numbers?	Increment By - Lets you type the value.
What is the sequences minimum value?	Minimum Value - Lets you type the value.

>

Option	Description
What is the sequences maximum value?	Maximum Value - Lets you type the value.

For more information, see:

Completing an Object Wizard

Sequence Wizard

Sequence Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Optional Panel 3

The table below describes the options and functionality on the third panel of the Sequence Wizard.

Option	Description
Preallocate sequence numbers and cache them for faster access?	Lets you cache the sequence. Number of Values - Lets you type the value.
Should the sequence continue to generate values after reaching either its maximum or minimum value?	Lets you make the sequence cycle and continue to generate numbers.
Should the sequence numbers be generated in the order of request?	Select to generate sequence numbers in the order of request. The ORDER option is useful when you are using the sequence number as a timestamp.

For more information, see:

Completing an Object Wizard

Sequence Wizard

Schema Wizard for IBM DB2 LUW for Linux, Unix, and Windows

The Schema Wizard lets you create the structure of a database system including database objects.

Important Notes

- None

For more information, see Completing the Schema Wizard for IBM DB2 LUW for Linux, Unix, and Windows.

Completing the Schema Wizard for IBM DB2 LUW for Linux, Unix, and Windows

Schema Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 1

The table below describes the options and functionality on the first panel of the Schema Wizard.

>

Option	Description
What is the name of the schema?	Lets you type the name of the structure of a database system.

For more information, see Schema Wizard.

Table Wizard for IBM DB2 LUW for Linux, Unix, and Windows

The Table Wizard lets you create a table without knowing the underlying commands.

The Table Wizard lets you:

- Name the table and owner
- Lets you set logging options for the table and to provide table comments.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Table Wizard - Panel 1

Table Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 1

The table below describes the options and functionality on the first panel of the Table Wizard.

NOTE: These options are only available if the tablespace you selected is a database managed tablespace.

Option	Description
Who owns the table?	Lets you select the table owner.
What is the name of the table?	Lets you enter the table name.
Select a tablespace on which to place the table:	**OPTIONAL:** Click the list and then click the double space.
Specify separate tablespaces for index and long data below:	**OPTIONAL:** Lets you separate indexes or long data from the table. Indexes Long data

For more information, see:

Completing an Object Wizard

Table Wizard

>

Table Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 2

In the second panel of the Table Wizard, the Add Column dialog box opens immediately to let you add and define table columns.

The table below describes the options and functionality on the second panel of the Table Wizard.

Option	Description
Add the columns belonging to this table	Add - Click to open the Add Column dialog box. Insert - Click to open the Insert Column dialog box. Edit - Click to open the Modify Column dialog box. Drop - Click to delete the column.

For more information, see:

Completing an Object Wizard

Table Wizard

Table Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 3

The table below describes the options and functionality on the fifth panel of the Table Wizard.

Option	Description
Would you like extra information regarding SQL changes to this table to be written to the log?	Lets you specify if you want the wizard to save changes to a log.
Would you like to skip logging changes made to this table by Insert... and Alter Table operations in the same unit of work in which this table is created?	Lets you specify if you want the wizard to skip logging changes.
What type of table lock would you like when it is being accessed?	Lets you select a table lock.
What percent of free space to leave for load an reorganization?	Lets you specify the number of pages.

For more information, see:

Completing an Object Wizard

Table Wizard

Table Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 4

The table below describes the options and functionality on the fourth panel of the Table Wizard.

>

Option	Description
Do you want data to append to the end of the table?	Lets you select No or Yes.
Do you want the access plan of this table to be based on existing statistics and optimization level?	Lets you select Not Volatile or Volatile.
Enter a comment.	**OPTIONAL:** Lets you enter a comment for the table.

For more information, see:

Completing an Object Wizard

Table Wizard

Table Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 6

The table below describes the options and functionality on the sixth panel of the Table Wizard.

Option	Description
What percent of free space to leave for load and reorganization?	Lets you specify the number of pages of free space.
Do you want data to append to the end of the table?	Lets you specify if you want data to append at the end of the table.
Do you want the access plan to this table to be based on existing statistics and optimization level?	Lets you specify optimization options.
Enter a comment	**OPTIONAL:** Lets you type a comment.

For more information, see:

Completing an Object Wizard

Table Wizard

Tablespace Wizard for IBM DB2 for Linux, Unix, and Windows

Tablespaces establish connections between the physical storage devices of your database system and the logical containers or tables being use to store data. In essence, a tablespace is a storage structure that can hold tables, indexes, large objects, and long data. The Tablespace Wizard lets you create a tablespace without knowing the underlying commands.

The Tablespace Wizard lets you:

- Specify data type to be stored on the tablespace.
- Specify what type of tablespace to create.

- Add containers to the tablespace.
- Specify how to manage the growth of the tablespace and select a bufferpool on which the tablespace should reside.

To create a new tablespace using a wizard:

1 Open an object wizard for a tablespace.

2 Use the following table as a guide to setting properties and performing tasks as you pass through the steps of the wizard:

Step	Settings and tasks	
Properties	**Tablespace properties**	**Type** - Select REGULAR, LARGE, TEMPORARY, or USER TEMPORARY. **Use Automatic Storage** and **Managed By** let you specify whether storage is managed automatically, by the database, or by the system. **Database Partition Group** - lets you select a database partition group. **Buffer Pool** - lets you select a buffer pool. **Drop Recovery** - For REGULAR type tablesapces, lets you enable/disable drop recovery.
	Performance properties	This group lets you specify or select the **Page SIze**, **Extent Size**, **Prefetch Automatic**, **Prefetch Size**,**Overhead**, **Transfer Rate**, and **File System Caching** properties.
	Automatic Storage properties	This group lets you specify or select the **AutoResize**, **Initial Size**, **Increase Size**, **Max Size Unlimited**, and **Max Size** attributes.
Container	For each container in the tablespace, in the **Container Properties** area, provide the following container properties: **Database Partitions**, **Type** (FILE or DEVICE), **Name**, and **Size**, and then click the **New** button. Use the **Delete** button to drop a selected container.	
Comment	Optionally link a comment to this object.	
Permissions	For each specific permission to be granted to a login or group, select the cell corresponding to the login/group and specific permission, and click the **Grant** button. To revoke a privilege, select a cell showing a Granted permission and click **Revoke**.	
DDL View	Preview the DDL and if necessary navigate backward through the steps to make corrections. Finally, use the **Execute** button to create the new object.	

Trigger Wizard for IBM DB2 LUW for Linux, Unix, and Windows

The Trigger Wizard lets you create a trigger without requiring you to know any of the underlying commands.

The Trigger Wizard lets you:

- Specify the trigger name and the table on which it fires.
- Specify trigger timing, event action, and applicable table columns for an Update trigger.
- Specify the granularity of the trigger and correlation names for the new rows.

Important Notes

- None

For more information, see:

>

Completing an Object Wizard

Trigger Wizard - Panel 1

Trigger Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 1

The table below describes the options and functionality on the first panel of the Trigger Wizard.

Option	Description
Who owns the trigger to be created?	Lets you select the owner.
What is the name of the trigger?	Lets you enter than trigger name.
Who owns the base table?	Lets you select the owner.
What is the name of the base table?	Lets you select the base table.

For more information, see:

Completing an Object Wizard

Trigger Wizard

Trigger Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 2

The table below describes the options and functionality on the second panel of the Trigger Wizard.

Option	Description
When should the trigger fire?	Lets you select Timing and Event. Before - To make the trigger fire before an event. After - To make the trigger fire after an event. Insert - To make the Event cause an insert. Update - To make the Event cause an update. Delete - To make the Event cause an delete.
If the trigger fires an update event, which column updates should fire a trigger?	If the trigger fires and update event, lets you select the check box that corresponds to the column updates that should fire, or click the Check All button.

For more information, see:

Completing an Object Wizard

Trigger Wizard

Trigger Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 3

The table below describes the options and functionality on the third panel of the Trigger Wizard.

>

Option	Description
What type of trigger should be created?	This step is only available if you set the trigger timing to occur After the event. Statement Row
Specify the correlation names:	**OPTIONAL:** Lets you specify the table for the old rows. Lets you specify the table for the new rows. Lets you specify the name for the old rows. Lets you specify the name for the new rows.

For more information, see:

Completing an Object Wizard

Trigger Wizard

Trigger Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 4

The table below describes the options and functionality on the fourth panel of the Trigger Wizard.

Option	Description
Please type the body of the trigger below:	Lets you enter the trigger body syntax.

For more information, see:

Completing an Object Wizard

Trigger Wizard

Type Wizard for IBM DB2 LUW for Linux, Unix, and Windows

Creating an object type is a two-step process. You create the object type specification, and then create the type body. The Structured Type Wizard lets you create an object type specification and body. A template is created using the CREATE OR REPLACE TYPE or TYPE BODY statements.

Important Notes

- None

For more information, see Completing an Object Wizard.

Type Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 1

The table below describes the options and functionality on the first panel of the Type Wizard.

>

Option	Description
Who owns the type to be created?	Lets you select the owner.
What is the name of the type?	Lets you type the name.
Is this structured type a subtype?	Lets you select schema and name.

For more information, see:

Completing an Object Wizard

Type Wizard

Type Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 2

The table below describes the options and functionality on the second panel of the Type Wizard.

Option	Description
Add the attributes belonging to this type.	Lets you add, edit or drop an attribute.

For more information, see:

Completing an Object Wizard

Type Wizard

Type Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 3

The third panel of the Type Wizard lets you select type options.

The table below describes the options and functionality on the third panel of the Type Wizard.

Option	Description
Instantiable	Lets you specify if an instance of the structured type can be created.
With Function Access	All methods of this type and its subtypes, including methods created in the future, can be accessed using functional notation.
With Comparisons	Comparison functions are supported for instances of the structured type.
Not Final	Structured type may be used as a supertype.
Inline Length	The maximum size (in bytes) of a structured type column instance to store inline with the rest of the values in the row of a table. Instances of a structured type or its subtypes, that are larger than the specified inline length, are stored separately from the base table row, similar to the way that LOB values are handled.

>

Option	Description
Cast Function (Source as Ref)	Lets you specify the name of the system-generated function that casts a value with the data type rep-type to the reference type of this structured type.
Cast Function (Ref as Source)	Lets you specify the name of the system-generated function that casts a reference type value for this structured type to the data type rep-type.
Representation Type	Lets you specify the representation type, width and size.

For more information, see:

Completing an Object Wizard

Type Wizard

User Datatype Wizard for IBM DB2 LUW for Linux, Unix, and Windows

The User Datatype Wizard lets you create a user datatype without knowing the underlying commands.

The User Data Type Wizard lets you:

- Name the user datatype.
- Define the base datatype properties.

Important Notes

- None

For more information, see:

Completing an Object Wizard

User Datatype Wizard - Panel 1

User Datatype Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 1

The table below describes the options and functionality on the first panel of the User Datatype Wizard.

Option	Description
Who owns the datatype?	Lets you select the datatype owner.
What is the name of the datatype?	Lets you enter the datatype name.

For more information, see:

Completing an Object Wizard

User Datatype Wizard

User Datatype Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 2

The table below describes the options and functionality on the second panel of the User Datatype Wizard.

>

Option	Description
What is the source datatype?	Lets you select the source datatype.
Specify the datatype characteristics:	**NOTE:** The availability of options depends on the source datatype you specified. Length LOB Unit Precision Scale
Bit Data	Bit data check box is only available for certain data types. Select this check box if you want to store this data in a bit format.
Comment	Lets you associate a comment with the user datatype, and type the comment, which can be up to 254 characters long.

For more information, see:

Completing an Object Wizard

User Datatype Wizard

View Wizard for IBM DB2 LUW for Linux, Unix, and Windows

The View Wizard lets you create a view without knowing any of the underlying commands.

Important Notes

- None

For more information, see View Wizard - Panel 1.

View Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 1

The table below describes the options and functionality on the first panel of the View Wizard.

Option	Description
Who owns the view?	Lets you select the view owner.
What is the name of the view?	Lets you enter the view name.
Use Query Builder to define view	Select to open Query Builder to help you build the view SQL.

For more information, see:

Completing an Object Wizard

View Wizard

>

View Wizard for IBM DB2 LUW for Linux, Unix, and Windows - Panel 2

The table below describes the options and functionality on the second panel of the View Wizard.

Option	Description
Please select the view options to include	Lets you select view options.

For more information, see:

Completing an Object Wizard

View Wizard

IBM DB2 LUW for OS/390 and z/OS Object Wizards

Alias Wizard	Create Check Constraint Dialog Box	Database Wizard	Foreign Key Wizard
Function Wizard	Index Wizard	Create Primary Key Constraint Dialog Box	Procedure Wizard
Stogroup Wizard	Synonym Wizard	Table Wizard	Tablespace Wizard
Trigger Wizard	Create Unique Key Constraint Dialog Box	User Datatype Wizard	View Wizard

Alias Wizard for IBM DB2 LUW for OS/390 and z/OS

The Alias Wizard lets you create an alias without knowing the underlying commands. As you complete the Alias Wizard process, Rapid SQL constructs the necessary CREATE ALIAS statement based on the information that you supply.

The Alias Wizard:

- Lets you specify the alias and the owner.
- Lets you specify the target object owner, type, and name.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Alias Wizard - Panel 1

>

Alias Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 1

The table below describes the options and functionality on the first panel of the Alias Wizard.

Option	Description
Who owns the alias to be created?	Lets you select the alias owner.
What is the name of the alias?	Lets you enter the name.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

For more information, see:

Completing an Object Wizard

Alias Wizard

Alias Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 2

The table below describes the options and functionality on the second panel of the Alias Wizard.

Option	Description
Who owns the target of the alias.	Lets you select the target owner.
What is the name of the target to be aliased?	Lets you select an existing table, view or alias or you can specify another name.
Comment	Lets you associate a comment with the alias.

For more information, see:

Completing an Object Wizard

Alias Wizard

TIP: Rapid SQLDatabase Wizard for IBM DB2 LUW for OS/390 and z/OS

Option	Description
Use Extended Storage	If you are using a UNIX system and want to store migrated pages from the bufferpool in extended storage.
All Nodes	Disperses the bufferpool across all nodes.
Nodes in checked nodegroups	Specifies nodegroups where the bufferpool should reside.

Option	Description
Specify size for any partitions	Lets you override the default bufferpool size and specify an exact page size.

>

Option	Description
Set Size	Opens the Size Editor for Selected Nodes dialog box.

The Database Wizard lets you create a database without knowing any of the underlying commands.

The Database Wizard lets you:

- Name the database.
- Choose the type of database.
- Select the Storage Group.
- Select the Encoding Scheme.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Database Wizard - Panel 1

Database Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 1

The table below describes the options and functionality on the first panel of the Database Wizard.

Option	Description
What is the name of the database	Lets you type a name for the database.
Choose the type of database	**NOTE:** This option in only available if the server is configured in IBM DB2 LUW for OS/390 and z/OS to allow sharing. For more information, contact your System administrator.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

For more information, see:

Completing an Object Wizard

Database Wizard

Database Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 2

The table below describes the options and functionality on the second panel of the Database Wizard.

NOTE: To change the encoding scheme for a database after it has been created to utilize a different coded character set identifier (CCSID) that supports the Euro symbol, all data must be unloaded and reloaded. For more information regarding the encoding scheme, contact your System administrator.

>

Option	Description
Storage Group Name	Lets you click the list and select the storage group name. If you do not select a name, the Database Wizard selects the default name.
Encoding Scheme	Lets you click the list and select the encoding scheme. If you do not select a scheme, the Database Wizard selects the default scheme.

For more information, see:

Completing an Object Wizard

Database Wizard

Foreign Key Wizard for IBM DB2 LUW for OS/390 and z/OS

The Foreign Key Wizard lets you create a foreign key without knowing the underlying commands.

The Foreign Key Wizard lets you:

- Name the foreign key constraint
- Identify the parent table and the referenced constraint.
- Map the column pairs between the parent and child tables.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Foreign Key Wizard - Panel 1

Foreign Key Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 1

The table below describes the options and functionality on the first panel of the Foreign Key Wizard.

Option	Description
Which table will host the constraint?	Lets you select the owner and table.
What will be the name of this new constraint?	Lets you select a constraint name. System Generated Name - DB2 automatically generates a name. User Specified Constraint Name - You type the name.
What action should dependent table take when a row of parent table is deleted?	Lets you select an action. No Action Restrict Cascade Set Null
What action what action should dependent table take when a row of parent table is updated?	Lets you select an action. No Action Restrict

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

For more information, see:

Completing an Object Wizard

Foreign Key Wizard

Foreign Key Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 2

The table below describes the options and functionality on the second panel of the Foreign Key Wizard.

Option	Description
Select the parent table to reference?	Lets you select the table owner and the parent table owner.
Table Name	Lets you select the parent table name.
Select the parent table constraint	Lets you select the primary and unique key constraints you want to reference.

For more information, see:

Completing an Object Wizard

Foreign Key Wizard

Foreign Key Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 3

The table below describes the options and functionality on the third panel of the Foreign Key Wizard.

>

Option	Description
Select column associations	Lets you map the foreign key columns between the child and parent tables.

For more information, see:

Completing an Object Wizard

Foreign Key Wizard

Function Wizard for IBM DB2 LUW for OS/390 and z/OS

The Function Wizard lets you create a function without knowing the underlying commands. As you complete the Function Wizard process, Rapid SQL constructs the necessary CREATE FUNCTION statement based on the information that you supply.

The Function Wizard lets you:

- Specify the function name, owner, and type.
- Specify the datatypes for the parameters of the new function.
- Specify special options of how and when the function should act.

Important Note

- To create a user-defined function, you need CREATE ANY privileges or IMPLICIT_SCHEMA authority on the database if the schema does not already exist.

For more information, see:

Completing an Object Wizard

Function Wizard - Panel 1

Function Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 1

The table below describes the options and functionality on the first panel of the Function Wizard.

NOTE: To create an external (user-defined) function, you need a defined procedure or routine that is compiled and linked into a library.

>

Option	Description
Who will own the function to be registered?	Lets you select the function owner.
What is the name of the function?	Lets you enter the function name.
What is the unique name of the function?	Lets you enter the unique name.
What type of function would you like to register?	Lets you select the type of function. External Scaler External Table Sourced

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

For more information, see:

Completing an Object Wizard

Function Wizard

Function Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 2

The tables below describe the options and functionality on the second panel of the Function Wizard.

NOTE: The options differ for external scalar/ table functions and sourced functions.

External Scaler/Table Function Option	Description
Specify language in which the body of the user-defined function is written:	Lets you select the language.
Specify the either the name of the library containing the function or the full name of the function:	Lets you type the full path of the library or click the Browse button. **NOTE:** If you are using C language, specify the full library path and the function name, otherwise IBM DB2 LUW Database Manager assumes the function is under the IBM DB2 LUW library. NOTE: If you are using Java script, specify the Class ID and the function name, otherwise IBM DB2 LUW Database Manager assumes the function is under the IBM DB2 LUW library. **NOTE:** If you are using OLE language, specify the full library path and the function name, otherwise IBM DB2 LUW Database Manager assumes the function is under the IBM DB2 LUW library.
What is the name of the entry point function to be invoked?	**OPTIONAL:** Lets you enter the name of the entry point function.

>

External Scaler/Table Function Option	Description
Would you like this function to be fenced?	Click Yes or No.

Sourced Function Option	Description
Select the source function which will implement the function being created:	Lets you select the source function.
Name and Parameters	Lets you select the name and parameters for the function. Name - Select the name from the list. Parameters - If the function has multiple parameters, select the parameters from the list.
Specific Name	Lets you select the function by a specific name.

For more information, see:

Completing an Object Wizard

Function Wizard

Function Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 3

The tables below describe the options and functionality on the third panel of the Function Wizard.

NOTE: If you do not need to modify or specify any parameters for the function, this panel is optional.

NOTE: The options differ for external scalar/ table functions and sourced functions.

External Scaler/Table Function Option	Description
Add Button	Opens the Add Parameter dialog box, which lets you specify the datatypes for the function's parameters. **NOTE:** Make sure that the external name specification is correct and valid.

Sourced Function Option	Description
Specify the datatypes for the new function's parameters:	Lets you select the target function parameter datatype.
Edit button	**OPTIONAL:** Opens the Modify Parameter dialog box that lets you cast the datatype to a different datatype.
Specify the datatype for the new function's return value:	Lets you accept the default or enter a datatype.

>

For more information, see:

Completing an Object Wizard

Function Wizard

Function Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 4

The tables below describe the options and functionality on the fourth panel of the Function Wizard.

NOTE: This panel is only available for external scalar and table functions. The panel options differ for scaler and table functions.

External Scaler Function Option	Description
Specify the datatype to be returned to the invoking statement:	Lets you select the return datatype and set the width and scale. As Locator - Lets you set the parameter as a locator.
Specify the datatype returned by the function code if it differs from the return type above:	**OPTIONAL:** Only necessary if the return type of the new function is to be different than the program that implements the function.

External Table Function Option	Description
Add Button	Opens the Add Parameter dialog box, which lets you specify the columns to be returned.
Insert Button	Opens the Insert Parameter dialog box, which lets you specify the columns to be returned.
Edit Button	Opens the Edit Parameter dialog box, which lets you specify the columns to be returned.
Drop Button	Lets you drop a column.

For more information, see:

Completing an Object Wizard

Function Wizard

Function Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 5

The tables below describe the options and functionality on the fifth panel of the Function Wizard.

Option	Description
Does the function take any action that changes the state of an object not managed by the database manager?	Click Yes or No.
Does the function depend on some state values that do not effect the results?	Click Yes or No.
Does the function depend on some state values that do not effect the results?	This sets the DETERMINISTIC clause of the CREATE FUNCTION statement. If you click the No option button, the database optimizer takes special precautions when processing queries to not issue additional calls to this type of function.
Would you like the function to be called in the event that there is a null argument?	If you click the No option button, a NULL argument is not passed to the function and the result of the function is considered NULL automatically.
Would you like a scratchpad to be provided for this function?	If you click the Yes option button, an area of memory is created to preserve information between the invocation of one function to another.

For more information, see:

Completing an Object Wizard

Function Wizard

Function Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 6

The tables below describe the options and functionality on the sixth panel of the Function Wizard.

NOTE: This panel is only available for external scalar and table functions. The panel options differ for scaler and table functions.

External Scaler Function Option	Description
Would you like a final call to be made to the external function?	Click Yes or No.
Do you want the invocation of the function to be parallelizable for a single reference to the function?	Click Yes or No.
Do not want certain specific information known by IBM DB2 LUW to be passed on to the function as an additional invocation-time argument?	Click Yes or No.

External Table Function Option	Description
Do not want certain specific information known by IBM DB2 LUW to be passed on to the function as an additional invocation-time argument?	Click Yes or No.
Rows	To help the optimizer, type an estimate number of rows to be returned by the function.

For more information, see:

Completing an Object Wizard

Function Wizard

Index Wizard for IBM DB2 LUW for OS/390 and z/OS

The Index Wizard lets you create an index without knowing the underlying commands.

The Index Wizard lets you:

- Specify the table owner and name.
- Specify the index owner and name.
- Create a unique index and provide a comment for the index.
- Identify the index location and order.
- Specify free-block and gbpcache-block index parameters.
- Specify other index parameters.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Index Wizard - Panel 1

Index Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 1

The table below describes the options and functionality on the first panel of the Index Wizard.

>

Option	Description
Who owns the table to be indexed?	Lets you select a table owner.
What is the name of the table to be indexed?	Lets you enter a table name.
Who owns the index to be created?	Lets you select the index owner.
What is the name of the index?	Lets you enter an index name.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

For more information, see:

Completing an Object Wizard

Index Wizard

Index Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 2

The table below describes the options and functionality on the second panel of the Index Wizard.

Options	Description
Unique	If selected, index enforces uniqueness on the values of the table's index key. If not selected, index does not enforce uniqueness on the values of the table's index key.
Cluster	If selected, clusters the index.
Comment	**OPTIONAL:** Lets you associate a comment with the index.

For more information, see:

Completing an Object Wizard

Index Wizard

Index Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 3

The table below describes the options and functionality on the third panel of the Index Wizard.

Option	Description
Select the Index Columns:	Lets you select the table columns to include in the index and reorder the index columns.

For more information, see:

>

Completing an Object Wizard

Index Wizard

Index Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 4

The table below describes the options and functionality on the fourth panel of the Index Wizard.

Option	Description
Specify how this index will be managed	Select an option. If DB2 defines and manages the data sets on a volume of the specified storage group, specify a storgate group, minimum primary space allocation (PRIQTY), minimum secondary space allocation (SECQTY), and whether or not you want to erase data sets when index is dropped. If a user manages the data sets on a specified VCAT catalog-name, enter or select the VCAT.

For more information, see:

Completing an Object Wizard

Index Wizard

Index Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 5

The table below describes the options and functionality on the fifth panel of the Index Wizard.

Option	Description
Data sharing environment option	Lets you specify which index pages are written.
Specify options relating to space management	Free space portion of each page lets you enter the percentage of each index page to leave as free space (PCTFREE). Free page frequency lets you enter how often to leave a page of free space when index entries are created (FREEPAGE).
To create a partitioned index, enter a value greater than 0	Lets you enter the number of partitions.

For more information, see:

Completing an Object Wizard

Index Wizard

>

Index Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 6

The table below describes the options and functionality on the sixth panel of the Index Wizard.

Option	Description
Resource Management option	If yes, creates the data sets for the index immediately instead of postponing creation until data is inserted in the index.
Specific options for the index partitions	Lets you edit specific index partition options. Select the index, and then click Edit.

For more information, see:

Completing an Object Wizard

Index Wizard

Index Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 7

The table below describes the options and functionality on the seventh panel of the Index Wizard.

Index Parameter	Default
Close Option	Yes
Defer Option	No
Copy Option	No
Piecesize Option	2G

Plan Wizard for IBM DB2 LUW for OS/390 and z/OS

The Plan Wizard lets you create IBM DB2 LUW for OS/390 and z/OS plans without knowing the underlying commands.

The Plan Wizard lets you:

- Modify the DBRM
- Select plan options
- Modify the connection

Important Notes

- None

For more information, see:

Completing an Object Wizard

Plan Wizard - Panel 1

>

Plan Wizard for IBM DB2 LUW for OS/390 and z/OS - Optional Panel 1

The table below describes the options and functionality on the first panel of the Plan Wizard:

Option	Functionality
Lock Isolation	Lets you select an option.
Keep Dynamic	Lets you select an option.
Current Data	Lets you select an option.
Schema Path	Lets you select an option.
Dynamic Rules	Lets you select an option.
Resource Release	Lets you select an option.
Validate	Lets you select an option.
DB Protocol	Lets you select an option.

For more information, see:

Completing an Object Wizard

Plan Wizard

Plan Wizard for IBM DB2 LUW for OS/390 and z/OS - Optional Panel 2

The table below describes the options and functionality on the second panel of the Plan Wizard:

Option	Functionality
Explain	Lets you select an option.
Reoptvars	Lets you select an option.
Defer Prepare	Lets you select an option.
Page Writes	Lets you select an option.
Optimization Hint	Lets you select an option.
Encoding	Lets you select an option.
Degree	Lets you select an option.
Flag	Lets you select an option.

For more information, see:

Completing an Object Wizard

Plan Wizard

Plan Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 3

The table below describes the options and functionality on the third panel of the Plan Wizard:

>

Option	Functionality
Edit	Opens the Connection Editor.
Edit	Opens the Package Editor.

For more information, see:

Completing an Object Wizard

Plan Wizard

Create Primary Key Constraint Dialog Box for IBM DB2 LUW for OS/390 and z/OS

The Create Primary Key Constraint dialog box lets you create a primary key without knowing the underlying commands. When you create a primary key, specify the owner and table on which you want to place the primary key constraint.

Important Notes

- None

The table below describes the options and functionality on the Create Primary Key Constraint dialog box.

Option	Description
Owner	Lets you select the primary key constraint owner.
Table	Lets you select the table you want to place the primary key constraint.
Constraint Name	Lets you enter the name of the constraint, which can be up to 30 characters long and must be unique across the entire database.
Specify Columns in Constraint:	Lets you select, reorder, and remove the primary key columns.

For more information, see Completing an Object Wizard.

Procedure Wizard for IBM DB2 LUW for OS/390 and z/OS

The Procedure Wizard lets you create a procedure without knowing the underlying commands.

The Procedure Wizard lets you:

- Name the procedure and specify its body.
- Set the language of the procedure and the location of the library or class containing the procedure.
- Specify the datatypes for the parameters of the stored procedure.
- Apply special options to the procedure, such as whether the procedure should always run in separate address space than the database.

>

Important Notes

- If you are creating a SQL routine procedure, you must have the latest LUW fixpack installed on your OS/390 Client. If you do not have the latest fixpack installed, the SQL routine procedure creation will fail.

For more information, see:

Completing an Object Wizard

Procedure Wizard - Panel 1

Procedure Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 1

The table below describes the options and functionality on the first panel of the Procedure Wizard.

Option	Description
Who will own the procedure to be registered?	Lets you select the procedure owner.
What is the name of the procedure?	Lets you enter the procedure name.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

For more information, see:

Completing an Object Wizard

Procedure Wizard

Procedure Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 2

The table below describes the options and functionality on the second panel of the Procedure Wizard.

Option	Description
Specify language in which the body of the user-defined function is written:	Lets you select the language.
Specify the either the name of the library containing the function or the full name of the function:	Lets you enter the full path of the library of click the browse button. NOTE: If you are using C language, specify the full library path and the procedure name, otherwise IBM DB2 LUW Database Manager assumes the procedure is under the IBM DB2 LUW library. NOTE: If you are using Java script, specify the Class ID and the procedure name, otherwise IBM DB2 LUW Database Manager assumes the procedure is under the IBM DB2 LUW library.
What is the name of the entry point function to be invoked?	**OPTIONAL:** Lets you enter the name of the entry point function.

>

For more information, see:

Completing an Object Wizard

Procedure Wizard

Procedure Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 3

The table below describes the options and functionality on the third panel of the Procedure Wizard.

NOTE: If you do not need to modify or specify any parameters for the procedure, this panel is optional.

Option	Description
Add Button	Opens the Add Parameter dialog box, which lets you specify the datatypes for the new procedure's parameters.
Edit Button	Opens the Modify Parameter dialog box, which lets you specify the datatypes for the new procedure's parameters.
Delete Button	Lets you delete the parameter.

For more information, see:

Completing an Object Wizard

Procedure Wizard

Procedure Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 4

The table below describes the options and functionality on the fourth panel of the Procedure Wizard.

Option	Description
Would you like this procedure to be fenced?	Click Yes or No.
Indicate the estimated upper bound of returned result sets:	**OPTIONAL:** To indicate the estimated upper bound of returned result sets, type the upper bound value in the corresponding box.
Does this procedure depend on some state values that effect the results?	Click Yes or No.

For more information, see:

Completing an Object Wizard

Procedure Wizard

Stogroup Wizard for IBM DB2 LUW for OS/390 and z/OS

The Stogroup Wizard lets you create a stogroup without knowing any of the underlying commands.

>

Important Notes

- None

The table below describes the options and functionality on the Stogroup Wizard.

Option	Description
What is the name of the Stogroup?	Lets you type the Stogroup name.
VCAT	Lets you select the VCAT name. Specifies that the data set is managed by the user.

For more information, see Completing an Object Wizard.

Synonym Wizard for IBM DB2 LUW for OS/390 and z/OS

The Synonym Wizard lets you create a synonym without knowing the underlying commands.

The Synonym Wizard lets you:

- Specify the synonym name and owner.
- Create a synonym for a table, view or alias.

Synonym Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 1

The table below describes the options and functionality on the first panel of the Synonym Wizard.

NOTE: An alias does not display in the Table Editor if you create a synonym for that alias name.

Option	Description
Owner of Synonym Object	Lets you select the synonym owner.
Name of Synonym Object	Lets you type the synonym name and click the Filter button. The Filter dialog box lets you filter the results of an object node to names with one or more patterns. This lets you display and work with a target object without waiting for all the objects in a large list to display.

For more information, see:

Completing an Object Wizard

Synonym Wizard

Synonym Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 2

The table below describes the options and functionality on the second panel of the Synonym Wizard.

>

Option	Description
Owner of Base Table or View	Lets you select the target owner.
Name of the Base Table or View	Select an existing table - Select to create the synonym from an existing table. Select an existing view - Select to create the synonym from an existing view.

For more information, see:

Completing an Object Wizard

Synonym Wizard

Table Wizard for IBM DB2 LUW for OS/390 and z/OS

The Table Wizard lets you create a table without knowing the underlying commands.

The Table Wizard lets you:

- Name the table and owner
- Lets you set logging options for the table and to provide table comments.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Table Wizard - Panel 1

Table Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 1

The table below describes the options and functionality on the first panel of the Table Wizard.

NOTE: These options are only available if the tablespace you selected is a database managed tablespace.

>

Option	Description
Who owns the table?	Lets you select the table owner.
What is the name of the table?	Lets you enter the table name.
Summary Table	Lets you select a summary table.
Select a tablespace on which to place the table:	**OPTIONAL:** Lets you select a tablespace where you want to place your table.
Specify separate tablespaces for index and long data below:	**OPTIONAL:** Lets you separate indexes or long data from the table. Indexes Long data

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

For more information, see:

Completing an Object Wizard

Table Wizard

Table Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 2

In the second panel of the Table Wizard, the Add Column dialog box opens immediately to let you add and define table columns.

For more information, see:

Completing an Object Wizard

Table Wizard

Table Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 3

The table below describes the options and functionality on the third panel of the Table Wizard.

Option	Description
Would you like extra information regarding SQL changes to this table to be written to the log?	Lets you have any additional information written to the log.
Would you like to skip logging changes made to this table by Insert, Delete, Update, Create Index, Drop Index, and Alter Table operations in the same unit of work in which this table is created?	Lets you skip any changes made to the table if you are still in the same unit of work in which the table was created.
Enter a comment.	**OPTIONAL:** Lets you enter a comment for the table.

>

Option	Description
You are creating a LOB table. Do you want DB2 to create the LOB tablespaces, auxiliary tables, and indexes?	The option is available if you add a LOB column to the table. Lets you specify to create the supporting tables. **NOTE:** If you create a base table with a LOB columns (CLOB, DBCLOB, or BLOB), you must also define a ROWID column for the table. The definition of the table is marked incomplete until an auxiliary table is created in a LOB table space for each LOB column in the base table and index is created on each auxiliary table. The auxiliary table stores the actual values of a LOB column. If you create a table with a LOB column in a partitioned table space, there must be one auxiliary table defined for each partition of the base table space.

For more information, see:

Completing an Object Wizard

Table Wizard

Tablespace Wizard for IBM DB2 LUW for OS/390 and z/OS

The Tablespace Wizard lets you create a tablespace without knowing the underlying commands. As you complete the Tablespace Wizard process, Rapid SQL constructs the CREATE TABLESPACE statement based on the information that you supply.

The Tablespace Wizard lets you:

- Name the tablespace.
- Specify data type to be stored on the tablespace.
- Specify what type of tablespace to create.
- Add containers to the tablespace.
- Specify how IBM DB2 LUW should manage the growth of the tablespace.
- Specify the type of tablespace to create.
- Specify how IBM DB2 LUW for OS/390 and z/OS should manage additional parameters in your tablespace.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Tablespace Wizard - Panel 1

Tablespace Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 1

The table below describes the options and functionality on the first panel of the Tablespace Wizard.

>

Option	Description
What is the Name of the Tablespace?	Lets you enter the name of the tablespace.
Choose the type of data to store in the tablespace:	Lets you select an option: Non-partitioned Partitioned Segmented LOB
Select the database that includes the tablespace	Lets you select the target database. Every database must contain at least one temporary tablespace.

For more information, see:

Completing an Object Wizard

Tablespace Wizard

Tablespace Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 2

The table below describes the options and functionality on the second panel of the Tablespace Wizard.

NOTE: Stogroup tablespaces require SYSADM or SYSCTRL authority, or the USE privilege.

Option	Description
DB2 will define and manage the data sets on a volume of the default storage group of the database	Select to accept the default storage group. The application allocates and manages the space where the table is to be stored. The storage model typically consists of many files, representing table objects, stored in the file system space. In a Database Managed Space (DMS) table space, the database manager controls the storage space. The storage model consists of a limited number of devices or files, whose space is managed by DB2.
DB2 will define and manage the data sets on the volume of the specified storage group	The application allocates and manages the space where the table is to be stored. The storage model typically consists of many files, representing table objects, stored in the file system space. In a Database Managed Space (DMS) table space, the database manager controls the storage space. The storage model consists of a limited number of devices or files, whose space is managed by DB2. Lets you select options: Select a storage group Minimum primary space allocation Minimum secondary space allocation Erase data sets when tablespace dropped?
User will manage the data sets on a specified VCAT catalog name	Lets you type or select VCAT. VCAT tablespace specifies that the data set is managed by the user.

For more information, see:

>

Completing an Object Wizard

Tablespace Wizard

Tablespace Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 3

The table below describes the options and functionality on the third panel of the Tablespace Wizard.

NOTE:

Option	Description
Number partitions	If your tablespace is partitioned, lets you type the number of partitions.
Partition size	If your tablespace is partitioned or LOB, select the size of partitions.
Segment size	If your tablespace is segmented, in the list, click the target segment size.
Max rows per page	If your tablespace is partitioned, non-partitioned or segmented, type the number of rows.
Using Block	Select to set minimum primary and secondary space allocation values. PRIQTY - The minimum primary space allocation. SECQTY - The minimum secondary space allocation.
Free Block	PCTFREE - Lets you type a value. FREEPAGE - Lets you type a value.

For more information, see:

Completing an Object Wizard

Tablespace Wizard

Tablespace Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 4

The table below describes the options and functionality on the fourth panel of the Tablespace Wizard.

NOTE: To change the encoding scheme for a database after it is created to utilize a different coded character set identifier (CCSID) that supports the Euro symbol, all data must be unloaded and reloaded. For more information regarding the encoding scheme, contact your System administrator.

Option	Description
Logging	Lets you set logging options for the tablespace.
Encoding Scheme	Lets you type of language for the tablespace.
Member Cluster	Select to let DB2 manage the data storage in the tablespace for an Insert command.

>

Option	Description
Locking	Lets you select the locking parameters. Lock Size Maximum Locks Selective Partition Locking - Select if you want to lock all partitions.
Dataset Handling	Lets you select the rule parameters. Close Rule

For more information, see:

Completing an Object Wizard

Tablespace Wizard

Trigger Wizard for IBM DB2 LUW for OS/390 and z/OS

The Trigger Wizard lets you create a trigger without requiring you to know any of the underlying commands.

The Trigger Wizard lets you:

- Specify the trigger name and the table on which it fires.
- Specify trigger timing, event action, and applicable table columns for an Update trigger.
- Specify the granularity of the trigger and correlation names for the new rows.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Trigger Wizard - Panel 1

Trigger Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 1

The table below describes the options and functionality on the first panel of the Trigger Wizard.

Option	Description
Who owns the trigger to be created?	Lets you select the owner.
What is the name of the trigger?	Lets you enter than trigger name.
Who owns the base table?	Lets you select the owner.
What is the name of the base table?	Lets you select the base table.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

>

For more information, see:

Completing an Object Wizard

Trigger Wizard

Trigger Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 2

The table below describes the options and functionality on the second panel of the Trigger Wizard.

Option	Description
When should the trigger fire?	Lets you select Timing and Event. Before - To make the trigger fire before an event. After - To make the trigger fire after an event. Insert - To make the Event cause an insert. Update - To make the Event cause an update. Delete - To make the Event cause an delete.
If the trigger fires an update event, which column updates should fire a trigger?	If the trigger fires and update event, lets you select the check box that corresponds to the column updates that should fire, or click the Check All button.

For more information, see:

Completing an Object Wizard

Trigger Wizard

Trigger Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 3

The table below describes the options and functionality on the third panel of the Trigger Wizard.

Option	Description
What type of trigger should be created?	This step is only available if you set the trigger timing to occur After the event. Statement Row
Specify the correlation names:	**OPTIONAL:** Table for the old rows: Table for the new rows: Name for the old rows: Name for the new rows:

For more information, see:

Completing an Object Wizard

Trigger Wizard

>

Trigger Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 4

The table below describes the options and functionality on the fourth panel of the Trigger Wizard.

Option	Description
Please type the body of the trigger below:	Lets you enter the trigger body syntax.

For more information, see:

Completing an Object Wizard

Trigger Wizard

Create Unique Key Constraint Dialog Box for IBM DB2 LUW for OS/390 and z/OS

The Create Unique Key dialog box lets you create a unique key without knowing the underlying commands.

Important Notes

- None

The table below describes the options and functionality on the Create Unique Key Constraint dialog box.

Option	Description
Owner	Lets you select the unique key constraint owner.
Table	Lets you select the table you want to place the unique key constraint.
Constraint Name	Lets you enter the name of the constraint, which can be up to 30 characters long and must be unique across the entire database.
Specify Columns in Constraint	Lets you select, reorder, and remove the constraint columns.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

For more information, see Completing an Object Wizard.

User Datatype Wizard for IBM DB2 LUW for OS/390 and z/OS

The User Datatype Wizard lets you create a user datatype without knowing the underlying commands.

The User Data Type Wizard lets you:

- Name the user datatype.
- Define the base datatype properties.

>

Important Notes

- None

For more information, see:

Completing an Object Wizard

User Datatype Wizard - Panel 1

User Datatype Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 1

The table below describes the options and functionality on the first panel of the User Datatype Wizard.

Option	Description
Who owns the datatype?	Lets you select the datatype owner.
What is the name of the datatype?	Lets you enter the datatype name.

> **TIP:** To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

For more information, see:

Completing an Object Wizard

User Datatype Wizard

User Datatype Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 2

The table below describes the options and functionality on the second panel of the User Datatype Wizard.

Option	Description
What is the source datatype?	Lets you select the source datatype.
Specify the datatype characteristics:	**NOTE:** The availability of options depends on the source datatype you specified. Length LOB Unit Precision Scale
Comment	Lets you associate a comment with the user datatype, and type the comment, which can be up to 254 characters long.

For more information, see:

Completing an Object Wizard

User Datatype Wizard

>

View Wizard for IBM DB2 LUW for OS/390 and z/OS

The View Wizard lets you create a view without knowing any of the underlying commands.

Important Notes

- None

For more information, see View Wizard - Panel 1.

View Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 1

The table below describes the options and functionality on the first panel of the View Wizard.

Option	Description
Who owns the view to be created?	Lets you select the view owner.
What is the name of the view?	Lets you enter the view name.
Select the constraint (if any) to apply to the view	Lets you specify that the constraint that every row that is inserted or updated through the view must conform to the definition of the view. Local Check Option - Update and insert operations on view must satisfy the search conditions of view and underlying views that are defined with a check option. Furthermore, every updatable view that is directly or indirectly defined on view inherits those search conditions (the search conditions of view and all underlying views of that are defined with a check option) as a constraint on insert or update operations. Cascade Check Option - Update and insert operations on view must satisfy the search conditions of view and all underlying views, regardless of whether the underlying views were defined with a check option. Furthermore, every updatable view that is directly or indirectly defined on view inherits those search conditions (the search conditions of view and all underlying views) as a constraint on insert or update operations.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

For more information, see:

Completing an Object Wizard

View Wizard

View Wizard for IBM DB2 LUW for OS/390 and z/OS - Panel 2

The table below describes the options and functionality on the second panel of the View Wizard.

Option	Description
Please select the view options to include	Lets you select view options.

For more information, see:

Completing an Object Wizard

View Wizard

With DB2 version 8, SYSPROC.DSNWZP runs in a WLM-established stored procedure address space and so EMB.SUBSYSTEM_INFO must also.

For a successful Receive job, use the IND$FILE program with the PUT command and no options to transfer the files.

Temporary Database Panel

The Temporary Database page informs you of an additional Rapid SQL requirement related to the use of declared global temporary tables.

As described on the page, the Rapid SQL stored procedures use DB2 declared global temporary tables (DGTTs). You must ensure that a temporary database has been created in each subsystem (or each member of a data sharing group) accessed by Rapid SQL. After completing the Install Wizard, you can use Rapid SQL itself to create the temporary database, if it does not already exist. Alternatively, you can use the following SQL statements to create the temporary database.

In a non-data sharing environment, use these statements, replacing xxxx with the subsystem ID:

CREATE DATABASE xxxxTEMP AS TEMP;

CREATE TABLESPACE xxxxTMP1 IN xxxxTEMP SEGSIZE 32

PRIQTY 12000 SECQTY 12000 BUFFERPOOL BP0;

CREATE TABLESPACE xxxxTMP2 IN xxxxTEMP SEGSIZE 32

PRIQTY 12000 SECQTY 12000 BUFFERPOOL BP0;

In a data sharing environment, use these statements one time for each member of the data sharing group, replacing xxxx with the member name: CREATE DATABASE xxxxTEMP AS TEMP FOR xxxx;

CREATE TABLESPACE xxxxTMP1 IN xxxxTEMP SEGSIZE 32

PRIQTY 12000 SECQTY 12000 BUFFERPOOL BP0;

CREATE TABLESPACE xxxxTMP2 IN xxxxTEMP SEGSIZE 32

PRIQTY 12000 SECQTY 12000 BUFFERPOOL BP0;

After reviewing the information about temporary databases, click Next to continue. The Per-Subsystem Configuration Complete page displays.

Microsoft SQL Server Object Wizards

Alias Wizard | Create Check Constraints Dialog Box | Database Device Wizard | Database Wizard

Default Wizard	Dump or Backup Device Wizard	Foreign Key Wizard	Function Wizard
Group Wizard	Index Wizard	Linked Server Wizard	Login Wizard
Create Primary Key Constraint Dialog Box	Procedure Wizard	Remote Server Wizard	Role Wizard
Rule Wizard	Segment Wizard	Table Wizard	Trigger Wizard
Create Unique Key Constraint Dialog Box	User Message Wizard	User Wizard	User Datatype Wizard
View Wizard			

Alias Wizard for Microsoft SQL Server

The Alias Wizard lets you create an alias. Aliases let you assume the permissions of another database user without creating a separate user identity. You can use an alias when a users requires only temporary access to a database. You can also use an alias to mask a user's identity.

Important Notes

- None

The table below describes the options and functionality on the first panel of the Alias Wizard.

Option	Description
What is the Login ID of the user who wants an alternate identity in the current database?	Lets you select the user.
Which user will serve as the logins alias?	Lets you select the user to which you want to map the login.

For more information, see Completing an Object Wizard.

Database Device Wizard for Microsoft SQL Server

The Database Device Wizard lets you create a database device. Database Devices are the fundamental storage mechanism for Microsoft SQL Server. They bridge the physical world of your hard disks and the logical internal structure of Microsoft SQL Server. When you create a device, Microsoft SQL Server writes a file on your hard disk and pre-initializes the panels for quick allocation to databases. Microsoft SQL Server stores the resulting panel range in the system catalog and refers to it when determining how to allocate space on a device to a particular database.

The Database Device Wizard lets you:

- Name the device and indicate if it should become the default device.
- Specify the virtual device number for and size of the new device.
- Override many obscure, rarely-used parameters of the DISK INIT statement.

>

Important Notes

- Make sure your Microsoft SQL Server is configured for enough devices that it can accommodate the creation of another device.

For more information, see:

Completing an Object Wizard

Database Device Wizard - Panel 1

Database Device Wizard for Microsoft SQL Server - Panel 1

The table below describes the options and functionality on the first panel of the Database Device Wizard.

Option	Description
What is the logical name of the device?	Lets you enter the device name.
What is the physical name of the device?	Lets you enter the physical name of the device. **NOTE:** You need to specify the full path for the file, including the hard drive letter or machine name, directory and full file name with the *.DAT extension (i.e. D:\MSSQL\DATA\TEST.DAT).

For more information, see:

Completing an Object Wizard

Database Device Wizard

Database Device Wizard for Microsoft SQL Server - Panel 2

The table below describes the options and functionality on the second panel of the Database Device Wizard.

Option	Description
What is the virtual device number?	Lets you enter the virtual device number for the new device. Rapid SQL automatically calculates the next open device number and defaults its value in the box.
What is the size of the device in megabytes?	Lets you type the value of the size of the device, in megabytes. **NOTE:** Make sure that you have enough free space on the hard disk to accommodate the device file.

For more information, see:

Completing an Object Wizard

Database Device Wizard

Database Device Wizard for Microsoft SQL Server - Panel 3

The table below describes the options and functionality on the third panel of the Database Device Wizard.

>

Option	Description
Do you want to specify a specific starting panel number?	Lets you specify the starting panel. Microsoft SQL Server defaults this value to zero.
What is the controller number?	Lets you specify the controller number. Microsoft SQL Server defaults to zero.

For more information, see:

Completing an Object Wizard

Database Device Wizard

Database Wizard for Microsoft SQL Server

The Database Wizard lets you create a database without requiring you to know any of the underlying commands. The Database Wizard presents you with a different set of options based on your server version to create the database accurately on each platform

The Database Wizard lets you:

- Name the database.
- Specify how and where you want to place the physical storage of the database.

  TIP: Microsoft SQL Server recommends that you do not create any user objects, such as tables, views, stored procedures, or triggers, in the master database. The master database includes the system tables that store the system information used by SQL Server, such as configuration option settings.

- Attach an existing set of operating system files.
- Name the filegroup and the database on file name.
- Lets you add the transaction logfile.
- Lets you specify database options.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Database Wizard - Panel 1

Database Wizard for Microsoft SQL Server - Panel 1

The table below describes the options and functionality on the first panel of the Database Wizard.

Option	Description
What is the name of the database?	Lets you enter the name of the database.
Microsoft SQL Server 7 or later Do you want to create database by attaching an existing set of operating system files?	Lets you use existing files to create your database.

For more information, see:

Completing an Object Wizard

Database Wizard

Add/Modify Transaction Log File

The second panel of the Database Wizard opens the Add Transaction Log File dialog box that lets you name the filegroup and the database on file name. A Microsoft SQL Server 7.0 maps databases over a set of operating system files. Microsoft SQL Server does not mix data and log information on the same file, and only one database uses individual files. This set of operating system files includes primary data files, secondary data files, and logfiles. Each database includes one primary data file that acts as the main database storage unit for the database and can refer to other database files. The main function of secondary data file is to store data that can not fit in the primary data file. You can have multiple secondary data files.

The table below describes the options and functionality on the Add/Modify Transaction Log File dialog box.

Option	Description
Database	Displays the database name.
Filegroup	Lets you select a filegroup to which the database belongs. Default - Sets filegroup as the default. Read Only - Sets the filegroup as read-only.
Database File	Name - Lets you name the database file. File Path - Lets you specify the file location. Type or browse and locate the file. The application automatically gives the database file a *.mdf extension. Size - Lets you specify a database size in KB or MB.
Allow Growth	Lets the database file grow. Growth Rate - Lets you specify the growth rate in percents, KB, or MB. Max Size - Specifies the maximum database file size. Select Unlimited to let the database file grow without restrictions. To specify a specific size, select Size and enter a size in KB or MB.

Database Wizard for Microsoft SQL Server - Panel 3

The third panel of the Database Wizard lets you add the transaction logfile. The logfile includes the information used to recover the database. Each database must have at least one logfile.

>

The table below describes the options and functionality on the third panel of the Database Wizard.

Option	Description
In which files do you wish to place the database transaction log	Displays the files.
Add	Opens the Add Transaction Log File dialog box.
Edit	Opens the Modify Transaction Log File dialog box.
Delete	Deletes the target file.

For more information, see:

Completing an Object Wizard

Database Wizard

Database Wizard for Microsoft SQL Server - Panel 4

The table below describes the options and functionality on the fourth panel of the Database Wizard.

NOTE: This panel is optional.

Option	Description
Which database options do you wish to activate?	Lets you select the appropriate check boxes or click the Check All button.

For more information, see:

Completing an Object Wizard

Database Wizard

Default Wizard for Microsoft SQL Server

The Default Wizard lets you create a default. Defaults promote data integrity by supplying a default value to a table column if the user does not explicitly provide one. They are reusable objects that you can bind to table columns or user datatypes.

The Default Wizard lets you name the default and specify its value.

Important Notes

- None

The table below describes the options and functionality on the first panel of the Default Wizard.

Option	Description
Who owns the default?	Lets you select the owner.

Option	Description
What is the name of the default?	Lets you enter the default name.
What is the default value?	Lets you enter the default value or expression.

For more information, see Completing an Object Wizard.

Dump or Backup Device Wizard for Microsoft SQL Server

The Dump Device Wizard lets you create a dump or backup device. Dump devices store backups of databases and transaction logs. In Microsoft SQL Server 7, dump devices have been renamed to backup devices.

Before you can dump a database or its transaction log, first create a dump device that stores the resulting backup file. Microsoft SQL Server lets you create tape, disk and diskette dump devices.

Important Notes

- None

The table below describes the options and functionality on the Default Wizard.

Option	Description
What is the device type?	Lets you select the device type you are using. Disk- Fast and convenient mechanism for backups. Diskette - Facilitates off site storage, but only for very small databases. Pipe - A temporary connection between Microsoft SQL Server and another application. Tape- Facilitate off site storage for enhanced disaster recovery. Skip ANSI Labels - Select for tape if you want to skip American National Standards Institute (ANSI) labels.
What is the dump/backup device Name?	Lets you type the device name.
What is the physical name?	Lets you type the device or file name that is recognized by the operating system. (e.g. a:sqltable.dat).

For more information, see Completing an Object Wizard.

Extended Procedure Wizard for Microsoft SQL Server

The Extended Procedure Wizard lets you create an extended procedure. Extended Procedures are dynamic link libraries that can be used to load and execute application routines written in other programming languages, such as C or Visual Basic. Extended Procedures function and appear in the same manner as normal stored procedures in that you can pass parameters to them and obtain results.

The Extended Procedure Wizard lets you:

- Specify the extended procedure owner.
- Specify the name of the function to call within the library.

- Specify the name of the library containing the function.

Extended stored procedures provide a method for calling procedural language functions from within the Adaptive Server.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Extended Procedure Wizard - Panel 1

Extended Procedure Wizard for Microsoft SQL Server - Panel 1

The table below describes the options and functionality on the first panel of the Extended Procedure Wizard:

Option	Description
What is the name of the function to call within the DDL?	Lets you type the function name.
What is the name of the DDL containing the function?	Lets you type the DDL name.

For more information, see Completing an Object Wizard.

Foreign Key Wizard for Microsoft SQL Server

The Foreign Key Wizard lets you create a foreign key. Foreign keys enforce referential integrity between tables by verifying the existence of foreign key values in the parent table before letting you insert or update foreign key values in the child table.

The Foreign Key Wizard lets you:

- Name the foreign key constraint
- Identify the parent table and the referenced constraint.
- Map the column pairs between the parent and child tables.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Foreign Key Wizard - Panel 1

Foreign Key Wizard for Microsoft SQL Server - Panel 1

The table below describes the options and functionality on the first panel of the Foreign Key Wizard.

>

Option	Description
Which table will host the constraint?	Lets you select the owner and table. **NOTE:** This option is not available when you open the wizard from the Foreign Keys Editor.
What will be the name of this new constraint?	System Generated Name - Lets Microsoft SQL Server automatically generate a name. User Specified Constraint Name - Lets you enter a name.
Should or should not the foreign key constraint be enforced when replicating the table?	To enforce the foreign key when replicating the table, select the Not for Replication check box. Replication copies and distributes data and database objects from one database to another and then synchronizes information between databases for consistency.
Microsoft SQL Server 8 only Do you want the foreign key to cascade the deletion and/or update of primary key values?	Cascade on Delete - Specifies that if an attempt is made to delete a row with a key referenced by foreign keys in existing rows in other tables, all rows containing those foreign keys are also deleted. If cascading referential actions have also been defined on the target tables, the specified cascading actions are also taken for the rows deleted from those tables. Cascade on Update - Specifies that if an attempt is made to update a key value in a row, where the key value is referenced by foreign keys in existing rows in other tables, all of the foreign key values are also updated to the new value specified for the key. If cascading referential actions have also been defined on the target tables, the specified cascading actions are also taken for the key values updated in those tables.

For more information, see:

Completing an Object Wizard

Foreign Key Wizard

Foreign Key Wizard for Microsoft SQL Server - Panel 2

The table below describes the options and functionality on the second panel of the Foreign Key Wizard.

Option	Description
Select the parent table to reference?	Lets you select the table owner and the parent table owner.
Table Name	Lets you select the parent table name.
Select the parent table constraint	Lets you select the primary and unique key constraints you want to reference.

For more information, see:

Completing an Object Wizard

Foreign Key Wizard

>

Foreign Key Wizard for Microsoft SQL Server - Panel 3

The table below describes the options and functionality on the third panel of the Foreign Key Wizard.

Option	Description
Select column associations	Lets you map the foreign key columns between the child and parent tables.

For more information see:

Completing an Object Wizard

Foreign Key Wizard

Function Wizard for Microsoft SQL Server

The Function Wizard lets you create a function. Functions are subroutines that you define. Functions are useful for reusable application logic. You can use functions to determine the best methods for controlling access and manipulation of the underlying data contained in an object.

The Function Wizard lets you specify the function name, owner, and type.

Important Note

- To create a user-defined function, you need CREATE ANY privileges or IMPLICIT_SCHEMA authority on the database if the schema does not already exist.

For more information, see:

Completing an Object Wizard

Function Wizard - Panel 1

Function Wizard for Microsoft SQL Server - Panel 1

The table below describes the options and functionality on the first panel of the Function Wizard.

Option	Description
Who will own the function?	Lets you select the function owner.
What is the name of the function?	Lets you enter the function name.

For more information, see:

Completing an Object Wizard

Function Wizard

Function Wizard for Microsoft SQL Server - Panel 2

The table below describes the options and functionality on the second panel of the Function Wizard.

>

Option	Description
What type of function would you like to create?	Scalar - Operates on a single value and then returns a single value. Scalar functions can be used wherever an expression is valid. Inline Table-valued- Returns a table. There is no function body; the table is the result set of a single SELECT statement. Multi-statement Table-valued - Returns a table. The function body, defined in a BEGIN...END block, contains the TRANSACT-SQL statements that build and insert rows into the table that will be returned.

For more information, see:

Completing an Object Wizard

Function Wizard

Group Wizard for Microsoft SQL Server

The Group Wizard lets you create a group. Groups are a defined collection of database users. The primary use of groups is to consolidate the management of permissions. By batching together similar users into groups, you can greatly reduce the number of commands required to set permissions.

Important Notes

- None

The table below describes the options and functionality on the first panel of the Group Wizard.

Option	Description
What is the name of the group?	Lets you enter the name of the group.

For more information, see Completing an Object Wizard.

Index Wizard for Microsoft SQL Server

The Index Wizard lets you create an index without knowing the underlying commands.

The Index Wizard lets you:

- Specify the table owner and name.
- Specify the index owner and name.
- Create a unique index and provide a comment for the index.
- Identify the index location and order.
- Specify basic index properties.
- Select the table columns that participate in the index.

>

- Specify where you want to place the index and specify available options, such as the fill factor.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Index Wizard - Panel 1

Index Wizard for Microsoft SQL Server - Panel 1

The table below describes the options and functionality on the first panel of the Index Wizard.

Option	Description
Select the object on which the the index is to be created.	Lets you select the target object for the index. For Microsoft SQL Server 2000, you can create an index of a schema-bound view. Schema-binding binds the view to the schema of the underlying base tables.
Who owns the table to be indexed?	Lets you select a table owner.
Which table is to be indexed?	Lets you select the table.
What is the name of the index?	Lets you type an index name.

For more information, see:

Completing an Object Wizard

Index Wizard

Index Wizard for Microsoft SQL Server - Panel 2

The table below describes the options and functionality on the second panel of the Index Wizard.

Option	Description
Do you wish to create a unique index?	Select to create a unique index (one in which no two rows are permitted to have the same index value) on a table or view. **NOTE:** A clustered index on a view must be unique.
Do you want the index to be clustered?	Select to create an index where the physical order of rows is the same as the indexed order of the rows, and the bottom (leaf) level of the clustered index contains the actual data rows. A table or view is allowed one clustered index at a time.

For more information, see:

Completing an Object Wizard

Index Wizard

>

Index Wizard for Microsoft SQL Server - Panel 3

The table below describes the options and functionality on the third panel of the Index Wizard.

Option	Description
Select the Index Columns	Lets you click the table columns to include in the index, and then click the Right Arrow button. You can also reorder the index columns.

For more information, see:

Completing an Object Wizard

Index Wizard

Index Wizard for Microsoft SQL Server - Panel 4

The tables below describe the options and functionality on the fourth panel of the Index Wizard.

Option	Description
On which filegroup do you wish to place the index?	Lets you select the filegroup. If you do not specify a filegroup, Microsoft SQL Server creates the index in the default filegroup.
Specify the fill factor, if any, by which you wish to pad index pages.	Lets you type the fill factor percentage value (0-100) that indicates how full SQL Server should make the leaf level of each index page during index creation. When an index page fills up, SQL Server must take time to split the index page to make room for new rows, which can be costly.
Do you wish to leave enough space for a minimum of two rows of the index maximum size in each index node?	Select to leave enough space for a minimum of two rows of the index maximum size in each index node.
Do you wish to allow intermediate sort results used to build the index to be stored in tempdb?	Select to store the intermediate index sort results in tempdb. This option may reduce the time needed to create an index if tempdb is on a different set of disks than the user database, but it increases the amount of disk space used to create an index. In addition to the space required in the user database to create the index, tempdb must have about the same amount of additional space to hold the intermediate sort results.

For more information, see:

Completing an Object Wizard

Index Wizard

Index Wizard for Microsoft SQL Server - Panel 5

The tables below describe the options and functionality on the fifth panel of the Index Wizard.

>

Option	Description
Do you want to enable automatic recomputation of distribution statistics?	Lets queries involving the table run at the optimal level as distribution statistics are updated automatically when the index is created. If you disable this option, you can compromise query performance.
Do you wish to ignore duplicate keys when insert or update operations cause them to occur?	Controls what happens when an attempt is made to insert a duplicate key value into a column that is part of a unique clustered index. If select and an INSERT statement that creates a duplicate key is executed, SQL Server issues a warning and ignores the duplicate row. If not selected, SQL Server issues an error message and rolls back the entire INSERT statement. **NOTE:** This option is available for unique indexes only.

For more information, see:

Completing an Object Wizard

Index Wizard

Linked Server Wizard for Microsoft SQL Server

The Linked Server Wizard lets you create linked servers. Linked servers let you create links to OLE DB data sources. OLE DB is a COM-based application programming interface (API) for accessing data. OLE DB supports accessing data stored in any format (databases, spreadsheets, text files, and so on) for which an OLE DB provider is available. With a linked server you can execute commands against OLE DB data sources on different servers.

The Linked Server Wizard lets you:

- Name the server and specify the type of server.
- Specify the OLE DB provider information.
- Specify linked server options.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Linked Server Wizard - Panel 1

Linked Server Wizard for Microsoft SQL Server - Panel 1

The table below describes the options and functionality on the first panel of the Linked Server Wizard.

>

Option	Description
What is the name of the linked server?	Lets you type the name of the new linked server. If the linked server is a Microsoft SQL Server, the name must be the network name of the server.
If this is a SQL Server you can use the default values for a linked SQL Server.	Any tables retrieved from the server are from the default database defined for the login on the linked server.
What is the provider name?	If the server is not an instance Microsoft SQL Server, click the provider list, and then click the name of the OLE DB provider managing access to the specified linked server. An OLE DB provider is a software component that exposes OLE DB interfaces. Each OLE DB provider exposes data from a particular type of data source (for example SQL Server databases, Access databases, or Excel spreadsheets).

For more information, see:

Completing an Object Wizard

Linked Server Wizard

Linked Server Wizard for Microsoft SQL Server - Panel 2

The table below describes the options and functionality on the Linked Server Wizard.

Option	Description
What is the datasource as interpreted by the OLE DB provider?	Lets you type the name of the OLE DB provider managing the access to the linked server. An OLE DB provider is a software component that exposes OLE DB interfaces. Each OLE DB provider exposes data from a particular type of data source (for example SQL Server databases, Access databases, or Excel spreadsheets).
What is the location as interpreted by the OLE DB provider?	Lets you type the OLE DB location property corresponding to the linked server. An OLE DB provider is a software component that exposes OLE DB interfaces. Each OLE DB provider exposes data from a particular type of data source (for example SQL Server databases, Access databases, or Excel spreadsheets).
What is the OLE DB provider-specific connection string that identifies a unique datasource?	Lets you type the OLE DB provider string property corresponding to the linked server. An OLE DB provider is a software component that exposes OLE DB interfaces. Each OLE DB provider exposes data from a particular type of data source (for example SQL Server databases, Access databases, or Excel spreadsheets).
What is the catalog to be used when making a connection to the OLE DB provider?	Lets you type the OLE DB catalog property corresponding to the linked server. An OLE DB provider is a software component that exposes OLE DB interfaces. Each OLE DB provider exposes data from a particular type of data source (for example SQL Server databases, Access databases, or Excel spreadsheets).

>

For more information, see:

Completing an Object Wizard

Linked Server Wizard

Linked Server Wizard for Microsoft SQL Server - Optional Panel 3

NOTE: Options vary by SQL Sever version.

The table below describes the options and functionality on the Linked Server Wizard.

Option	Description
Server Options	RPC Out Server - Lets you select the server with RPC encryption. Collation Compatible - Select if the character set and sort order in the datasource corresponding to the linked server is the same as the local server. Use Remote Collation - Select to use the collation information of character columns from the linked server. RPC - Enables RPC encryption from the server. Lazy Schema Validation - Select if the checking of the schema of remote tables is delayed until execution. Collation Name - Lets you select the collation to be used for character data from the linked server. Query Timeout - Lets you type the seconds to wait when Microsoft SQL Server attempts to query the linked server. Connection Timeout - Lets you type the seconds to wait when Microsoft SQL Server attempts to make a connection to the linked server.

For more information, see:

Completing an Object Wizard

Linked Server Wizard

Login Wizard for Microsoft SQL Server

The Login Wizard lets you create logins. Logins let you access your account. Your login account controls access to the server and all of the databases within it. Only the System Administrator or System Security Officer can create logins. Once you can log into a server, you need additional privileges to access user databases. Specifically, each database owner adds the login as a user or alias to the database.

The Login Wizard lets you:

- Name the login.
- Specify the type of login to create.
- Define a login password.
- Provide authentication details
- Select the databases on which to create users.

- Select the user type.
- Specify a group or role (as applicable).
- Assign aliases for the login.

To create a new login using a wizard:

1 Open an object wizard for a login.

2 Use the following table as a guide to setting properties and performing tasks as you pass through the steps of the wizard:

Step	Settings and tasks	
Properties	Select a new **Default Database** or **Default Language**. Master should not be specified as the default database in order to to prevent users from creating objects there by mistake.	
	Account Type	Lets you choose among STANDARD, NTGROUP, NTUSER, CERTIFICATE, and ASSYMMETRIC KEY.
	Password	For STANDARD account types,you can provide a password.
	Check Policy, **Check expiration**, and **Must change**	For STANDARD account types, use these properties to configure the corresponding SQL Server Enforce password policy and Enforce password expiration properties.
	Domain	For NTGROUP and NTUSER account types, you can select a domain.
	Certificate	For CERTIFICATE account types, you can select a certificate.
	Asymmetric Key	For ASYMMETRIC KEY account types, you can select a new **Asymmetric key**.
Server Roles	Lets you select the roles that are to be associated with this Login	
Users	Use the **Add** button to add a selected database from the **Databases where the login does NOT have a user account** to the **Databases where the login HAS a user account** list. Conversely, remove a login from a database by using the **Remove** button to move a selected database from the **Databases where the login HAS a user account** list.	
DDL View	Preview the DDL and if necessary navigate backward through the steps to make corrections. Finally, use the **Execute** button to create the new object.	

Create Primary Key Constraint Dialog Box for Microsoft SQL Server

The Create Primary Key Constraint dialog box lets you create a primary key. Primary Keys are a set of table columns that can uniquely identify every row of a table.

The dialog box lets you specify the owner and table on which you want to place the primary key constraint.

Important Notes

- None

The table below describes the options and functionality on the Create Primary Key Constraint dialog box.

Option	Description
Owner	Lets you select the primary key constraint owner.

>

Option	Description
Table	Lets you select the table you want to place the primary key constraint.
Constraint Name	Lets you enter the name of the constraint, which can be up to 30 characters long and must be unique across the entire database.
Properties	Clustered - Select for a a unique index (one in which no two rows are permitted to have the same index value) on a table or view. **NOTE:** If this option is not available for your index, you must first clear this setting on the existing clustered index. Filegroup - Lets you select the filegroup. If you do not specify a filegroup, Microsoft SQL Server creates the index in the default filegroup. Fill Factor - Lets you type the fill factor percentage value (0-100).
Specify Columns in Constraint:	Lets you select, reorder, and remove the primary key columns.

For more information, see Completing an Object Wizard.

Procedure Wizard for Microsoft SQL Server

The Procedure Wizard lets you create a procedure. Procedures are a reusable block of PL/SQL, stored in the database, that applications can call. Procedures streamline code development, debugging and maintenance by being reusable. Procedures enhance database security by letting you write procedures granting users execution privileges to tables rather than letting them access tables directly.

The Procedure Wizard lets you:

- Name the procedure and specify its body.
- Specify any execution options and you can encrypt the stored procedure text in syscomments.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Procedure Wizard - Panel 1

Procedure Wizard for Microsoft SQL Server - Panel 1

The table below describes the options and functionality on the first panel of the Procedure Wizard.

Option	Description
Who will own the procedure to be registered?	Lets you select the procedure owner.
What is the name of the procedure?	Lets you enter the procedure name.

>

Option	Description
What is the number of the procedure?	**OPTIONAL:** Lets you enter the number used to group procedures of the same name so they can be dropped together.

For more information, see:

Completing an Object Wizard

Procedure Wizard

Procedure Wizard for Microsoft SQL Server - Panel 2

The table below describes the options and functionality on the second panel of the Procedure Wizard.

Option	Description
Execution Options	None - Select if you do not want to specify any execution options. Recompile - This option tells Microsoft SQL Server to not cache a plan for the procedure and to recompile each time it is executed. This option slows down the execution time of a procedure as it must be recompiled each time. If the procedure parameters vary widely between executions, consider this option. Replication - Lets you create the stored procedure for replication.
With Encryption Option	Lets you encrypt the stored procedure definition in the system catalog. This option prevents proprietary procedures from being viewed by other users or third parties by encrypting the data of packages.
Finish Button	Rapid SQL opens the Stored Procedures Editor with the outline for the CREATE PROCEDURE statement in the Procedure text box.In the Procedure text box, type the body of the stored procedure.

For more information, see:

Completing an Object Wizard

Procedure Wizard

Remote Server Wizard for Microsoft SQL Server

The Remote Server Wizard lets you create a remote server. Remote Servers are servers on a network that you can access through your local server. Instead of logging directly into a remote server, you can log into your local server and execute a remote procedure call to it.

The Remote Server Wizard lets you:

- Name the remote server and to designate if it is remote or local.
- Specify remote server options.

>

Important Notes

Before you can set up a remote server, you first configure both the local and remote servers to accept remote access. To configure the Microsoft SQL Servers for remote access, you need to log into each server. The table below describes the parameters you need to configure on each server:

Parameter	Description
Remote Access	1(enabled)
Remote Connections	Number of remote connections required
Remote Logins	Number of remote logins required
Remote Sites	Number of remote sites required

After setting these server configuration parameters, shutdown and restart the server so the new values can take effect.

For more information, see:

Completing an Object Wizard

Remote Server Wizard - Panel 1

Remote Server Wizard for Microsoft SQL Server - Panel 1

The table below describes the options and functionality on the first panel of the Remote Server Wizard.

Option	Description
What is the name of the remote server?	Lets you type the name of the remote server.
Is the remote server the local or remote server?	The local server routes all commands to the remote server. To communicate with a remote server, you log into a local server and submit your remote procedure calls for remote servers. The remote server receives remote procedure calls from the local server and processes them accordingly. Lets you select the Remote or Local option button.

For more information, see:

Completing an Object Wizard

Remote Server Wizard

Remote Server Wizard for Microsoft SQL Server - Optional Panel 2

The table below describes the options and functionality on the second panel of the Remote Server Wizard.

NOTE: Options vary by SQL Sever version.

Option	Description
Server Options	Publication Server - Select if the server is to publish data for replication. Subscription Server - Select If the server is to manage subscriptions to replicated data. Distribution Server - Select If the server is to manage the distribution database. Publisher/Subscriber - Select if the server is both a subscriber and publisher of replicated data. DSN Server - Select if the server is to receive replicated data via ODBC. Fallback Server - Select if the server is to serve as a fallback server. Collation Compatible - Select if the server is to be collation compatible. Data Access Server - Select if the server is to serve as a data access server. RPC Out Server - Select if the server is to serve as a RPC Out server.

For more information, see:

Completing an Object Wizard

Remote Server Wizard

Role Wizard for Microsoft SQL Server

The Role Wizard lets you create a role. Roles are sets of user privileges you associate with access to objects within a database. Roles streamline the process of granting permissions. You can use roles to grant sets of permissions and privileges to users and groups.

The Role Wizard lets you:

- Specify role name.
- Specify role identification.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Role Wizard - Panel 1

Role Wizard for Microsoft SQL Server - Panel 1

The table below describes the options and functionality on the first panel of the Role Wizard.

>

Option	Description
What is the name of the role?	Lets you type the name of the role.
Who owns the role?	Lets you select the owner.
Select the type of the role to create	Lets you select the type of role, either a Standard SQL Server Role or an Application Role. If you select Application Role, in the Password box, type the role password, and in the Confirm box, retype the password.

For more information, see Completing an Object Wizard.

Rule Wizard for Microsoft SQL Server

The Rule Wizard lets you create a rule. Rules promote data integrity by allowing you to validate the values supplied to a table column. They are reusable objects that you can bind to table columns or user datatypes. For example, you can create a rule, bind it to a column in a table and have it specify acceptable values that can be inserted into that column.

Important Notes

- None

The table below describes the options and functionality on the first panel of the Rule Wizard.

Option	Description
What is the name of the rule?	Lets you type the name of the rule.
Who owns the rule?	Lets you select the owner.
What is the rule restriction box?	Lets you type the condition(s) defining the rule. A rule can be any expression valid in a WHERE clause and can include such elements as arithmetic operators, relational operators, and predicates (for example, IN, LIKE, BETWEEN). A rule cannot reference columns or other database objects. Built-in functions that do not reference database objects can be included.

For more information, see Completing an Object Wizard.

Segment Wizard for Microsoft SQL Server

The Segment Wizard lets you create a segment. Segments are a mechanism for placing tables and indexes on specific logical partitions. You create segments on one or more fragments of a database. You can map segments to specific database fragments, which in turn reside on specific hard disks; and, mapping segments lets you increase i/o throughput by placing intensively used tables and indexes on different physical devices. You can allocate tables and indexes to segments by including placement statements at the end of CREATE TABLE or CREATE INDEX statements.

The Segment Wizard lets you:

- Name the segment.
- Place the segment on one or more database fragments.

>

Important Notes

- None.

For more information, see:

Completing an Object Wizard

Segment Wizard - Panel 1

Segment Wizard for Microsoft SQL Server - Panel 1

The table below describes the options and functionality on the first panel of the Segment Wizard.

Option	Description
What is the name of the segment?	Lets you type the name of the segment.

For more information, see:

Completing an Object Wizard

Segment Wizard

Segment Wizard for Microsoft SQL Server - Panel 2

The table below describes the options and functionality on the second panel of the Segment Wizard.

Option	Description
On which database device(s) do you wish to place the segment?	Lets you select the database (device) fragments on which you want to place the segment, or Select All.

For more information, see:

Completing an Object Wizard

Segment Wizard

Table Wizard for Microsoft SQL Server

The Table Wizard lets you create a table without knowing the underlying commands.

The Table Wizard lets you:

- Name the table and owner.
- Specify table columns, including the name, row bindings, and type of datatype.

Important Notes

- None

For more information, see:

>

Completing an Object Wizard

Table Wizard - Panel 1

Table Wizard for Microsoft SQL Server - Panel 1

The table below describes the options and functionality on the first panel of the Table Wizard.

Option	Description
Who owns the table?	Lets you select the table owner.
What is the name of the table?	Lets you enter the table name.
Microsoft SQL Server 8.0 or later Select the option below if this table is to be used as base table of an Indexed View.	ANSI_NULLS - Specifies behavior of the Equals (=) and Not Equal to (<>) comparison operators when used with null values.

For more information, see:

Completing an Object Wizard

Table Wizard

Table Wizard for Microsoft SQL Server - Panel 2

The table below describes the options and functionality on the second panel of the Table Wizard:

Option	Description
Add the columns belonging to this table	Add - Click to open the Add Column dialog box. Insert - Click to open the Insert Column dialog box. Edit - Click to open the Modify Column dialog box. Drop - Click to delete the column.

NOTE: In the second panel of the Table Wizard the Add Column dialog box opens immediately.

For more information, see:

Completing an Object Wizard

Table Wizard

Table Wizard for Microsoft SQL Server - Panel 3

The table below describes the options and functionality on the third panel of the Table Wizard.

NOTE: This panel is only available for Microsoft SQL Server 7 or later.

Option	Description
On which filegroup do you want to place the table?	Lets you select the target filegroup.
On which filegroup do you want to place text and image columns?	If the table includes text or image columns, click the list, and then click the target filegroup. This option is disabled if the table has no text or image datatypes.

TIP: As these datatypes are used to store large amounts of data, you can benefit from placing them on a separate file group than the table.

For more information, see:

Completing an Object Wizard

Table Wizard

Trigger Wizard for Microsoft SQL Server

The Trigger Wizard lets you create a trigger. Triggers are a special type of procedure that automatically fire when defined data modification operations (insert, update or delete) occur on a target table. Triggers fire after an insert, update or delete, but belong to the same transaction as the data modification operation.

The Trigger Wizard lets you:

- Specify the trigger name and the table on which it fires.
- Specify when Rapid SQL fires the trigger.
- Specify the data modification operations that cause the trigger to fire.
- Enter the body syntax.

Important Notes

- For more information on the syntax for Trigger bodies, consult the Microsoft SQL Server Transact-SQL Documentation.

For more information, see:

Completing an Object Wizard

Trigger Wizard - Panel 1

Trigger Wizard for Microsoft SQL Server - Panel 1

The table below describes the options and functionality on the first panel of the Trigger Wizard.

Option	Description
Select the object on which the trigger is to be created.	Lets you select table or view.
Who owns the base table?	Lets you select the base table.

>

Option	Description
What is the name of the base table?	Lets you select the base table.
What is the name of the trigger?	Lets you enter the trigger name.
Use Encryption	Encrypts the syscomments entries that contain the text of the create trigger statement.

For more information, see:

Completing an Object Wizard

Trigger Wizard

Trigger Wizard for Microsoft SQL Server - Panel 2

The table below describes the options and functionality on the second panel of the Trigger Wizard.

Option	Description
When should the trigger fire?	Instead Of - Select if you want Rapid SQL to execute the trigger instead of the triggering SQL statement. After - Select if you want Rapid SQL to execute the trigger after executing the triggering SQL statement.

For more information, see:

Completing an Object Wizard

Trigger Wizard

Trigger Wizard for Microsoft SQL Server - Panel 3

The table below describes the options and functionality on the third panel of the Trigger Wizard.

Option	Description
Which table modification operation(s) should cause the trigger to fire?	Insert - Provides SQL to execute automatically after items are inserted into the table. Update - Provides SQL to execute automatically after items in the table are updated. Delete - Provides SQL to execute automatically after items in the table are deleted.

For more information, see:

Completing an Object Wizard

Trigger Wizard

>

Trigger Wizard for Microsoft SQL Server - Panel 4

The table below describes the options and functionality on the fourth panel of the Trigger Wizard.

Option	Description
Please type the body of the trigger below?	Lets you enter the trigger body syntax.

For more information, see:

Completing an Object Wizard

Trigger Wizard

Create Unique Key Constraint Dialog Box for Microsoft SQL Server

The Create Unique Key dialog box lets you create a unique key. Unique keys can enforce logical keys that are not chosen as the primary key. They enforce uniqueness for specified columns in a table.

Important Notes

- None

The table below describes the options and functionality on the Create Primary Key Constraint dialog box.

Option	Description
Owner	Lets you select the unique key constraint owner.
Table	Lets you select the table you want to place the unique key constraint.
Constraint Name	Lets you enter the name of the constraint, which can be up to 30 characters long and must be unique across the entire database.
Properties	Lets you select options: Clustered - A cluster comprises of a group of tables that share the same data blocks, and which are grouped together because they share common columns and are often used together. Filegroup - Lets you select the filegroup within the database the constraint is stored. Fill Factor - Lets you specify a percentage of how large each constraint can become.
Specify Columns in Constraint	Lets you select, reorder, and remove the constraint columns.

For more information, see Completing an Object Wizard.

User Message Wizard for Microsoft SQL Server

The User Message Wizard lets you create a user message without knowing the underlying commands. The User Message Wizard lets you specify the message number, severity level of the error message, language and text of the message.

>

Important Notes

- The user messages node only displays under the master database.

The table below describes the options and functionality on the User Message Wizard.

Option	Description
What is the message number?	Lets you type the value of the message number.
What is the severity?	Lets you select the severity level.
Always write the message to the Windows NT	Lets you write user messages to the Microsoft Windows NT application log.
Add the text for this message	Add - Opens the Create User Message Text dialog box. Edit Button - Opens the Modify User Message Text dialog box. Delete - Lets you delete the message.

For more information, see Completing an Object Wizard.

User Wizard for Microsoft SQL Server

The User Wizard lets you create a user. A user is an individual with access to the DBMS.

The User Wizard lets you:

- Map the login to the user.
- Name the user.
- Specify the group to which the user should belong.
- Grant any applicable system privileges to the user.

Important Notes

- None

For more information, see:

Completing an Object Wizard

User Wizard - Panel 1

User Wizard for Microsoft SQL Server - Panel 1

The table below describes the options and functionality on the first panel of the User Wizard.

Option	Description
What is the Login ID of the new user?	Lets you select the login ID of the new user.
What is the name of the user?	Lets you type the name if is different from the Login ID. The name can be up to 30 characters.

>

For more information, see:

Completing an Object Wizard

User Wizard

User Wizard for Microsoft SQL Server - Optional Panel 2

The table below describes the options and functionality on the second panel of the User Wizard.

Options	Description
Which roles do you want the new user to join?	Lets you select roles you want to assign to the new user or click the Select All button.

For more information, see:

Completing an Object Wizard

User Wizard

User Datatype Wizard for Microsoft SQL Server

The User Datatype Wizard lets you create a user datatype. User datatypes promote domain consistency by streamlining the definition of commonly used table columns in a database. You can build a customized datatype from system datatypes and bind defaults and rules to it to enhance integrity. When you reference the user datatype in a column, the column assumes all of the properties of the user datatype.

The User Datatype Wizard lets you:

- Name the user datatype.
- Select the base datatype.
- Define the base datatype parameters.

Important Notes

- None

For more information, see:

Completing an Object Wizard

User Datatype Wizard - Panel 1

User Datatype Wizard for Microsoft SQL Server - Panel 1

The table below describes the options and functionality on the first panel of the User Datatype Wizard.

Option	Description
What is the name of the datatype?	Lets you enter the datatype name.
What is the base datatype?	Lets you select the base datatype.

>

Option	Description
What are the datatype parameters?	Lets you enter the parameter values.

For more information, see:

Completing an Object Wizard.

User Datatype Wizard

User Datatype Wizard for Microsoft SQL Server - Panel 2

The table below describes the options and functionality on the second panel of the User Datatype Wizard.

Option	Description
Does the datatype allow null values?	Indicate if you want to allow null values in the datatype. Null has no explicitly assigned value. Null is not equivalent to zero or blank. A value of null is not considered to be greater than, less than, or equivalent to any other value, including another value of null.
Which default is bound to the new datatype?	Lets you select the default. Defaults promote data integrity by supplying a default value to a column if the user does not explicitly provide one. They are reusable objects that you can bind to user datatypes.
Which rule is bound to the new datatype?	Lets you select the rule. Rules promote data integrity by allowing you to validate the values supplied to a column. They are reusable objects that you can bind to user datatypes.

For more information, see:

Completing an Object Wizard

User Datatype Wizard

View Wizard for Microsoft SQL Server

The View Wizard for Microsoft SQL Server lets you create a view. Views are SQL queries stored in the system catalog that customize the display of data contained in one or more tables. Views behave like tables because you can query views and perform data manipulation operations on them. However, views do not actually store any data. Instead, they depend on data contained in their base tables.

Important Notes

- None

For more information, see View Wizard - Panel 1.

View Wizard for Microsoft SQL Server - Panel 1

The table below describes the options and functionality on the first panel of the View Wizard.

>

Option	Description
Who owns the view?	Lets you select the view owner.
What is the name of the view?	Lets you enter the view name.
Use Query Builder to define view	Select to open Query Builder to help you build the view SQL.

For more information, see:

Completing an Object Wizard

View Wizard

View Wizard for Microsoft SQL Server - Panel 2

The table below describes the options and functionality on the second panel of the View Wizard.

Option	Description
Please select the view options to include	Lets you select view options.

For more information, see:

Completing an Object Wizard

View Wizard

Oracle Object Wizards

Create Check Constraint Dialog Box	Cluster Wizard	Database Link Wizard	Directory Wizard
Foreign Key Wizard	Function Wizard	Index Wizard	Job Queue Wizard
Library Wizard	Materialized View Wizard	Materialized View Log Wizard	Package Wizard
Create Primary Key Constraint Dialog Box	Procedure Wizard	Profile Wizard	Redo Log Group Wizard
Role Wizard	Rollback Segment Wizard	Sequence Wizard	Snapshot Wizard
Snapshot Log Wizard	Stored Outline Wizard	Synonym Wizard	Table Wizard
Tablespace Wizard	Trigger Wizard	Object Type Wizard	Create Unique Key Constraint Dialog Box
User Wizard	View Wizard		

>

Cluster Wizard for Oracle

The Cluster Wizard lets you create a cluster. Clusters provide an optional method of storing table data. A cluster comprises of a group of tables that share the same data blocks, and which are grouped together because they share common columns and are often used together. The related columns of tables stored in a cluster are known as the cluster key.

The Cluster Wizard lets you:

- Name the cluster owner.
- Name the cluster.
- Specify the tablespace where you want to create the cluster.
- Add columns to the cluster.
- Indicate the cluster type: index or hash.
- Specify how Oracle should allocate data blocks to store the cluster.
- Specify how Oracle should manage the growth of the cluster.
- Identify free lists.
- Identify free list groups.
- Specify a default bufferpool.
- Specify Oracle's Parallel Server options.

Important Notes

- To create a cluster, you need the CREATE CLUSTER or CREATE ANY CLUSTER system privilege.

For more information, see:

Completing an Object Wizard

Cluster Wizard - Panel 1

Cluster Wizard for Oracle - Panel 1

The table below describes the options and functionality on the first panel of the Cluster Wizard.

Option	Description
Who owns the cluster?	Lets you type the name of the owner. It can be up to 30 characters long.
What is the name of the cluster?	Lets you type the name of the cluster. It can be up to 30 characters long.
On which tablespace do you want to create the cluster?	Lets you select the tablespace.

For more information, see:

Completing an Object Wizard

Cluster Wizard

>

Cluster Wizard for Oracle - Panel 2

The table below describes the options and functionality on the second panel of the Cluster Wizard.

Option	Description
Add columns that are in this cluster	Add Button - Opens the Add Cluster Column dialog box. Edit Button - Open the Modify Cluster Column dialog box. Drop Button - Drops the column.
What is the size of this cluster?	Lets you type the value of the size of the cluster, and then click the list to indicate the unit of measure: Bytes, KB, or MB. The cluster size can not exceed the size of a single data block.

For more information, see:

Completing an Object Wizard

Cluster Wizard

Cluster Wizard for Oracle - Panel 3

The table below describes the options and functionality on the third panel of the Cluster Wizard.

Option	Description
What is the cluster type?	Lets you select a cluster type: Index Cluster - Store the cluster data together and index the cluster key, which should make them faster at retrieving a range of data rows. Hash Cluster - Apply hashing functions to the cluster key to determine the physical location of a data row, which should make them faster at retrieving specific data rows.
If this is a hash cluster, what is the number of hash keys?	Lets you type the number of hash keys.
What is the hash function?	Oracle uses a hash function to generate a distribution of numeric values, called hash values, which are based on specific cluster key values. The key of a hash cluster, like the key of an index cluster, can be a single column or composite key (multiple column key). To find or store a row in a hash cluster, Oracle applies the hash function to the row's cluster key value. The resulting hash value corresponds to a data block in the cluster, which Oracle then reads or writes on behalf of the issued statement.

For more information, see:

Completing an Object Wizard

Cluster Wizard

Cluster Wizard for Oracle - Panel 4

The table below describes the options and functionality on the fourth panel of the Cluster Wizard.

>

Option	Description
How many transactions are allowed for each datablock in the cluster?	Each transaction that updates a data block requires a transaction entry. Initial - The initial parameter ensures that a minimum number of concurrent transactions can update a data block, avoiding the overhead of allocating a transaction entry dynamically. Maximum - The maximum parameter limits concurrency on a data block.
What is the percent of space reserved for future updates?	Percent Free - Lets you type a value in the corresponding box.
What is the minimum percentage of used space that ORACLE maintains for each datablock?	The storage parameter lets you tune performance by minimizing the occurrence of row migration and chaining caused by update operations that extend the length of rows stored on the data block. Percent Used - Lets you type a value in the corresponding box.

For more information, see:

Completing an Object Wizard

Cluster Wizard

Cluster Wizard for Oracle - Panel 5

The table below describes the options and functionality on the fifth panel of the Cluster Wizard.

Option	Description
How large are the cluster's extents?	The unit of space allocated to an object whenever the object needs more space. Initial Extent - The initial space extent (in bytes) allocated to the object. Next Extent - The next extent (in bytes) that the object will attempt to allocate when more space for the object is required.
How extents should be allocated to the cluster?	Minimum Extents - The appropriate minimum extents value for the object. Maximum Extents - The appropriate maximum extents value for the object.
What is the growth rate for sizing additional extents?	Percent Increase - Magnifies how an object grows and, can materially affect available free space in a tablespace. Select a value in the corresponding box.

For more information, see:

Completing an Object Wizard

Cluster Wizard

Cluster Wizard for Oracle - Panel 6

The table below describes the options and functionality on the sixth panel of the Cluster Wizard.

>

Option	Description
Specify the number of free lists	Free lists let you manage the allocation of data blocks when concurrent processes are issued against the cluster. Identifying multiple free lists can reduce contention for free lists when concurrent inserts take place and potentially improve the performance of the cluster. Free Lists - Lets you select the list or type a value in the corresponding box. The default and minimum value is 1; this option should be set higher if multiple processes access the same data block.
Specify the number of free list groups	Free Lists Groups - Lets you select the list or type a value in the corresponding box. The default and minimum value is 1; this option is only applicable for the parallel server option.
Define a default bufferpool for this cluster	Bufferpool - Lets you select an option: Default - Select to retain the default. Keep - Select to retain the object in memory to avoid I/O conflicts. **ORACLE 8i ONLY:** Recycle - Select to rid data blocks from memory as soon as they are no longer in use.

For more information, see:

Completing an Object Wizard

Cluster Wizard

Cluster Wizard for Oracle - Panel 7

The table below describes the options and functionality on the seventh panel of the Cluster Wizard.

NOTE: This panel is only applicable when you are using Oracle with the Parallel Server in parallel query mode.

Option	Description
You can achieve substantial performance gains by using Oracle's parallel query option type	The Parallel server query option lets you process queries using many query server processes running against multiple CPUs, which provides substantial performance gains such as reduction of the query completion time.
Choosing Cache keeps the blocks in memory by placing it at the most recently used end. This option is useful for small lookup tables.	Lets you select an option button.

For more information, see:

Completing an Object Wizard

Cluster Wizard

Database Link Wizard for Oracle

The Database Link Wizard lets you create a database link. Database links are named schema objects that describe a path from one database to another. Database links are implicitly used when a reference is made to a global object name in a distributed database. To use a database link, either it is public or you own it.

The Database Link Wizard lets you:

- Name the database link and to specify if it should be public.
- Specify how to connect to a remote database.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Database Link Wizard - Panel 1

Database Link Wizard for Oracle - Panel 1

The table below describes the options and functionality on the first panel of the Database Link Wizard.

NOTE: To create a public database link, you need CREATE PUBLIC DATABASE LINK privileges.

Option	Description
What is the name of the database link box?	Lets you type the database link name.
Should the database link be public?	Click Yes or No. **NOTE:** To create a public database link, you must have CREATE PUBLIC DATABASE LINK privileges.

For more information, see:

Completing an Object Wizard

Database Link Wizard

Database Link Wizard for Oracle - Panel 2

The table below describes the options and functionality on the second panel of the Database Link Wizard.

Option	Description
What is the name of the remote user?	Lets you type the remote user's name.
What is the remote user's password?	Lets you type the remote user's password.

For more information, see:

>

Completing an Object Wizard

Database Link Wizard

Directory Wizard for Oracle

The Directory Wizard lets you create a directory without knowing the underlying commands. As you complete the Directory Wizard, Rapid SQL constructs the necessary CREATE DIRECTORY statement from the information that you have supplied. The Directory Wizard prompts you to name the directory and provide the full-qualified directory path.

Important Notes

- None

The table below describes the options and functionality on the first panel of the Directory Wizard.

Option	Description
What is the name of the directory?	Lets you type the directory name.
What is the directory path?	Lets you type the full path name of the outside operating system directory which you want to alias in the directory (for example, /Video/Library/G_Rated.)

For more information, see Completing an Object Wizard.

Foreign Key Wizard for Oracle

The Foreign Key Wizard lets you create a foreign key. Foreign keys enforce referential integrity between tables by verifying the existence of foreign key values in the parent table before letting you insert or update foreign key values in the child table.

The Foreign Key Wizard lets you:

- Name the foreign key constraint
- Identify the parent table and the referenced constraint.
- Map the column pairs between the parent and child tables.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Foreign Key Wizard - Panel 1

Foreign Key Wizard for Oracle - Panel 1

The table below describes the options and functionality on the first panel of the Foreign Key Wizard.

>

Option	Description
Which table will host the constraint?	Lets you select the owner and table.
What will be the name of this new constraint?	System Generated Name - Lets Oracle automatically generate a name. User Specified Constraint Name - Lets you enter a name.
Do you want the foreign key to cascade the deletion of primary key values?	To make the foreign key cascade the deletion of any primary key values in the parent table to corresponding foreign key values in child tables, click the Yes option button. If you do not want the foreign key to cascade the deletion of any primary key values in the parent table to corresponding foreign key values in child tables, click the No option button.
What will be the status of this constraint?	Enabled -Ensures that all data modifications upon a given table (or tables) satisfy the conditions of the constraints. Disabled - Constraint is temporarily not operational.

For more information, see:

Completing an Object Wizard

Foreign Key Wizard

Foreign Key Wizard for Oracle - Panel 2

The table below describes the options and functionality on the second panel of the Foreign Key Wizard.

Option	Description
Select the parent table to reference?	Lets you select the table owner and the parent table owner.
Table Name	Lets you select the parent table name.
Select the parent table constraint	Lets you select the primary and unique key constraints you want to reference.

For more information, see:

Completing an Object Wizard

Foreign Key Wizard

Foreign Key Wizard for Oracle - Panel 3

The table below describes the options and functionality on the third panel of the Foreign Key Wizard.

Option	Description
Select column associations	Lets you map the foreign key columns between the child and parent tables.

>

For more information, see:

Completing an Object Wizard

Foreign Key Wizard

Function Wizard for Oracle

The Function Wizard lets you create a function. Functions are subroutines that you define. Functions are useful for reusable application logic. You can use functions to determine the best methods for controlling access and manipulation of the underlying data contained in an object.

The Function Wizard lets you specify the function name, owner, and type.

Important Note

- To create a function in your own schema, you need CREATE PROCEDURE privileges. To create a function in someone else's schema, you need CREATE ANY PROCEDURE privileges.

The table below describes the options and functionality on the Function Wizard.

Option	Description
Who will own the function?	Lets you select the function owner.
What is the name of the function?	Lets you enter the function name.

For more information, see Completing an Object Wizard.

Index Wizard for Oracle

The Index Wizard lets you create an index. Indexes are optional structures associated with tables. You can create indexes specifically to speed SQL statement execution on a table. When properly used, Indexes are the primary means of reducing disk I/O. Indexes are logically and physically independent of the data in the associated table. Unique Indexes guarantee that no two rows of a table have duplicate values in the columns that define the index.

The Index Wizard lets you specify:

- Index owner.
- Table indexed.
- Index name.
- Index properties.
- The table columns that participate in the index.
- The tablespace on which to place the index.
- How Oracle should store the index on blocks.
- Oracle's Parallel Server options.
- How Oracle should allocate additional extents as the index grows.
- Storage parameters for the index.

- The partitioning columns.
- An ordered list of partitions by adding, inserting, editing, or dropping.

Important Notes

- The Index Wizard varies slightly in content based on the version of Oracle to which you are connected.
- To create indexes in your own schema, you need INDEX privileges on the target table. To create indexes in other schema, you need CREATE ANY INDEX privileges.

For more information, see:

Completing an Object Wizard

Index Wizard - Panel 1

Index Wizard for Oracle - Panel 1

The table below describes the options and functionality on the first panel of the Index Wizard.

NOTE: For Oracle 8i or later, you can place a unique key constraint on an Index-Organized table.

TIP: Index-organized tables take up less storage space and quickly access table rows. Index-organized tables stores rows in primary key order reducing the amount of storage space needed.

TIP: An advantage of using index-organized tables is that the tables use less memory because key columns are not duplicated in the table and index. Rapid SQL stores the remaining non-key columns in the index structure.

Option	Description
Who owns the table to be indexed?	Lets you select a table owner.
What is the table to be indexed?	Lets you select a table.
Who owns the index to be created?	Lets you select the index owner.
What is the name of the index index?	Lets you enter an index name.

>

Option	Description
For Convert to Partitioned Index Wizard: Partitioning Method	Lets you select your partitioning method: Global index partitioning -A global partitioned index can refer to rows in more than one table partition or subpartition. Global partitioned indexes are more difficult to manage than local partitioned indexes because any change in the underlying table partition affects all partitions in a global index. As a result, there is increased partition maintenance. **NOTE:** A global index can only be range partitioned but it can be defined on any kind of partitioned table. Local index partitioning - A local partitioned index has keys that refer to rows in a single table partition. A local partitioned index is automatically partitioned to mirror the underlying table. The number of partitions or subpartitions and the partition bounds for the partitioned index correspond with the partitions on the table. Oracle maintains this correspondence. If the table partitions are altered, the index partitions are altered accordingly. A local partitioned index is prefixed if it is partitioned on the same column as the underlying table. The local partitioned index is non prefixed if it is partitioned on a different column. For local index partitioning, select the type of table: Range - Range partitions partition the data in the table according to a range of values. Composite - Composite partitions use both range and hash types, first partitioning the data by a range of values, and then further dividing the partitions into subpartitions by way of a hash function.

For more information, see:

Completing an Object Wizard

Index Wizard

Index Wizard for Oracle - Panel 2

The table below describes the options and functionality on the second panel of the Index Wizard:

Option	Description
What type of index do you wish to create?	Unique - Select if the index is a unique constraint.The values in the indexed columns must be distinct Bitmap - Widely used in data warehousing environments. The environments typically have large amounts of data and ad hoc queries, but a low level of concurrent DML transactions.
Are the rows in the table already stored in ascending order?	Increases the speed of the index creation process. Oracle does not sort the rows.
Do you want to store the bytes of the index block in reverse order?	Stores the bytes of the index block in reverse order and to exclude the ROWID. The ROWID is a globally unique identifier for a row in a database. It is created at the time the row is inserted into a table, and destroyed when it is removed from a table.
Is the index function-based?	Permits the results of known queries to be returned much more quickly.

>

For more information, see:

Completing an Object Wizard

Index Wizard

Index Wizard for Oracle - Panel 3

The table below describes the options and functionality on the third panel of the Index Wizard.

Option	Description
Select the Index Columns	In the grid, click the table columns to include in the index, and then click the right arrow button.
Currently Selected Columns	Click the up and down arrows to change column location.

For more information, see:

Completing an Object Wizard

Index Wizard

Index Wizard for Oracle - Panel 4

The table below describes the options and functionality on the fourth panel of the Index Wizard.

Option	Description
On which tablespace do you wish to place the index?	Select DEFAULT instead of a tablespace only if you are creating a local partitioned index and want the partitions in the same tablespace as the partitions in the underlying table.

For more information, see:

Completing an Object Wizard

Index Wizard

Index Wizard for Oracle - Panel 5

The table below describes the options and functionality on the fifth panel of the Index Wizard.

Option	Description
In how many transaction entries are allowed for each datablock of the index?	Each transaction that updates an index block requires a transaction entry. Initial - Ensures that a minimum number of concurrent transactions can update an index block, avoiding the overhead of allocating a transaction entry dynamically. Maximum - The maximum parameter limits concurrency on an index block.

>

Option	Description
What is the percent of space reserved for future updates?	Percent Free - Lets you type the percentage.

For more information, see:

Completing an Object Wizard

Index Wizard

Index Wizard for Oracle - Panel 6

The table below describes the options and functionality on the sixth panel of the Index Wizard.

Option	Description
Would you like to estimate the size of the table?	Select to estimate how large the table will become given a row growth projection.

For more information, see:

Completing an Object Wizard

Index Wizard

Index Wizard for Oracle - Panel 7

The table below describes the options and functionality on the seventh panel of the Index Wizard.

NOTE: This panel is only applicable when you are using Oracle with the Parallel Server in parallel query mode.

Option	Description
You can achieve substantial performance gains by using Oracle's parallel query option.	The Parallel server query option lets you process queries, using many query server processes, running against multiple CPU's. This option provides substantial performance gains such as reduction of the query completion time. Degree - Lets you type a value indicating the number of query server processes that should be used in the operation. Instances - Lets you type a value indicating how you want the parallel query partitioned between the Parallel Servers.
Do you want this operation logged in the redo file?	**NOTE:** This option is only available if your database is running in ARCHIVELOG mode.

For more information, see:

Completing an Object Wizard

Index Wizard

>

Index Wizard for Oracle - Panel 8

The table below describes the options and functionality on the eighth panel of the Index Wizard.

Option	Description
How large are the indexes extents?	The unit of space allocated to an object whenever the object needs more space. Initial Extent - The initial space extent (in bytes) allocated to the object. Next Extent - The next extent (in bytes) that the object will attempt to allocate when more space for the object is required.
How many extents should be allocated to the index?	Minimum Extents - The appropriate minimum extents value for the object. Maximum Extents - The appropriate maximum extents value for the object.
What is the growth rate for sizing additional extents?	**NOTE:** You should be careful when setting Percent Increase because it magnifies how an object grows and, therefore, can materially affect available free space in a tablespace. Percentage Increase - Lets you type the percentage.

For more information, see:

Completing an Object Wizard

Index Wizard

Index Wizard for Oracle - Panel 9

Free lists let you manage the allocation of data blocks when concurrent processes are issued against the index. You can potentially improve the performance of the index by identifying multiple free lists, which can reduce contention for free lists when concurrent inserts take place. If you are working with Oracle8, you have the option of creating a partitioned index.

Option	Description
Specify the number of free lists?	Lets you select or type the value. The default and minimum value is 1. You should increase this number if multiple processes access the same data block.
Specify the number of free list groups?	**NOTE:** This option is only applicable for the parallel server option. Lets you select or type the value. The default and minimum value is 1.
Define a bufferpool for this index	Default - To use the default bufferpool. Keep - To retain the object in memory to avoid I/O conflicts. **NOTE:** The Recycle option is only available for Oracle8. Recycle - To save cache space by ridding data blocks from memory as soon as they are no longer in use.
Do you want to partition this index?	Lets you partition the index.

Option	Description
Select whether partitioning of the index will be user-defined (global) or automatically equi-partitioned with the with the underlying table (local):	**NOTE:** This option is only applicable for the partitioning option. Global index partitioning - A global partitioned index is an index on a partitioned or non-partitioned table which is partitioned using a different partitioning-key from the table. Global-partitioned indexes can only be partitioned using range partitioning. For example, a table could be range-partitioned by month and have twelve partitions, while an index on that table could be range-partitioned using a different partitioning key and have a different number of partitions. Local index partitioning - Select if you want Rapid SQL to partition the index on the same columns, with the same amount of partitions, and the same partition bounds as the table.

For more information, see:

Oracle Partitioning

Completing an Object Wizard

Index Wizard

Index Wizard for Oracle - Panel 10

NOTE: This panel only displays if you selected the partitioning in panel 9.

The table below describes the options and functionality on the ninth panel of the Index Wizard.

Option	Description
Select the partitioning columns	Available Columns - Lets you select the target partitioning columns, click the right button to move the columns to the selected columns grid. Selected Columns - To reorder the columns, click the up and down buttons. You can create an ordered list with up to 16 partitioning columns on the table. A partitioning column can not contain the LEVEL, ROWID, or MLSLABEL pseudocode or a col of type ROWID.
Create a list of ordered partitions	Add - Opens the Add Partition dialog box. Insert - Opens the Insert Partition dialog box. Edit - Opens the Modify Partition dialog box. Drop - Lets you drop a partition.

For more information, see:

Completing an Object Wizard

Index Wizard

Index Wizard for Oracle - Panel 10

NOTE: This option is only available in Oracle 9.2 or later.

>

The table below describes the options and functionality on this panel of the Table Wizard.

Option	Description
The partitioning columns for the table and index are listed below	Available Columns - Lets you select at least one partitioning column, and then click the right arrow button to move it to the Selected Columns box.
The partitioning method is selected below	Lets you specify which partitioning method to use, hash or list.
The subpartitioning columns for the table and index are listed below	Available Columns - Lets you select at least one subpartitioning column, and then click the right arrow button to move it to the Selected Columns box.

For more information, see:

Completing an Object Wizard

Index Wizard

Convert to Partitioned Index Wizard for Oracle

NOTE: This panel only displays if you selected the partitioning in panel 9.

The table below describes the options and functionality on the ninth panel of the Index Wizard.

Option	Description
Select the partitioning columns	Available Columns - Lets you select the target partitioning columns, click the right button to move the columns to the selected columns grid. Selected Columns - To reorder the columns, click the up and down buttons. You can create an ordered list with up to 16 partitioning columns on the table. A partitioning column can not contain the LEVEL, ROWID, or MLSLABEL pseudocode or a col of type ROWID.
Create a list of ordered partitions	Add - Opens the Add Partition dialog box. Insert - Opens the Insert Partition dialog box. Edit - Opens the Modify Partition dialog box. Drop - Lets you drop a partition.

Index Partition Space Dialog Box

The Index Partition Space is a read-only dialog box that lets the parameters set for the target index.

For more information, see:

Completing an Object Wizard

Index Wizard

>

Index Wizard for Oracle - Panel 10

The table below describes the options and functionality on the tenth panel of the Index Wizard.

Option	Description
Where do you want the subpartitions to be stored?	The tablespace specified at the index level - Select if you want Rapid SQL to specify tablespace at the index level. The same tablespaces as those used for the corresponding table subpartitions - Select to use the same tablespaces as those used for the corresponding table subpartitions.
Create an ordered list of partitions	Lets you edit existing partitions. Click the Edit button and Rapid SQL opens the Modify Partition dialog box.

For more information, see:

Completing an Object Wizard

Index Wizard

Job Queue Wizard for Oracle

The Job Queue Wizard lets you create a new job for the Oracle job queues. Job Queues are built-in mechanisms that let you schedule a variety of SQL-based or command-line driven tasks.

The Job Queue Wizard lets you:

- Specify the PL/SQL code that will run in the job.
- Specify when the job will run, if it will run again, and if it should be enabled to run.

Important Notes

None

For more information, see:

Completing an Object Wizard

Job Queue Wizard - Panel 1

Job Queue Wizard for Oracle - Panel 1

The table below describes the options and functionality on the first panel of the Job Queue Wizard.

Option	Description
Enter the PL/SQL code you would like submitted	Lets you type PL/SQL code, or retrieve a previously saved PL/SQL script.

For more information, see:

Completing an Object Wizard

Job Queue Wizard

>

Job Queue Wizard for Oracle - Panel 2

The table below describes the options and functionality on the second panel of the Job Queue Wizard.

Option	Description
When would you like for the job to begin execution?	Lets you select the job's start date/time.
Would you like to have the job run on an ongoing basis?	Lets you determine if the job should be periodically re-executed. You can choose how often by entering in a numeric value in the Every box and then making a selection from the list
Would you like to have the job submitted as disabled?	Lets you specify if the job should originally be submitted as disabled or enabled.

For more information, see:

Completing an Object Wizard

Job Queue Wizard

Library Wizard for Oracle

The Library Wizard lets you create a library without knowing the underlying commands. Libraries are an object type introduced in Oracle8 that represent a call to an operating system shared library. After the call is made, libraries can be used by SQL or PL/SQL to link to external procedures or functions. Libraries are only to be used on operating systems that support shared libraries and dynamic linking. Libraries serve as pointers or aliases to physical operating system shared library files and do not have existence as a physical object on their own, rather they rely on the physical existence of the files in the external operating system library to which they refer. To access the function or procedures stored in the library, you need execute privileges at the operating system level where the shared library resides.

Important Notes

- To create a library in your own schema, you need CREATE ANY LIBRARY privileges. To use the functions or procedures stored in the library, you need object EXECUTE privileges on the library.

The table below describes the options and functionality on the Library Wizard.

Option	Description
Who owns the library?	Lets you select the owner.
What is the name of the library?	Lets you type the name.
What is the file specification?	Lets you type the file name and location. You must type the complete location (for example, D:\Embarcadero\ETLIB21D.DLL).

For more information, see Completing an Object Wizard.

Materialized View Wizard for Oracle

The Materialized View Wizard lets you create a materialized view. Materialized views are used to dynamically copy data between distributed databases.

>

The Materialized View Wizard lets you:

- Specify the materialized view owner and to name the materialized view.
- Specify the materialized view's refresh configuration.
- Place the materialized view on a tablespace and specify the query that should be used to populate the materialized view.
- Specify how Oracle should allocate data blocks to store the materialized view.
- Specify how Oracle should manage the growth of the materialized view.
- Specify if Oracle updates the materialized view, register an existing table, and specify how to populate a materialized view.
- Specify if the data for the materialized view is cached, if you want the updates logged, and to specify a number of threads for a parallel operation.
- Specify rollback segments, and enable query rewrites.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Materialized View Wizard - Panel 1

Materialized View Wizard for Oracle - Panel 1

The table below describes the options and functionality on the first panel of the Materialized View Wizard.

Option	Description
Who owns the materialized view?	Lets you select the owner.
What is the name of the materialized view?	Lets you type the name.

For more information, see:

Completing an Object Wizard

Materialized View Wizard

Materialized View Wizard for Oracle - Panel 2

The table below describes the options and functionality on the second panel of the Materialized View Wizard.

>

Option	Description
How should the materialized view be refreshed?	Fast - Select to refresh the materialized view using a materialized view log. Complete - Select to rebuild the materialized view when it refreshes. Force - Select to determine the fastest available refresh method between Fast and Complete for the database.
Choose a refresh mechanism:	On Demand - Select to refresh the materialized view on demand. On Commit - Select to refresh the materialized view whenever Oracle processes a transaction. Only select this option for materialized views on single table aggregates and materialized views containing joins. Automatically - Select to refresh the materialized view automatically. In the On this date: boxes select a time and date, and then select a refresh amount and a unit of time.

The table below describes the requirements for the fast refresh method:

	When the Materialized View has:		
	Only Joins	**Joins and Aggregates**	**Aggregate on a Single Table**
Detail tables only	X	X	X
Single table only			X
Table Appears only once in the FROM list	X	X	X
No non-repeating expressions like SYSDATE and ROWNUM	X	X	X
No references to RAW or LONG RAW	X	X	X
No GROUP BY	X		
Rowids of all the detail tables must appear in the SELECT list of the query	X		
Expressions are allowed in the GROUP BY and SELECT clauses provided they are the same		X	X

	When the Materialized View has:		
Aggregates allowed but cannot be nested		X	X
AVG with COUNT		X	X
SUM with COUNT			X
	Only Joins	**Joins and Aggregates**	**Aggregate on a Single Table**
VARIANCE with COUNT and SUM		X	X
STDDEV with COUNT and SUM		X	X
WHERE clause includes join predicates which can be ANDed bit not ORed.	X	X	
No WHERE clause			X
No HAVING or CONNECT BY	X	X	X
No subqueries, inline views, or set functions like UNION or MINUS	X	X	X
COUNT(*) must be present			X
No MIN and MAX allowed			X
If outer joins, then unique constraints must exist on the join columns of the inner join table	X		
Materialized View logs must exist and contain all columns referenced in the materialized view and have been created with the LOG NEW VALUES clause			X
Materialized View Logs must exist with rowids of all the detail tables	X		

>

	When the Materialized View has:		
Non-aggregate expression in SELECT and GROUP BY must be straight columns			X
DML to detail table	X		X
Direct path data load	X	X	X
ON COMMIT	X		X
ON DEMAND	X	X	X

For more information, see:

Completing an Object Wizard

Materialized View Wizard

Materialized View Wizard for Oracle - Panel 3

The table below describes the options and functionality on the third panel of the Materialized View Wizard.

Option	Description
Where do you want to place the materialized view?	Lets you select the tablespace where you want the materialized view placed.
What is the materialized view query?	Lets you type the SQL query to be used to populate and to refresh the materialized view.
Select a refresh method	Primary Key - A primary key's values uniquely identify the rows in a table. Only one primary key can be defined for each table. ROWID - A globally unique identifier for a row in a database. It is created at the time the row is inserted into a table, and destroyed when it is removed from a table.

For more information, see:

Completing an Object Wizard

Materialized View Wizard

Materialized View Wizard for Oracle - Panel 4

The table below describes the options and functionality on the fourth panel of the Materialized View Wizard.

>

Option	Description
How many transaction entries are allowed for each datablock in the materialized view?	Each transaction that updates a data block requires a transaction entry. Initial Extent - Ensures that a minimum number of concurrent transactions can update a data block, avoiding the overhead of allocating a transaction entry dynamically. Maximum - Limits concurrency on a data block.
What is the percent of space reserved for future updates?	Percent Free - Lets you type the percentage.
What is the minimum percentage of used space that Oracle maintains for each datablock?	Percent Used - Lets you type the percentage.

For more information, see:

Completing an Object Wizard

Materialized View Wizard

Materialized View Wizard for Oracle - Panel 5

The table below describes the options and functionality on the fifth panel of the Materialized View Wizard.

Option	Description
How large are the materialized views extents?	The unit of space allocated to an object whenever the object needs more space. Initial Extent - The initial space extent (in bytes) allocated to the object. Next Extent - The next extent (in bytes) that the object will attempt to allocate when more space for the object is required.
How many extents should be allocated to the materialized view?	Minimum Extents - The appropriate minimum extents value for the object. Maximum Extents - The appropriate maximum extents value for the object.
What is the growth rate for sizing additional materialized views?	Percent Increase - Magnifies how an object grows and, can materially affect available free space in a tablespace. Select a value in the corresponding box.

For more information, see:

Completing an Object Wizard

Materialized View Wizard

Materialized View Wizard for Oracle - Panel 6

The table below describes the options and functionality on the sixth panel of the Materialized View Wizard.

>

Option	Description
Can the materialized view be updated?	Lets you select to materialized view to be updated.
Do you want to register a prebuilt table to the view?	Lets you select to register and existing table as a preinitialized materialized view. This option is particularly useful for registering large materialized views in a data warehousing environment.
Should the materialized view be immediately filled?	Lets you select if you want the materialized view populated immediately or during the next refresh operation.

For more information, see:

Completing an Object Wizard

Materialized View Wizard

Materialized View Wizard for Oracle - Panel 7

The table below describes the options and functionality on the seventh panel of the Materialized View Wizard.

Option	Description
Should data for the materialized view be cached?	Select if you want Oracle to put data you access frequently at the most recently used end of the list in the buffer cache when a full table scan is performed. This option is useful for small lookup tables.
Do you want updates to be logged?	Lets you create a log for all Materialized view updates.
Do you want to specify the number threads used in a parallel operation?	Lets you type a degree amount.

For more information, see:

Completing an Object Wizard

Materialized View Wizard

Materialized View Wizard for Oracle - Panel 8

The table below describes the options and functionality on the eighth panel of the Materialized View Wizard.

Option	Description
Would you like to specify rollback segments to be used for the materialized view refresh?	Local Rollback Segment - Select Default if you want Oracle to select the rollback segment to use. Default is most useful when modifying a materialized view. Master Rollback Segment - Lets you type the remote rollback segment used at the remote master site for the individual materialized view.

>

Option	Description
Is the materialized view eligible for query rewrite?	Select to enable the materialized view for query rewrite. Only enable query rewrite only if expressions in the statement are repeatable.
Do you want to partition this materialized view?	Lets you select a partitioning method.

For more information, see:

Oracle Partitioning

Completing an Object Wizard

Materialized View Wizard

Materialized View Wizard for Oracle - Panel 9 (Composite Partitioning)

The table below describes the options and functionality on the ninth panel of the Materialized View Wizard.

NOTE: You must compete both the partitioning and sub partitioning column boxes to enable the Next button.

Option	Description
Select the Partitioning Columns	Type the Column name in the box and then click the right arrow to move it to the selected columns box. You can type as many column names as you want. Use the left arrow to remove the column. **NOTE:** If you remove the column, you need to type the name again, and then move it if you want to add it back.
Selected Columns	Displays a list of the columns you moved from Available Columns. You can use the up and down arrows to reorder the columns.
Select the subpartitioning columns	Type the subpartition column name in the box and then click the right arrow to move it to the selected columns box. You can type as many column names as you want. Use the left arrow to remove the column. **NOTE:** If you remove the column, you need to type the name again, and then move it if you want to add it back.
Selected Columns	Displays a list of the columns you moved from Available Columns. You can use the up and down arrows to reorder the columns.

For more information, see:

Completing an Object Wizard

Materialized View Wizard

Materialized View Wizard for Oracle - Panel 9 (Composite Partitioning)

NOTE: This option is only available in Oracle 9.2 or later.

The table below describes the options and functionality on the ninth panel of the Materialized View Wizard.

>

Option	Description
Enter Column	Lets you select at least one partitioning column, and then click the right arrow button to move it to the Selected Columns box.
Select the subpartitioning Method	Lets you specify which subpartitioning method to use, hash or list.
Enter Column	Lets you select at least one subpartitioning column, and then click the right arrow button to move it to the Selected Columns box.

Completing an Object Wizard

Materialized View Wizard

Materialized View Wizard for Oracle - Panel 10 (Range-Hash Composite Partitioning)

The table below describes the options and functionality on the tenth panel of the Materialized View Wizard.

Option	Description
Specify default number of subpartitions	**OPTIONAL:** Lets you type a value.
Select the default tablespaces to contain the subpartitions	**OPTIONAL:** Lets you select a tablespace from the list, and then click the right arrow button.
Create an ordered list of partitions	Add Button - Click to open the Add Partition dialog box.

For more information, see:

Completing an Object Wizard

Materialized View Wizard

Materialized View Wizard for Oracle - Panel 10 (Range-List Composite Partitioning)

The table below describes the options and functionality on the tenth panel of the Materialized View Wizard.

Option	Description
Create a list of subpartitions to be included in the subpartition template	**OPTIONAL:** Click Add, Insert, or Edit to open the Subpartition dialog box.
Create an ordered list of partitions	Click Add, Insert, or Edit to open the Partition dialog box.

For more information, see:

Completing an Object Wizard

Materialized View Wizard

>

Materialized View Wizard for Oracle - Panel 9 (Hash Partitioning)

The table below describes the options and functionality on the ninth panel of the Materialized View Wizard.

Option	Description
Select the Partitioning Columns	Type the Column name in the box and then click the right arrow to move it to the selected columns box. You can type as many column names as you want. Use the left arrow to remove the column. **NOTE:** If you remove the column, you need to type the name again, and then move it if you want to add it back.
Selected Columns	Displays a list of the columns you moved from Available Columns. You can use the up and down arrows to reorder the columns.
Hash Partitioning Methods	Click the option button that corresponds to the partition method you want: None - No partitioning method. Specify number of partitions and (optionally) tablespaces - This option enables the Number of Partitions box. Type the value in the box. If you want to specify a tablespace, click the Tablespace list, and then click the target tablespace. Use the right arrow to move the tablespace to the box. Specify individual partitions by name and (optionally) tablespaces - This option enables the Partition Name box. Type a name in the box. If you want to specify a tablespace, click the Tablespace list, and then click the target tablespace. Use the right arrow to move the partition name to the box.

For more information, see:

Completing an Object Wizard

Materialized View Wizard

Materialized View Wizard for Oracle - Panel 9 (Range Partitioning)

The table below describes the options and functionality on the ninth panel of the Materialized View Wizard.

Option	Description
Select the Partitioning Columns	Type the Column name in the box and then click the right arrow to move it to the selected columns box. You can type as many column names as you want. Use the left arrow to remove the column. **NOTE:** If you remove the column, you need to type the name again, and then move it if you want to add it back.
Selected Columns	Displays a list of the columns you moved from Available Columns. You can use the up and down arrows to reorder the columns.
Create an ordered list of partitions	Add Button - Click to open the Add Partition dialog box.

For more information, see:

Completing an Object Wizard

>

Materialized View Wizard

Materialized View Wizard for Oracle - Panel 9 (List Partitioning)

The table below describes the options and functionality on the ninth panel of the Materialized View Wizard.

Option	Description
Select the Partitioning Columns	Type the Column name in the box and then click the right arrow to move it to the selected columns box. You can type as many column names as you want. Use the left arrow to remove the column. **NOTE:** if you remove the column, you need to type the name again, and then move it if you want to add it back.
Selected Columns	Displays a list of the columns you moved from Available Columns. You can use the up and down arrows to reorder the columns.

For more information, see:

Completing an Object Wizard

Materialized View Wizard

Materialized View Log Wizard for Oracle

The Materialized View Log Wizard lets you create a materialized view log. Materialized View logs are tables that maintain a history of modifications to the master table, and they are used to refresh simple materialized views. When you create a materialized view log, Oracle automatically creates a log table to track data changes in the master table and a log trigger to maintain the data in the log table.

The Materialized View Log Wizard lets you:

- Specify the materialized view log owner and master table.
- Select refresh types and select column filters.
- Specify how Oracle should allocate data blocks to store the materialized view log.
- Specify how Oracle should manage the growth of the materialized view.
- Specify if you want the data for the materialized view log cached, if you want updates logged, and to enable parallel query.
- Specify if you want the log to hold new values.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Materialized View Log Wizard - Panel 1

Materialized View Log Wizard for Oracle - Panel 1

The table below describes the options and functionality on the first panel of the Materialized View Log Wizard.

>

Option	Description
Who owns the materialized view logs table?	Lets you select the owner.
Which table will serve as the materialized view log's master table?	Lets you select the table.
On which tablespace do you want to place the table?	Lets you select the tablespace.

For more information, see:

Completing an Object Wizard

Materialized View Log Wizard

Materialized View Log Wizard for Oracle - Panel 2

The table below describes the options and functionality on the second panel of the Materialized View Log Wizard.

Option	Description
Which refresh types would you like to use?	**NOTE:** For tables with no primary keys, ROWID is the only option. ROWID - A globally unique identifier for a row in a database. It is created at the time the row is inserted into a table, and destroyed when it is removed from a table. Primary Key - Select if you want the Materialized View Log to record the primary key
Select any filter column(s) to be recorded in the materialized view log	**OPTIONAL:** Lets you select the filter columns to be recorded in the materialized view log. You can specify only one primary key, one ROWID and one filter column list per materialized view log.

For more information, see:

Completing an Object Wizard

Materialized View Log Wizard

Materialized View Log Wizard for Oracle - Panel 3

The table below describes the options and functionality on the third panel of the Materialized View Log Wizard.

Option	Description
How many transaction entries are allowed for each datablock in the materialized view log?	Each transaction that updates a data block requires a transaction entry. Initial Extent - Ensures that a minimum number of concurrent transactions can update a data block, avoiding the overhead of allocating a transaction entry dynamically. Maximum - Limits concurrency on a data block.

>

Option	Description
What is the percent of space reserved for future updates?	Percent Free - Lets you type the percentage.
What is the minimum percentage of used space that Oracle maintains for each datablock?	Percent Used - Lets you type the percentage.

For more information, see:

Completing an Object Wizard

Materialized View Log Wizard

Materialized View Log Wizard for Oracle - Panel 4

The table below describes the options and functionality on the fourth panel of the Materialized View Log Wizard.

Option	Description
How large are the materialized views log's extents?	The unit of space allocated to an object whenever the object needs more space. Initial Extent - The initial space extent (in bytes) allocated to the object. Next Extent - The next extent (in bytes) that the object will attempt to allocate when more space for the object is required.
How many extents should be allocated to the materialized view log?	Minimum Extents - The appropriate minimum extents value for the object. Maximum Extents - The appropriate maximum extents value for the object.
What is the growth rate for sizing additional extents?	Percent Increase - Magnifies how an object grows and, can materially affect available free space in a tablespace. Select a value in the corresponding box.

For more information, see:

Completing an Object Wizard

Materialized View Log Wizard

Materialized View Log Wizard for Oracle - Panel 5

The table below describes the options and functionality on the fifth panel of the Materialized View Log Wizard.

Option	Description
Should data for the materialized view log be cached?	Select if you want Oracle to put data you access frequently at the most recently used end of the list in the buffer cache when a full table scan is performed. This option is useful for small lookup tables.

Option	Description
Do you want updates to be logged?	Lets you create a log for all Materialized View updates.
Do you want to enable parallel query for the log?	The Parallel server query option lets you process queries using many query server processes running against multiple CPUs. This option provides substantial performance gains such as reduction of the query completion time. Degree - Lets you type a value indicating the number of query server processes that should be used in the operation. Instances - Lets you type a value indicating how you want the parallel query partitioned between the Parallel Servers.

For more information, see:

Completing an Object Wizard

Materialized View Log Wizard

Materialized View Log Wizard for Oracle - Panel 6

The table below describes the options and functionality on the sixth panel of the Materialized View Log Wizard.

Option	Description
Should the log hold new values	Yes, hold new values - Select if the log is for a table with a single-table materialized aggregate view. No, exclude new values - Select to disable the recording of new values in the log.

For more information, see:

Completing an Object Wizard

Materialized View Log Wizard

Outline Wizard for Oracle

The Outline Wizard guides you through the process of creating an outline. Outlines are a set of results for the execution plan generation of a particular SQL statement. When you create an outline, plan stability examines the optimization results using the same data used to generate the execution plan. That is, Oracle uses the input to the execution plan to generate an outline, and not the execution plan itself.

The Outline Wizard lets you:

- Specify the name for the outline.
- Specify the category for the outline.
- Enter the SQL statement to be used by the stored outline.

Important Notes

- None

For more information, see:

>

Completing an Object Wizard

Outline Wizard - Panel 1

Outline Wizard for Oracle - Panel 1

The table below describes the options and functionality on the first panel of the Outline Wizard.

Option	Description
What is the name of the stored outline?	Lets you type the name of the outline. **NOTE:** The name can be up to 30 characters long.
In what category should the stored outline be placed?	**OPTIONAL:** Lets you type the name of the category for the outline.

For more information, see:

Completing an Object Wizard

Outline Wizard

Outline Wizard for Oracle - Panel 2

The table below describes the options and functionality on the second panel of the Outline Wizard.

Option	Description
What is the SQL statement to be used by the stored outline?	Type the target SQL statement to be used by the outline.

NOTE: The only SQL statements possible with stored outlines are SELECT, DELETE, UPDATE, INSERT…SELECT, and CREATE TABLE…AS SELECT.

For more information, see:

Completing an Object Wizard

Outline Wizard

Package Wizard for Oracle

The Package Wizard lets you create a package. Packages contain all the information needed to process SQL statements from a single source file. You can use packages to process and call batches of SQL.

Important Notes

- None

The table below describes the options and functionality on the Package Wizard.

Option	Description
Who owns the package?	Lets you select the owner.
What is the name of the package?	Lets you type the name.
Finish Button	Opens the Packages Editor to the Header Tab. In the Package Header Text box, type the package header specifications. Click the Body Tab, and in the Package Body Text box, type the package body specifications.

For more information, see Completing an Object Wizard.

Create Primary Key Constraint Dialog Box for Oracle

The Create Primary Key Constraint dialog box lets you create a primary key. Primary Keys are a set of table columns that can uniquely identify every row of a table.

Important Notes

- None

The table below describes the options and functionality on the Create Primary Key Constraint dialog box.

Option	Description
Owner	Lets you select the primary key constraint owner.
Table	Lets you select the table you want to place the primary key constraint.
Constraint Name	Lets you enter the name of the constraint, which can be up to 30 characters long and must be unique across the entire database.
Specify Columns in Constraint	Lets you select the primary key columns, and then click the Right arrow to move them to the Constraint Columns grid. To remove a primary key column, in the Constraint Columns grid, click the primary key column, and then click the left arrow button. Constraint Columns - To reorder the primary key columns, click the up and down arrow buttons.
Status	Enable - Select to enable the constraint immediately after building it. Disable - Select to disable the constraint immediately after building it.

Option	Description
Data Block Storage	Lets you indicate the data block storage parameters. Tablespace - Lets you select the tablespace for the primary key. **NOTE:** You should never place primary keys on the SYSTEM tablespace. Percent Free - Lets you type the appropriate percent free value for the primary key. Initial Transactions - Lets you type the appropriate initial transactions value for the primary key. Max Transactions - Lets you type the appropriate maximum transactions value for the primary key.
Extents	The unit of space allocated to an object whenever the object needs more space. Initial Extent - The initial space extent (in bytes) allocated to the object. Next Extent - The next extent (in bytes) that the object will attempt to allocate when more space for the object is required. Minimum Extents - The appropriate minimum extents value for the object. Maximum Extents - The appropriate maximum extents value for the object. Percent Increase - Magnifies how an object grows and, can materially affect available free space in a tablespace. Select a value in the corresponding box.

For more information, see Completing an Object Dialog Box.

Procedure Wizard for Oracle

The Procedure Wizard lets you create a procedure. Procedures are a reusable block of PL/SQL, stored in the database, that applications can call. Procedures streamline code development, debugging and maintenance by being reusable. Procedures enhance database security by letting you write procedures granting users execution privileges to tables rather than letting them access tables directly.

Important Notes

To create a procedure in your own schema, you need CREATE PROCEDURE privileges. To create a procedure in someone else's schema, you need CREATE ANY PROCEDURE privileges.

The table below describes the options and functionality on the Procedure Wizard.

Option	Description
Who owns the procedure?	Lets you select the owner.
What is the name of the procedure?	Lets you type the name of the procedure.
Finish Button	Opens the Procedures Editor to the Definition Tab. Type the procedure definition.

For more information, see Completing an Object Wizard.

>

Profile Wizard for Oracle

The Profile Wizard lets you create a profile. Profiles are a mechanism for allocating system and database resources to users.

The Profile Wizard lets you:

- Name the profile.
- Set composite limit.
- Set session limits for SGA shared pool.
- Set limits on total connection time per session and Idle time per session.
- Set limits on concurrent sessions per user, CPU time per session, and data blocks read per session.
- Set limits on CPU time per call, and number of data blocks read for a call to process an SQL statement.
- Set the number of failed login attempts, and the days an account locks.

Important Notes

- To create a profile, you need the CREATE PROFILE system privilege.

For more information, see:

Completing an Object Wizard

Profile Wizard - Panel 1

Profile Wizard for Oracle - Panel 1

The table below describes the options and functionality on the first panel of the Profile Wizard.

Options	Description
What is the name of the profile?	Lets you type the name of the user. It can be up to 30 characters long.
What is the composite limit on resources per session?	Lets you select an option. If you click the Other option button, in the corresponding Service Units box, type the value of the service units.
What is the limit on the amount of private space a session can allocate in the shared pool of the SGA?	Lets you select an option. If you click Other, type the value of the limit, and then click list to indicate KB or MB.

For more information, see:

Completing an Object Wizard

Profile Wizard

Profile Wizard for Oracle - Panel 2

The table below describes the options and functionality on the second panel of the Profile Wizard.

>

Option	Description
What is the limit on total connection time per session?	Lets you specify the total elapsed time limit for a session, expressed in minutes.
What is the limit on idle time per session?	Lets you specify permitted periods of continuous inactive time during a session, expressed in minutes. Long-running queries and other operations are not subject to this limit.

For more information, see:

Completing an Object Wizard

Profile Wizard

Profile Wizard for Oracle - Panel 3

The table below describes the options and functionality on the third panel of the Profile Wizard.

Option	Description
What is the limit on concurrent sessions per user?	Lets you specify the number of concurrent sessions to which you want to limit the user.
What is the limit on CPU time per session?	Lets you specify the CPU time limit for a session, expressed in hundredth of seconds.
What is the limit on data blocks read per session?	Lets you specify the permitted number of data blocks read in a session, including blocks read from memory and disk.

For more information, see:

Completing an Object Wizard

Profile Wizard

Profile Wizard for Oracle - Panel 4

The table below describes the options and functionality on the fourth panel of the Profile Wizard.

Option	Description
What is the limit on CPU time per call?	Lets you specify the CPU time limit for a call (a parse, execute, or fetch), expressed in hundredths of seconds.
What is the limit on the number of data blocks read for a call to process a SQL statement?	Lets you specify the permitted the number of data blocks read for a call to process a SQL statement (a parse, execute, or fetch).

For more information, see:

Completing an Object Wizard

>

Profile Wizard

Profile Wizard for Oracle - Panel 5

The table below describes the options and functionality on the fifth panel of the Profile Wizard.

Option	Description
How many failed login attempts will be allowed before an account is locked?	Lets you specify the number of failed attempts to log in to the user account before the account is locked.
How long will the account be locked after the specified number of login attempts?	Lets you specify the number of days an account will be locked after the specified number of consecutive failed login attempts.

For more information, see:

Completing an Object Wizard

Profile Wizard

Profile Wizard for Oracle - Panel 6

The table below describes the options and functionality on the sixth panel of the Profile Wizard.

Option	Description
What is the lifetime of the password?	Lets you specify the number of days the same password can be used for authentication. The password expires if it is not changed within this period, and further connections are rejected.
How many days must pass before a password can be reused?	Lets you specify the number of days before which a password can be reused.
How many password changes are required before the current password can be reused?	Lets you specify the number of password changes required before the current password can be reused.

For more information, see:

Completing an Object Wizard

Profile Wizard

Profile Wizard for Oracle - Panel 7

The table below describes the options and functionality on the seventh panel of the Profile Wizard.

NOTE: The seventh panel of the Profile Wizard is available for Oracle 8 or later.

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Option	Description
What is the grace period allowed for a password to be changed without expiring?	Lets you specify the number of days after the grace period begins during which a warning is issued and login is allowed. If the password is not changed during the grace period, the password expires.
What is the name of the password complexity verification routine?	Lets a PL/SQL password complexity verification script be passed as an argument to the CREATE PROFILE statement.

For more information, see:

Completing an Object Wizard

Profile Wizard

Redo Log Group Wizard for Oracle

The Redo Log Group Wizard lets you create a Redo Log Group. A redo log is a set of files that protect altered database data in memory that has not been written to the datafiles. The redo log can consist of two parts: the online redo log and the archived redo log.

If you find that you have problems with redo log group availability and Oracle consistently has to wait for redo log groups to become free, create additional redo log groups. Rapid SQL lets you create additional redo log groups to ensure that there is always a recycled redo log group available.

The Redo Log Group Wizard lets you:

- Assign a number to the new redo log group and determine the file size for the group members.
- Choose a thread for the redo log group for Oracle Parallel Server.
- Add redo log members with the Add Redo Log Member dialog box.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Redo Log Group Wizard - Panel 1

Redo Log Group Wizard for Oracle - Panel 1

The table below describes the options and functionality on the first panel of the Redo Log Group Wizard.

Option	Description
ORACLE 9i ONLY: OMF	Lets you specify to use Oracle Managed Files to automatically create the redo log group. Oracle automatically creates and removes operating system files as you create and drop storage objects. **NOTE:** If you select OMF, you do not have to enter a redo log group number or file size.
What is the group number for the redo log group?	When numbering your redo log groups, it is better not to skip numbers (e.g., 5, 10, 15). Skipping numbers causes Oracle to consume extra space in the control files of the database.
What file size should the group's redo log members be?	Lets you type a size and specify KB or MB.
To which thread should the redo log group be added?	**OPTIONAL:** If you are using Oracle Parallel Server, type the thread. A thread is an operating system component that allows the logic of multiuser applications to be performed as several separate, asynchronous execution paths. Threads help ensure that work is being performed for some user connections even when other connections are blocked (for example, when waiting for a disk read or write operation to complete).

For more information, see:

Completing an Object Wizard

Redo Log Group Wizard

Redo Log Group Wizard for Oracle - Panel 2

The table below describes the options and functionality on the second panel of the Redo Log Group Wizard.

Option	Description
Redo Log Group Member Name	The name of each group member should be a file name. For example, D:\ORACLE\ORADATA\FINANCEDB\REDO02.LOG is a valid group member name. If you do not specify a full path, Rapid SQL creates files in either the default or current directory of the database server.
Add Button	Rapid SQL adds the member name to the list of redo log group members in Panel 2.

For more information, see:

Completing an Object Wizard

Redo Log Group Wizard

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Role Wizard for Oracle

The Role Wizard lets you create a role without knowing the underlying commands. As you complete the Role Wizard, Rapid SQL constructs the necessary CREATE ROLE statement from the information that you have supplied. The Role Wizard lets you specify a name for the role and whether or not the role should be identified.

Important Notes

- To create a role, you need the CREATE ROLE system privilege.

The table below describes the options and functionality on the first panel of the Role Wizard.

Option	Description
What is the name of the role?	Lets you type the name of the role.
How should the role be identified?	Identified - If you select, select an option below. Globally - Select to indicate that Oracle permits access to the user by obtaining user name and password information from the security domain central authority. Externally - Select to indicate that Oracle should verify the database user name against an existing operating system user name. Password - Select to indicate that Oracle should identify the role with the password you provide. In the Password box, type the password for the user.

For more information, see Completing an Object Wizard.

Rollback Segment Wizard for Oracle

The Rollback Segment Wizard lets you create a rollback segment. Rollback segments manage all transactions in your Oracle databases. They maintain read consistency among concurrent users in a database and can rollback transactions. They are transaction logs that maintain discrete records of changes to data. By maintaining a history of data changes, rollback segments can rollback uncommitted transactions so that data is rolled back to their prior state.

The Rollback Segment Wizard lets you:

- Name the rollback segment and to place it online or off-line.
- Place the rollback segment on a tablespace.
- Specify the initial next and optimal extent size as well a the minimum and maximum number of extents that should be allocated to the rollback segment.

Important Notes

- This wizard is not available if auto-UNDO management is enabled.

For more information, see:

Completing an Object Wizard

Rollback Segment Wizard - Panel 1

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Rollback Segment Wizard for Oracle - Panel 1

The table below describes the options and functionality on the first panel of the Rollback Segment Wizard.

Option	Description
What is the name of the rollback segment?	Lets you type the rollback segment name.
Should this rollback segment be made public?	Lets you Indicate if the rollback segment should be made public.
Do you want to place this rollback segment online following its creation?	Lets you Indicate if the rollback segment is to be placed online or off-line upon creation.

TIP: Make sure enough rollback segments exist on a database to handle the imposed workload. One rule of thumb is to create one rollback segment per four concurrent users.

For more information, see:

Completing an Object Wizard

Rollback Segment Wizard

Rollback Segment Wizard for Oracle - Panel 2

The table below describes the options and functionality on the second panel of the Rollback Segment Wizard.

Option	Description
On which tablespace do you want to place this rollback segment?	Lets you select the tablespace where you want to place the rollback segment. Due to their heavy I/O nature, rollback segment placement is best on server drives that experience little activity. Disks configured with RAID5 are typically poor choices for rollback segments. If you use RAID on the server, a RAID0 or 0+1 configuration is best for rollback segments.

For more information, see:

Completing an Object Wizard

Rollback Segment Wizard

Rollback Segment Wizard for Oracle - Panel 3

The table below describes the options and functionality on the third panel of the Rollback Segment Wizard.

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Option	Description
What extent sizes do you want to assign to this rollback segment?	Lets you select an option. Large transactions benefit from using larger sized rollback segments. Initial Size - Size (in bytes) of the initial extent. Next Size - Size (in bytes) of the second extent. Optimal Size - Optimal size of the rollback segment.
What are the minimum and maximum number of extents to allocate to this rollback segment?	Minimum Extents - The appropriate minimum extents value for the object. Maximum Extents - The appropriate maximum extents value for the object.

For more information, see:

Completing an Object Wizard

Rollback Segment Wizard

Sequence Wizard for Oracle

The Sequence Wizard lets you create a sequence. Sequences are programmable database objects that generate a definable sequence of values. Once defined, a sequence can be made available to many users. A sequence can be accessed and incremented by multiple users with no waiting. A sequence can be used to automatically generate primary key values for tables. When you create a sequence, you can define its initial value, increment interval and maximum value.

The Sequence Wizard lets you:

- Specify the name and owner of the sequence.
- Set both the value of the sequence, and an interval and ranges for incrementing it.
- Cache the sequence, cycle the sequence when it reaches its minimum or maximum values, and guarantee that Oracle generates sequence numbers in the order of request.

Important Notes

- To create a sequence, it must belong to your schema or you need CREATE SEQUENCE privilege.

For more information, see:

Completing an Object Wizard

Sequence Wizard - Panel 1

Sequence Wizard for Oracle - Panel 1

The table below describes the options and functionality on the first panel of the Sequence Wizard.

Option	Description
Who owns the sequence?	Lets you select the owner.

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Option	Description
What is the sequence name?	Lets you type the name.

For more information, see:

Completing an Object Wizard

Sequence Wizard

Sequence Wizard for Oracle - Panel 2

The table below describes the options and functionality on the second panel of the Sequence Wizard.

Option	Description
What is the first sequence number to be generated?	Lets you specify the first sequence number to be generated. Use to start an ascending sequence at a value greater than its minimum or to start a descending sequence at a value less than its maximum. For ascending sequences, the default value is the minimum value of the sequence. For descending sequences, the default value is the maximum value of the sequence. This integer value can have 28 or fewer digits.
What is the interval between sequence numbers?	Lets you specify the interval between sequence numbers. This integer value can be any positive or negative integer, but it cannot be 0. This value can have 28 or fewer digits. The absolute of this value must be less than the difference of MAXVALUE and MINVALUE. If this value is negative, then the sequence descends. If the increment is positive, then the sequence ascends. If you omit this clause, the interval defaults to 1.
What is the sequences minimum value?	Lets you specify the minimum value of the sequence. This integer value can have 28 or fewer digits.
What is the sequences maximum value?	Lets you specify the maximum value the sequence can generate. This integer value can have 28 or fewer digits.

For more information, see:

Completing an Object Wizard

Sequence Wizard

Sequence Wizard for Oracle - Optional Panel 3

The table below describes the options and functionality on the third panel of the Sequence Wizard.

Option	Description
Should Oracle preallocate sequence numbers and cache them for faster access?	Lets you specify how many values of the sequence Oracle preallocates and keeps in memory for faster access. This integer value can have 28 or fewer digits. The minimum value for this parameter is 2. For sequences that cycle, this value must be less than the number of values in the cycle. You cannot cache more values than will fit in a given cycle of sequence numbers.

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Option	Description
Should the sequence continue to generate values after reaching either its maximum or minimum value?	Lets you specify the sequence cycle to indicate that the sequence continues to generate values after reaching either its maximum or minimum value. After an ascending sequence reaches its maximum value, it generates its minimum value. After a descending sequence reaches its minimum, it generates its maximum.
Should the sequence numbers be generated in the order of request?	Lets you guarantee that Oracle generates sequence numbers in the order of request. The ORDER option is useful when you are using the sequence number as a timestamp.

For more information, see:

Completing an Object Wizard

Sequence Wizard

Snapshot Wizard for Oracle

The Snapshot Wizard lets you create a snapshot. Snapshots are used to dynamically copy data between distributed databases.

The Snapshot Wizard lets you:

- Specify the snapshot owner and to name the snapshot.
- Specify the snapshot's refresh configuration.
- Place the snapshot on a tablespace and specify the query that should be used to populate the snapshot.
- Specify how Oracle should allocate data blocks to store the snapshot.
- Specify how Oracle should manage the growth of the snapshot.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Snapshot Wizard - Panel 1

Snapshot Wizard for Oracle - Panel 1

The table below describes the options and functionality on the first panel of the Snapshot Wizard

Option	Description
Who owns the snapshot?	Lets you select the owner.
What is the name of the snapshot?	Lets you type the name.

For more information, see:

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Completing an Object Wizard

Snapshot Wizard

Snapshot Wizard for Oracle - Panel 2

The table below describes the options and functionality on the second panel of the Snapshot Wizard.

Option	Description
How should the snapshot be refreshed?	Fast - Select to refresh the snapshot using a snapshot log. Complete - Select to rebuild the snapshot when refreshed. Fast - Select to make the database determine the fastest available refresh method between Fast and Complete.
When should the snapshot start being refreshed?	Lets you type the date expression that determines when the snapshots first becomes populated in the appropriate box. If you do not specify a start date, then Oracle determines the start date based on the refresh interval. The START parameter must be a date expression and not a specific date. In addition, the start date must be in the future
How often should the snapshot be refreshed?	Lets you type a date expression that determines the interval at which the snapshot is refreshed in the appropriate box. The NEXT parameter must be a date expression and not a specific date. In addition, it must be in the future.

For more information, see:

Completing an Object Wizard

Snapshot Wizard

Snapshot Wizard for Oracle - Panel 3

The table below describes the options and functionality on the third panel of the Snapshot Wizard.

Option	Description
Where do you want to place the snapshot?	Lets you select the tablespace where you want to place the snapshot.
What is the SQL query to populate the snapshot?	Lets you type the SQL query to be used to populate and to refresh the snapshot.

For more information, see:

Completing an Object Wizard

Snapshot Wizard

Snapshot Wizard for Oracle - Panel 4

The table below describes the options and functionality on the fourth panel of the Snapshot Wizard

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Option	Description
How many transaction entries are allowed for each data block in the snapshot?	Each transaction that updates a data block requires a transaction entry. The initial parameter ensures that a minimum number of concurrent transactions can update a data block, avoiding the overhead of allocating a transaction entry dynamically. The maximum parameter limits concurrency on a data block.
What is the percent of space reserved for future updates?	The storage parameter lets you tune performance by minimizing the occurrence of row migration and chaining caused by update operations that extend the length of rows stored on the data block. Percent Free - Lets you click the list or type the percentage.
What is the minimum percentage of used space that Oracle maintains for each datablock?	The storage parameter lets you tune performance by minimizing the occurrence of row migration and chaining caused by update operations that extend the length of rows stored on the data block. Percent Used - Lets you click the list or type the percentage.

For more information, see:

Completing an Object Wizard

Snapshot Wizard

Snapshot Wizard for Oracle - Panel 5

The table below describes the options and functionality on the fifth panel of the Snapshot Wizard.

Option	Description
How large are the snapshots extents?	The unit of space allocated to an object whenever the object needs more space. Initial Extent - The initial space extent (in bytes) allocated to the object. Next Extent - The next extent (in bytes) that the object will attempt to allocate when more space for the object is required.
How many extents should be allocated to the snapshot?	Minimum Extents - The appropriate minimum extents value for the object. Maximum Extents - The appropriate maximum extents value for the object.
What is the growth rate for sizing additional extents?	Percent Increase - Magnifies how an object grows and, can materially affect available free space in a tablespace. Select a value in the corresponding box.

For more information, see:

Completing an Object Wizard

Snapshot Wizard

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Snapshot Log Wizard for Oracle

The Snapshot Log Wizard lets you create a snapshot log. Snapshot logs are tables that maintain a history of modifications to the master and they are used to refresh simple snapshots. When you create a snapshot log, Oracle automatically creates a log table to track data changes in the master table and a log trigger to maintain the data in the log table.

The Snapshot Log Wizard lets you:

- Specify the snapshot log owner, master table and the tablespace.
- Specify how Oracle should allocate data blocks to store the snapshot log.
- Specify how Oracle should manage the growth of the snapshot.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Snapshot Log Wizard - Panel 1

Snapshot Log Wizard for Oracle - Panel 1

The table below describes the options and functionality on the first panel of the Snapshot Log Wizard.

Option	Description
Who owns the snapshot log's master table?	Lets you click the list, and then click the owner.
Which table will serve as the snapshot log's master table?	Lets you click the list, and then click the table.
On which tablespace do you want to place the table?	Lets you click the list, and then click the tablespace.

For more information, see:

Completing an Object Wizard

Snapshot Log Wizard

Snapshot Log Wizard for Oracle - Panel 2

The table below describes the options and functionality on the second panel of the Snapshot Log Wizard.

Option	Description
How many transaction entries are allowed for each datablock in the snapshot log?	Each transaction that updates a data block requires a transaction entry. The initial parameter ensures that a minimum number of concurrent transactions can update a data block, avoiding the overhead of allocating a transaction entry dynamically. The maximum parameter limits concurrency on a data block.

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Option	Description
What is the percent of space reserved for future updates?	The storage parameter lets you tune performance by minimizing the occurrence of row migration and chaining caused by update operations that extend the length of rows stored on the data block. Percent Free - Lets you click the list or type the percent in the Percent Free box.
What is the minimum percentage of used space that Oracle maintains for each data block?	The storage parameter lets you tune performance by minimizing the occurrence of row migration and chaining caused by update operations that extend the length of rows stored on the data block. Percent Used - Lets you click the list or type the percent.

For more information, see:

Completing an Object Wizard

Snapshot Log Wizard

Snapshot Log Wizard for Oracle - Panel 3

The table below describes the options and functionality on the third panel of the Snapshot Log Wizard.

Option	Description
How large are the snapshot log's extents?	The unit of space allocated to an object whenever the object needs more space. Initial Extent - The initial space extent (in bytes) allocated to the object. Next Extent - The next extent (in bytes) that the object will attempt to allocate when more space for the object is required.
How many extents should be allocated to the snapshot log?	Minimum Extents - The appropriate minimum extents value for the object. Maximum Extents - The appropriate maximum extents value for the object.
What is the growth rate for sizing additional extents?	Percent Increase - Magnifies how an object grows and, can materially affect available free space in a tablespace. Select a value in the corresponding box.

For more information, see:

Completing an Object Wizard

Snapshot Log Wizard

Synonym Wizard for Oracle

The Synonym Wizard lets you create a synonym. Synonyms are an alternate name for an object in the database. Depending on the platform, you can define synonyms on tables, views, sequences, procedures, functions, packages and materialized views.

The Synonym Wizard lets you:

- Specify the object type to be referenced by the synonym.

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- Identify the base database object for which you are creating the synonym.

Important Notes

- To create a private synonym, you need CREATE SYNONYM privileges. To create a public synonym, you need CREATE PUBLIC SYNONYM privileges.

For more information, see:

Completing an Object Wizard

Synonym Wizard - Panel 1

Synonym Wizard for Oracle - Panel 1

The table below describes the options and functionality on the first panel of the Synonym Wizard.

Option	Description
What is the name of the synonym?	Lets you type the database link name.
Do you want to make this synonym accessible to all users?	Lets you make the synonym public.
Who owns the synonym?	Lets you select the owner.

For more information, see:

Completing an Object Wizard

Synonym Wizard

Synonym Wizard for Oracle - Panel 2

The table below describes the options and functionality on the second panel of the Synonym Wizard.

Option	Description
What is the object type of the referenced object?	Lets you select the object type to be referenced by the synonym.

For more information, see:

Completing an Object Wizard

Synonym Wizard

Synonym Wizard for Oracle - Panel 3

The table below describes the options and functionality on the third panel of the Synonym Wizard.

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Option	Description
Who owns the referenced object?	Lets you select the owner.
What is the name of referenced object?	**NOTE:** The object cannot be contained in a package. Lets you select the name. This list is populated by the object type you selected in step 2 of the wizard.
If the object resides in a remote database, please choose a database link	Lets you select the database link so that you can connect to the object.

For more information, see:

Completing an Object Wizard

Synonym Wizard

Table Wizard for Oracle

The Table Wizard lets you create a table without knowing the underlying commands. As you complete the Table Wizard, Rapid SQL constructs the necessary CREATE TABLE statement from the information that you supply. The Table Wizard varies slightly in content based on the version of Oracle on the target datasource.

The Table Wizard lets you:

- Specify the table owner, name the table and place it on a tablespace.
- Specify partitioning.
- Specify how Oracle should allocate data blocks to store the table.
- Specify Oracle's Parallel Server options.
- Provide a table comment and/or description.

Important Notes

- The table wizard panels differ depending on what options you select.
- To simplify the process of creating a table, the Table Wizard focuses on creating the basic table definition without any constraints. After you create the basic table definition, you can add primary, unique, and foreign keys to the table on the Constraints Tab of the Tables Editor.

For more information, see:

Completing an Object Wizard

Table Wizard - Panel 1 for Heap-Organized Tables

Table Wizard - Panel 1 for Index-Organized Tables

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Table Wizard for Oracle - Panel 1

TIP: Index-organized tables take up less storage space and quickly access table rows. Index-organized tables stores rows in primary key order reducing the amount of storage space needed.

TIP: An advantage of using index-organized tables is that the tables use less memory because key columns are not duplicated in the table and index. Rapid SQL stores the remaining non-key columns in the index structure.

The table below describes the options and functionality on the first panel of the Table Wizard.

Option	Description
Who owns the table?	Lets you select the owner.
What is the name of the table?	Lets you type the name.
On which tablespace do you want to place the table?	Lets you select the tablespace. **NOTE:** You should never place user tables on the SYSTEM tablespace.
How do you want the table organized?	ORACLE 8 OR LATER ONLY: Index-organized - Tables are tables with data rows grouped by the primary key. Index-organized tables provide fast key-based access to table data for queries involving exact match and range searches. Because there is not separate table storage area, if you make changes to the table data such as adding new rows, updating rows, or deleting rows Rapid SQL updates the index structure. An advantage of using Index-Organized tables is that the tables use less memory because key columns are not duplicated in the table and index. Rapid SQL stores the remaining non-key columns in the index structure. Heap-Organized - The data rows of the table are stored in no particular order.

For more information, see:

Partitioning

Completing an Object Wizard

Table Wizard

Table Wizard for Oracle - Panel 2 for Heap-Organized Tables

Rapid SQL opens the Add Column dialog box.

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The table below describes the options and functionality on the second panel of the Table Wizard:

Option	Description
Add the columns belonging to this table	Add - Click to open the Add Column dialog box. Insert - Click to open the Insert Column dialog box. Edit - Click to open the Modify Column dialog box. Drop - Click to delete the column. Lob Storage - Click to open the Lob Storage Definition dialog box.
Add Constraint	Click to open the Index Constraint dialog box.

For more information, see:

Completing an Object Wizard

Table Wizard

Table Wizard for Oracle - Panel 3 for Heap-Organized Tables

The table below describes the options and functionality on the third panel of the Table Wizard.

Option	Description
How many transaction entries are allowed for each datablock in the table?	Each transaction that updates a data block requires a transaction entry. The initial parameter ensures that a minimum number of concurrent transactions can update a data block, avoiding the overhead of allocating a transaction entry dynamically. The maximum parameter limits concurrency on a data block.
What is the percent of space reserved for future updates?	Lets you tune performance by minimizing the occurrence of row migration and chaining caused by update operations that extend the length of rows stored on the data block. Percentage Free - Lets you select or type the percentage.
What is the minimum percentage of used space that Oracle maintains for each datablock?	Lets you to tune the efficiency of data storage and to avoid fragmentation within data blocks. The sum of Percent Free and Percent Used cannot exceed 100 percent. Percentage Used - Lets you select or type the percentage.

For more information, see:

Completing an Object Wizard

Table Wizard

Table Wizard for Oracle - Panel 4 for Heap-Organized Tables

The table below describes the options and functionality on the fourth panel of the Table Wizard.

Option	Description
Would you like to estimate the size of the table?	Select to estimate how large the table will become given a row growth projection.

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For more information, see:

Completing an Object Wizard

Table Wizard

Table Wizard for Oracle - Panel 5 for Heap-Organized Tables

The table below describes the options and functionality on the fifth panel of the Table Wizard.

Option	Description
You can achieve substantial performance gains by using Oracle's parallel query option	The Parallel server query option lets you process queries using many query server processes running against multiple CPUs. This option provides substantial performance gains such as reduction of the query completion time. Degree - Lets you type a value indicating the number of query server processes that should be used in the operation. Instances - Lets you type a value indicating how you want the parallel query partitioned between the Parallel Servers.
Do you want this operation logged in the redo file?	Lets you create a transaction log.
Choosing Cache keeps the blocks in memory by placing it at the most recently used end. This option is useful for small lookup tables.	Lets you select to place the operation in cache so that the blocks are stored in most recently used memory.

For more information, see:

Completing an Object Wizard

Table Wizard

Table Wizard for Oracle - Panel 6 for Heap-Organized Tables

The table below describes the options and functionality on the sixth panel of the Table Wizard.

Option	Description
How large are the table's extents?	The unit of space allocated to an object whenever the object needs more space. Initial Extent - The initial space extent (in bytes) allocated to the object. Next Extent - The next extent (in bytes) that the object will attempt to allocate when more space for the object is required.
How extents should be allocated to the table?	Minimum Extents - The appropriate minimum extents value for the object. Maximum Extents - The appropriate maximum extents value for the object.

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Option	Description
What is the growth rate for sizing additional extents?	Percent Increase - Magnifies how an object grows and, can materially affect available free space in a tablespace. Select a value in the corresponding box.

For more information, see:

Completing an Object Wizard

Table Wizard

Composite Partitioning

Hash Partitioning

Range Partitioning

Table Wizard for Oracle - Panel 7 for Heap-Organized Tables

The table below describes the options and functionality on the last panel of the Table Wizard.

Option	Description
Specify the number of free lists	Free Lists - Lets you type the value. The default and minimum value is 1. Set higher if multiple processes access the same data block.
Specify the number of free list groups	Free List Groups - Lets you type the value. The default and minimum value is 1. This option is only applicable for the parallel server option.
Define a bufferpool for this table	DEFAULT - Select to use the default bufferpool. KEEP - Select to retain the object in memory to avoid I/O conflicts. RECYCLE - Select to save cache space by ridding data blocks from memory as soon as they are no longer in use. This option is only available for Oracle8.
Do you want to partition this table?	**NOTE:** You cannot partition a table if it is part of a cluster, includes LOBs (BLOB, CLOB, NCLOB, or BFILE), LONG or LONG RAW datatypes, or object types, or is index-organized. Composite - Lets you first divide the table into partitions based on a range. Then you subdivide each partition into subpartitions. For Oracle versions earlier than 9.2, the subpartitions are based on a hash value. For Oracle 9.2 and later, the next panel lets you subpartition by hash or by list. This combines the ease and manageability of range partitioning with the data distribution of hash or list partitioning. Hash - Uses a hash value and distributes the data evenly across multiple devices or machines. Range - Relies on a data value to partition a table. Select range partitioning when you do not known how the data maps on a given range, range partition sizes would differ too greatly, or partition pruning and key joins aren't important. List - In Oracle 9i, Oracle introduced list partitioning. List partitioning lets control how rows map to partitions. You can specify a list of discrete values for the partitioning column in the description for each partition.

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Option	Description
Do you want to enable Row Movement?	This clause allows for data row movement along various partitions of the table being defined.

For more information, see:

Completing an Object Wizard

Table Wizard

Partitioning

Composite Partitioning

Hash Partitioning

Range Partitioning

Table Wizard for Oracle - Optional Last Panel for Heap-Organized Tables

Option	Description
Enter a table description	Lets you type any table comments and/or descriptions; this can be up to 2000 characters long.

For more information, see:

Completing an Object Wizard

Table Wizard

Table Wizard for Oracle - Panel 1 for Index-Organized Tables

TIP: Index-organized tables take up less storage space and quickly access table rows. Index-organized tables stores rows in primary key order reducing the amount of storage space needed.

TIP: An advantage of using index-organized tables is that the tables use less memory because key columns are not duplicated in the table and index. Rapid SQL stores the remaining non-key columns in the index structure.

The table below describes the options and functionality on the first panel of the Table Wizard.

Option	Description
Who owns the table?	Lets you select the owner.
What is the name of the table?	Lets you type the name.
On which tablespace do you want to place the table?	Lets you select the tablespace. **NOTE:** You should never place user tables on the SYSTEM tablespace.

Option	Description
ORACLE 8 OR LATER How do you want the table organized?	Index-organized tables are tables with data rows grouped by the primary key. Index-organized tables provide fast key-based access to table data for queries involving exact match and range searches. Because there is not separate table storage area, if you make changes to the table data such as adding new rows, updating rows, or deleting rows Rapid SQL updates the index structure. An advantage of using Index-Organized tables is that the tables use less memory because key columns are not duplicated in the table and index. Rapid SQL stores the remaining non-key columns in the index structure.

For more information, see:

Partitioning

Completing an Object Wizard

Table Wizard

Table Wizard for Oracle - Panel 2 for Index-Organized Tables

Rapid SQL opens the Add Column dialog box.

The table below describes the options and functionality on the second panel of the Table Wizard:

Option	Description
Add the columns belonging to this table	Add - Click to open the Add Column dialog box. Insert - Click to open the Insert Column dialog box. Edit - Click to open the Modify Column dialog box. Drop - Click to delete the column. Lob Storage - Click to open the Lob Storage Definition dialog box.
Add Constraint	Click to open the Index Constraint dialog box.

For more information, see:

Completing an Object Wizard

Table Wizard

Table Wizard for Oracle - Panel 3 for Index-Organized Tables

The table below describes the options and functionality on the third panel of the Table Wizard.

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Option	Description
How many transaction entries are allowed for each datablock in the table?	Each transaction that updates a data block requires a transaction entry. The initial parameter ensures that a minimum number of concurrent transactions can update a data block, avoiding the overhead of allocating a transaction entry dynamically. The maximum parameter limits concurrency on a data block.
What is the percent of space reserved for future updates?	Lets you tune performance by minimizing the occurrence of row migration and chaining caused by update operations that extend the length of rows stored on the data block. Percentage Free - Lets you select or type the percentage.

For more information, see:

Completing an Object Wizard

Table Wizard

Table Wizard for Oracle - Panel 4 for Index-Organized Tables

The table below describes the options and functionality on the fourth panel of the Table Wizard.

Option	Description
Would you like to estimate the size of the table?	Select to estimate how large the table will become given a row growth projection.

For more information, see:

Completing an Object Wizard

Table Wizard

Table Wizard for Oracle - Panel 5 for Index-Organized Tables

The table below describes the options and functionality on the fifth panel of the Table Wizard.

Option	Description
What is the percentage of space you want to reserve in the index block?	Lets you select a percent threshold from the list or type a value. The default value is 50.
Do you want to specify an overflow segment?	The overflow segment preserves dense clustering of the B*tree index by storing row column values that exceed a specified threshold in a separate overflow data segment. **NOTE:** You cannot drop an overflow segment.

>

Option	Description
Do you want to use key compression to eliminate repeated occurrences of primary key column values?	Key compression lets you save space by breaking index keys into prefix and suffix entries. All prefix entries are then shared among the suffix entries in the index block, letting you store more keys per index block. Compression Value - The Compression Value must be between 1 and the total number of primary key columns minus 1. To use key compression, you need at least two primary key columns.

For more information, see:

Completing an Object Wizard

Table Wizard

Table Wizard for Oracle - Panel 6 for Index-Organized Tables

The table below describes the options and functionality on the sixth panel of the Table Wizard.

Option	Description
You can achieve substantial performance gains by using Oracle's parallel query option	The Parallel server query option lets you process queries using many query server processes running against multiple CPU's. This option provides substantial performance gains such as reduction of the query completion time. Degree - Lets you type a value indicating the number of query server processes that should be used in the operation. Instances - Lets you type a value indicating how you want the parallel query partitioned between the Parallel Servers.
Do you want this operation logged in the redo file?	Lets you log the operation in the redo file.

For more information, see:

Completing an Object Wizard

Table Wizard

Table Wizard for Oracle - Panel 7 for Index-Organized Tables

The table below describes the options and functionality on the seventh panel of the Table Wizard.

Option	Description
How large are the table's extents?	The unit of space allocated to an object whenever the object needs more space. Initial Extent - The initial space extent (in bytes) allocated to the object. Next Extent - The next extent (in bytes) that the object will attempt to allocate when more space for the object is required.

>

Option	Description
How extents should be allocated to the table?	Minimum Extents - The appropriate minimum extents value for the object. Maximum Extents - The appropriate maximum extents value for the object.
What is the growth rate for sizing additional extents?	Percent Increase - Magnifies how an object grows and, can materially affect available free space in a tablespace. Select a value in the corresponding box.

For more information, see:

Completing an Object Wizard

Table Wizard

Composite Partitioning

Hash Partitioning

Range Partitioning

Table Wizard for Oracle - Panel 8 for Index-Organized Tables

The table below describes the options and functionality on the eighth panel of the Table Wizard.

Option	Description
Specify the number of free lists	Free Lists - Lets you type the value. The default and minimum value is 1. Set higher if multiple processes access the same data block.
Specify the number of free list groups	Free List Groups - Lets you type the value. The default and minimum value is 1. This option is only applicable for the parallel server option.
Define a bufferpool for this table	DEFAULT - Select to use the default bufferpool. KEEP - Select to retain the object in memory to avoid I/O conflicts. ORACLE 8 ONLY: RECYCLE - Select to save cache space by ridding data blocks from memory as soon as they are no longer in use.
Do you want to partition this table?	**NOTE:** You cannot partition a table if it is part of a cluster, includes LOBs (BLOB, CLOB, NCLOB, or BFILE), LONG or LONG RAW datatypes, or object types, or is index-organized.
Do you want to enable Row Movement?	This clause allows for data row movement along various partitions of the table being defined.

For more information, see:

Completing an Object Wizard

Table Wizard

Composite Partitioning

Hash Partitioning

>

Range Partitioning

Table Wizard for Oracle - Optional Last Panel for Index-Organized Tables

Option	Description
Enter a table description	Lets you type any table comments and/or descriptions; this can be up to 2000 characters long.

For more information, see:

Completing an Object Wizard

Table Wizard

Oracle Partitioning

Partitioning your tables lets you get around the problem of supporting large tables. Partitioning lets you break large tables into smaller pieces, which are called partitions. Partitions make the data in your table easier to manage and analyze. Your SQL statements can access the partitions rather than the entire table. Partitions are most useful in data warehouse applications, which store large amounts of data.

The table below describes the types of partitions in Oracle:

Partition Type	Description
Range	Use range partitioning to map rows to partitions based on ranges of column values. This type of partitioning is useful when dealing with data that has logical ranges into which it can be distributed; for example, months of the year. Performance is best when the data evenly distributes across the range. If partitioning by range causes partitions to vary dramatically in size because of unequal distribution, you may want to consider one of the other methods of partitioning.
Hash	Use hash partitioning if your data does not easily lend itself to range partitioning, but you would like to partition for performance and manageability reasons. Hash partitioning provides a method of evenly distributing data across a specified number of partitions. Rows are mapped into partitions based on a hash value of the partitioning key. Creating and using hash partitions gives you a highly tunable method of data placement, because you can influence availability and performance by spreading these evenly sized partitions across I/O devices (striping).
Composite	In Oracle 8i, Oracle introduced both hash and composite partitioning. Hash partitions partition the table according to a hash function. Composite partitions use both range and hash types, first partitioning the data by a range of values, and then further dividing the partitions into subpartitions by way of a hash function.

>

Partition Type	Description
List	Use list partitioning when you require explicit control over how rows map to partitions. You can specify a list of discrete values for the partitioning column in the description for each partition. This is different from range partitioning, where a range of values is associated with a partition, and from hash partitioning, where the user has no control of the row to partition mapping.

Rapid SQL lets you create table partitions with the Table Wizard and the Tables Editor.

Table Wizard for Oracle - Composite Partitioning

NOTE: This option is only available in Oracle 8.0 or later and is not available for index-organized tables.

The table below describes the options and functionality on this panel of the Table Wizard.

Option	Description
Select the partitioning columns	Available Columns - Lets you select at least one partitioning column, and then click the right arrow button to move it to the Selected Columns box.
Subpartitioning Method	Lets you specify which subpartitioning method to use, hash or list.
Select the subpartitioning columns	Available Columns - Lets you select at least one subpartitioning column, and then click the right arrow button to move it to the Selected Columns box.

For more information, see:

Completing an Object Wizard

Table Wizard

Table Wizard for Oracle - Composite Partitioning

NOTE: This option is only available in Oracle 9.2 or later.

The table below describes the options and functionality on this panel of the Table Wizard.

Option	Description
Select the partitioning columns	Available Columns - Lets you select at least one partitioning column, and then click the right arrow button to move it to the Selected Columns box.

>

Option	Description
Select the subpartitioning Method	Hash - Select if your data does not easily lend itself to range partitioning, but you would like to partition for performance and manageability reasons. Hash partitioning provides a method of evenly distributing data across a specified number of partitions. Rows are mapped into partitions based on a hash value of the partitioning key. Creating and using hash partitions gives you a highly tunable method of data placement, because you can influence availability and performance by spreading these evenly sized partitions across I/O devices (striping). List- Select when you require explicit control over how rows map to partitions. You can specify a list of discrete values for the partitioning column in the description for each partition. This is different from range partitioning, where a range of values is associated with a partition, and from hash partitioning, where the user has no control of the row to partition mapping.
Select the subpartitioning columns	Available Columns - Lets you select at least one subpartitioning column, and then click the right arrow button to move it to the Selected Columns box.

For more information, see:

Completing an Object Wizard

Table Wizard

Table Wizard for Oracle - Range-Hash Composite Partitioning

NOTE: This option is only available in Oracle 9.2 or later.

The table below describes the options and functionality on this panel of the Table Wizard.

Option	Description
Specify default number of subpartitions	**OPTIONAL:** Lets you type a value.
Select the default tablespaces to contain the subpartitions	**OPTIONAL:** Lets you select a tablespace from the list, and then click the right arrow button.
Create an ordered list of partitions	Add Button - Click to open the Add Partition dialog box.

For more information, see:

Completing an Object Wizard

Table Wizard

Table Wizard for Oracle - Range-List Composite Partitioning

NOTE: This option is only available in Oracle 9.2 or later.

The table below describes the options and functionality on this panel of the Table Wizard.

Option	Description
Create a list of subpartitions to be included in the subpartition template	**OPTIONAL:** Click Add, Insert, or Edit to open the Subpartition dialog box.
Create an ordered list of partitions	Click Add, Insert, or Edit to open the Partition dialog box.

For more information, see:

Completing an Object Wizard

Table Wizard

Subpartition

The Subpartition dialog box lets you add, insert or edit a subpartition in a partition.

Important Notes

- When you split a range-list partition, you cannot specify the new partitions' subpartition information.

The table below describes the options and functionality on the Subpartition dialog box.

NOTE: Options vary by wizard and editor.

Option	Description
Name	Displays the subpartition name.
Value(s)	Displays the subpartition value(s).
Default Subpartition	Select to use default subpartition.
Add Value	Opens the Add Partition Value dialog box.
Drop Value	Click to drop selected value.
Tablespace	Lets you select a tablespace.
Add	Click to add subpartition to the template.

Add Partition Value

The Add Partition Value dialog box lets you add a value to a partition. The table below describes the options and functionality on the dialog box.

Option	Description
Please add a value	Lets you specific a value for the partition.
Add	Opens the Add Partition dialog box.

>

Table Wizard for Oracle - Hash Partitioning

NOTE: This panel is only available in Oracle 8i or later and is not available for index-organized tables.

The table below describes the options and functionality on this panel of the Table Wizard.

Option	Description
Select the partitioning columns	Available Columns - Lets you select at least one available column, and then click the right arrow to move the column to the Selected Columns.
Hash partitioning methods	**OPTIONAL:** Click the option button that corresponds to the Hash partitioning method.

For more information, see:

Completing an Object Wizard

Table Wizard

Table Wizard for Oracle - Range Partitioning

The table below describes the options and functionality on this panel of the Table Wizard.

NOTE: This option is only available in Oracle 8.0.

NOTE: If a table is partitioned on a nullable column, and the column includes NULL values, then the highest partition should have a partition bound of MAXVALUE for that column. If MAXVALUE is not set, then the rows that contain nulls map above the highest partition in the table and the insert fail.

Option	Description
Select the partitioning columns	Available Columns - Lets you select at least one available column, and then click the right arrow to move the column to the Selected Columns.
Create an ordered list of partitions	Add Button - Click to open the Add Partition dialog box.

For more information, see:

Completing an Object Wizard

Table Wizard

Table Wizard for Oracle - Optional Last Panel

The table below describes the options and functionality on the last panel of the Table Wizard.

Option	Description
Enter a table description	Lets you type any table comments and/or descriptions; this can be up to 2000 characters long.

For more information, see:

Completing an Object Wizard

Table Wizard

Tablespace Wizard for Oracle

The Tablespace Wizard lets you create a tablespace. Tablespaces are storage structures that act as partitions for the database. You can create a tablespace to store table data and other objects related to table performance such as indexes or large object data. Tablespaces are used to manage large complex databases. Once you have created a tablespace, you can place objects on it.

The Tablespace Wizard lets you:

- Name the tablespace, and specify space management.
- Specify what types of objects are stored on the tablespace, and place the tablespace online or offline.
- Add the datafiles that comprise the tablespace and specify the parameters for the datafiles.
- Specify how Oracle should manage the growth of the tablespace.

Important Notes

- For auto-UNDO management to be in effect, set init.ora parameter to undo_management. When set to MANUAL (the default), it disables auto-UNDO management. When to set AUTO, auto-UNDO management is enabled.
- To determine if the undo_management parameter is set to AUTO, use the following query:

  SELECT VALUE

  FROM SYS.V_$PARAMETER

  WHERE NAME = 'undo_management'

  NOTE: This parameter cannot be set dynamically via the ALTER SYSTEM or ALTER SESSION.

For more information, see:

Completing an Object Wizard

Tablespace Wizard - Panel 1

Tablespace Wizard for Oracle - Panel 1

The table below describes the options and functionality on the first panel of the Tablespace Wizard.

Option	Description
What is the name of the tablespace?	Lets you type the name of the tablespace.
What type of tablespace would you like to create?	Lets you select a tablespace type. A permanent tablespace only holds objects for the duration of the session. An UNDO tablespace allows for automatic rollback segment management in Oracle 9i or later.
Do you want space management to be performed through the data dictionary or locally in the tablespace?	Dictionary Managed Locally Managed - Select for an UNDO tablespace. Eliminates the storage parameters of MINEXTENTS, MAXEXENTS, PCTINCREASE, and NEXT.

For users using a version earlier than Oracle 8i and locally managed tablespaces, there are manual methods can employ to assist in the fight against tablespace fragmentation. They include:

- Setting PCTINCREASE to zero for all tablespaces and objects to promote same-sized extents.
- Specifying equal-sized allotments for your INITIAL and NEXT object storage parameters.
- Grouping objects with like growth and storage needs together in their own tablespaces.

One of the best ways to avoid fragmentation in a tablespace is to pre-allocate the space that your objects will use. If possible, plan for one to two years' growth for each object and allocate your space accordingly. Having initial empty objects will not affect table scan times as Oracle only scans up to the high-water mark (the last used block) in a table.

Of all your tablespaces, you want to avoid fragmentation problems in your SYSTEM tablespace the most as this is the major hotbed tablespace for Oracle activities. The easiest way to avoid this is to not allow any user (even the default DBA ID's SYS and SYSTEM) to have access to it. There are three ways to do this:

- Ensure no user has a DEFAULT or TEMPORARY tablespace assignment of SYSTEM.
- Ensure no user has a quota set for SYSTEM.
- Ensure no user has been granted the UNLIMITED TABLESPACE privilege.

For more information, see:

Completing an Object Wizard

Tablespace Wizard

Tablespace Wizard for Oracle - Panel 2

The table below describes the options and functionality on the second panel of the Tablespace Wizard.

Option	Description
Do you want redo logging when Schema/Data is modified?	Lets you indicate that you want redo logging when Schema/Data is modified.
Should the tablespace be placed online following its creation?	Always create tablespaces for user data and never place user tables and indexes in the SYSTEM tablespace. Placing user objects in the SYSTEM tablespace can degrade performance and introduce space-related headaches to the database.

>

For more information, see:

Completing an Object Wizard

Tablespace Wizard

Tablespace Wizard for Oracle - Panel 3

NOTE: This panel is available for tablespaces that are permanent and locally-managed.

The table below describes the options and functionality on the third panel of the Tablespace Wizard.

Option	Description
What type of segment management should be used?	Lets you select segment management type: Automatic - Oracle manages the free space for all objects using bitmaps. Available for permanent locally-managed tablespaces. **NOTE:** LOBs cannot be stored in auto segment tablespaces. Manual - Oracle manages the free space for all objects using free lists.
What block size should the tablespaces use?	Lets you specify the tablespace block size. You can create tablespaces with block sizes that differ from the block size that the database was created with.

For more information, see:

Completing an Object Wizard

Tablespace Wizard

Tablespace Wizard for Oracle - Panel 4

The table below describes the options and functionality on the fourth panel of the Tablespace Wizard.

Option	Description
OMF	**ORACLE 9i ONLY:** Lets you specify to use Oracle Managed Files to automatically create the datafile.
Datafile Name	Lets you type the datafile name.
Datafile Size	Lets you type the datafile size, and then click the list to indicate MB or KB.
Reuse Existing File?	Lets you use an existing file instead of creating a new one.
Autoextend	Select this check box if you want to autoextend the datafile when more space is required. This enables the options below.
Disk Space to Allocate to the Datafile When More Extents are Required	Type the disk space to allocate to the datafile when more extents are required by typing it and then click the list to indicate MB or KB.

>

Option	Description
Maximum Disk Space Allowed for Allocation to the Datafile	Specify the maximum disk space allowed for allocation to the datafile, by clicking the Unlimited option button or the Other option button. In the Other box, type the amount and then click the list to indicate MB or KB.

For more information, see:

Completing an Object Wizard

Tablespace Wizard

Tablespace Wizard for Oracle - Panel 5

The table below describes the options and functionality on the fifth panel of the Tablespace Wizard.

Option	Description
What should be the default extent sizes boxes	The unit of space allocated to an object whenever the object needs more space. Initial Extent - The initial space extent (in bytes) allocated to the object. Next Extent - The next extent (in bytes) that the object will attempt to allocate when more space for the object is required.
How many extents should be allocated to the objects placed on the tablespace?	Minimum Extents - The appropriate minimum extents value for the object. Maximum Extents - The appropriate maximum extents value for the object.
What should be the growth rate for sizing additional extents?	Percent Increase - Magnifies how an object grows and, can materially affect available free space in a tablespace. Select a value in the corresponding box.

For more information, see:

Completing an Object Wizard

Tablespace Wizard

Trigger Wizard for Oracle

The Trigger Wizard lets you create a trigger. Triggers are a special type of procedure that automatically fire when defined data modification operations (insert, update or delete) occur on a target table. Triggers fire after an insert, update or delete, but belong to the same transaction as the data modification operation.

The Trigger Wizard lets you:

- Specify the trigger name and the table on which it fires.
- Specify the granularity of the trigger.
- Define the trigger body.
- Specify the trigger timing, event and applicable table columns for an update trigger.
- Define the PL/SQL block that should execute when the trigger fires.

>

Important Notes

- To create triggers in your own schema, you need CREATE TRIGGER privileges. To create triggers in other schemas, you need CREATE ANY TRIGGER privileges.

For more information, see:

Completing an Object Wizard

Trigger Wizard - Panel 1

Trigger Wizard for Oracle - Panel 1

The table below describes the options and functionality on the first panel of the Trigger Wizard.

Option	Description
Select the object on which the trigger is to be created.	Lets you select Table or View.
Who owns the base table?	Lets you click the list, and then select the owner.
What is the name of the base table?	Lets you click the list, and then select the name.
Who owns the trigger to be created?	Lets you click the list, and then select the name.
What is the name of the trigger?	Lets you type the trigger name.

For more information, see:

Completing an Object Wizard

Trigger Wizard

Trigger Wizard for Oracle - Panel 2

The table below describes the options and functionality on the second panel of the Trigger Wizard.

Option	Description
What type of trigger should be created?	Statement - Select to make the trigger fire only once. Row - Select to make the trigger fire for each row affected.
What is the triggers state?	Lets you click the Enable option button or the Disable option button.

For more information, see:

Completing an Object Wizard

Trigger Wizard

Trigger Wizard for Oracle - Panel 3

The table below describes the options and functionality on the third panel of the Trigger Wizard.

Option	Description
When should the trigger fire?	Lets you specify when the trigger should fire before or after an update changes a value in one of the columns. Timing - Lets you specify when the trigger should fire. Events - Lets you specify one or more types of statements that can cause the trigger to fire.
If the trigger fires on an update event, which column updates should fire the trigger?	**OPTIONAL:** Lets you indicate if all or none of the column updates should fire the trigger. **NOTE:** This is not available for Instead of Triggers.

For more information, see:

Completing an Object Wizard

Trigger Wizard

Trigger Wizard for Oracle - Panel 4

The table below describes the options and functionality on the fourth panel of the Trigger Wizard.

Option	Description
Specify the correlation table names	Old Table -Lets you type the name of the old table. New Table - Lets you type the name of the new table.
What is the trigger restriction?	**OPTIONAL:** Lets you specify the trigger restriction, which is a SQL condition that must be satisfied for Oracle to fire the trigger.

For more information, see:

Completing an Object Wizard

Trigger Wizard

Trigger Wizard for Oracle - Panel 5

The table below describes the options and functionality on the fifth panel of the Trigger Wizard.

Option	Description
Enter SQL for the trigger's action	Lets you type the PL/SQL block that should execute when the trigger fires.

For more information, see:

Completing an Object Wizard

Trigger Wizard

Object Type Wizard for Oracle

The Object Type Wizard lets you create an object type. Types define an abstract data type or object composed of a collection of similar types of data. For example, create an object type that defines a full address rather than the pieces of an address, such as city, state and postal code. An object type stores the pieces of an address in a single type, storing them in the same location and allowing the full address to be accessed and manipulated as single unit rather than multiple units.

Important Notes

- For information on the syntax used to create object types, see the *Oracle8 Server SQL Reference* or *PL/SQL User's Guide and Reference.*

The table below describes the options and functionality on the Object Type Wizard.

Option	Description
Who owns the type?	Lets you click the list, and then click the owner.
What is the name of the type?	Lets you type the name.

For more information, see Completing an Object Wizard.

Create Unique Key Dialog Box for Oracle

The Create Unique Key Constraint dialog box lets you create a unique key. Unique keys can enforce logical keys that are not chosen as the primary key. They enforce uniqueness for specified columns in a table.

Important Notes

- None

The table below describes the options and functionality on the Create Unique Key Constraint dialog box.

Option	Description
Owner	Lets you select the unique key constraint owner.
Table	Lets you select the table you want to place the unique key constraint.
Constraint Name	Lets you enter the name of the constraint, which can be up to 30 characters long and must be unique across the entire database.
Specify Columns in Constraint	Lets you select the unique key columns, and then click the Right arrow to move them to the Constraint Columns grid. To remove a unique key column, in the Constraint Columns grid, click the unique key column, and then click the left arrow button. Constraint Columns - To reorder the unique key columns, click the up and down arrow buttons.
Status	Enable - Select to enable the constraint immediately after building it. Disable - Select to disable the constraint immediately after building it. Validate - Select to validate the constraint immediately after building it.

>

Option	Description
Data Block Storage	Lets you indicate the data block storage parameters. Tablespace - Lets you select the tablespace for the unique key. Percent Free - Lets you type the appropriate percent free value for the unique key. Initial Transactions - Lets you type the appropriate initial transactions value for the unique key. Max Transactions - Lets you type the appropriate maximum transactions value for the unique key.
Extents	The unit of space allocated to an object whenever the object needs more space. Initial Extent - The initial space extent (in bytes) allocated to the object. Next Extent - The next extent (in bytes) that the object will attempt to allocate when more space for the object is required. Minimum Extents - The appropriate minimum extents value for the object. Maximum Extents - The appropriate maximum extents value for the object. Percent Increase - Magnifies how an object grows and, can materially affect available free space in a tablespace. Select a value in the corresponding box.

For more information, see Completing an Object Dialog Box.

User Wizard for Oracle

Whoever you add as a user will have access to the Oracle database. You also can set up the means by which the database recognizes the user.

The User Wizard lets you:

- Set up the user name.
- Identify the user by password, externally, or globally.
- Grant locked or unlocked access to the user's account.
- Assign tablespaces and a profile to the user.
- Assign tablespace quotas to the user.
- Grant roles to the user.

Important Notes

- To create a user, you need the CREATE USER system privilege.

>

To create a new user using a wizard:

1 Open an object wizard for a user.

2 Use the following table as a guide to setting properties and performing tasks as you pass through the steps of the wizard:

Step	Settings and tasks	
Properties	**Name**	Provide a name for the user.
	Default Tablespace and **Temporary Tablespace**	Select the default tablespace for objects the user creates and the tablespace to be used for the user's temporary segments. If you do not specify a default tablespace when creating a user, the assigned tablespace will be that set using the Set Default function. For details, see Set Default.
	Profile	The profile you choose affects the amount of database resources available to the user.
	Identified By	REQUIRED_YES - A user identified by password is a local user. REQUIRED_EXTERNAL - This is a user who is validated by an external service like an operating system or third-party service. The login authentication is handled by that external entity. REQUIRED_GLOBAL - The user you're creating is a global user who is authenticated by the enterprise directory service.
	Password	If you specified an **Identified By** value of REQUIRED_YES, provide a password for the user.
	External Name	If you specified an **Identified By** value of REQUIRED_EXTERNAL, provide an external name for the user.
	Account Locked	When enabled, the account cannot be altered by anyone but the creator. It also means that after a specified number of failed attempts to access the database, the database will remain closed to the user for a period of time.
Roles	For each role to be assigned to the user, select the check box beside that role.	
Quotas	To assign a tablespace quota for a user, select a tablespace, select the **Other** radio button, and provide the value in the **Quota** box.	
Object Permissions and **System Permissions**	Let you grant and revoke permissions.	
DDL View	Preview the DDL and if necessary navigate backward through the steps to make corrections. Finally, use the **Schedule** or **Execute** buttons to create the new object.	

View Wizard for Oracle

The View Wizard lets you create a view. Views are SQL queries stored in the system catalog that customize the display of data contained in one or more tables. Views behave like tables because you can query views and perform data manipulation operations on them. However, views do not actually store any data. Instead, they depend on data contained in their base tables.

Important Notes

- To create a view in your own schema, you need CREATE VIEW privileges. To create a view in someone else's schema, you need CREATE ANY VIEW privileges.
- For information on the syntax used to create object views, see the *Oracle8 Server SQL*

>

For more information, see View Wizard - Panel 1.

View Wizard for Oracle - Panel 1

The table below describes the options and functionality on the first panel of the View Wizard.

Option	Description
Who owns the view?	Lets you select the view owner.
What is the name of the view?	Lets you enter the view name.
Use Query Builder to define view	Select to open Query Builder to help you build the view SQL.

For more information, see:

Completing an Object Wizard

View Wizard

View Wizard for Oracle - Panel 2

The table below describes the options and functionality on the second panel of the View Wizard.

Option	Description
Please select the view options to include	Replace - Select to re-create the view if it already exists. You can use this clause to change the definition of an existing view without dropping, re-creating, and regranting object privileges previously granted on it. Force -Select to create the view regardless of whether the view's base tables or the referenced object types exist or the owner of the schema containing the view has privileges on them. These conditions must be true before any SELECT, INSERT, UPDATE, or DELETE statements can be issued against the view. Read Only - Select to indicate that the table or view cannot be updated. With Check Option -Select to indicate that Oracle prohibits any changes to the table or view that would produce rows that are not included in the subquery. Constraint - Lets you specify the name of the CHECK OPTION constraint. If you omit this identifier, Oracle automatically assigns the constraint a name of the form SYS_Cn, where n is an integer that makes the constraint name unique within the database.

For more information, see:

Completing an Object Wizard

View Wizard

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Sybase ASE Object Wizards

Alias Wizard	Create Check Constraint Dialog Box	Database Device Wizard	Database Wizard
Data Cache Wizard	Default Wizard	Dump Device Wizard	Extended Procedure Wizard
Foreign Key Wizard	Group Wizard	Index Wizard for Sybase ASE	Login Wizard
Create Primary Key Constraint Dialog Box	Procedure Wizard	Remote Server Wizard	Role Wizard
Rule Wizard	Segment Wizard	Table Wizard for Sybase ASE	Trigger Wizard
Create Unique Key Dialog Box	User Datatype Wizard	User Message Wizard	User Wizard
View Wizard			

Alias Wizard for Sybase ASE

The Alias Wizard lets you create an alias without knowing the underlying commands. The Alias Wizard lets you map a login to an existing user in the database.

Important Notes

- None

The table below describes the options and functionality on the Alias Wizard.

Option	Description
What is the Login ID of the user who wants an alternate identity in the current database?	Lets you select the user.
Which user will serve as the logins alias?	Lets you select the user to which you want to map the login.

For more information, see Completing an Object Wizard.

Database Device Wizard for Sybase ASE

The Database Device Wizard lets you create a database device without knowing the underlying commands.

The Database Device Wizard lets you:

- Name the device and indicate if it should become the default device.
- Specify the virtual device number for and size of the new device.
- Override many obscure, rarely-used parameters of the DISK INIT statement.

>

Important Notes

- None

For more information, see:

Completing an Object Wizard

Database Device Wizard - Panel 1

Database Device Wizard for Sybase ASE - Panel 1

The table below describes the options and functionality on the Database Device Wizard.

Option	Description
What is the logical name of the device?	Lets you type the device name.
What is the physical name of the device?	Lets you type the physical name of the device. You need to specify the full path for the file, including the hard drive letter or machine name, directory and full file name with the *.DAT extension (for example, D:\SYB\DATA\TEST.DAT).
Do you want to specify this device as a default for database storage?	The default device is where all new databases Rapid SQL is placed unless the user specifies an exact device in the CREATE DATABASE statement.

For more information, see:

Completing an Object Wizard

Database Device Wizard

Database Device Wizard for Sybase ASE - Panel 2

The table below describes the options and functionality on the second panel of the Database Device Wizard.

NOTE: Make sure that your Sybase ASE is configured for enough devices that it can accommodate the creation of another device.

Option	Description
What is the virtual device number?	Lets you type the value of the virtual device number for the new device. Rapid SQL automatically calculates the next open device number and defaults its value in the box.
What is the size of the device in megabytes?	Lets you type the value of the size of the device, in megabytes. Make sure that you have enough free space on the hard disk to accommodate the device file.

For more information, see:

Completing an Object Wizard

>

Database Device Wizard

Database Device Wizard for Sybase ASE - Panel 3

The table below describes the options and functionality on the third panel of the Database Device Wizard.

Option	Description
If you want to choose a specific starting page number, enter it here.	Lets you set the starting panel number, type a value in the box. Normally, Sybase ASE defaults this value to 0.
What is the controller number?	Lets you type the value. Normally, Sybase ASE uses 0.
Do you want to force the database file to be created contiguously?	**NOTE:** This option is only available on Open VMS systems.

For more information, see:

Completing an Object Wizard

Database Device Wizard

Database Wizard for Sybase ASE

The Database Wizard lets you create a database without knowing the underlying commands.

The Database Wizard lets you:

- Name the database.
- Set special database properties.
- Specify how and where you want to place the physical storage of the database.
- Set database options.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Database Wizard - Panel 1

Database Wizard for Sybase ASE - Panel 1

The table below describes the options and functionality on the first panel of the Database Wizard.

Option	Description
What is the name of the database?	Lets you type the name of the database.
Do you create the database for loading a database dump using the “for load” option?	The “for load” option speeds loading by eliminating the step for pre-initializing panels
Do you wish to create the database using the “with override” option.	Lets you override any problems encountered.

For more information, see:

Completing an Object Wizard

Database Wizard

Database Wizard for Sybase ASE - Panel 2

The table below describes the options and functionality on the second panel of the Database Wizard.

NOTE: Before you can complete the second panel of the wizard, add a database fragment. The Add Database Fragment dialog box opens when you proceed from panel one to panel two of the Create Database Wizard.

For more information, see:

Completing an Object Wizard

Database Wizard

Database Wizard for Sybase ASE - Panel 3

The table below describes the options and functionality on the third panel of the Database Wizard.

Option	Description
Which database options do you wish to activate	Lets you select the appropriate check boxes or click Check All.

For more information, see:

Completing an Object Wizard

Database Wizard

Data Cache Wizard for Sybase ASE

The Data Cache Wizard lets you create a named data cache without knowing the underlying commands. When you create a named data cache, Sybase ASE reallocates memory from the default data cache to the named data cache.

>

Important Notes

- None

The table below describes the options and functionality on the Data Cache Wizard.

What is the name of the data cache?	Lets you type the name of the data cache.
What is the size of the data cache box?	Lets you type the value of the data cache size, and then select the unit: megabytes, kilobytes, gigabytes or pages.
What is the cache type?	Lets you select mixed or log only cache types.
What is the cache replacement policy?	Lets you select a strict or relaxed cache replacement policy.

For more information, see Completing an Object Wizard.

Default Wizard for Sybase ASE

The Default Wizard lets you create a default without knowing any of the underlying commands. The Default Wizard lets you name the default and specify its value.

Important Notes

- None

The table below describes the options and functionality on the Default Wizard.

Option	Description
Who owns the default?	Lets you select the owner.
What is the name of the default?	Lets you type the default name.
What is the default value?	Lets you type the default value or expression.

For more information, see Completing an Object Wizard.

Dump Device Wizard for Sybase ASE

The Dump Device Wizard lets you create a dump or backup device without knowing the underlying commands.

Important Notes

- None

The table below describes the options and functionality on the Dump Device Wizard.

>

Option	Description
What is the device type?	Lets you select the device type you are using.
What is the dump device Name?	Lets you type the device name.
What is the physical name?	Lets you type the device or file name that is recognized by the operating system. (For example, a:sqltable.dat).

For more information, see Completing an Object Wizard.

Extended Procedure Wizard for Sybase ASE

The Extended Procedure Wizard lets you:

- Specify the extended procedure owner.
- Specify the name of the function to call within the library.
- Specify the name of the library containing the function.

Extended stored procedures provide a method for calling procedural language functions from within the Adaptive Server.

The table below describes the options and functionality of the Extended Procedure Wizard:

Option	Description
Who owns the extended procedure?	Lets you select an extended procedure owner.
What is the name of the function to call within the library?	Lets you type in the function name.
What is the name of the library containing the function?	Lets you type in the library name.

Foreign Key Wizard for Sybase ASE

The Foreign Key Wizard lets you create a foreign key without knowing the underlying commands.

The Foreign Key Wizard lets you:

- Name the foreign key constraint.
- Identify the parent table and the referenced constraint.
- Map the column pairs between the parent and child tables.

Important Notes

- None

For more information, see:

>

Completing an Object Wizard

Foreign Key Wizard - Panel 1

Foreign Key Wizard for Sybase ASE - Panel 1

The table below describes the options and functionality on the first panel of the Foreign Key Wizard.

Option	Description
Which table will host the constraint?	Owner - Lets you select the owner. Table - Lets you select the table.
What will be the name of this new constraint?	System Generated Name - Select to let Sybase ASE automatically generate a name. User Specified Constraint Name - Lets you type the name.

For more information, see:

Completing an Object Wizard

Foreign Key Wizard

Foreign Key Wizard for Sybase ASE - Panel 2

The table below describes the options and functionality on the second panel of the Foreign Key Wizard.

Option	Description
Select the parent table to reference	Database - Lets you select the database owner. Table Owner - Lets you select the parent table owner. Table Name - Lets you select the parent table name.
Select the parent table constraint	Lets you select the primary and unique key constraints you want to reference.

For more information, see:

Completing an Object Wizard

Foreign Key Wizard

Foreign Key Wizard for Sybase ASE - Panel 3

The table below describes the options and functionality on the third panel of the Foreign Key Wizard.

Option	Description
Select column associations	Begin with the first foreign key column, and then click the lists to map the foreign key columns between the child and parent tables.

>

For more information, see:

Completing an Object Wizard

Foreign Key Wizard

Group Wizard for Sybase ASE

The Group Wizard lets you create a group without knowing the underlying commands.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Group Wizard - Panel 1

Group Wizard for Sybase ASE - Panel 1

The table below describes the options and functionality on the first panel of the Group Wizard.

Option	Description
What is the name of the group?	Lets you type the name of the group.

For more information, see Completing an Object Wizard.

Index Wizard for Sybase ASE

Like an index in a book, a table index helps you get at the data you want without having to read through the whole table. Indexes can exist on single column or on multiple columns. Indexes appear in the form of B-trees. And, as for books, you can have multiple indexes for a single table.

>

To create a new index using a wizard:

1 Open an object wizard for an index.

2 Use the following table as a guide to setting properties and performing tasks as you pass through the steps of the wizard:

Step	Properties and tasks
Properties	Select or provide the following: • The owner of the table for which the index is being created (**Table Owner**). • The table for which the index is being created (**Table Name**). • A **Name** for the index. Under **Attributes**, provide or select values for the following Sybase options: **Index Type**, **Clustered**, **Ignore Duplicate Key**, **Ignore Duplicate Rows**, and **Maximum Rows Per Page** properties. Under **Storage**, provide or select values for the following Sybase options: **Reserve Page Gap**, **Segment Name**, **Fill Factor**, **Prefetch Strategy**, and **MRU Replacement Strategy**.
Columns	Select a column from the **Columns** dropdown and specify a **Sort** option. Use the New button to add more columns to the index. Use the Delete button to remove selected columns from the index.
Partition	Click **Add** to open the Index Partition wizard for Sybase ASE.
DDL View	Preview the DDL and if necessary navigate backward through the steps to make corrections. Finally, use the **Schedule** or **Execute** buttons to create the new object.

Index Partition wizard for Sybase ASE

The Sybase Index Partition wizard can be opened from the following editors and wizards:

- Index Wizard for Sybase ASE
- Using the Indexes editor

Use the following table as a guide to understanding and setting the options on this wizard:

Step	Settings and tasks	
Properties	Select a **Locality**.	
Partition Definitions	Click the Define a new partition button to open a dialog that lets you provide a name, select a segment, click the New button to add values, and then **Add** the partition definition.	

When finished, click the **Finish** button.

Login Wizard for Sybase ASE

The Login Wizard lets you create a login and specifying security options without requiring you to know any of the underlying commands.

The Login Wizard lets you:

- Name the login ID.

>

- Define a login password.
- Specify a default database and language for the login.
- Grant roles to the login.
- Lock the login upon creation.
- Select databases to create users.
- Select user types, user names, and user groups.
- Select aliases.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Login Wizard - Panel 1

Login Wizard for Sybase ASE - Panel 1

The table below describes the options and functionality on the first panel of the Login Wizard.

Option	Description
What is the ID for the Login?	Lets you type the login name. Can be up to 30 characters long.
What is the password for the new login?	Can be up to 30 characters long, but must be at least six characters.

For more information, see:

Completing an Object Wizard

Login Wizard

Login Wizard for Sybase ASE - Panel 2

The table below describes the options and functionality on the second panel of the Login Wizard.

NOTE: You should avoid specifying the master database to prevent users from creating objects there inadvertently.

Option	Description
What is the full name of the login box?	**OPTIONAL:** Lets you type the full name for the login (for example, John Smith).
What should be the login's default database?	Database - Lets you select the default database.

>

Option	Description
What is the login's default language?	Language - Lets you select the default language. If you do not select one, Rapid SQL uses the server's default language.

For more information, see:

Completing an Object Wizard

Login Wizard

Login Wizard for Sybase ASE - Panel 3

The table below describes the options and functionality on the third panel of the Login Wizard.

Option	Description
Select any roles that you wish to grant to the login from the list below	**OPTIONAL:** Lets you select the check boxes that correspond to the roles you want to grant, or click the Select All button.
Do you want to lock the new login after creating it?	Lets you lock the new login so that nobody else can use it.

For more information, see:

Completing an Object Wizard

Login Wizard

Login Wizard for Sybase ASE - Panel 4

The table below describes the options and functionality on the fourth panel of the Login Wizard.

Option	Description
Select databases to create users	Lets you select the check boxes that correspond to the databases or click the Check All button. User Type - Lets you select the user type you want to add. If you select Alias in the Alias box, click the User Name list, and then click the user name. If you select dbo and you want to transfer aliases and permissions, click the Transfer Aliases and Permissions check box. If you select User, in the User box, click the User Name list, and then click the user name, then click the Group list, and then click the user group.

For more information, see:

Completing an Object Wizard

Login Wizard

Login Wizard for Sybase ASE - Optional Panel 5

The table below describes the options and functionality on the Login Wizard.

Option	Description
Enter the password expiration, if any	Enter a value between zero and 32767 days.
Enter the minimum password length, if any	Enter a value between zero and 30.
Enter the maximum number of login attempts, if any	Enter a value between zero and 32767.

For more information, see:

Completing an Object Wizard

Login Wizard

Create Primary Key Constraint Dialog Box for Sybase ASE

The Create Primary Key Constraint dialog box lets you create a primary key without knowing the underlying commands.

Important Notes

- If you are creating a non-clustered index constraint, you should place it on a separate segment from the target table.

The table below describes the options and functionality on the Create Primary Key Constraint dialog box.

Option	Description
Owner	Lets you select the primary key constraint owner.
Table	Lets you select the table you want to place the primary key constraint.
Constraint Name	Lets you enter the name of the constraint, which can be up to 30 characters long and must be unique across the entire database.
Specify Columns in Constraint:	Lets you select, reorder, and remove the primary key columns.

For more information, see Completing an Object Wizard.

Procedure Wizard for Sybase ASE

The Extended Procedures Wizard lets you create an extended stored procedure without knowing the underlying commands.

Important Notes

- None

>

The table below describes the options and functionality on the Procedure Wizard.

Option	Description
Who owns the procedure?	Lets you select the owner.
What is the name of the procedure?	Lets you type the procedure name.
What is the number of the procedure?	Lets you set the procedure number.
With Recompile Option	Lets you indicate if the procedure should be recompiled.

For more information, see Completing an Object Wizard.

Remote Server Wizard for Sybase ASE

The Remote Server Wizard lets you create a remote server without knowing any of the underlying commands.

The Remote Server Wizard lets you:

- Name the remote server and designate if it is remote or local.
- Specify connection, encryption, and security options.
- Specify a security mechanism.

Important Notes

- Before you can setup a remote server, first configure both the local and remote servers to accept remote access. To configure Sybase ASE for remote access, you need to log into each server and configure server parameters. The table below describes the parameters you need to configure:

Parameter	Description
Remote Access	1(enabled)
Remote Connections	Number of remote connections required
Remote Logins	Number of remote logins required
Remote Sites	Number of remote sites required

- After setting these server configuration parameters, shut down and restart the server so the new values can take effect. When you have configured both servers, proceed to the steps below.

For more information, see:

Completing an Object Wizard

Remote Server Wizard - Panel 1

Remote Server Wizard for Sybase ASE - Panel 1

The table below describes the options and functionality on the first panel of the Remote Server Wizard.

>

Option	Description
What is the name of the remote server?	Lets you type the name of the remote server.
What is the server's physical network name?	**OPTIONAL:** Lets you type the name of the server's physical network name.
Do you want to add a remote server or identify the local server?	Lets you add a remote server or identification to the local server.

For more information, see:

Completing an Object Wizard

Remote Server Wizard

Remote Server Wizard for Sybase ASE - Panel 2

The table below describes the options and functionality on the second panel of the Remote Server Wizard.

Option	Description
Indicate whether SQL Server should time out inactive physical connections with this remote server	Yes, time out No, run until shut down
Indicate whether encryption should be used to protect passwords sent to this remote server	Yes, encrypt No, use plain text
Which security mode would you like to use for remote procedure calls?	Security Model A Security Model B

For more information, see:

Completing an Object Wizard

Remote Server Wizard

Remote Server Wizard for Sybase ASE - Panel 3

The table below describes the options and functionality on the Remote Server Wizard.

Option	Description
Specify a security mechanism	**OPTIONAL:** Lets you type the name of the security mechanism.

>

Option	Description
If you selected Security Model B on the previous page, you may enable the following options.	Mutual Authentication Message Confidentiality Message Integrity

For more information, see:

Completing an Object Wizard

Remote Server Wizard

Role Wizard for Sybase ASE

The Role Wizard lets you create a role without knowing the underlying commands.

The Role Wizard lets you:

- Name the role and enter a password that can be used to activate the role.
- Specify login criteria.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Role Wizard - Panel 1

Role Wizard for Sybase ASE - Panel 1

The table below describes the options and functionality on the first panel of the Role Wizard.

Option	Description
What is the name of the role?	Lets you type the role name.
Password	Lets you type the role password.

For more information, see:

Completing an Object Wizard

Role Wizard

Role Wizard for Sybase ASE - Optional Panel 2

The table below describes the options and functionality on the Role Wizard.

NOTE: This panel is optional.

>

Option	Description
Enter the password expiration, if any	Enter a value between zero and 32767 days.
Enter the minimum password length, if any	Enter a value between zero and 30.
Enter the maximum number of login attempts, if any	Enter a value between zero and 32767.

For more information, see:

Completing an Object Wizard

Role Wizard

Rule Wizard for Sybase ASE

The Rule Wizard lets you create a rule without knowing the underlying commands.

Important Notes

- None

The table below describes the options and functionality on the Rule Wizard.

Option	Description
Who owns the rule?	Lets you select the owner.
What is the name of the rule?	Lets you type the name of the role.
What is the rule restriction?	Lets you type the rule condition.

For more information, see Completing an Object Wizard.

Segment Wizard for Sybase ASE

The Segment Wizard lets you create a segment without knowing any of the underlying commands.

The Segment Wizard lets you:

- Name the segment.
- Place the segment on one or more database fragments.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Segment Wizard - Panel 1

>

Segment Wizard for Sybase ASE - Panel 1

The table below describes the options and functionality on the Segment Wizard.

Option	Description
What is the name of the segment?	Lets you type the name of the segment.

For more information, see:

Completing an Object Wizard

Segment Wizard

Segment Wizard for Sybase ASE - Panel 2

The table below describes the options and functionality on the second panel of the Segment Wizard.

Option	Description
On which database device do you wish to place the segment?	Lets you click the database (device) fragments on which you want to place the segment.

For more information, see:

Completing an Object Wizard

Segment Wizard

Table Wizard for Sybase ASE

A table is a column-based arrangement of data in which the content of one column has a bearing on the other column(s). So, for example, a table might have a column for authors, another column for the books each author has written, and a third for the number of copies each title by a given author has sold. The data moves across the columns in rows.

NOTE: You must have CREATE TABLE permissions to generate a new table.

To create a new table using a wizard:

1. Open an object wizard for a table.
2. Use the following table as a guide to setting properties and performing tasks as you pass through the steps of the wizard:

Step	Settings and tasks	
Properties	**Owner**	Select the owner of the table.
	Name	Provide a name for the table
	Segment Name	Specify the segment on which you want to place the table.

Step	Settings and tasks	
	Maximum Rows Per Page	Specifying a number allows you to override the default. The default, 0, creates indexes with full pages and nonclustered indexes with full leaf pages. This number can be changed at any time.
	Reserve Page Gap	
	Identity Gap	Specify the size of the identity gap for the table.
	MRU Replacement Strategy	When enabled, new pages are read into the least recent end of the page chain. When pages reach the most recent end of the chain, the pages are flushed.
	Prefetch Strategy	Enabling this feature allows you to fetch as many as eight 2K data pages simultaneously instead of one at a time (the default).
	Lock Scheme	Select a locking scheme of ALLPAGES, DATAPAGES, or DATAROWS.
	Expected Row Size	If you specified a **Lock Scheme** of DATAROWS or DATAPAGES, provide an expected row size
Columns	For each column in the table, click the **Add Column** button to create a column, provide a **Name** for the column and provide or select the remaining column attributes. Use the **Delete** button to drop a selected column. Use the arrow buttons to reposition the columns. **NOTE:** Because the smalldatetime datatype stores dates and time with less precision than the datetime datatype, before outputting you use the CAST or CONVERT functions to convert any boxes with the smalldatetime datatype to either VARCHAR or datetime datatypes.	
Indexes	Click **Add** to open the Index Wizard for Sybase ASE.	
Constraints	Selecting a constraint type and clicking **Add** opens the object wizard for that object type. For details see: Create Primary Key Constraint Dialog Box for Sybase ASE Create Unique Key Dialog Box for Sybase ASE Foreign Key Wizard for Sybase ASE Create or Modify Constraint	
Partition	Click **Add** to open the Table Partition wizard for Sybase ASE.	
Permissions	Set up the user permissions for this table.	
DDL View	Preview the DDL and if necessary navigate backward through the steps to make corrections. Finally, use the **Schedule** or **Execute** buttons to create the new object.	

Table Partition wizard for Sybase ASE

The Sybase Table Partition wizard can be opened from the following editors and wizards:

- Table Wizard for Sybase ASE
- Tables Editor for Sybase ASE

Use the following table as a guide to understanding and setting the options on this wizard:

Step	Settings and tasks	
Properties	Select a **Partition Type** of ROUNDROBIN, RANGE, HASH, or LIST	

>

Step	Settings and tasks	
Columns (not available with a **Partition Type** of ROUNDROBIN)	For each column, click the Insert a new column button to create a column, provide a **Name** for the column and provide or select the remaining column attributes. Use the **Delete** button to drop a selected column. Use the arrow buttons to reposition the columns.	
Partition Definition (only available with a **Partition Type** of HASH or ROUNDROBIN)	Take one of the following actions: (1) Select the **Number Of Partitions** radio box, specify the **Number Of Partitions**, and for each partition, click the New button and choose a tablespace from the dropdown, or (2) select the **By Partition Name** radio box and for each partition, click the New button provide a name and then choose a tablespace from the dropdown.	
Range Definitions (only available with a **Partition Type** of RANGE)	Click the Define a new partition button to open a dialog that lets you provide a name, select a segment and **Add** the partition definition.	
List Definitions (only available with a **Partition Type** of LIST)	Click the Define a new partition button to open a dialog that lets you provide a name, select a segment, click the New button to add values, and then **Add** the partition definition.	

When finished, click the **Finish** button.

Trigger Wizard for Sybase ASE

The Trigger Wizard lets you create a trigger without knowing the underlying commands.

The Trigger Wizard lets you:

- Specify the trigger name and the table on which it fires.
- Specify the data modification operations that causes the trigger to fire.
- Define the trigger body.

Important Notes

- None

For more information, see:

Completing an Object Wizard

Trigger Wizard - Panel 1

Trigger Wizard for Sybase ASE - Panel 1

The table below describes the options and functionality on the first panel of the Trigger Wizard.

Option	Description
Who owns the table?	Lets you select the owner.
Which is the base table?	Lets you select the base table.
What is the name of the trigger?	Lets you select the name of the trigger.

>

For more information, see:

Completing an Object Wizard

Trigger Wizard

Trigger Wizard for Sybase ASE - Panel 2

The table below describes the options and functionality on the second panel of the Trigger Wizard.

Option	Description
Which table modification operation(s) should cause the trigger to fire?	Insert - Provides SQL to execute automatically after items are inserted into the table. Update - Provides SQL to execute automatically after items in the table are updated. Delete - Provides SQL to execute automatically after items in the table are deleted.

For more information, see:

Completing an Object Wizard

Trigger Wizard

Trigger Wizard for Sybase ASE - Panel 3

The table below describes the options and functionality on the third panel of the Trigger Wizard.

NOTE: For more information on the syntax for Trigger bodies, consult the Sybase ASE Documentation.

Option	Description
Please type the body of the trigger below?	Lets you type the trigger body syntax.

For more information, see:

Completing an Object Wizard

Trigger Wizard

Create Unique Key Dialog Box for Sybase ASE

The Create Unique Key dialog box lets you create a unique key without knowing the underlying commands.

Important Notes

- If you are creating a non-clustered index constraint, you should place it on a separate segment from the target table.

The table below describes the options and functionality on the Create Unique Key Constraint dialog box.

>

Option	Description
Owner	Lets you select the unique key constraint owner.
Table	Lets you select the table you want to place the unique key constraint.
Constraint Name	Lets you enter the name of the constraint, which can be up to 30 characters long and must be unique across the entire database.
Properties	Clustered Fillfactor - Lets you type the fillfactor value. Segment - Lets you select the segment.
Specify Columns in Constraint	Lets you select, reorder, and remove the constraint columns.

For more information, see Completing an Object Wizard.

User Datatype Wizard for Sybase ASE

The User Datatype Wizard lets you create a user datatype without knowing the underlying commands.

The User Data Type Wizard lets you:

- Name the user datatype.
- Define the base datatype properties.
- Set null values in columns
- Set default binding
- Set rule binding

Important Notes

- None

For more information, see:

Completing an Object Wizard

User Datatype Wizard - Panel 1

User Datatype Wizard for Sybase ASE - Panel 1

The table below describes the options and functionality on the first panel of the User Datatype Wizard.

Option	Description
What is the name of the datatype?	Lets you type the datatype name.

For more information, see:

>

Completing an Object Wizard

User Datatype Wizard

User Datatype Wizard for Sybase ASE - Panel 2

The table below describes the options and functionality on the second panel of the User Datatype Wizard.

Option	Description
Does the new datatype use identity properties?	Indicate if the datatype uses indemnity properties.
What is the base datatype?	Lets you select the base datatype.
What are the datatype parameters?	Lets you type the appropriate values. Width Scale

For more information, see:

Completing an Object Wizard

User Datatype Wizard

User Datatype Wizard for Sybase ASE - Panel 3

The table below describes the options and functionality on the third panel of the User Datatype Wizard.

Option	Description
Does the datatype allow null values?	Indicate if you want to allow null values in the datatype.
Which default is bound to the new datatype?	Lets you select a default.
Which rule is bound to the new datatype?	Lets you select the rule.

For more information, see:

Completing an Object Wizard

User Datatype Wizard

User Message Wizard for Sybase ASE

The User Message Wizard lets you create a user message without knowing the underlying commands.

Important Notes

- None

The table below describes the options and functionality on the User Message Wizard.

Option	Description
What is the message number box?	Lets you type the value of the message number, which by default must be greater than 20000.
Add the message text belonging to this message.	Add Button - Opens the Create User Message Text dialog box. Edit Button - Opens the Modify User Message Text dialog box. Delete Button - Deletes the message.

For more information, see Completing an Object Wizard.

User Wizard for Sybase ASE

The User Wizard lets you create a user without requiring you to know any of the underlying commands.

The User Wizard lets you:

- Map the login to the user.
- Name the user.
- Specify the group to which the user should belong.

Important Notes

- None

For more information, see:

Completing an Object Wizard

User Wizard

User Wizard for Sybase ASE - Panel 1

The table below describes the options and functionality on the User Wizard.

Option	Description
What is the login ID of the new user?	Lets you type the Login ID of the new user. It can be up to 30 characters long.
What is the name of the user?	Lets you type the name if it is different from the Login ID.
To which group should the user belong?	Lets you select the target group.

For more information, see Completing an Object Wizard.

>

View Wizard for Sybase ASE

The View Wizard lets you create a view without knowing the underlying commands.

Important Notes

- None

For more information, see View Wizard - Panel 1.

View Wizard for Sybase ASE - Panel 1

The table below describes the options and functionality on the first panel of the View Wizard.

Option	Description
Who owns the view?	Lets you select the view owner.
What is the name of the view?	Lets you enter the view name.
Use Query Builder to define view	Select to open Query Builder to help you build the view SQL.

For more information, see:

Completing an Object Wizard

View Wizard

View Wizard for Sybase ASE - Panel 2

The table below describes the options and functionality on the second panel of the View Wizard.

Option	Description
Please select the view options to include	Lets you select view options.

For more information, see:

Completing an Object Wizard

View Wizard

Activate Logging

This functionality is available for IBM DB2 LUW for Linux, Unix, and Windows only.

The Activate Logging dialog box lets you store the most recent log records, when the table is not logging initially.

Important Notes

None

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For more information, see Completing the Activate Logging Dialog Box.

Completing the Activate Logging Dialog Box

To complete this dialog box, do the following:

Add/Modify Database File

The table below describes the options and functionality on the Add/Modify Database File dialog box.

Option	Description
Database	Displays the database name.
Filegroup	Lets you select a filegroup to which the database belongs. Default - Sets filegroup as the default. Read Only - Sets the filegroup as read-only.
Database File	Name - Lets you name the database file. File Path - Lets you specify the file location. Type or browse and locate the file. The application automatically gives the database file a *.mdf extension. Size - Lets you specify a database size in KB or MB.
Allow Growth	Lets the database file grow. Growth Rate - Lets you specify the growth rate in percents, KB, or MB. Max Size - Specifies the maximum database file size. Select Unlimited to let the database file grow without restrictions. To specify a specific size, select Size and enter a size in KB or MB.

1 On the **Database Explorer**, select the target object node.

   Rapid SQL displays the target objects in the Database Explorer.

2 On the **Database Explorer**, right-click the target object, and then select **Activate Logging**.

   Rapid SQL opens the Activate Logging dialog box.

3 Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.

Add Database Fragment

This functionality is available for all platforms.

The Add Database Fragment dialog box lets you add database fragments to a device.

Important Notes

None

The table below describes the options and functionality on the Add Database Fragment dialog box.

Option	Description
Data Device	Lets you specify a data device. Select a device and set a device size in MBs.
Log Device	**OPTIONAL:** Lets you specify the placement of the transaction log. **NOTE:** We strongly recommend that you place the transaction log on a separate device from all other database fragments.
Add Button	Lets you add more database fragments.
Edit Button	Lets you edit an existing database fragment.
Delete Button	Lets you delete an existing database fragment.

For more information, see:

Completing the Add Database Fragment Dialog Box

Completing a Dialog Box

Completing the Add Database Fragment Dialog Box

To complete this dialog box, do the following:

1. In the **Data Device** box, click the **Device** list to specify the placement of the database.
2. In the **Size** box, type the **MB** value of the data device.
3. **OPTIONAL:** In the **Log Device** box, click the list to specify the placement of the transaction log.
4. If you specify a log device, in the **Size** box, type the **MB** value of the log device.
5. Click **Add.**

   Rapid SQL adds the database fragment and closes the Add Database File dialog box.

   - To add more database fragments, click the **Add** button.
   - To edit an existing database fragment, click the fragment and click the **Edit** button.
   - To delete an existing database fragment, click the fragment and click the **Delete** button.

For more information, see:

Add Database Fragment

Completing a Dialog Box

Add, Insert, or Modify Column

This functionality is available for all platforms.

The Add, Insert, or Modify Columns dialog box lets you manage columns. You can open the dialog box in the following wizards and editors:

- IBM DB2 LUW for Linux, Unix, and Windows Indexes Editor - Columns Tab
- IBM DB2 LUW for Linux, Unix, and Windows Tables Editor - Columns Tab
- IBM DB2 LUW for Linux, Unix, and Windows Unique Keys Editor - Columns Tab
- IBM DB2 LUW for Linux, Unix, and Windows Views Editor - Columns Tab
- IBM DB2 LUW for OS/390 and z/OS Indexes Editor - Columns Tab
- IBM DB2 LUW for OS/390 and z/OS Tables Editor - Columns Tab
- IBM DB2 LUW for OS/390 and z/OS Unique Keys Editor - Columns Tab
- IBM DB2 LUW for OS/390 and z/OS Views Editor - Columns Tab
- Microsoft SQL Server Tables Editor - Columns Tab
- Oracle Tables Editor - Columns Tab
- Sybase ASE Tables Editor - Columns Tab
- IBM DB2 LUW for Linux, Unix, and Windows Table Wizard - Panel 2
- IBM DB2 LUW for OS/390 and z/OS Table Wizard - Panel 2
- Microsoft SQL Server Table Wizard - Panel 2
- Oracle Table Wizard - Panel 2 for Heap-Organized Tables
- Oracle Table Wizard - Panel 2 for Index-Organized Tables
- Table Wizard for Sybase ASE

Important Notes

None

The table below describes the options and functionality on the Add, Insert or Modify Column dialog box.

NOTE: The options differ by platform.

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Option	Description
Column Name	Lets you enter the name of the column.
Datatype	Lets you select a datatype and set the width and scale. **NOTE:** Oracle 9i supports Timestamp datatypes, including Timestamp, Timestamp with Time Zone, and Timestamp with Local Time Zone.
Allow Nulls?	Lets you allow columns with no text.
Default Value	Lets you accept the default value for the datatype.
Comment	**OPTIONAL:** Lets you type comments, which can be up to 254 characters long.
Lob Options	Lets you specify options for a large datatype.
Character Options	For a datatype that has character options. For Bit Data
Identity Column	Lets you specifies values for an identity column. The identity column will start at the value specified in Min Value, and will continue to progress until the Max value is reached. Min Value - Lets you specify the minimum value. If you do not specify, Rapid SQL will use the max values for the datatype. Max Value - Lets you specify the maximum value. If you do not specify, Rapid SQL will use the max values for the datatype. Cycle - If you do not select, when the Max Value is reached the server will not allow anymore rows. If you do select, when the Max value is reached the server will start the identity column from the beginning.

NOTE: The options differ for IBM DB2 LUW for OS/390 and z/OS, Microsoft SQL Server 7 or later, Oracle, and Sybase ASE.

For more information, see:

Completing the Add, Insert or Modify Column Dialog Box

Completing a Dialog Box

Completing the Add, Insert or Modify Column Dialog Box

To complete this dialog box, do the following:

NOTE: The options differ for IBM DB2 LUW for OS/390 and z/OS, Microsoft SQL Server 7 or later, Oracle, and Sybase ASE.

1. In the **Column Name** box, type the target column name.
2. Click the **Datatype** list, and then click the target datatype.

   NOTE: For SQL Server 2000, if you create a table with a Column datatype = text., you can set the storage and image values on the Storage Tab of the Tables Editor Storage Tab. When you have a text datatype, the Storage Tab displays a Text In Row box where you can specify the maximum size to be stored.

   NOTE: Because the smalldatetime datatype stores dates and time with less precision than the datetime datatype, before outputting you use the CAST or CONVERT functions to convert any boxes with the smalldatetime datatype to either VARCHAR or datetime datatypes. For more information, see SQL Server Books Online, Transact-SQL Reference.

3. To allow nulls, click the **Yes** option button.
4. If you do not want to allow nulls, click the **No** option button.
5. To define a computed expression column, click the **Computed Expression** option button and then type the expression in the box.

   NOTE: This option is only valid for Microsoft SQL Server 7.

6. To set row binding parameters, in the **Row Binding** grid.
   - To set a default value, click the **Default Value** list or type a value in the box.
   - To fill the rows with a default value, select the **Fill Rows with Default Value** check box.
   - To bind a default to the column (instead of declaring it), in the **Default Binding** list, click the default binding.
   - To bind a rule to the column, click the **Default Rule** list and click the default rule.
7. To set an identity column, select the **Identity Column** check box.
8. If you select the **Identity Column** check box, in the **Identity Seed** and **Identity Increment** boxes, type the appropriate values.
9. If the columns are not for replication, select the **Not for Replication** check box.
10. Click the **Add** button.

    Rapid SQL adds the column.
11. When you finish adding columns, click the **Close** button.

    Rapid SQL closes the Add Column dialog box.
12. To insert a column, click the **Insert** button.
13. To add, insert, edit or drop and columns, click the corresponding button in **Add columns that are belonging to this table**.

For more information see:

Add, Insert or Modify Column

Completing a Dialog Box

Add, Insert or Modify Column for IBM DB2 LUW for OS/390 and z/OS

The table below describes the options and functionality on the Add, Insert or Modify Column dialog box for IBM DB2 LUW for OS/390 and z/OS.

Options	Description
Column Name	Lets you enter the name of the column.
Datatype	Lets you select a datatype and set the width and scale.
Allow Nulls?	Lets you allow columns with no text.
Default Value	Lets you accept the default value for the datatype you selected.
Comment	**OPTIONAL:** Lets you type comments, which can be up to 254 characters long.
For Data	Lets you specify the subtype If the datatype selected is a character string column such as CHAR, VARCHAR or LONG VARCHAR. SBCS - The column holds single-byte data. Mixed - The column holds mixed data. Do not set as MIXED if the installation box, MIXED DATA on the DSNTIPF panel is NO. Bit - The column holds BIT data. For CLOB datatypes, the default is SBCS when the installation box, MIXED DATA on the DSNTIPF panel is NO. The default for CLOB datatypes is Mixed when the installation box, MIXED DATA on the DSNTIPF panel is YES.

For more information, see:

Completing the Add, Insert or Modify Column Dialog Box

Completing a Dialog Box

Add, Insert or Modify Column for Microsoft SQL Server

Microsoft SQL Server 7 introduced the concept of the computed expression column which lets you define a virtual column derived from an expression that computes a value based on other columns from the same table. For example, create a computed expression column that calculates the sales tax for an item based on the values stored in the price and tax rate columns of that table. Computed expression columns cannot be used as a key column.

Option for Microsoft SQL Server 7 or later	Description
Column Name	Lets you type the target column name.
Datatype	Lets you select the target datatype, width and scale. **NOTE:** Because the smalldatetime datatype stores dates and time with less precision than the datetime datatype, before outputting you use the CAST or CONVERT functions to convert any boxes with the smalldatetime datatype to either VARCHAR or datetime datatypes. For more information, see SQL Server Books Online, Transact-SQL Reference. Allow Nulls - Lets you allow columns with no text. Collation - Lets you specify a collation sequence for the column. A column's collation sequence is used in any operation that compares values of the column to each other or to constant values. Click button to open the Collation Properties when datatype char, varchar, text, nchar, nvarchar or ntext is selected. Computed Expression
Row Binding	Lets you bind a row to the column. Default Value - Lets you select a default value or type a value in the box. Fill Rows with Default Value - Select to fill rows with the value above. Default BInding - Lets you bind a default to the column, instead of declaring it. Rule Binding - Lets you bind a rule to the column.
Identity Column	Lets you set an identity column and set the identity seed and identity increment values. Not for Replication - Lets you indicate if the columns are not for replication.

For more information, see:

Completing the Add, Insert or Modify Column Dialog Box

Completing a Dialog Box

Collation Properties

The table below describes the options and functionality on the Collation Properties dialog box:

Option	Description
SQL Collation	SQL collations are a compatibility option to match the attributes of common combinations of code page number and sort orders that have been specified in earlier versions of SQL Server. Select to choose among the collation sequences defined by SQL Server. Then select a collation sequence from the list.

Option	Description
Windows Collation	Windows collations are collations defined for SQL Server to support Microsoft Windows® locales. By specifying a Windows collation for SQL Server, the instance of SQL Server uses the same code pages and sorting and comparison rules as an application running on a computer for which you have specified the associated Windows locale. For example, the French Windows collation for SQL Server matches the collation attributes of the French locale for Windows. Select to choose among the collation sequences defined by Windows. Then select a collation sequence from the list.
Binary Sort	Sorts and compares data in tables based on the bit patterns defined for each character. Binary sort order is case-sensitive, that is lowercase precedes uppercase, and accent-sensitive. This is the fastest sorting order. If this option is not selected, SQL Server follows sorting and comparison rules as defined in dictionaries for the associated language or alphabet. **NOTE:** Available only if you select Windows collation.
Dictionary Sort	Available only if you select Windows collation. Select this if you want comparison operations to use certain alphabetic comparison options. The alphabetic comparisons options are: Case Sensitive - Distinguishes between uppercase and lowercase letters. If not selected, SQL Server considers the uppercase and lowercase versions of letters to be equal. SQL Server does not define whether lowercase letters sort lower or higher in relation to uppercase letters when Case-sensitive is not selected. Accent Sensitive - Distinguishes between accented and unaccented characters. For example, 'a' is not equal to ''. If not selected, SQL Server considers the accented and unaccented versions of letters to be equal. Kana Sensitive -Distinguishes between the two types of Japanese kana characters: Hiragana and Katakana. If not selected, SQL Server considers Hiragana and Katakana characters to be equal. Width Sensitive - Distinguishes between a single-byte character (half-width) and the same character when represented as a double-byte character (full-width). If not selected, SQL Server considers the single-byte and double-byte representation of the same character to be equal.
Reset Defaults	Applies to the column the default collation sequence for the database.

Add, Insert or Modify Column for Oracle

The table below describes the options and functionality on the Add, Insert or Modify Column dialog box for Oracle.

Option	Description
Column Name	Lets you type the column name.

Option	Description
Datatype	Lets you select the datatype for the table. **NOTE:** For Oracle 9i, Rapid SQL supports the XMLType datatype. If you select CHAR, RAW or VARCHAR2, in the Width box, type the width value. If you select NUMBER, in the Width box, type the width value and in the Scale box, type the scale value.
Allow Nulls?	Lets you allow columns with no text.
Default Value	Lets you select or type a default on the column.
Comment	**OPTIONAL:** Lets you type a comment. A column comment can be up to 2000 characters long.
Add Button	Click to add the column.
Close Button	Click to return to Panel 2.

For more information, see:

Completing the Add, Insert or Modify Column Dialog Box

Completing a Dialog Box

Add, Insert or Modify Column for Sybase ASE

The table below describes the options and functionality on the Add, Insert or Modify Column dialog box for Sybase ASE.

Option	Description
Column Name	Lets you type the column name.
Datatype	Lets you select the target datatype. If the Datatype requires width and/or scale, type the values in the corresponding boxes. **NOTE:** Because the smalldatetime datatype stores dates and time with less precision than the datetime datatype, before outputting you use the CAST or CONVERT functions to convert any boxes with the smalldatetime datatype to either VARCHAR or datetime datatypes.
Allow Nulls?	Lets you allow columns with no text.
Default Value	**OPTIONAL:** Lets you select or type a value.
Identity Column	Lets you set the identity column. The identity column will start at the value specified in Min Value, and will continue to progress until the Max value is reached.
Default Binding	Lets you bind a default to the column (instead of declaring it).
Rule Binding	Lets you bind a rule to the column.

For more information, see:

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Completing the Add, Insert or Modify Column Dialog Box

Completing a Dialog Box

Add, Insert, or Modify Parameter

This functionality is available for all platforms.

The Add, Insert, or Modify Parameters dialog box lets you manage parameters. You can open the dialog box in the following wizards and editors:

- IBM DB2 LUW for Linux, Unix, and Windows Functions Editor - Parameters Tab
- IBM DB2 LUW for Linux, Unix, and Windows Procedures Editor - Parameters Tab
- IBM DB2 LUW for OS/390 and z/OS Functions Editor - Parameters Tab
- IBM DB2 LUW for OS/390 and z/OS Procedures Editor - Parameters Tab
- IBM DB2 LUW for Linux, Unix, and Windows Function Wizard - Panel 2
- IBM DB2 LUW for Linux, Unix, and Windows Function Wizard - Panel 3
- IBM DB2 LUW for Linux, Unix, and Windows Procedure Wizard - Panel 3
- IBM DB2 LUW for OS/390 and z/OS Function Wizard - Panel 3
- IBM DB2 LUW for OS/390 and z/OS Function Wizard - Panel 4
- IBM DB2 LUW for OS/390 and z/OS Procedure Wizard - Panel 3

Important Notes

None

The table below describes the options and functionality on the Add, Insert or Modify Parameter dialog box.

Option	Description
Parameter Name	Lets you enter the name of the parameter.
Datatype	Lets you select a datatype.
Width	Lets you set as appropriate to the datatype.
Scale	Lets you set as appropriate to the datatype.
Parameter Mode	Lets you select the parameter mode.
Add Button	Click to add the parameter.
Close Button	Click when you finish adding parameters.

For more information, see Completing a Dialog Box.

Add, Insert, or Modify Partition

This functionality is available for Oracle.

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You can open the dialog box in the following wizards:

- Oracle Index Wizard - Panel 10
- Oracle Materialized View Wizard - Panel 10 (Composite Partitioning)
- Oracle Materialized View Wizard - Panel 9 (Range Partitioning)
- Oracle Table Wizard - Composite Partitioning
- Oracle Table Wizard - Range Partitioning

The table below describes the options and functionality on the Add, Insert or Modify Partition dialog box.

NOTE: Options differ by platform and wizard.

Option	Description
Name	Lets you type the name of the new partition. Do not use single quotation marks (‘) in the name.
# of Partitions	Lets you specify the number of partitions.
Set Upper Bound Button	Lets you set the non-inclusive upper bound for the partitioning columns. Not available for the local index. Opens the Partition Upper Bound dialog box.The partitioning columns you chose in Step 1 appear in the column grid, with a default upper bound of MAXVALUE.
Tablespace	Lets you select the tablespace on which the partition should be placed.
No Logging	Select to make the partition log.
Physical	Lets you set the percent free, initial transactions and maximum transactions.
Space Attributes	Click View to view space attributes.
Storage	Lets you set any storage parameters by clicking the corresponding lists or typing the values in the corresponding boxes.
Subpartition definition	None - Oracle creates one subpartition. Subpartition by name - Click Add, Insert, or Edit to open the Subpartition dialog box. Click Drop or to delete the subpartition. Use the tablespace(s) specified at the partition level - Select to use the tablespace(s) specified at the partition level. Create a list of two subpartitions - Displays a list of two subpartitions. Add - Click to open the Subpartition dialog box. Remove - Click to remove a selected subpartition.

For more information, see:

Completing the Add, Insert or Modify Partition Dialog Box

Completing a Dialog Box

Completing the Add, Insert or Modify Partition Dialog Box

To complete this dialog box, do the following:

1 In the **Partition Definition** box, type the name of the new partition.

NOTE: Do not use single quotation marks (‘) in the name.

- If you do not want to set the non-inclusive upper bound for the partitioning columns, proceed to step 13.
- To set the non-inclusive upper bound for the partitioning columns, proceed to step 8.

2 Click the column in the grid and then click the **Set Upper Bound** button.

Rapid SQL opens the Partition Upper Bound dialog box.

NOTE: The partitioning columns you chose in Step 1 appear in the column grid, with a default upper bound of MAXVALUE.

The following table describes when you should enable editing of the upper bound:

Partition Type	Index	Table	Notes
Hash	N/A	N/A	Does not have upper bound.
Range Local	Disable	Enable	
Range Global	Enable all but the last partition	Enable	The upper bound button will be disabled if there is only one partition.
Composite Global	Enable all but the last partition	Enable	The upper bound button will be disabled if there is only one partition.

3 Click the **Partitioning Column** list and then click the partitioning column.

4 In the **Upper Bound** list, click the default or type the value of the upper bound. All rows in the partition will have partitioning keys that compare to less than the partition bound and greater than or equal to the partition bound for the preceding partition.

5 Click **Set.**

Rapid SQL establishes the upper bound.

6 Click **OK.**

Rapid SQL closes the Rapid SQL message.

7 When you finish setting the upper bound for the partitioning columns, click **Close.**

Rapid SQL returns to the Add Partition dialog box.

8 In the **Segment** box, click the **Tablespace** list and then click the tablespace on which the partition should be placed.

9 To make the partition log, click the **No Logging** check box to clear this option.

10 In the **Physical** box, set the percent free, initial transactions and maximum transactions by clicking the corresponding lists or typing the values in the corresponding boxes.

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11 In the **Storage Parameters** box, set any storage parameters by clicking the corresponding lists or typing the values in the corresponding boxes.

12 Click **Add.**

Rapid SQL adds the partition.

13 When you finish adding partitions, click the **Close** button.

- To insert another partition into the list, click the **Insert** button, and then click **Insert** to insert the column.
- To edit a partition, select the partition in the grid and then click the **Edit** button, and then click **Modify** to modify the column.
- To drop a partition, click the **Drop** button and then click **Yes.**

Rapid SQL confirms the drop, closes the Rapid SQL message, and omits the partition from the list.

14 When you finish specifying the partitioning attributes, click **Finish.**

For more information, see:

Add, Insert or Modify Partition

Completing a Dialog Box

Add or Modify Cluster Column

The Add or Modify Cluster Column dialog box lets you manage cluster columns. You can open the dialog box in the Oracle Cluster Wizard - Panel 2.

Important Notes

None

The table below describes the options and functionality on the Add or Modify Cluster Column dialog box:

Option	Description
Column Name	Lets you type the column name.
Datatype	Lets you select the datatype for the cluster. If you select CHAR, RAW or VARCHAR2, in the Width box, type the width value. If you select NUMBER, in the Width box, type the width value and in the Scale box, type the scale value.

For more information, see:

Completing the Add or Modify Cluster Column Dialog Box

Completing a Dialog Box

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Completing the Add or Modify Cluster Column Dialog Box

To complete this dialog box, do the following:

1. In the **Add Cluster Column** dialog box, in the **Column Name** box, type the column name.
2. Click the **Datatype** list, click the datatype for the cluster.
   - If you clicked **CHAR**, **RAW** or **VARCHAR2**, in the **Width** box, type the width value.
   - If you clicked **NUMBER**, in the **Width** box, type the width value and in the **Scale** box, type the scale value.
3. Click the **Add** button.
4. To continue adding columns to the cluster, repeat steps 1-3.
5. When you finish adding columns, click **Close**.

   Rapid SQL closes the Add Cluster Column dialog box.

For more information, see:

Add or Modify Cluster Column

Completing a Dialog Box

Add or Modify Datafile

This functionality is available for all platforms.

The Add/Modify Datafile dialog box lets you add a datafile to a tablespace, or edit an existing one. You can open the dialog box in the Oracle Tablespace Wizard.

Important Notes

None

The table below describes the options and functionality on the Add/Modify Datafile dialog box:

Option	Description
Datafile Name	Type the name of the datafile in the box.
Datafile Size	Type the datafile size and then click the list to indicate MB or KB.
Resuse Existing File?	Lets you indicate whether you want to reuse and existing file or not. The default is No. To reuse the existing file, click the Yes option button.
Autoextend	Select this check box if you want to autoextend the datafile when more extents are required. This enables the options below.
Disk Space to Allocate to the Datafile When More Extents are Required	Type the disk space to allocate to the datafile when more extents are required by typing it and then click the list to indicate MB or KB.
Maximum Disk Space Allowed for Allocation to the Datafile	Specify the maximum disk space allowed for allocation to the datafile. Select Unlimited or Other. In the Other box, type the amount and then click the list to indicate MB or KB.

For more information, see:

Completing the Add/Modify Datafile Dialog Box

Completing a Dialog Box

Completing the Add/Modify Datafile Dialog Box

To complete this dialog box, do the following:

1 In the **Datafile Name** box, type the datafile name.

2 In the **Datafile Size** box, type the datafile size and then click the list to indicate **MB** or **KB**.

3 **Reuse Existing File?**

- To reuse the existing file, click the **Yes** option button.
- If you do not want to reuse the existing file, click the **No** option button.

4 Select the **Autoextend** check box.

Rapid SQL auto extends the datafile.

- In the **Disk Space to Allocate to the Datafile When More Extents are Required** box, type the disk space to allocate to the datafile when more extents are required by typing it and then click the list to indicate **MB** or **KB**.
- Specify the maximum disk space allowed for allocation to the datafile by clicking the **Unlimited** option button or the **Other** option button.

NOTE: If you click Other, in the **Other** box, type the amount and then click the list to indicate **MB** or **KB**.

5 Click **OK**.

Rapid SQL adds the datafile to the tablespace definition.

6 Click **Close**.

Rapid SQL closes the Add Datafile dialog box.

For more information, see:

Add or Modify Datafile

Completing a Dialog Box

Allocate Extent

This functionality is available for Oracle only.

The Allocate Extent dialog box lets you explicitly allocate extents for clusters, tables, and indexes in Oracle. Though Oracle dynamically allocates extents when additional space is required, explicit allocation of additional extents can be useful if you know that an object grows.

Explicit allocation of additional extents can be particularly helpful when using Oracle Parallel Server. When using Oracle Parallel Server and allocating additional extents, you can allocate an extent explicitly to a specific instance in order to minimize contention for free space among multiple instances.

Important Notes

For composite-partitioned tables, you can allocate extents to subpartitions as well as partitions.

The table below describes the options and functionality on the Allocate Extent dialog box.

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Option	Describe
Extent Size	Refers to a datafile in the tablespace of the table, index, or cluster. You can choose a specific datafile from which to take space for the added extent. If you choose (Default), Oracle takes the space from any accessible datafile in the tablespace containing the table, index, or cluster.
Datafile	Lets you select the new datafile.
Instance	Lets you specify a freelist from which to draw the extent. If you are using Oracle Parallel Server, you can assign the new extent to a free list group associated with a specific instance. The number you enter in the Instance text box should be the number of the freelist group that you wish to use, rather than the number of the specific instance. If you are using Oracle Parallel Server and you omit this parameter, Oracle allocates the extent, but the extent is drawn from the master freelist by default. Only use this parameter for Oracle Parallel Server. **NOTE:** The number you enter in the Instance field should be the number of the free list group that you wish to use, rather than the number of the specific instance.

For more information, see:

Completing the Allocate Extent Dialog Box

Completing a Dialog Box

Completing the Allocate Extent Dialog Box

To complete this dialog box, do the following:

1 On the **Database Explorer**, select the target object node.

Rapid SQL displays the target objects in the Database Explorer.

2 On the **Database Explorer**, right-click the target object, and then select **Allocate Extent**.

Rapid SQL opens the Allocate Extent dialog box.

3 In the **Extent Size** box, type the new value of the extent, click the list to indicate the extent size: **MB** or **KB.**

4 Click the **Datafile** list, click the new datafile.

5 In the **Instance** box, specify the instance for Oracle to use when allocating the extent; this option only applies for Oracle with the Parallel Server in parallel query mode.

6 Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.

Button	Description
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.
Analysis	Opens the Impact Analysis dialog box. This option is not available for every dialog box.

For more information, see:

Allocate Extent

Completing a Dialog Box

Analyze

The Analyze dialog box lets you analyze the selected partitions. Analyzing a partition is helpful when you are trying to gather statistics about that partition, or if you are trying to validate the structure of that partition. If you are using cost-based optimization techniques, you can use the statistics to determine the most efficient use of SQL statements when accessing the partitions. In the case of hardware or system failure, analyze your partitions to make sure that their structure is not corrupt. Gathering information on chained rows lets you see if you have enough room for updates to rows in the partition.

Important Notes

For composite-partitioned tables, you can analyze subpartitions as well as partitions.

The table below describes the options and functionality on the Analyze dialog box:

Option	Description
Partition Box	Lists all the partitions available for analysis. Click the target partition. To select all the partitions, use the Select All button.
Analysis Option	Lets you select the type of analysis. The table below describes the analysis types and any additional information that you need to supply for each type.
Tables Only: Histogram Option	Performs the core calculations for a width-balanced histogram. For each row, Oracle returns the number of the histogram bucket appropriate for the data. Click to open the Histogram Statistics dialog box.

Partition Analysis Type table

Analysis Option	Description	Additional Information
Compute Statistics	Scans the partition in its entirety to gather the information and computes exact statistics. An analysis that computes statistics takes longer than an estimation of statistics.	None

Analysis Option	Description	Additional Information
Delete Statistics	Deletes statistics for a partition from the data dictionary. Deletes statistics not used when cost-based optimization is used for SQL statements accessing the partition.	None
For Indexes: Estimate Statistics	Scans the partition and gathers representative information from portions of the partition. Estimating statistics is not as accurate as computing statistics but the analysis is less time consuming.	If you choose Estimate Statistics, you must also type in a percentage or a row count in **Sample**. Use the drop-down menu to choose Percent or Row Count. The higher the percentage or the row count, the better the estimation.
For Tables: Estimate Statistics	Scans the partition and gathers representative information from portions of the partition. Estimating statistics is not as accurate as computing statistics but the analysis is less time consuming.	If you choose Estimate Statistics, you must also type in a percentage or a row count in **Sample**. Use the drop-down menu to choose Percent or Row Count. The higher the percentage or the row count, the better the estimation. If you choose Estimate Statistics, you can also choose to generate a histogram in **Histogram Option**. If you choose to create a histogram for Selected Columns, you must also choose the columns in **Selected Histogram Columns**. If there are no available columns, click the Add button.
For Indexes: Validate Structure	Verifies the integrity of the partition. If the partition is corrupt, Oracle returns an error message. If the partition is valid, no error is returned.	None
For Tables: Validate Structure	Verifies the integrity of the partition. If the partition is corrupt, Oracle returns an error message. If the partition is valid, no error is returned. Oracle also verifies that the rows belongs to the correct partition. If rows do not collate correctly, they are considered invalid and Oracle lists them in a table.	You must specify a table in which to put any invalid rows. If you do not have a table prepared to accept the invalid rows, you can check the **Create Target Table if it does not exist** box to have Rapid SQL create a table for you. Clicking **Cascade** validates the structure of associated objects such as indexes.
For Tables: List Chained Rows	Lists the chained rows of the partition. The results are stored in the named table.	You must specify a table in which to list the chained rows. If you do not have a table prepared to accept the results of the List Chained Rows command, you can check the **Create Target Table if it does not exist** box to have Rapid SQL create a table for you.

For more information, see:

Completing the Analyze Dialog Box

Completing a Dialog Box

Completing the Analyze Dialog Box

To complete this dialog box, do the following:

1 On the **Database Explorer**, select the target object node.

Rapid SQL displays the target objects in the Database Explorer.

2 On the **Database Explorer**, right-click the target object, and then select **Analyze**.

Rapid SQL opens the Analyze dialog box.

3 Select the target partition(s).

TIP: To select all partitions in the index, click **Select All**.

4 In **Analysis Option,** select the type of analysis. The table below describes the analysis types and any additional information that you need to supply for each type.

Analysis Option	Description	Additional Information
Compute Statistics	Scans the partition in its entirety to gather the information and computes exact statistics. An analysis that computes statistics takes longer than an estimation of statistics.	None
Delete Statistics	Deletes statistics for a partition from the data dictionary. Deletes statistics not used when cost-based optimization is used for SQL statements accessing the partition.	None
Estimate Statistics	Scans the partition and gathers representative information from portions of the partition. Estimating statistics is not as accurate as computing statistics but the analysis is less time consuming.	If you choose Estimate Statistics, you must also type in a percentage or a row count in **Sample**. Use the drop-down menu to choose Percent or Row Count. The higher the percentage or the row count, the better the estimation.
Validate Structure	Verifies the integrity of the partition. If the partition is corrupt, Oracle returns an error message. If the partition is valid, no error is returned.	None

5 Do one of the following:

Button	Description
	Opens the Preview dialog box.

>

Button	Description
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.
Analysis	Opens the Impact Analysis dialog box. This option is not available for every dialog box.

For more information, see:

Analyze

Completing a Dialog Box

Histogram Statistics Dialog Box

The Histograms Statistics dialog box lets you specify options for histograms.

Important Notes

You can only generate a histogram for tables.

The table below describes the options and functionality on the Histogram Statistics dialog box.

Option	Description
Size	Number of bands, or sections, into which the column data is sorted. Each section refers to a range of values and Oracle fits each piece of data into one of those sections. For example, in the image above, the column data for the NUMBER_SEATS column is split into 10 sections.

For more information, see:

Completing the Histogram Statistics Dialog Box

Completing a Dialog Box

Completing the Histogram Statistics Dialog Box

To complete this dialog box, do the following:

1. Click the option button that corresponds to the level at which you want to capture histogram statistics.
2. Type any appropriate values in the corresponding boxes.
3. If you click **Selected Columns**, click the columns you want and then click the **Select** or **Unselect** button.
4. Click **OK.**

For more information, see:

Histogram Statistics Dialog Box

Completing a Dialog Box

Bind Data Cache

This functionality is available for Sybase ASE only.

The data cache holds the data, index, and log pages currently in use and pages used recently by Sybase ASE. The Bind Data Cache dialog box lets you bind the following items to the data cache:

- Entire Database
- Index(es)
- Table(s)
- Text and Image Columns from Tables

Important Notes

- The data cache must be active before you can bind an object to it. To activate a new data cache, Sybase ASE requires that you restart the server. The bindings take effect immediately after the server restart.
- You can bind the syslogs table to a logonly cache.

For more information, see Completing a Dialog Box.

Bind Package

This functionality is available for IBM DB2 LUW for OS/390 and z/OS only.

The Bind Package Wizard lets you set package parameters, add environments, and set package properties.

Important Notes

None

For more information, see Bind Package Wizard - Panel 1.

Bind Package Wizard - Panel 1

The table below describes the options and functionality on the first panel of the Bind Package wizard:

>

Option	Functionality
Location	Lets you select the name of the location to connect to.
Collection	Lets you select the location of the DBMS where the package binds and where the description of the package resides.
New package - PDS name	Lets you select a name.
Member	Lets you select what database request modules (DBRMs) to include in the package.
Copy from collection.	Lets you select a collection.
Package	Lets you select a package.
Version	Lets you select a version of the package.
Options	Lets you select an option.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

For more information, see Bind Package.

Bind Package Wizard - Panel 2

The table below describes the options and functionality on the second panel of the Bind Package wizard:

Option	Functionality
Owner	Lets you select a package owner.
Qualifier	Lets you select a qualifier, the package creator.
Action	Lets you select an action.
Version	Lets you select a version of the package.

For more information, see Bind Package.

Bind Package Wizard - Panel 3

The table below describes the options and functionality on the third panel of the Bind Package wizard:

Option	Functionality
Isolation	Determines how far to isolate an application from the effects of other running applications.

Option	Functionality
Keep Dynamic	Specifies that DB2 keeps dynamic SQL statements after commit points. The application does not need to prepare an SQL statement after every commit point. DB2 keeps the dynamic SQL statement until the application process ends, a rollback operation occurs or the application executes an explicit PREPARE statement with the same statement identifier. If the prepared statement cache is active, DB2 keeps a copy of the prepared statement in the cache. If the prepared statement cache is not active, DB2 keeps only the SQL statement string past a commit point. DB2 then implicitly prepares the SQL statement if the application executes an OPEN, EXECUTE, or DESCRIBE operation for that statement.
Current Data	Determines whether to require data currency for read-only and ambiguous cursors when the isolation level of cursor stability is in effect. It also determines whether block fetching can be used for distributed, ambiguous cursors.
Degree	Determines whether to attempt to run a query using parallel processing to maximize performance. Lets you select an option.
DB Protocol	Specifies which protocol to use when connecting to a remote site that is identified by a three-part name statement.
Dynamic Rules	Determines what values apply at run time for the following dynamic SQL attributes: The authorization ID that is used to check authorization The qualifier that is used for unqualified objects The source for application programming options that DB2 uses to parse and semantically verify dynamic SQL statements Whether dynamic SQL statements can include GRANT, REVOKE, ALTER, CREATE, DROP, and RENAME statements
Release	Determines when to release resources that a program uses, either at each commit point or when the program terminates. Commit - Releases resources at each commit point. Deallocate - Releases resources only when the program terminates.
Validate	Determines whether to recheck, at run time, errors found during bind. The option has no effect if all objects and needed privileges exist. Bind - If not all objects or needed privileges exist at bind time, the wizard displays an error messages, and does not bind the package. Run - If not all objects or privileges exist at bind time, the process issues warning messages, but the bind succeeds. DB2 checks existence and authorization again at run time for SQL statements that failed those checks during bind. The checks use the authorization ID of the package owner.

For more information, see Bind Package.

Bind Package Wizard - Panel 4

The table below describes the options and functionality on the fourth panel of the Bind Package wizard:

>

Option	Functionality
Explain	Obtains information about how SQL statements in the package are to execute, and then inserts that information into the table owner.PLAN_TABLE, where owner is the authorization ID of the owner of the plan or package. This option does not obtain information for statements that access remote objects.
Reopt(VARS)	Re-determines the access path at run time.
Prepare	Prepares dynamic SQL statements that refer to remote objects.
ImmedWrite	Immediate writes will be done for updates made to group buffer pool dependent pagesets or partitions.
Opthint	Query optimization hints are used for static SQL.
Encoding	Lets you select type of language for the package.
Path	Lets you select a path that DB2 uses to resolve unqualified user-defined distinct types, functions, and stored procedure names (in CALL statements).
Flag	Lets you select a flags, messages to display: - All informational, warning, error, and completion messages - Only warning, error, and completion messages - Only error and completion messages - Only completion messages.

For more information, see Bind Package.

Bind Package Wizard - Panel 5

The table below describes the options and functionality on the fifth panel of the Bind Package wizard:

Option	Functionality
Enable or Disable	Lets you select system connection types that can use the package.
System	Lets you select a system.
Cname	Lets you select an option.

For more information, see Bind Package.

Bind Plan

This functionality is available for IBM DB2 LUW for OS/390 and z/OS only.

The Bind Plan Wizard lets you set plan parameters, add packages, and set bind properties.

Important Notes

None

>

For more information, see Bind Plan Wizard - Panel 1.

Bind Plan Wizard - Panel 1

The table below describes the options and functionality on the first panel of the Bind Plan wizard:

Option	Functionality
Plan Name	Lets you select the plan name.
Qualifier	**OPTIONAL:** Lets you select a qualifier, the plan creator.
Action	**OPTIONAL:** Lets you select an action.
Sql Rules	**OPTIONAL:** Determines whether you can execute a type 2 CONNECT statement to an existing SQL connection, according to DB2 rules. Lets you select DB2 or STD.
Cache Size	**OPTIONAL:** Lets you select or type the cachesize in bytes, the authorization cache acquired in the EDM pool for the plan. At run time, the authorization cache stores user IDs authorized to run. Consulting the cache can avoid a catalog lookup for checking authorization to run the plan.
Plan Owner	**OPTIONAL:** Determines the authorization ID of the owner of the plan.
Current Server	**OPTIONAL:** Determines the location to connect to before running the plan.
Resource Acquire	**OPTIONAL:** Determines whether to acquire resources for DBRMs specified in the MEMBER list when the application first accesses them or when the plan is allocated. Local or remote packages associated with the plan acquire their resources when the application first accesses them. Use - Acquires table space locks only when the application program bound to the plan first uses them. Allocate - Acquires all table space locks when the plan is allocated. The value has no effect on dynamic SQL statements, which always use ACQUIRE(USE).
Disconnect	**OPTIONAL:** Determines which remote connections to destroy during commit operations. The option applies to any application process that uses the plan and has remote connections of any type. Regardless of the value of this option, a commit operation destroys all connections in the release pending state. Explicit - Destroy only connections in the release pending state. This value allows you maximum flexibility for controlling remote connections. Automatic - Destroy all remote connections. Conditional - Destroy all remote connections unless an open cursor defined as WITH HOLD is associated with the connection.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

For more information, see Bind Plan.

>

Bind Plan Wizard - Panel 2

The table below describes the options and functionality on the second panel of the Bind Plan wizard:

Option	Functionality
Member Name	Lets you select the member name.
PDS Name	Lets you select the partitioned data set.
Add	Click to enter each member and PDS name.

For more information, see Bind Plan.

Bind Plan Wizard - Panel 3

The table below describes the options and functionality on the third panel of the Bind Plan wizard:

Option	Functionality
Location	Lets you select the name of the location to connect to.
Collection	Lets you select the location of the DBMS where the plan binds and where the description of the plan resides.
Package	Lets you select a package.

For more information, see Bind Plan.

Bind Plan Wizard - Panel 4

The table below describes the options and functionality on the fourth panel of the Bind Plan wizard:

Option	Functionality
Isolation	Determines how far to isolate an application from the effects of other running applications.
Keep Dynamic	Specifies that DB2 keeps dynamic SQL statements after commit points. The application does not need to prepare an SQL statement after every commit point. DB2 keeps the dynamic SQL statement until the application process ends, a rollback operation occurs or the application executes an explicit PREPARE statement with the same statement identifier. If the prepared statement cache is active, DB2 keeps a copy of the prepared statement in the cache. If the prepared statement cache is not active, DB2 keeps only the SQL statement string past a commit point. DB2 then implicitly prepares the SQL statement if the application executes an OPEN, EXECUTE, or DESCRIBE operation for that statement.

Option	Functionality
Current Data	Determines whether to require data currency for read-only and ambiguous cursors when the isolation level of cursor stability is in effect. It also determines whether block fetching can be used for distributed, ambiguous cursors.
Degree	Determines whether to attempt to run a query using parallel processing to maximize performance. Lets you select an option.
Dynamic Rules	Determines what values apply at run time for the following dynamic SQL attributes: The authorization ID that is used to check authorization The qualifier that is used for unqualified objects The source for application programming options that DB2 uses to parse and semantically verify dynamic SQL statements Whether dynamic SQL statements can include GRANT, REVOKE, ALTER, CREATE, DROP, and RENAME statements
Release	Determines when to release resources that a program uses, either at each commit point or when the program terminates. Commit - Releases resources at each commit point. Deallocate - Releases resources only when the program terminates.
Validate	Determines whether to recheck, at run time, errors found during bind. The option has no effect if all objects and needed privileges exist. Bind - If not all objects or needed privileges exist at bind time, the wizard displays an error messages, and does not bind the package. Run - If not all objects or privileges exist at bind time, the process issues warning messages, but the bind succeeds. DB2 checks existence and authorization again at run time for SQL statements that failed those checks during bind. The checks use the authorization ID of the plan owner.

For more information, see Bind Plan.

Bind Plan Wizard - Panel 5

The table below describes the options and functionality on the fifth panel of the Bind Plan wizard:

Option	Functionality
Explain	Obtains information about how SQL statements in the member list of the plan, are to execute, and then inserts that information into the table owner.PLAN_TABLE, where owner is the authorization ID of the owner of the plan or package. This option does not obtain information for statements that access remote objects.
Reopt(VARS)	Re-determines the access path at run time.
Prepare	Prepares dynamic SQL statements that refer to remote objects.
ImmedWrite	Immediate writes will be done for updates made to group buffer pool dependent pagesets or partitions.

>

Option	Functionality
Opthint	Query optimization hints are used for static SQL.
Encoding	Lets you select type of language for the package.
Path	Lets you select a path that DB2 uses to resolve unqualified user-defined distinct types, functions, and stored procedure names (in CALL statements).
Flag	Lets you select a flags, messages to display: - All informational, warning, error, and completion messages - Only warning, error, and completion messages - Only error and completion messages - Only completion messages.

For more information, see Bind Plan.

Bind Plan Wizard - Panel 6

The table below describes the options and functionality on the sixth panel of the Bind Plan wizard:

Option	Functionality
Enable or Disable	Lets you select system connection types that can use the plan or package.
System	Lets you select a system.
Cname	Lets you select an option.

For more information, see Bind Plan.

Build Query

This functionality is available for all platforms.

Query Builder is a database productivity tool that lets you construct, structure, and manipulate up to five different types of queries simultaneously. It includes a separate graphical interface that opens within your current workspace. You can run Query Builder against all Embarcadero Technologies supported database platforms.

Change Category

This functionality is available for Oracle only.

The Change Category dialog box lets you change the category of a target Stored Outline and specify a new outline category to move the outline.

Important Notes

None

>

The table below describes the options and functionality on the Change Category dialog box:

Option	Description
Owner	Displays the outline owner.
Outline Name	Display the outline name.
Current Category	Displays the current category of the outline.
New Category	Lets you select a new outline category to move the outline.

For more information, see Completing the Change Category Dialog Box.

Completing the Change Category Dialog Box

To complete this dialog box, do the following:

1. On the **Database Explorer**, select the **Outlines** node.

   Rapid SQL displays the Outlines in the Database Explorer.

2. On the **Database Explorer**, right-click the Outline, and then select **Change Category**.

   Rapid SQL opens the Change Category dialog box.

3. In the **New Category** box, enter the target category.

4. Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.
Analysis	Opens the Impact Analysis dialog box. This option is not available for every dialog box.

For more information, see:

Change Category

Completing a Dialog Box

Change Container Size

This functionality is available for all platforms.

The Change Container Size lets you increase and resize a container, the allocation of space to a tablespace. Depending on the tablespace type, the container can be a directory, device, or file.

Important Notes

None

>

The table below describes the options and functionality on the Change Container Size dialog box:

Option	Description
Increase Container Size by (Extent)	Select to increase the container size.
Change Container Size to (Resize)	Select to resize the container.
Size	Lets you select a container size.

For more information, see Completing a Dialog Box.

Change Database Comment

This functionality is available for IBM DB2 LUW for Linux, Unix, and Windows.

The Change Database Comment dialog box lets you change the comment for a database.

Important Notes

None

The table below describes the options and functionality on the Change Database Comment dialog box:

Option	Description
Current Comment	Displays the current comment.
New Comment	Lets you type a new comment.

For more information, see Completing a Dialog Box.

Change Password

This functionality is available for Microsoft SQL Server, Oracle, and Sybase ASE only.

The Change Password dialog box lets you change user passwords, which you should do on a regular basis to guard against security leaks.

Important Notes

None

The table below describes the options and functionality on the Change Password dialog box.

Option	Description
New Password	Lets you type the new password.
Confirm Password	Lets you retype the new password.

>

For more information, see Completing the Change Password Dialog Box.

Completing the Change Password Dialog Box

1 On the **Database Explorer**, select the **Users** node.

Rapid SQL displays the Users in the Database Explorer.

2 On the **Database Explorer**, right-click the User, and then select **Change Password**.

Rapid SQL opens the Change Password dialog box.

3 **OPTIONAL:** In the **Old Password** box, type the old password.

4 In the **New Password** box, type the new password.

5 In the **Confirm Password** box, type the new password.

6 Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.
Analysis	Opens the Impact Analysis dialog box. This option is not available for every dialog box.

For more information, see:

Change Password

Completing a Dialog Box

Change Status

You can change the online, offline, or read only status of a tablespace to control access to its segments. In addition, when setting a tablespace offline, you can choose between NORMAL, TEMPORARY, or IMMEDIATE modes of taking the tablespace offline.

NOTE: This functionality is available for Oracle only.

To change the status of a tablespace:

1 On the **Datasource Explorer**, expand the**Tablespaces** node.

Rapid SQL displays the Tablespaces in the right pane of the Explorer window.

2 Select one or more tablespaces, on the **Datasource Explorer** tool bar click **Command**, and then select **Change Status**.

Rapid SQL opens the Change Status wizard.

3 Use the following table as a guide to understanding and modifying settings in the wizard:

Step	Settings and tasks
Action options	From the Change Status dropdown, select ONLINE, OFFLINE, or READ ONLY. If you select OFFLINE, from the OfflineMode dropdown, select NORMAL, TEMPORARY, or IMMEDIATE.
Dependencies	Review the referring and referred objects that will be automatically resolved when you execute this operation.
Preview	Preview the DDL generated for the operation and when ready, click **Execute**.

Checkpoint

This functionality is available for Microsoft SQL Server, and Sybase ASE only.

The Checkpoint Database(s) dialog box lets you force all dirty pages for the current database to be written to disk. A dirty page is any data or log page which, after being read into the buffer cache, is modified but not yet written to disk. The Checkpoint statement saves time in a subsequent recovery by creating a point at which all modifications to data and log pages are guaranteed to have been written to disk. If the current database is in log-truncate mode, CHECKPOINT also truncates the inactive portion of the log.

Important Notes

The default permission for executing a checkpoint is the db_owner fixed database role.

For more information, see Completing the Checkpoint Database(s) Dialog Box.

Completing the Checkpoint Database(s) Dialog Box

To complete this dialog box, do the following:

1 On the **Database Explorer**, select the **Databases** node.

Rapid SQL displays the Databases in the Database Explorer.

2 On the **Database Explorer**, right-click the database, and then select **Checkpoint**.

Rapid SQL opens the Checkpoint Database(s) dialog box.

3 Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.
Analysis	Opens the Impact Analysis dialog box. This option is not available for every dialog box.

For more information, see Completing a Dialog Box.

Clone Partition

This functionality is available for IBM DB2 LUW for OS/390 and z/OS only.

The Clone Partition dialog box lets you clone a definition of a partition.

Important Notes

None

The table below describes the options and functionality on the dialog box:

Option	Description
Select 1 or More Partitions	Lets you select partitions to clone.
Select All	Click select all partitions to clone.
Unselect All	Click to unselect all partitions to clone.

For more information, see Completing a Dialog Box.

Clone Table

NOTE: This functionality is available for Oracle.

The Clone Table dialog box lets you clone a definition of a table.

Important Notes

None

The table below describes the options and functionality on the dialog box:

Option	Description
Select 1 or More Tables	Lets you select tables to clone.
Select All	Click select all tables to clone.
Unselect All	Click to unselect all tables to clone.

For more information, see Completing a Dialog Box.

Coalesce

You can maximize the size of free space chunks in tablespaces to avoid the situation in which an object cannot acquire enough contiguous free space to accommodate its next extent size. Towards this goal, look for opportunities to coalesce adjacent blocks of free space into a single, larger block.

NOTE: The Coalesce dialog box is available for Oracle 7 or later.

Starting with Version 7, Oracle automatically coalesces adjacent free space chunks with a background process. However, it still supports the commands for coalescing free space manually. Depending on the size of the tablespace, coalescing its free space can take a long time. So determine when to perform this operation. It you coalesce immediately, Rapid SQL locks the tablespace.

Important Notes

- You cannot coalesce on an UNDO tablespace.

To coalesce a tablespace:

1 On the **Datasource Explorer**, expand the**Tablespaces** node.

Rapid SQL displays the Tablespaces in the right pane of the Explorer window.

2 Select one or more tablespaces, on the **Datasource Explorer** tool bar click **Command**, and then select **Coalesce**.

Rapid SQL opens the Coalesce wizard.

3 Use the following table as a guide to understanding and modifying settings in the wizard:

Step	Settings and tasks
Action options	Verify display of the tablespaces to be coalesced.
Dependencies	Review the referring and referred objects that will be automatically resolved when you execute this operation.
Preview	Preview the DDL generated for the operation and when ready, click **Execute**.

Compile

This functionality is available for IBM DB2 LUW for Linux, Unix, and Windows Oracle only.

The Compile dialog box lets you recompile specific objects by issuing the proper ALTER statement. The explicit recompilation of invalid objects eliminates the need for implicit run-time recompilation which, in turn, can cause run-time compilation errors and performance overhead. Recompile objects after you make changes to that object or dependent objects.

Important Notes

None

The table below describes the options and functionality on the Confirm Compile dialog box for Oracle java classes:

Option	Description
Java class(es) to be compiled	Displays the java classes.

The table below describes the options and functionality on the Confirm Compile dialog box for Oracle:

>

Option	Description
Do not compile dependent objects	Compiles only the current object and to ignore the object's dependencies. This is the default setting.
Compile dependent objects	Compiles statements for all objects referenced by the object being compiled. For example, if you compile a function that references a specific procedure and you select to compile the dependent objects, an ALTER COMPILE statement is created for that referenced procedure. Compile only invalid dependent objects - Creates ALTER COMPILE statements for only those objects that are currently invalid. Compile dependent system objects - Compiles all of the referenced objects with the debug option.
Compile with debug option	Selecting the Compile with debug option check box instructs the Oracle PL/SQL compiler to generate and store the code for use in debugging sessions.

The table below describes the options and functionality on the Confirm Compile dialog box for IBM DB2 LUW for Linux, Unix, and Windows:

Option	Description
Compare with release option	Compiles the stored procedure into a state that will run optimally in a production environment.
Compile with debug option	Compiles the stored procedure with the debugging information and symbols required to service step, pause, and breakpoint requests.
Keep current specific name	Notifies DB2 that the stored procedure will keep its current system assigned name. With this option, DB2 is not required to reset internal references to the target object.

To recompile an object it must belong to your schema or you need ALTER ANY privileges on that object. You must also have appropriate privileges for any associated objects.

- Functions
- Java Classes
- Java Sources
- Materialized Views
- Packages
- Package Bodies
- Procedures
- Type Bodies
- Types
- Users
- Views

Compiling Functions

Rapid SQL lets you recompile a function. Oracle first recompiles any invalid objects on which the function depends. In addition, it marks any objects that depend on the function as invalid.

To recompile a function that is part of a package, compile the package itself. Rapid SQL uses the ALTER FUNCTION statement to compile a stand-alone function. However, you should not use the ALTER FUNCTION statement to individually recompile a function that is part of a package.

Compiling Java Classes

Rapid SQL lets you compile a Java class. Oracle resolves references to other Java classes.

Compiling Java Sources

Oracle lets you compile a Java source. Oracle resolves references to other Java sources.

Compiling Materialized Views

Rapid SQL lets you compile materialized views. If a materialized view fails to revalidate after you recompile, that materialized view cannot be fast refreshed ON DEMAND or used for query rewrite.

For more information, see:

Compile

Completing a Dialog Box

Compiling Packages and Package Bodies

Rapid SQL lets you recompile a package, and recompiles all package objects together.

Recompiling a package in Rapid SQL compiles both the package specification and the package body by issuing two consecutive ALTER statements. However, Rapid SQL shows only the ALTER statement for the specification in the Preview: Confirm Compile dialog box. You can recompile only the package body by explicitly compiling the package body itself.

When recompiling the entire package, Oracle recompiles the package even if it is invalid. However, if there are compilation errors, the package remains invalid and Oracle invalidates all dependent objects.

Recompiling only a package body does not invalidate objects that depend upon the package specification regardless of whether or not the package body has compilation errors.

For more information, see:

Compile

Completing a Dialog Box

Compiling Procedures

Rapid SQL lets you compile a procedure that is part of a package, by compiling the package itself. Rapid SQL uses the ALTER PROCEDURE statement to compile a stand-alone procedure. However, you should not use the ALTER PROCEDURE statement to individually recompile a procedure that is part of a package.

>

The table below describes the options and functionality on the Confirm Compile dialog box for IBM DB2 LUW for Linux, Unix, and Windows:

Option	Description
Compare with release option	Compiles the stored procedure into a state that will run optimally in a production environment.
Compile with debug option	Compiles the stored procedure with the debugging information and symbols required to service step, pause, and breakpoint requests.
Keep current specific name	Notifies DB2 that the stored procedure will keep its current system assigned name. With this option, DB2 is not required to reset internal references to the target object.

The table below describes the options and functionality on the Confirm Compile dialog box for Oracle:

Option	Description
Do not compile dependent objects	Compiles only the current object and to ignore the object's dependencies. This is the default setting.
Compile dependent objects	Compiles statements for all objects referenced by the object being compiled. For example, if you compile a function that references a specific procedure and you select to compile the dependent objects, an ALTER COMPILE statement is created for that referenced procedure. Compile only invalid dependent objects - Creates ALTER COMPILE statements for only those objects that are currently invalid. Compile dependent system objects - Compiles all of the referenced objects with the debug option.
Compile with debug option	Selecting the Compile with debug option check box instructs the Oracle PL/SQL compiler to generate and store the code for use in debugging sessions.

For more information, see:

Compile

Compiling Types and Type Bodies

Rapid SQL lets you recompile a type. Rapid SQL recompiles both the type specification and the type body.

For more information, see:

Compile

Connection Editor

This functionality is available for all platforms.

The Connection Editor lets you modify plan and package connections.

The table below describes the options and functionality of the Connection Editor:

Option	Description
Connections	Displays the connections for the plan or package.
Add	Click to add the connection.

Convert to Partitioned

This functionality is available for Oracle only.

The Convert to Partitioned Wizard lets you select partitioning methods, columns, and add partitions. Index-organized tables take up less storage space and quickly access table rows. Index-organized tables stores rows in primary key order reducing the amount of storage space needed.

Important Notes

None

For more information, see Completing the Convert to Partitioned Wizard.

Completing the Convert to Partitioned Wizard

To complete this wizard, do the following:

1. On the **Database Explorer**, select the target object node.

   Rapid SQL displays the target objects in the Database Explorer.

2. On the **Database Explorer**, right-click the target object, and then select **Convert to Partitioned**.

   Rapid SQL opens the Convert to Partitioned wizard.

3. Complete the wizard panels and then click **Finish**.

   Rapid SQL opens the Preview:Create dialog box.

Convert to Partitioned Wizard - Panel 1

The table below describes the options and functionality on this panel of the Convert to Partitioned Wizard:

Option	Description
Owner	Displays the table owner.
Table	Displays the table name.
Tablespace	Lets you select the tablespace.
Partitioning Method	Lets you select a partitioning method.
Do you want to enable row movement?	Lets you enable row movement.

>

For more information, see Convert to Partitioned Wizard.

Convert to Partitioned Wizard - Panel 2

The table below describes the options and functionality on this panel of the Convert to Partitioned Wizard:

Option	Description
Select the partitioning columns	Available Columns - Lets you select at least one available column, and then click the right arrow to move the column to the Selected Columns.
Create a list of ordered partitions	Add - Opens the Add Partition dialog box. Insert - Opens the Insert Partition dialog box. Edit - Opens the Modify Partition dialog box. Drop - Lets you drop a partition.

For more information, see Convert to Partitioned Wizard.

Convert to Partitioned Wizard - Panel 3

The table below describes the options and functionality on this panel of the Convert to Partitioned Wizard:

Option	Description
Enter a table description	Lets you type an optional table description.

For more information, see Convert to Partitioned Wizard.

Copy Object Names

This functionality is available for Microsoft SQL Server and Oracle only.

The Copy Object Names functionality lets you copy and then paste object name(s) into other applications.

Important Notes

None

For more information, see Completing a Dialog Box.

Create Alias

This functionality is available for IBM DB2 LUW for Linux, Unix, and Windows, IBM DB2 LUW for OS/390 and z/OS, and Microsoft SQL Server only.

>

The Create Alias dialog box lets you create an alternate name for an object without requiring you to know any of the underlying SQL commands. The dialog box constructs the necessary CREATE ALIAS statement based on the information you supply.

> **TIP:** If an object name is lengthy, create an alias, and then use the alias during a query.

Important Notes

None

For more information, see:

Creating an Alias for One Object

Creating an Alias for Multiple Objects

Completing the Create Alias Dialog Box

Creating an Alias for One Object

The Create Alias dialog box lets you create an alternate name for an object without requiring you to know any of the underlying SQL commands. The dialog box constructs the necessary CREATE ALIAS statement based on the information you supply.

The table below describes the options and functionality on the Create Alias dialog box:

Option	Description
Alias	Lets you type the alias name.
Owner	Lets you select the target alias owner.

For more information, see:

Create Alias

Completing the Create Alias Dialog Box

Creating an Alias for Multiple Objects

The Create Aliases dialog box lets you assign an Alias Owner to multiple objects. The Create Alias dialog box lets you create an alternate name for an object without requiring you to know any of the underlying SQL commands. The dialog box constructs the necessary CREATE ALIAS statement based on the information you supply.

The table below describes the options and functionality on the Create Alias dialog box:

Option	Description
Alias Owner	Lets you select the target alias owner.

For more information, see:

Create Alias

Completing the Create Alias Dialog Box

Completing the Create Alias Dialog Box

To complete this dialog box, do the following:

1 On the **Database Explorer**, select the target object node.

Rapid SQL displays the target objects in the Database Explorer.

2 On the **Database Explorer**, right-click the target object, and then select **Create Alias**.

Rapid SQL opens the Create Alias dialog box.

3 In **Alias**, type the alias name.

4 For one object, in **Owner**, select the target alias owner.

5 Do one of the following:

Button	Description
	Opens the Preview dialog box.
	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
	Executes the task.
	Opens the Impact Analysis dialog box. This option is not available for every dialog box.

For more information, see Create Alias.

Create Insert Statements

This functionality is available for all platforms.

The Create Insert Statements dialog box lets you create Insert Statements for selected columns and data.

Important Notes

None

The table below describes the options and functionality on the Create Insert Statements dialog box:

Option	Description
Columns	Lets you select columns for a Select statement.
Where	**OPTIONAL:** Lets you enter a WHERE statement.
Include owner information in insert statements	Select to include the owner information.
Set row count	Lets you specify a row count, the number of rows in a table that were affected by the Insert statement executed against the table, or a view based on the table.

>

For more information, see:

Completing the Create Insert Statements Dialog Box

Completing the Create Insert Statements Dialog Box

To complete this dialog box, do the following:

1. On the **Database Explorer**, select the **Tables** node.

   Rapid SQL displays the tables in the Database Explorer.

2. On the **Database Explorer**, right-click the table, and then select **Create Insert Statements.**

   Rapid SQL opens the Create Insert Statements dialog box.

3. In **Columns**, select columns for a SELECT statement.
4. **OPTIONAL:** In **Where**, lets you enter a WHERE statement.
5. Click **OK**.

Create or Edit Java Source

NOTE: This functionality is available for Oracle only.

The Java Editor lets you enter Java code. The table below describes the Java Editor toolbar options:

Option	Description
Lock/Unlock Connection	Click to lock or unlock connection.
Create	Click to open the Create Options dialog box, which lets you select the options for creating the java source.
Errors	Click to split the workspace in half, displaying the error messages in the lower half of the workspace.

Important Notes

None

Create Like

This functionality is available for Oracle only.

The Create Like Editor lets you create a new object based on an existing object. The Create Like Editor is available for logins, tables, and users.

Important Notes

None

>

Create Like Editor for Logins

The Create Like Editor lets you create a new login based on an existing login.

The following tabs are available in the Create Like Editor for Logins:

- Definition
- Users
- Roles

Create Like Editor for Logins - Definition Tab

The table below describes the options and functionality of the Definition Tab:

Option	Description
New Login Name	Lets you type the new login name.
SQL Server Login	**OPTIONAL:** Lets you type the password.
NT User or Group	Lets you select the domain.
Default Database	Lets you select the default database.
Default Language	Lets you select the default language.

NOTE: Click **Create** to open the Preview:Create dialog box.

For more information, see Create Like Editor for Logins.

Create Like Editor for Logins - Users Tab

The table below describes the options and functionality of the Users Tab:

Option	Description
Databases where the login does NOT have a user account.	Lets you select the target database.
Databases where the login HAS a user account.	Lets you select the target database.
Add User	Click to open the Create User Account dialog box.
Drop User	Click to move the database to the Databases where the login does NOT have a user account window.
Edit User	Click to open the Edit User Accounts dialog box.

NOTE: Click **Create** to open the Preview:Create dialog box.

For more information, see Create Like Editor for Logins.

>

Create Like Editor for Logins - Roles Tab

The table below describes the options and functionality of the Roles Tab:

Option	Description
Grant	Click to open the Grant Role dialog box.
Revoke	Click to open the Revoke Roles dialog box.

NOTE: Click **Create** to open the Preview:Create dialog box.

For more information, see Create Like Editor for Logins.

Create Like Editor for Tables

The Create Like Editor lets you create a new table based on an existing table. The Create Like Editor lets you manage:

- Table columns
- Table constraints
- Table storage
- Table partitions

The following tabs are available in the Create Like Editor:

- Columns
- Constraints
- Storage
- Performance
- Partitions
- Comment

>

Create Like Editor for Tables - Columns Tab

The Columns Tab of the Create Like Editor lets you manage columns for the new table. The table below describes the options and functionality of the Columns Tab:

Option	Description
New Table Name	Lets you type the new table name.
Add	Click to open the Add Column dialog box.
Insert	Click to open the Insert Column dialog box.
Edit	Click to open the Modify Column dialog box.
Drop	Lets you drop the selected column.
Up	Lets you move the selected column up.
Down	Lets you move the selected column down.
LOB Storage	Click to open the Lob Storage Definition dialog box.
Convert to LOB	Click to open the Lob Storage Definition dialog box.

NOTE: Click **Create** to open the Preview:Create dialog box.

For more information, see Create Like Editor for Tables.

Create Like Editor for Tables - Constraints Tab

The Constraints Tab of the Create Like Editor lets you manage constraints for the new table. Rapid SQL arranges the constraints in a tree structure. The tree includes folders which contain all constraints associated with the target table. The objects are organized in folders based on the type of constraint:

- Primary Key
- Unique Key
- Check Constraint
- Foreign Key

TIP: Double-click a constraint to open a dialog box with detailed information on the target constraint.

The table below describes the options and functionality on the Constraints Tab:

Option	Description
Add	Click to open the Index Constraint dialog box.
Edit	Click to open the Index Constraint dialog box.
Drop	Drops the selected constraint.

NOTE: Click **Create** to open the Preview:Create dialog box.

For more information, see Create Like Editor for Tables.

>

Create Like Editor for Tables - Storage Tab

The Storage Tab of the Create Like Editor lets you manage storage for the new table.

The table below describes the options and functionality on the Storage Tab:

Option	Description
Data Block Storage	The storage parameter lets you tune performance by minimizing the occurrence of row migration and chaining caused by update operations that extend the length of rows stored on the data block. Percent Used - Lets you type a value in the corresponding box. Maximum - The maximum parameter limits concurrency on a data block.
Extents	Initial - The initial parameter ensures that a minimum number of concurrent transactions can update a data block, avoiding the overhead of allocating a transaction entry dynamically. Percent Increase - Magnifies how an object grows and, can materially affect available free space in a tablespace. Select a value in the corresponding box.
Filegroup	Lets you select the filegroup within the database the table is stored. This is for Microsoft SQL Server 7.0 or later.
Text Image Filegroup	Lets you select the text image filegroup within the database on which to place any text, image, and/or next columns. This is for Microsoft SQL Server 7.0 or later.

NOTE: Click **Create** to open the Preview:Create dialog box.

For more information, see Create Like Editor for Tables.

Create Like Editor for Tables - Performance Tab

The table below describes the options and functionality on the Performance Tab:

Option	Description
Parallel Query Option	Lets you process queries using many query server processes running against multiple CPUs, which provides substantial performance gains such as reduction of the query completion time.
Logging	Select to have all changes stored.
Cache	Keeps the blocks in memory by placing it at the most recently used end. This option is useful for small lookup tables.

NOTE: Click **Create** to open the Preview:Create dialog box.

For more information, see Create Like Editor for Tables.

Create Like Editor for Tables - Partitions Tab

The table below describes the options and functionality on the Partitions Tab:

Option	Description
Is Table Partitioned	Lets you select if the table is partitioned.
Partitioned Method	Lets you select the partitioned method.
Add	Click to open the Partitioned Columns dialog box.

NOTE: Click **Create** to open the Preview:Create dialog box.

For more information, see Create Like Editor for Tables.

Create Like Editor for Tables - Comment Tab

The Comment Tab lets you lets you type a comment up to 2000 characters long.

NOTE: Click **Create** to open the Preview:Create dialog box.

For more information, see Create Like Editor for Tables.

Create Like Editor for Users

The Create Like Editor lets you create a new user based on an existing user. The following tabs are available in the Create Like Editor:

- Definition
- Object Privileges
- System Privileges

Create Like Editor for Users - Definition Tab

The table below describes the options and functionality of the Definition Tab:

Option	Description
Login Name	Lets you select login name.
Full Name	Lets you type the full name.
Add	Click to open the Add Alias dialog box.
Drop	Click to open the Drop Aliased Login dialog box.
Add/Change	Lets you add or change a group.
Drop	Lets you drop a group.

For more information, see Create Like Editor for Users.

Add Alias

The Add Alias dialog box lets you create an aliased login.

>

For more information, see Create Like Editor for Users.

Drop Aliased Login

The Drop Aliased Login dialog box lets you drop an aliased login.

For more information, see Create Like Editor for Users.

Create Like Editor for Users - Object Privileges

The table below describes the options and functionality of the Object Privileges Tab:

Option	Description
Object Type	Lets you select an object type.
Owner	Lets you select an owner.
Grant	Opens the Grant Privilege(s) dialog box.
Revoke	Opens the Revoke Privileges dialog box.

For more information, see Create Like Editor for Users.

Create Like Editor for Users - System Privileges Tab

The table below describes the options and functionality of the System Privileges Tab:

Option	Description
Grant	Opens the Grant Privilege(s) dialog box.
Revoke	Opens the Revoke Privileges dialog box.

For more information, see Create Like Editor for Users.

Create or Edit User Accounts

This functionality is available for all platforms.

The Create or Edit User Accounts dialog box lets you manage user accounts.

Important Notes

None

The table below describes the options and functionality on the Create or Edit User Accounts dialog box:

Option	Description
User Name	Lets you type the user name.

>

Option	Description
Database roles	Lets you select the roles for the user account.

For more information, see Completing a Dialog Box.

Create or Modify Constraint

This functionality is available for all platforms.

The Create/Modify Constraint Dialog Box lets you create or edit a constraint without knowing the underlying commands.

Important Notes

- None

Option	Description
Owner	Lets you select the check constraint owner.
Table	Lets you select where you want to place the check constraint.
Constraint Name	Lets you type the name of the constraint, which can be up to 30 characters long and must be unique across the entire database.
Comment	Lets you type a comment.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

For more information, see Completing an Object Dialog Box.

Create or Modify User Message Text

This functionality is available for all platforms.

The Create or Modify User Message Text dialog box lets you manage user messages. You can open this dialog box in the following wizards:

- Microsoft SQL Server User Message Wizard
- Sybase ASE User Message Wizard

Important Notes

None

The table below describes the options and functionality on the Create or Modify User Message Text dialog box.

Option	Description
Language	Lets you specify the message language.

Option	Description
Message Text	Lets you type a message.

For more information, see Completing a Dialog Box.

Create Synonym

NOTE: The Create Synonym functionality is available for IBM DB2 LUW for Linux, Unix, and Windows and Oracle.

The Create Synonym dialog box lets you create synonyms for objects.

A synonym is an alternate name for an object in the database. You can define synonyms on tables, views, sequences, procedures, functions, packages, package bodies, materialized views, and Java class objects.

There are two types of synonyms:

- Public
- Private

Public synonyms can be used by everyone in the database. Private synonyms belong to the synonym owner and the owner can control the synonym's availability to others.

Synonyms simplify object names and provide added security. Synonyms let you:

- Simplify SQL statements.
- Reference an object without needing to specify its owner.
- Reference a remote object without needing to specify its database.
- Alias an object so its purpose becomes more understandable.
- Mask the name, owner, and location of an object.

NOTE: The schema object for which you define a synonym cannot be contained in a package.

Rapid SQL lets you specify options for creating synonyms with the Create Synonym and Create Synonyms dialog boxes. The dialog box that Rapid SQL returns depends on whether you are creating a synonym for a single object or are creating synonyms for multiple objects at the same time.

Important Notes

None

The table below describes the options and functionality on the Create Synonym dialog box.

Option	Description
Synonym	A synonym can have the same name as the base object if that object is contained in another schema. For example, you can define the synonym EMPLOYEE on the table COMPANY.EMPLOYEE as long you are not working in the COMPANY schema. If you choose to create synonyms for multiple objects in a single operation, Rapid SQL uses the object name as the synonym name. After creating synonyms in such a manner, users no longer need to specify the owner name.
Synonym Scope	Lets you choose whether you want the synonym to be private or public by clicking the Public or Private option buttons. If you click the Private option button, choose a schema in which to create the synonym.

For more information, see Completing the Create Synonym Dialog Box.

Completing the Create Synonym Dialog Box

To complete this dialog box, do the following:

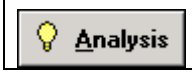
1. On the **Database Explorer**, select the target object node.

   Rapid SQL displays the target objects in the Database Explorer.

2. On the **Database Explorer**, right-click the target object, and then select **Create Synonym**.

   Rapid SQL opens the Create Synonym dialog box.

3. In the **Synonym Scope** box, click the **Public** or **Private** option button.
4. If you clicked the **Private** option button, click the list and then click the owner.
5. Do one of the following:

Button	Description
	Opens the Preview dialog box.
	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
	Executes the task.
	Opens the Impact Analysis dialog box. This option is not available for every dialog box.

For more information, see:

Create Synonym

Completing a Dialog Box

DataLink Options

NOTE: This functionality is available for IBM DB2 UBB for OS/390 and z/OS only.

The DataLink Options dialog box lets you manage datalinks, datatypes that enable logical references from the database to a file that is stored outside the database.

Important Notes

None

The table below describes the options and functionality on the DataLink Options dialog box:

Option	Description
Datalink Options	Lets you select datalink options: No Link Control File Link Control File Link Options
File-Link Options	Lets you select file-link options: Read On Unlink Write Permission Recovery

For more information, see Completing a Dialog Box.

DBCC

This functionality is available for Microsoft SQL Server and Sybase ASE only.

The DBCC (Database Consistency Check) dialog box lets you:

- Specify single or multiple tables or indexes for validation.
- Perform database-wide validations.
- Perform object-level validations of databases.

Important Notes

None

For more information, see Completing the DBCC Dialog Box.

Completing the DBCC Dialog Box

To complete this dialog box, do the following:

1 On the **Database Explorer**, select the target object node.

Rapid SQL displays the target objects in the Database Explorer.

>

2 On the **Database Explorer**, right-click the target object, and then select **DBCC**.

Rapid SQL opens the DBCC dialog box.

3 Click the **DBCC** list and click the **DBCC** operation you want to perform.

NOTE: DBCC options differ for Microsoft SQL Server and Sybase ASE objects.

4 Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.
Analysis	Opens the Impact Analysis dialog box. This option is not available for every dialog box.

For more information, see:

DBCC

Completing a Dialog Box

DBCC for Microsoft SQL Server

The DBCC (Database Consistency Check) dialog box lets you specify single or multiple tables or indexes for validation in Microsoft SQL Server. Use this dialog box to perform table-level or index-level validations of databases which are too large to undergo database-level DBCC operations in a time-efficient manner.

The DBCC dialog box includes the following elements:

- A window displaying the target database objects
- A drop-down list of DBCC Operations
- Buttons for previewing the operation's SQL code, scheduling the operation, and executing the operation

Important Notes

None

For more information, see:

DBCC for Databases

DBCC for Tables

DBCC for Indexes

DBCC for Microsoft SQL Server Databases

The DBCC dialog box for databases lets you perform database-wide validations. You should validate your databases as part of regular database maintenance to guard against corruption and failure. Microsoft SQL Server offers a set of DBCC commands to validate the integrity of your databases. Generally, you should perform these DBCC commands prior to dumping your databases to ensure that you are capturing clean backups of your databases.

The fundamental difference between the DBCC dialog box for databases, tables and indexes is the content of the DBCC Operation drop-down list.

The table below describes the options and functionality on the DBCC dialog box.

DBCC Operation	Description
Check Allocation	Executes a DBCC CHECKALLOC command. Makes sure that all data and index panels are correctly allocated and used. It reports on the amount of space allocated and used in the database. When checking allocation, you have the option to skip non-clustered indexes by selecting the Skip non-clustered indexes check box.
Check Catalog	Executes a DBCC CHECKCATALOG command. Checks for consistency in and between system tables.
Check Database	Executes a DBCC CHECKDB command. Verifies that all tables and indexes are properly linked, that indexes are in proper sorted order, that all pointers are consistent, that the data on each panel is reasonable, and that panel offsets are reasonable. When checking a database, you have the option to skip non-clustered indexes by selecting the Skip non-clustered indexes check box.
Check FileGroup	Executes a DBCC CHECKFILEGROUP command. Verifies that all tables and indexes for the specified filegroup are properly linked, that indexes are in proper sorted order, that all pointers are consistent, that the data on each panel is reasonable, and that panel offsets are reasonable. When checking filegroups, you have the option to skip non-clustered indexes by selecting the Skip non-clustered indexes check box.
Show Oldest Transaction	Executes a DBCC OPENTRAN command. Displays information on the oldest active transaction and the oldest distributed and non distributed replicated transactions, if any, within the specified database.
Update Usage	Executes a DBCC UPDATEUSAGE command. Reports and corrects the rows, used, reserved, and dpanels columns of the sysindexes table for any clustered indexes on objects of the type U (user-defined table) or S (system table).

For more information, see:

Completing the DBCC Dialog Box

DBCC

DBCC for Microsoft SQL Server Tables

The DBCC dialog box for tables lets you perform table-level validations of databases. The fundamental difference between the DBCC dialog box for tables and indexes is the content of the DBCC Operation drop-down list.

The table below describes the options and functionality on the DBCC dialog box.

Option	Description
Check Current Identity Value	Checks the current identity value for the target objects, correcting values if needed depending on parameter specifications. Identity columns created with a NOT FOR REPLICATION clause in either the CREATE TABLE or ALTER TABLE statement are not corrected by this operation.
Check Fragmentation	Displays the target table's data and index fragmentation information, determining whether the table is heavily fragmented. When a table is heavily fragmented, you can reduce fragmentation and improve read performance by dropping and recreating a clustered index (without using the SORTED_DATA option). Doing so reorganizes the data, resulting in full data pages. To adjust the level of fullness, use the Rebuild Index operation's FILLFACTOR option. When INSERT, UPDATE, and DELETE statements fragment tables, they usually do so with unequal distribution across the entire database so that each page varies in fullness over time, forcing additional page reads for queries that scan part or all of a table.
Check Table	Checks the linkages and sizes of text, ntext and image pages for selected tables. For the data, index, text, ntext, and image pages of the target tables, this operation also checks that index and data pages are correctly linked, indexes are in their proper sorted order, pointers are consistent, the data on each page is reasonable, and the page offsets are reasonable. DBCC CHECKTABLE requires a shared lock on all tables and indexes in the database for the duration of the operation. However, DBCC CHECKTABLE does not check the allocations of pages in the specified table (for this, use DBCC CHECKALLOC). To perform DBCC CHECKTABLE on every table in the database, use DBCC CHECKDB.
Check Text/Image Allocation	NOTE: This option is not available Microsoft SQL Server version 7 or later. Checks the allocation of text, ntext, or image columns for a table. In later versions of Microsoft SQL, use DBCC CHECKTABLE to check the integrity of the data, index, text, ntext, and image pages for the target table.
Pin Table	Pins target tables in memory so that they are not flushed when Microsoft SQL Server needs space to read in new pages. DBCC PINTABLE is best used for keeping small, frequently referenced tables in memory. Pinning a large table can consume a large portion of the buffer cache, leaving inadequate memory to service other tables in the system. A pinned table that is larger than the buffer cache itself can fill the entire cache, necessitating a shut down of the system by a sysadmin user, who must then restart Microsoft SQL Server and unpin the table. Pinning too many small tables can result in a similar problem.
Rebuild Index	Dynamically rebuilds one, multiple, or all indexes for a table in the target database, allowing indexes which enforce either primary key or unique constraints to be rebuilt without need for dropping and recreating. This operation is not supported for use on system tables.

Option	Description
Unpin Table	Marks target tables as unpinned, rendering their pages flushable from the buffer cache if space is needed to read in a new page from disk.
Update Usage	Reports and corrects inaccuracies in the sysindexes table (which can result in incorrect space usage reports by the sp_spaceused system stored procedure) and corrects the rows, used, reserved, and dpages columns of the sysindexes table for tables and clustered indexes. If there are no inaccuracies in sysindexes, DBCC UPDATEUSAGE returns no data. Use this operation to synchronize space-usage counters. Executing this operation on large tables or databases can require some time, so it should typically be used only when you suspect incorrect values returned by sp_spaceused.

For more information, see:

Completing the DBCC Dialog Box

DBCC

DBCC for Microsoft SQL Server Indexes

The DBCC dialog box for indexes lets you perform index-level validations of databases. The fundamental difference between the DBCC dialog box for tables and indexes is the content of the DBCC Operation drop-down list.

The table below describes the options and functionality on the DBCC dialog box.

Option	Description
Check Fragmentation	Displays the target index's table data and fragmentation information, determining whether the table is heavily fragmented. For more information, see tip below. When a table is heavily fragmented, you can reduce fragmentation and improve read performance by dropping and recreating a clustered index (without using the SORTED_DATA option). Doing so reorganizes the data, resulting in full data pages. To adjust the level of fullness, use the Rebuild Index operation's FILLFACTOR option. When INSERT, UPDATE, and DELETE statements fragment tables, they usually do so with unequal distribution across the entire database so that each page varies in fullness over time, forcing additional page reads for queries that scan part or all of a table.
Check Index	Checks the linkages and sizes of text and image pages for selected indexes. DBCC CHECKTABLE requires a shared lock on all tables and indexes in the database for the duration of the operation.
Rebuild Index	Dynamically rebuilds all target indexes, allowing those which enforce either primary key or unique constraints to be rebuilt without need for dropping and recreating. This operation is not supported for use on system tables.
Show Statistics	Displays the current distribution statistics for the target indexes. The results returned indicate the selectivity of each target index (a lower density equals a higher selectivity) and provide the basis for determining the usefulness of target indexes to the optimizer.

>

Option	Description
Update Usage	Reports and corrects inaccuracies in the sysindexes table (which can result in incorrect space usage reports by the sp_spaceused system stored procedure) and corrects the rows, used, reserved, and dpages columns of the sysindexes table for tables and clustered indexes. If there are no inaccuracies in sysindexes, DBCC UPDATEUSAGE returns no data. Use this operation to synchronize space-usage counters. Executing this operation on large tables or databases can require some time, so it should typically be used only when you suspect incorrect values returned by sp_spaceused. Additional Options: Update Index Option, and DBCC General Option.

For more information, see:

Completing the DBCC Dialog Box

DBCC

DBCC for Sybase ASE

The DBCC (Database Consistency Check) dialog box lets you specify single or multiple databases, tables or indexes for validation in Sybase ASE. Use this dialog box to perform table-level or index-level validations of databases which are too large to undergo database-level DBCC operations in a time-efficient manner.

The DBCC dialog box includes the following elements:

- A window displaying the target database objects
- A drop-down list of DBCC Operations
- Buttons for previewing the operation's SQL code, scheduling the operation, and executing the operation

For more information, see:

DBCC for Tables

DBCC for Indexes

DBCC for Databases

DBCC for Sybase ASE Databases

The DBCC dialog box for databases lets you perform database-wide validations. The fundamental difference between the DBCC dialog box for databases, tables and indexes is the content of the DBCC Operation drop-down list.

The table below describes the options and functionality on the DBCC dialog box.

Option	Description
Check Allocation	Checks the allocation and use of all pages in the target database.
Check Catalog	Checks for consistency in and between system tables in the target database.
Check Database	Checks the allocation and structural integrity of all the objects in the target database.

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Option	Description
Check Storage	Checks the target database for allocation, OAM page entries, page consistency, text valued columns, allocation of text valued columns, and text column chains. The results of this operation are stored in the dbccdb database.
Database Repair	Drops a damaged database.

For more information, see:

Completing the DBCC Dialog Box

DBCC

DBCC for Sybase ASE Tables

The DBCC dialog box for tables lets you perform table-level validations of databases. The fundamental difference between the DBCC dialog box for tables and indexes is the content of the DBCC Operation drop-down list.

The table below describes the options and functionality on the DBCC dialog box.

Option	Description
Check Allocation	Checks the database to see that every page is correctly allocated, and that no allocated page is unused. Use TABLEALLOC frequently (daily) to check page linkages in the Adaptive Server before performing a database dump to ensure the integrity of the dumped data.
Check Table	Checks the linkages and sizes of text, ntext and image pages for selected tables. For the data, index, text, ntext, and image pages of the target tables, this operation also checks that index and data pages are correctly linked, indexes are in their proper sorted order, pointers are consistent, the data on each page is reasonable, and the page offsets are reasonable. DBCC CHECKTABLE requires a shared lock on all tables and indexes in the database for the duration of the operation. However, DBCC CHECKTABLE does not check the allocations of pages in the specified table (for this, use DBCC CHECKALLOC). To perform DBCC CHECKTABLE on every table in the database, use DBCC CHECKDB.
Check Text	Upgrades text values after you have changed an Adaptive Server's character set to a multibyte character set.
Rebuild Index	Dynamically rebuilds one, multiple, or all indexes for a table in the target database, allowing indexes which enforce either primary key or unique constraints to be rebuilt without need for dropping and recreating. This operation is not supported for use on system tables.

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DBCC Operation Options

Rapid SQL offers additional options for selected operations which you can specify to further customize a database consistency check. The table below describes each option:

Option	Description
Error Option	Click Fix Error to instruct Rapid SQL to fix any allocation errors it finds. You must put your database in single-user mode to fix errors, so specify this option during times of low usage.
Job Scope	Select Optimize to produce a report based on the allocation pages listed in the object allocation map (OAM) pages for the table. It does not report and cannot fix unreferenced extents on allocation pages that are not listed in the OAM pages. The optimized option is the default. Select Full to perform the equivalent of a table-level CHECKALLOC, reporting all types of allocation errors. Select Fast to produce an exception report of pages that are referenced but not allocated in the extent. Fast does not produce an allocation report.
Update Index Option	Click this check box to skip non-clustered indexes when updating index options.

For more information, see:

Completing the DBCC Dialog Box

DBCC

DBCC for Sybase ASE Indexes

The DBCC dialog box for indexes lets you perform index-level validations of databases. Unlike the DBCC dialog box for tables, this DBCC dialog box offers only one option on the DBCC Operation drop-down list: Check Allocation. This option checks the specified database to see that all pages are correctly allocated and that no allocated page is unused.

The table below describes the options and functionality on the DBCC dialog box.

Option	Description
DBCC Option	Checks the specified database to see that all pages are correctly allocated and that no page that is allocated is not used.
Error Option	Rapid SQL to fixes any allocation errors it finds. You must put your database in single-user mode to fix errors, so specify this option during times of low usage
Job Scope	Produces a report based on the allocation pages listed in the object allocation map (OAM) pages for the table. It does not report and cannot fix unreferenced extents on allocation pages that are not listed in the OAM pages. The optimized option is the default. A full job is the equivalent to a table-level CHECKALLOC, reporting all types of allocation errors. A fast job does not produce an allocation report, but produces an exception report of pages that are referenced but not allocated in the extent.

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For more information, see:

Completing the DBCC Dialog Box

DBCC

Deallocate Unused Space

This functionality is available for Oracle only.

The Deallocate Unused Space dialog box lets you deallocate space from clusters, indexes, and tables. You can also deallocate unused space from table partitions and subpartitions. When you find that allocated space is not being used, you can free that space for use by other objects by explicitly deallocating space. Oracle releases the freed space to the user quota for the tablespace in which the deallocation occurs.

Oracle deallocates unused space from the end of the object toward the high water mark. In other words, Oracle frees space starting with the space that would have been used last. If an extent is completely contained in the space to be deallocated, then the whole extent is freed. If an extent is only partially contained in the space to be deallocated, then Oracle shrinks that extent to the size of the used space up to the high water mark, and frees the unused space in the extent.

If you are deallocating unused space from and index and the index is range-partitioned or hash-partitioned, Oracle deallocates unused space from each partition in the index. If an index is a local index on a composite-partitioned table, Oracle deallocates unused space from each of the subpartitions in the index.

Important Notes

None

The table below describes the options and functionality on the Deallocate Unused Space dialog box:

Option	Description
Specify the number of bytes above the high-water mark that the objects will have after deallocation. If no value is specified, all unused space will be freed.	If you do not specify an amount of unused space and the high water mark is above the size of INITIAL and MINEXTENTS, then all of the unused space is freed. If the high water mark is less than the size of INITIAL or MINEXTENTS, then all unused space above MINEXTENTS is freed. If you specify an amount of unused space and the remaining number of extents is smaller than MINEXTENTS, then the MINEXTENTS value changes to reflect the new number. If the initial extent becomes smaller as a result of the deallocation, the INITIAL value changes to reflect the new size of the initial extent.

TIP: You can verify that the deallocated space is freed by going to the Space Tab in the appropriate Rapid SQL editor.

For more information, see Completing the Deallocate Unused Space Dialog Box.

Completing the Deallocate Unused Space Dialog Box

To complete this dialog box, do the following:

1 On the **Database Explorer**, select the Tables node.

Rapid SQL displays the tables in the Database Explorer.

2 On the **Database Explorer**, right-click the table, and then select **Deallocate Unused Space**.

Rapid SQL opens the Deallocate Unused Space dialog box.

3 Specify the number of bytes above the high-water mark that the objects will have after deallocation. If no value is specified, all unused space will be freed.

4 Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.
Analysis	Opens the Impact Analysis dialog box. This option is not available for every dialog box.

For more information, see Completing a Dialog Box.

Dependencies

This functionality is available for all platforms.

The Dependencies window displays and lets you modify the referencing objects for an object.

Important Notes

None

For more information, see Viewing Dependencies.

Viewing Dependencies

To open the Dependencies Window, do the following:

1 On the **Database Explorer**, select the target object node.

Rapid SQL displays the target objects in the Database Explorer.

2 On the **Database Explorer**, right-click the target object, and then select **Dependencies**.

Rapid SQL opens the Dependencies Window.

For more information, see Dependencies.

Detach/Attach

This functionality is available for Microsoft SQL Server 2000 or later only.

The Detach/Attach dialog box lets you detach and reattach data and transaction log files. Detaching a database removes the database from the server but leaves the database intact within the data and transaction log files that compose the database. These data and transaction log files can then be used to attach the database to any instance of Microsoft SQL Server, including the server from which the database was detached. This makes the database available in exactly the same state it was in when it was detached. The Rapid SQL commands are:

- Detach
- Attach

Important Notes

None

For more information, see Completing the Detach Dialog Box.

Detaching a Database

The table below describes the options and functionality on the Detach dialog box.

Option	Description
Skip Checks	Select to skip the UPDATE STATISTICS operation when detaching the database. This option is useful for databases that are to be moved to read-only media.

For more information, see Completing the Detach Dialog Box.

Completing the Detach Dialog Box

To complete this dialog box, do the following:

1 On the **Database Explorer**, select the **Databases** node.

Rapid SQL displays the Databases in the Database Explorer.

2 On the **Database Explorer**, right-click the database, and then select **Detach**.

Rapid SQL opens the Detach dialog box.

3 To skip the UPDATE STATISTICS operation when detaching the database, select the **Skip Checks** check box for the target database(s).

TIP: This option is useful for databases that are to be moved to read-only media.

4 Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.

Button	Description
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.
Analysis	Opens the Impact Analysis dialog box. This option is not available for every dialog box.

For more information, see:

Detach

Completing a Dialog Box

Attaching a Database

The table below describes the options and functionality on the Attach dialog box.

Option	Description
Database Name to be Attached	Lets you type the name of the target database to attach the file(s) to.
Add Button	Click to add database file(s), and then type the name of the MDF (master data file) of the database to attach.

For more information, see:

Completing the Attach Dialog Box

Completing a Dialog Box

Completing the Attach Dialog Box

To complete this dialog box, do the following:

1. On the **Database Explorer**, select the **Databases** node.

   Rapid SQL displays the Databases in the Database Explorer.

2. On the **Database Explorer**, right-click the Database, and then select **Attach**.

   Rapid SQL opens the Attach dialog box.

3. In the **Database Name to be Attached** box, type the database name.

>

4 In the grid, do one of the following:

Microsoft SQL Server 7.0

- Select the target database file(s).
- To add the *.mdf file(s), click **Add**, enter the name of the MDF (master data file) of the database to attach, and then click **OK**.
- To add the *.ldf file(s), click **Add**, enter the name of the LDF (log data file) of the database to attach, and then click **OK**.
- To drop database file(s), click **Drop** and then select the target file(s).

Microsoft SQL Server 2000

- Select the target database file(s).
- To add database file(s), click **Add** and then enter the name of the MDF (master data file) of the database to attach.

Rapid SQL automatically adds the appropriate *.ldf file.

5 To drop database file(s), click **Drop** and then select the target file(s).

6 Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.
Analysis	Opens the Impact Analysis dialog box. This option is not available for every dialog box.

For more information, see:

Attach

Completing a Dialog Box

Disable/Enable Job Queues

This functionality is available for Oracle only.

The Disable/Enable dialog box lets you enable or disable any job queue. Job Queues are built-in mechanisms that let you schedule a variety of SQL-based or command-line driven tasks.

Important Notes

None.

For more information, see Completing the Enable/Disable Dialog Box.

Completing the Enable/Disable Dialog Box for Job Queues

To complete this dialog box, do the following:

1 On the **Database Explorer**, select the **Job Queues** node.

Rapid SQL displays the job queues in the Database Explorer.

2 On the **Database Explorer**, right-click the target job queue, and then select **Enable** or **Disable**.

Rapid SQL opens the Enable or Disable dialog box.

3 Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.
Analysis	Opens the Impact Analysis dialog box. This option is not available for every dialog box.

For more information, see Completing a Dialog Box.

Disable/Enable Triggers

This functionality is available for Microsoft SQL Server, Oracle, and Sybase ASE only.

The Disable/Enable dialog box lets you enable or disable any triggers.

Triggers are a special type of procedure that automatically fire when defined data modification operations (insert, update or delete) occur on a target table. Triggers fire after an insert, update or delete, but belong to the same transaction as the data modification operation.

Loading a database from a previous dump causes any triggers defined in the database to fire. To speed the time required to load a database you should disable triggers.

Important Notes

Disabling triggers can lead to problems with maintaining referential integrity and business rules.

For more information, see Completing the Enable/Disable Dialog Box.

Completing the Enable/Disable Dialog Box for Triggers

To complete this dialog box, do the following:

>

4 On the **Datasource Explorer** tool bar, click **Command**, and then select **Enable** or **Disable**.

OR

In the right pane of the application, right-click the target object, and then select **Enable** or **Disable**.On the

Button	Description
Preview	Opens the Preview dialog box.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.

Database Explorer, select the **Triggers** node.

Rapid SQL displays the triggers in the Database Explorer.

5 On the **Database Explorer**, right-click the target trigger, and then select **Enable** or **Disable**.

Rapid SQL opens the Enable or Disable dialog box.

6 Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.
Analysis	Opens the Impact Analysis dialog box. This option is not available for every dialog box.

For more information, see Completing a Dialog Box.

For more information, see Completing a Dialog Box.

Disk Resize

This functionality is available for Sybase ASE 12.5.01 only.

The Disk Resize dialog box lets you dynamically increase the size of database devices without having to add and configure additional database devices.

Important Notes

None

The table below describes the options and functionality on the Disk Resize dialog box.

Option	Description
Increase current size by:	Lets you type the amount in server pages to increase the device(s). 512 pages equals 1MB. **NOTE:** Whether the Sybase database is configured for 2K, 4K, or 8K page sizes does not impact the sizing.

For more information, see Completing the Disk Resize Dialog Box.

Completing the Disk Resize Dialog Box

To complete this dialog box, do the following:

1. On the **Database Explorer**, select the **Database Devices** node.

   Rapid SQL displays the Database Devices in the Database Explorer.

2. On the **Database Explorer**, right-click the database device, and then select **Disk Resize**.

   Rapid SQL opens the Disk Resize dialog box.

3. In **Increase current size by:** type the amount in server pages to increase the device(s). 512 pages equals 1MB.

4. Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.
Analysis	Opens the Impact Analysis dialog box. This option is not available for every dialog box.

For more information, see Completing a Dialog Box.

Drop

This functionality is available for all platforms.

The Confirm Drop dialog box lets you drop one or more database objects and remove their definition from the system catalog. The Confirm Drop dialog box lets you:

- Drop the object(s) immediately
- Schedule dropping the object(s)
- Analyze the impact of dropping the object(s)
- Preview the SQL to drop the object(s)
- Save the SQL to drop the object(s)

>

- Print the SQL to drop the object(s)
- Send an e-mail attachment with the SQL to drop the object(s)

Important Notes

None

For more information, see Completing the Confirm Drop Dialog Box.

Completing the Confirm Drop Dialog Box

To complete this dialog box, do the following:

1 On the **Database Explorer**, select the target object node.

Rapid SQL displays the target objects in the Database Explorer.

2 On the **Database Explorer**, right-click the target object, and then select **Drop**.

Rapid SQL opens the Confirm Drop dialog box.

3 Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.
Analysis	Opens the Impact Analysis dialog box. This option is not available for every dialog box.

For more information, see Completing a Dialog Box.

Edit Data

This functionality is available for all platforms.

The Edit Data function opens the Data Editor. You can use the Data Editor to edit your tables in real-time. The Data Editor supports all editable datatypes and is an alternative way to add, edit, or delete data from your tables.

NOTE: You can use Data Editor within Query Builder to edit data in tables while you create SELECT statements. You can open multiple Data Editor sessions so that you can continue to change your data until you find the best match query.

The Data Editor includes a Data Editor Filter that lets you select the columns in your table that you want to edit. You must select at least one column to use the Data Editor. The Data Editor Filter is not available for the Query Builder.

For more information, see:

Data Editor Design

Using Data Editor

>

Error

The Error message displays a warning. After reading the warning, click Close to continue.

Estimate Size

This functionality is available for Oracle and Sybase ASE only.

Estimate Size dialog box for tables and indexes lets you estimate how large a table or index will become given a row growth projection. The results let you proactively plan your space-related object needs.

Important Notes

None

Estimate Table Sizes

The table below describes the options and functionality on the Estimate Size dialog box for tables:

Option	Description
Database	Lets you select the table database.
Owner	Lets you select the table owner.
Table Name	Lets you select the table by name.
Number of Rows	Lets you type number of rows to estimate size. Click Calculator to open a calculator.
Estimate Table Size (KB)	Lets you type table size to estimate size.
Add Table	Click to add a table to the grid.
Remove Table	Click to remove a table from the grid.
Estimate Size	Click to start the estimate size functionality. Rapid SQL then calculates the information, and displays it in a browser-ready HTML report that you can print or save.
Update Statistics	Opens the Update Statistics dialog box.
Save As	Lets you save as a result grid (.rsl) file.

TIP: To generate an HTML report, click the Report button.

For more information, see Completing a Dialog Box.

Estimate Index Sizes

The table below describes the options and functionality on the Estimate Size dialog box for indexes:

>

Option	Description
Database	Lets you select the table database.
Owner	Lets you select the table owner.
Table Name	Lets you select the table.
Index Name	Lets you select the index.
Fill Factor	Lets you specify a percentage of how full each index page can become. Click Calculator to open a calculator.
Number of Rows	Lets you type number of rows to estimate size. Click Calculator to open a calculator.
Estimate Index Size (KB)	Lets you type index size to estimate size.
Add Index	Click to add a index to the grid.
Remove Index	Click to remove a index from the grid.
Estimate Size	Click to start the estimate size functionality. Rapid SQL then calculates the information, and displays it in a browser-ready HTML report that you can print or save.
Update Statistics	Opens the Update Statistics dialog box.
Save As	Lets you save as a result grid (.rsl) file.

TIP: To generate an HTML report, click the Report button.

For more information, see Completing a Dialog Box.

Execute

This functionality is available for Oracle and Sybase ASE only.

The Execution dialog box lets you execute functions and procedures. The Execution dialog box displays the necessary parameters. Depending on the parameter datatype, you can use the built-in calculator and calendar to select the entered data.

Rapid SQL lets you enter arguments and set execution options in the Execution dialog box.

Important Notes

None

For more information, see:

Executing Functions

Executing Procedures

Completing the Execution Dialog Box

Completing the Execution Dialog Box

To complete this dialog box, do the following:

> **TIP:** The Code Analyst is a tool to identify time-consuming lines of code. Code Analyst lets you perform detailed response time analysis on the execution of Procedures and Functions.

1 On the **Database Explorer**, select the target object node.

Rapid SQL displays the target objects in the Database Explorer.

2 On the **Database Explorer**, right-click the target object, and then select **Execute**.

Rapid SQL opens the Execute dialog box.

3 To use the calendar, click the **Down** arrow.

4 To use the calculator, click the **Down** arrow.

> **NOTE:** These built-in functions are context-sensitive to the type. of parameter required

5 To execute the function with show plan, click **Query Plan**.

> **TIP:** Code Analyst is a tool to identify time-consuming lines of code. Code Analyst lets you perform detailed response time analysis on the execution of Procedures and Functions.

6 To modify your results options, click **Results**.

7 Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.
Analysis	Opens the Impact Analysis dialog box. This option is not available for every dialog box.

For more information, see:

Executing Functions

Executing Procedures

Execute

Completing a Dialog Box

Executing Functions

The table below describes the options and functionality on the Execution dialog box:

Option	Description
Query Plan	Click the Query Plan button to activate the Oracle EXPLAIN PLAN functionality. By default, Rapid SQL stores the EXPLAIN PLAN output in a table named EMBARCADERO_EXPLAIN_PLAN. Rapid SQL's Query Plan window now displays data for the estimated costs, number of rows, and bytes returned by each plan step. The Code Analyst is a tool to identify time-consuming lines of code. Code Analyst lets you perform detailed response time analysis on the execution of Procedures and Functions.
Result Options	Click the Result Options button lets you set options for the current execution. For more information on Result Options, see the Options Editor.
Arguments	Enter arguments in the blank text box. The datatype to the left of the blank field lets you know what type of argument is expected. For numeric arguments, you can use the calculator to enter information. For date arguments, you can use the built-in calendar or you can override the calendar by selecting the check box and entering your argument in field that follows. NULL is the default argument in that field.
Default	Select to gather default information from the data dictionary. **ORACLE ONLY:** You can not specify non-default parameters after specifying a default parameter.

For more information, see:

Completing the Execution Dialog Box

Completing a Dialog Box

Executing Procedures

The Procedure Execution dialog box lets you:

- Save input parameters as *.prm files to preserve specific input parameter configurations.
- Open *.prm files to save the effort of reentering specific input parameters.
- Reset parameters to their default setting.

The table below describes the options and functionality of the Procedure Execution dialog box:

Option	Description
Owner	Displays the current procedure’s owner.
Procedure	Displays the name of the current procedure.
Parameter	Specify the required input parameters in this window. If input parameters are not required for the execution of the target procedure, a message displays in this window, stating that the procedure “has no input parameters. Press execute to run it.”

>

Option	Description
Open	Click to open an Open dialog box, from which you can open an existing *.prm file. The saved parameters immediately populate the dialog box upon opening.
Save	Click to save the values of your input parameters as a *.prm file. You can reopen a saved *.prm file from this dialog box at any time.
Reset	Click to reset the parameters in the Parameter window to their default values.
Default	Select to gather default information from the data dictionary. **ORACLE ONLY:** You can not specify non-default parameters after specifying a default parameter.
Continue	Click to execute the procedure once you have entered values for all required parameters in the Parameter window.

For more information, see:

Completing the Execution Dialog Box

Completing a Dialog Box

Extract

This functionality is available for all platforms.

Rapid SQL lets you extract data from one database to another database and extract the statements required to create objects into an Interactive SQL window. You can extract an object from the Datasource Explorer or the Objects Editor.

Important Notes

None

For more information, see:

Extracting Data

Extracting Data

To extract data, do the following:

1. On the **Database Explorer,** click the target object node, and then click the target object.
2. In the **Explorer** window, right-click the target object, and then click **Extract**.

   Rapid SQL opens the DDL Editor.

For more information, see:

Completing a Dialog Box

>

Extract Data as XML

NOTE: This functionality is available for Oracle 9i and SQL Server 8.0.

1 On the **Datasource Explorer**, expand the target datasource.

2 Expand the **Tables** node.

3 In the right pane of the Explorer window, right-click any table listed, and then select **Extract Data as XML**.

4 Select the columns to include in the Insert statement.

5 You can also filter what rows are included by adding your own Select statement.

6 Click **OK**.

The resulting XML document is created and presented in an active XML Editor. At this point the document can be saved in XML format.

Filter

This functionality is available for IBM DB2 LUW for OS/390 and z/OS only.

The Filter dialog box lets you filter the results of an object node to names with one or more patterns. This lets you display and work with a target object without waiting for all the objects in a large list to display.

Important Notes

None

The table below describes the options and functionality on the Filter dialog box:

Option	Description
Pattern	Lets you type either a complete object name or a partial object name with wild cards. Optionally, you can type a comma / space separated list of patterns that the filter should apply.
Match Case	Lets you specify if the filter is case sensitive.

For more information, see Completing the Object Filter Dialog Box.

Completing the Object Filter Dialog Box

To complete this dialog box, do the following:

1 On the **Database Explorer**, right-click the target object node.

2 Select **Filter**.

Rapid SQL opens the Filter dialog box.

3 In **Pattern**, type either a complete object name or a partial object name with wild cards.

4 Select **Match Case** if the filter is case sensitive.

5 Click **OK**.

Rapid SQL displays the target objects in the Database Explorer.

Flush Cache

This functionality is available for IBM DB2 LUW for Linux, Unix, and Windows 8.1 only.

The Flush Cache dialog box lets you clear all dynamic SQL in the cache and forces IBM DB2 LUW for Linux, Unix, and Windows to recompile the SQL the next time it is called.

Important Notes

None

For more information, see Completing the Flush Cache Dialog Box.

Completing the Flush Cache Dialog Box

To complete this dialog box, do the following:

1 On the **Database Explorer**, select the target object node.

Rapid SQL displays the target objects in the Database Explorer.

2 On the **Database Explorer**, right-click the target object, and then select **Flush Cache**.

Rapid SQL opens the Flush Cache dialog box.

3 Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.

Free Packages

This functionality is available for IBM DB2 LUW for OS/390 and z/OS only.

The Free Packages dialog box lets you delete a specific version of a package, all versions of a package, or whole collections of packages.

CAUTION: Confirmation is required because this is a destructive action.

To complete the Free Plans dialog box, do one of the following:

>

Button	Description
Preview	Opens the Preview dialog box.
Execute	Executes the task.

For more information, see Completing a Dialog Box.

Free Plans

This functionality is available for IBM DB2 LUW for OS/390 and z/OS only.

The Free Plans dialog box lets you delete application plans. A Plan is an executable application created in the bind process. It can include one or more packages or debris.

Important Notes

Confirmation is required because this is a destructive action.

For more information, see Completing the Free Plans Dialog Box.

Completing the Free Plans Dialog Box

To complete the Free Plans dialog box, do one of the following:

1. On the **Database Explorer**, select the **Plans** node.

   Rapid SQL displays the plans in the Database Explorer.

2. On the **Database Explorer**, right-click the target object, and then select **Free**.

   Rapid SQL opens the Free Plans dialog box.

3. Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.
Execute	Executes the task.

For more information, see Completing a Dialog Box.

Generate Anonymous Block

This functionality is available for Oracle only.

An anonymous block is an alternative to a stored procedure or function. An anonymous block has no explicit name and, unlike a procedure or function, is not stored by in the Oracle server database as a schema object. This means that Oracle server compiles and executes only the current instance of the anonymous block. Anonymous blocks are normally sent to the Oracle server from another application and require compilation before execution. Since functions and procedures are stored by Oracle server, they exist in a precompiled state and require no explicit compilation before execution.

Rapid SQL lets you generate anonymous blocks from existing functions and procedures. Rapid SQL produces the code appropriate for an anonymous block in the ISQL Window and provides you with the normal ISQL Window options to check, manipulate, and execute the SQL.

Important Note

Rapid SQL also lets you generate anonymous blocks for functions and procedures that are part of a package.

For more information, see Completing a Dialog Box.

Generating Packages, Procedures, and Statements from Tables and Views

This functionality is available for all platforms.

Rapid SQL lets you generate simple packages, procedures, and statements for selected tables and lets you generate a simple select statement for views. Because the packages and procedures generated by Rapid SQL are rudimentary, they are intended merely as a starting point and should be modified to reflect your specific needs. Rapid SQL opens the generated statements in the ISQL Window.

When Rapid SQL creates a package from a table, it generates a series of procedures designed to emulate the typical variety of procedures in a package. Rapid SQL lets you choose the IN and OUT columns and generates the procedures based on your selections. Rapid SQL creates procedures and statements from tables in the same way.

Important Notes

None

For more information, see:

Generate Packages, Procedures, and Statements

Generate Select Statement

Generate Packages, Procedures, and Statements

Rapid SQL opens this dialog box when you want to generate code for an Insert, Update, or Delete statement. This dialog box lets you specify the columns you want to include in the generation of an Insert, Update, or Delete statement or procedure.

For more information, see Completing a Dialog Box.

Generate Select Statement

Rapid SQL opens this dialog box when you want to generate code for a Select statement. This dialog box includes two panes: one for specifying Input Columns, one for specifying Output Columns.

NOTE: This dialog box mirrors the functionality of Rapid SQL's Embarcadero Code Generator dialog box, which is accessible from the application's Tools menu and Tools toolbar.

The Select 1 or More Columns dialog box lets you specify the IN and OUT columns for a package or procedure, or the columns to select for a Select statement and any associated WHERE clause. Rapid SQL uses the Input Columns to generate the WHERE clause.

For more information, see Completing a Dialog Box.

Grant Roles

This functionality is available for all platforms.

The Grant Role Dialog Box lets you select the roles to grant to a user. Roles are sets of user privileges you associate with access to objects within a database. Roles streamline the process of granting permissions. You can use roles to grant sets of permissions and privileges to users and groups.

Important Notes

None

For more information, see Completing the Grant Role Dialog Box.

Completing the Grant Roles Dialog Box

To complete this dialog box, do the following:

1. In the **Database Explorer**, select the target user.
2. Right-click the target user, and select **Open**.

   Rapid SQL opens the Users Editor.
3. On the Definition Tab of the Users Editor, select the **Role**, and then click **Add**.

   Rapid SQL opens the Grant Roles dialog box.
4. Select the role(s) to grant.
5. Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.

For more information, see Completing a Dialog Box.

This functionality is available for IBM DB2 LUW for OS/390 and z/OS only.

Select Partition(s) for Tablespace Dialog Box

Impact Analysis

This functionality is available for all platforms.

The Impact Analysis dialog box displays the objects dependent on the object you are changing. You can use the Impact Analysis dialog box to review the objects that could be impacted should you proceed with the action in question.

Important Notes

None

For more information, see Completing a Dialog Box.

Index Constraint

This functionality is available for all platforms.

The Index Constraint dialog box lets you create constraints.

Important Notes

None

The table below describes the options and functionality on the Index Constraint dialog box:

NOTE: Options differ by platform.

Option	Description
Constraint Name	Lets you type the name of the constraint, which can be up to 30 characters long and must be unique across the entire database.
Properties	Lets you select options: Clustered - A cluster comprises of a group of tables that share the same data blocks, and which are grouped together because they share common columns and are often used together. Filegroup - Lets you select the filegroup within the database the constraint is stored. Fill Factor - Lets you specify a percentage of how large each constraint can become.
Specify Columns in Constraint	Lets you click the key columns, and then click the right arrow button to move them to the Constraint Columns grid.
Columns Button	Click to open the Paste Columns for Check Constraint dialog box.

For more information, see Completing a Dialog Box.

Load Java

NOTE: This functionality is available for Oracle 8i or later.

Before you can call Java stored procedures, you must load them into the Oracle database and publish them to SQL.

>

The Java Load Wizard lets you:

- Select the owner of the Java object and the files to load.
- Select options for the loading of the files.
- Select Resolver options.

Important Notes

None

For more information, see:

Completing an Object Wizard

Java Load Wizard - Panel 1

Java Load Wizard - Panel 1

The table below describes the options of the first panel of the Java Load Wizard.

Option	Description
Who owns the Java Object?	Lets you select the owner of the Java object.
Select files to be loaded	Select a file, and then click Add.

For more information, see:

Completing an Object Wizard

Java Load Wizard

Java Load Wizard - Panel 2

The table below describes the options of the second panel of the Java Load Wizard.

Option	Description
When do you want the Java files to be resolved?	Lets you specify when the source file is loaded as a source schema object, the source file is compiled, class schema objects are created for each class defined in the compiled .java file, and the compiled code is stored in the class schema objects.
Select the Encoding Options	Lets you specify the encoding of the .java file.
Grant Access to the following users	Lets you select one or more users.

For more information, see:

Completing an Object Wizard

Java Load Wizard

>

Java Load Wizard - Panel 3

The table below describes the options of the third panel of the Java Load Wizard.

Option	Description
Other Load Options	**OPTIONAL:** Lets you select options.
Add Resolver Options	Lets you specify the objects to search within the schemas defined. Add - Click to open the Select a Resolver Option dialog box to add a new resolver option in the list. Edit - Click to open the Resolver Edit dialog box to modify a resolver option. Remove - Select one or more resolver option and click to delete.

For more information, see:

Completing an Object Wizard

Java Load Wizard

Lob Storage Definition

This functionality is available for IBM DB2 LUW for Linux, Unix, and Windows, Microsoft SQL Server, Oracle, and Sybase ASE only.

The Lob Storage Definition dialog box lets you edit LOB storage parameters.

Important Notes

None

The table below describes the options and functionality on the Lob Storage Definition dialog box.

Option	Description
Segment Definition	Lets you edit the column name.
Configuration	Lets you edit the column configuration.
Storage	Lets you edit the storage parameters.

For more information, see Completing a Dialog Box.

Lock

This functionality is available for IBM DB2 LUW for Linux, Unix, and Windows only.

The Lock Table dialog box lets you lock tables to prevent other users from reading or updating the table data. Locking a table saves the time of locking each row of the table that needs to be updated. Rapid SQL releases locks at the end of a transaction.

>

Important Notes

None

The table below describes the options and functionality on the Lock Table dialog box.

Option	Description
Lock Mode	Share - Lets other users view but not modify the table data. Exclusive - Prevents other users from viewing or modifying the table data.

For more information, see Completing the Lock Table Dialog Box.

Completing the Lock Table Dialog Box

To complete this dialog box, do the following:

1. On the **Database Explorer**, select the **Tables** node.

   Rapid SQL displays the Tables in the Database Explorer.

2. On the **Database Explorer**, right-click the table, and then select **Lock**.

   Rapid SQL opens the Lock dialog box.

3. Select a **Lock Mode** option:

   - Share - Lets other users view but not modify the table data.
   - Exclusive - Prevents other users from viewing or modifying the table data.

4. Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.
Analysis	Opens the Impact Analysis dialog box. This option is not available for every dialog box.

For more information, see Completing a Dialog Box.

Modify Constraint

The table below describes the options and functionality on the Modify Constraint dialog box:

Option	Description
Owner	Displays owner.
Table	Displays table.
Specify Columns in Constraint	Lets you select the columns and click the right arrow to include in constraint.

Move Log

This functionality is available for Microsoft SQL Server and Sybase ASE only.

The Move Transaction Log dialog box lets you move a transaction log from one device to another.

Important Notes

None

The table below describes the options and functionality on the Move Transaction Log dialog box.

Option	Description
New Device	Let you select the device to which you want to move the transaction log.

For more information, see Completing the Move Log Dialog Box.

Completing the Move Log Dialog Box

To complete this dialog box, do the following:

1. On the **Database Explorer**, select the **Databases** node.

   Rapid SQL displays the Databases in the Database Explorer.

2. On the **Database Explorer**, right-click the database, and then select **Move Log**.

   Rapid SQL opens the Move Log dialog box.

3. In **New Device**, select the device to which you want to move the transaction log.

4. Do one of the following:

Open

Button	Description
Preview	Opens the Preview dialog box.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.
Analysis	Opens the Impact Analysis dialog box. This option is not available for every dialog box.

This functionality is available for all platforms.

Rapid SQL stores information about server and object types in object editors. An editor is a tabbed dialog box that groups related information together.

Each editor contains a context-sensitive Commands menu with pertinent functionality for the object. Many of the object editors contain a DDL Tab. This tab displays the underlying target object's SQL.

TIP: The Object Editor tool bar has a refresh button, that lets you refresh Object Editor contents, clear the Object Editors, and log SQL if SQL Logging is turned on.

If an objects has dependent objects, such as tables, triggers, procedures and views, you can view and access their dependent objects in the editor.

For more information, see Object Editors.

Package Editor

This functionality is available for IBM DB2 LUW for OS/390 and z/OS only.

The Package Editor lets you modify a package.

Important Notes

None

The table below describes the options and functionality on the Package Editor:

Option	Description
Plan Name	Displays the plan name.
Location	Lets you select the name of the location to connect to.
Collection	Lets you select the location of the DBMS where the plan binds and where the description of the plan resides.
Package	Lets you select a package.
Add	Click to add the plan.
Close	Click to close the editor and return to the wizard.

>

Partitioned Columns

This functionality is available for Oracle only.

The Partitioned Columns dialog box lets you partition columns. Partitioning lets you break large columns into smaller pieces, which are called partitions. Partitions make the data in your table easier to manage and analyze. Your SQL statements can access the partitions rather than the entire table. Partitions are most useful in data warehouse applications, which store large amounts of data.

Important Notes

None

The table below describes the options and functionality on the Partitioned Columns dialog box.

Option	Description
Available Columns	Select column and click the right arrow button to move to Partitioning Columns.
Partitioning Columns	Select column and click the left arrow to move to Available Columns.
Apply	Click to apply changes.

For more information, see Completing a Dialog Box.

Partition Editor

The Partition Editor lets you specify partition management and partition options.

Important Notes

None

The table below describes the options and functionality on the Partition Editor.

Option	Description
Partition number	Identifies a partition of the object.
DB2 manages the data sets on a volume of the specified storage group	A DB2-managed data set that resides on a volume of the identified storage group. Stogroup Name - Lets you specify the stogroup. Primary Space Allocation - Lets you specify the minimum primary space allocation for a DB2-managed data set of the partition. Secondary Space Allocation - Lets you specify the minimum secondary space allocation for a DB2-managed data set of the partition.
User manages the data sets on a specified VCAT catalog-name	A user-managed data set with a name that starts with catalog-name.

>

Option	Description
Free space portion of each page	Lets you specify what percentage of each page to leave as free space when the object is loaded or reorganized.
Free page frequency	Lets you specify how often to leave a page of free space when the object is loaded or reorganized. a number between 0 and 255.
Pages in group buffer pool	In a data sharing environment, lets you specify what pages of the partition are written to the group buffer pool in a data sharing environment.

For more information, see Completing a Dialog Box.

Partition Upper Bound

This functionality is available for Oracle only.

The Partition Upper Bound dialog box lets you specify the non-inclusive upper bound for the partitioning columns.

Important Notes

None

The table below describes the options and functionality on the Partition Upper Bound dialog box.

Option	Description
Partitioning Column	Lets you select the partitioning column.
Upper Bound	Lets you select the default or type the value of the upper bound. All rows in the partition have partitioning keys that compare to less than the partition bound and greater than or equal to the partition bound for the preceding partition. **NOTE:** The set button is not available if your selection is higher than the upper bound for the column in the original partition. If the upper bound is MAXVALUE, you need to type a value in the list.

The table below describes when you should enable editing of the upper bound:

Partition Type	Index	Table	Notes
Hash	N/A	N/A	Does not have upper bound.
Range Local	Disable	Enable	
Range Global	Enable all but the last partition	Enable	The upper bound button is disabled if there is only one partition.
Composite Global	Enable all but the last partition	Enable	The upper bound button is disabled if there is only one partition.

For more information, see Completing the Partition Upper Bound Dialog Box.

Completing the Partition Upper Bound Dialog Box

To complete this dialog box, do the following:

1. Click the **Partitioning Column** list and then click the partitioning column.
2. In the **Upper Bound** list, click the default or type the value of the upper bound. All rows in the partition will have partitioning keys that compare to less than the partition bound and greater than or equal to the partition bound for the preceding partition.
3. Click **Set**.
4. Click **OK**.

For more information, see:

Partition Upper Bound

Completing a Dialog Box

Paste Columns for Check Constraint

This functionality is available for all platforms.

The Paste Columns for Check Constraint dialog box lets you paste selected column(s) in the check constraint definition.

Important Notes

None

The table below describes the options and functionality on the Paste Columns for Check Constraint dialog box.

Option	Description
Columns	Lets you select column(s) to include in the check constraint definition.
Paste Button	Click to paste selected column(s) in the check constraint definition.

For more information, see:

Completing the Paste Columns for Check Constraint Dialog Box

Completing a Dialog Box

Completing the Paste Columns for Check Constraint Dialog Box

To complete this dialog box, do the following:

1. In the **Columns** grid, click the columns you want to paste or click the **Select All** button.
2. When you finish selecting columns, click **Paste.**

For more information, see:

Paste Columns for Check Constraint

Completing a Dialog Box

Place

NOTE: Place functionality is available for Sybase ASE.

The Placement dialog box lets you place tables and indexes on different segments. From a performance standpoint it is not recommended to have a table and its supporting indexes on the same device or disk segment. It is also good to have more frequently accessed indexes and tables grouped together on higher speed devices, if possible.

Important Notes

None

The table below describes the options and functionality on the Placement dialog box.

Option	Description
New Segment Location	Lets you specify the segment on which you can place objects, the default, logsegment or system.

For more information, see Completing the Placement Dialog Box.

Completing the Placement Dialog Box

To complete this dialog box, do the following:

1. On the **Database Explorer**, select the target object node.

   Rapid SQL displays the target objects in the Database Explorer.

2. On the **Database Explorer**, right-click the target object, and then select **Place**.

   Rapid SQL opens the Placement dialog box.

3. In **New Segment Location**, select the segments to place the object.

4. Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.
Analysis	Opens the Impact Analysis dialog box. This option is not available for every dialog box.

For more information, see Completing a Dialog Box.

Preview: Create

This functionality is available for all platforms.

The Preview:Create dialog box lets you preview any SQL related command you want to perform on an object.

Important Notes

None

The table below describes the options and functionality of the Preview:Create dialog box:

Button	Description
Save	Saves SQL.
Print	Prints SQL.
Email	Sends SQL via e-mail.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.

For more information, see Completing a Dialog Box.

Preview

This functionality is available for all platforms.

The Preview dialog box lets you preview any SQL related command you want to perform on an object.

Important Notes

None

The table below describes the options and functionality on the Preview dialog box:

Button	Description
Save	Saves SQL.
Print	Prints SQL.
Email	Sends SQL via e-mail.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.

For more information, see Completing a Dialog Box.

Job Cards for Batch Execution

The Job Cards for Batch Execution dialog box lets you specify the job cards that should be used to execute the utility in batch.

For more information, see Completing a Dialog Box.

Quiesce Tablespaces

Option	Description
For user	Lets you select and type user name to restrict.
For group	Lets you select and type group name to restrict.
Connections	Lets you select a connection option to restrict.

Quiesce Tablespaces

This functionality is available for IBM DB2 LUW for Linux, Unix, and Windows and IBM DB2 LUW for OS/390 and z/OS only.

The Quiesce Tablespaces dialog box lets you temporarily prevent other users from updating or reading selected tables on a tablespace. For example, you may not want the table to be updated during a backup procedure to capture a complete backup of the table as it exists.

Important Notes

None

The table below describes the options and functionality on the Quiesce Tablespaces dialog box.

Option	Description
Quiesce Mode	Exclusive - Prevents other users from viewing or modifying the table data. Intent to Update - Lets other users view but not update the table data. Reset - Lets you reset a table's quiesce mode. Share - Lets all users view (including you) but not modify the table data.

For more information, see Completing the Quiesce Tablespaces Dialog Box.

Completing the Quiesce Tablespaces Dialog Box

To complete this dialog box, do the following:

1. On the **Database Explorer**, select the **Tables** node.

   Rapid SQL displays the Tables in the Database Explorer.

2. On the **Database Explorer**, right-click the table, and then select **Quiesce Tablespaces**.

   Rapid SQL opens the Quiesce Tablespaces dialog box.

>

3 Select a **Quiesce Mode**:

- Exclusive - Prevents other users from viewing or modifying the table data.
- Intent to Update - Lets other users view but not update the table data.
- Reset - Lets you reset a table's quiesce mode.
- Share - Lets all users view (including you) but not modify the table data.

4 Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.
Analysis	Opens the Impact Analysis dialog box. This option is not available for every dialog box.

For more information, see Completing a Dialog Box.

Reassign by Category

This functionality is available for Oracle only.

The Reassign by Category dialog box lets you reassign the category of stored outlines in Oracle.

Outlines are a set of results for the execution plan generation of a particular SQL statement. When you create an outline, plan stability examines the optimization results using the same data used to generate the execution plan. That is, Oracle uses the input to the execution plan to generate an outline, and not the execution plan itself.

Important Notes

None

The table below describes the options and functionality on the Reassign by Category dialog box:

Option	Description
Source Category	Lets you move all outlines from one category to a new category. Select the original category.
Destination Category	Reassigns the original category to the new category. Select a new destination category.

For more information, see Completing the Reassign by Category Dialog Box.

Completing the Reassign by Category Dialog Box

To complete this dialog box, do the following:

1 On the **Database Explorer**, select the **Outlines** node.

Rapid SQL displays the Outlines in the Database Explorer.

2 On the **Database Explorer**, right-click the outline, and then select **Reassign by Category**.

Rapid SQL opens the Reassign by Category dialog box.

3 In the **Source Category** box, enter the target source outline category.

4 In the **Destination Category** box, enter the new category for the target outlines.

5 You can click the list to display existing categories, or you can type a new category in the box.

6 Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.
Analysis	Opens the Impact Analysis dialog box. This option is not available for every dialog box.

For more information, see:

Reassign by Category

Completing a Dialog Box

Rebind Packages

This functionality is available for IBM DB2 LUW for Linux, Unix, and Windows only.

The Rebind Package dialog box lets you update the best access path for SQL statements when the contents of a package changes.

Important Notes

None

TIP: If the physical storage of a package is changed or dropped, rebinding updates the path of the SQL statements.

For more information, see Completing the Rebind Packages Dialog Box.

Completing the Rebind Packages Dialog Box

To complete this dialog box, do the following:

1 On the **Database Explorer**, select the **Packages** node.

Rapid SQL displays the Packages in the Database Explorer.

2 On the **Database Explorer**, right-click the package, and then select **Rebind**.

Rapid SQL opens the Rebind dialog box.

>

3 Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.
Execute	Executes the task.
Analysis	Opens the Impact Analysis dialog box. This option is not available for every dialog box.

For more information, see Completing a Dialog Box.

Rebind Plans

This functionality is available for IBM DB2 LUW for Linux, Unix, and Windows only.

The Rebind Plans dialog box lets you update the best access path for SQL statements when the contents of a plan change.

TIP: If the physical storage of a plan is changed or dropped, rebinding updates the path of the SQL statements.

TIP: To filter the Owner and Object lists, click the Filter button next to each list. Rapid SQL opens the Filter dialog box.

Important Notes

None

For more information, see Completing the Rebind Plans Dialog Box.

Completing the Rebind Plans Dialog Box

To complete the Rebind Plans dialog box, do one of the following:

1 On the **Database Explorer**, select the **Plans** node.

Rapid SQL displays the plans in the Database Explorer.

2 On the **Database Explorer**, right-click the target object, and then select **Rebind**.

Rapid SQL opens the Rebind Plans dialog box.

3 Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.
Execute	Executes the task.

For more information, see Completing a Dialog Box.

Rebuild Indexes

This functionality is available for Oracle only.

The Rebuild Indexes dialog box lets you rebuild an index that has become fragmented. Rebuilding an index is a good alternative to coalescing an index because you can move the index to a different tablespace and change both tablespace and storage parameters while eliminating fragmentation. However, rebuilding an index has a higher cost than coalescing an index. These same qualities also make rebuilding an index a viable alternative to dropping an index then re-creating it.

As a rule of thumb, check indexes for rebuilds when their level (or tree depth) reaches four or greater, or many deleted leaf rows are found. The Rebuild Indexes dialog box can also be used to easily move an index from one tablespace to another.

Important Notes

- If you are rebuilding a function-based index, the index is enabled when the rebuild is finished.
- You cannot rebuild a partitioned index. You must rebuild each partition or subpartition individually.

The table below describes the options and functionality on the Rebuild dialog box.

Option	Description
New Tablespace	Defaults to the tablespace which currently includes the index. To change the tablespace containing the index, choose a new tablespace from the list.
Logging	Recoverable - The creation of the index logs in the redo log file. Non-Recoverable - The creation of the index is not logged in the redo log file.
Use Parallel Processes	Performs processes for the sequential execution of a SQL statement in parallel using multiple parallel processes. One process, known as the parallel execution coordinator, dispatches the execution of a statement to several parallel execution servers and coordinates the results from all of the server processes to send the results back to the user. **NOTE:** Only available for Oracle with the Parallel Server option.
Order	Reverse - Instructs Oracle to store the bytes of the index block in reverse order and to exclude the ROWID when rebuilding the index. No Reverse - Instructs Oracle to store the bytes of the index block in normal order when rebuilding the index.

For more information, see Completing the Rebuild Indexes Dialog Box.

Completing the Rebuild Indexes Dialog Box

To complete this dialog box, do the following:

1 On the **Database Explorer**, select the **Indexes** node.

Rapid SQL displays the Indexes in the Database Explorer.

2 On the **Database Explorer**, right-click the Index, and then select **Rebuild**.

Rapid SQL opens the Rebuild Indexes dialog box.

1 To move the index to a new tablespace, click the **New Tablespace** list and then click the new tablespace.

2 In the **Logging** box, click:

- The **Recoverable** option button to make the operation log in the redo file.
- The **Non-Recoverable** option button if you do not want the operation logged in the redo file.

3 If you are using Parallel Server, select the **Parallel Server** check box and:

- Type a value indicating the number of query server processes that should be used in the operation in the **Degree** box.
- Type a value indicating how you want the parallel query partitioned between the Parallel Servers in the **Instances** box.

4 In the **Order** box:

- Click the **Reverse** option button to rebuild the index to store the bytes of the index block in reverse order.
- Click the **No Reverse** option button to rebuild the index to store the bytes of the index block in order.

NOTE: This option is only available for Oracle8.

5 Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.
Analysis	Opens the Impact Analysis dialog box. This option is not available for every dialog box.

For more information, see:

Rebuild Indexes

Completing a Dialog Box

Rebuild Outlines

This functionality is available for Oracle only.

The Rebuild Outlines dialog box lets you rebuild an outline.

Outlines are a set of results for the execution plan generation of a particular SQL statement. When you create an outline, plan stability examines the optimization results using the same data used to generate the execution plan. That is, Oracle uses the input to the execution plan to generate an outline, and not the execution plan itself.

Important Notes

None

>

The table below describes the options and functionality on the Rebuild Outlines dialog box:

Option	Description
Outline(s) to be rebuilt box	Displays the outline(s) available to rebuild.

For more information, see Completing a Dialog Box.

Recompile

This functionality is available for Microsoft SQL Server and Sybase ASE only.

The Recompile dialog box lets you specify single or multiple objects for recompilation. Recompilation causes each procedure and trigger that uses the target table to be recompiled the next time it runs.

The queries used by procedures and triggers are optimized only once, when they are compiled. As you add indexes or make other changes to your database that affect its statistics, your compiled procedures and triggers may lose efficiency. By recompiling the procedures and triggers that act on a table, you can optimize the queries for maximum efficiency.

Redistribute

This functionality is available for IBM DB2 LUW for Linux, Unix, and Windows only.

The Redistribute dialog box lets you redistribute the data in a nodegroup.

Important Notes

None

The table below describes the options and functionality on the Redistribute dialog box:

Option	Description
Redistribute Options	Lets you click the appropriate option button: Uniform Using Dist. File Using Target Map Continue Rollback
Using Dist. File	Lets you select and type the distinct file name in the corresponding box.
Using target File	Lets you select and type the target file name in the corresponding box

For more information, see Completing a Dialog Box.

The table below describes the options and functionality on the Refit dialog box:

>

Option	Description
Redistribute Options	Lets you click the appropriate option button: Uniform Using Dist. File Using Target Map Continue Rollback
Using Dist. File	Lets you select and type the distinct file name in the corresponding box.
Using target File	Lets you select and type the target file name in the corresponding box

Important Notes

None

Refresh Summary Table

This functionality is available for IBM DB2 LUW for Linux, Unix, and Windows 8.1 only.

The Refresh Summary Table Dialog box lets you reload summary tables that have been defined with refresh options.

Important Notes

None

The table below describes the options and functionality on the Refresh Summary Table dialog box:

Option	Description
Refresh	Lets you select a refresh option. **NOTE:** For IBM DB2 LUW for Linux, Unix, and Windows 7, summary tables refresh when the system determines the refresh patterns.

For more information, see Completing the Refresh Summary Table Dialog Box.

Completing the Refresh Summary Table Dialog Box

To complete this dialog box, do the following:

1. On the **Database Explorer**, select the target object node.

   Rapid SQL displays the target objects in the Database Explorer.

2. On the **Database Explorer**, right-click a summary table, and then select **Refresh Summary Table**.

   Rapid SQL opens the Refresh Summary Table dialog box.

3 Select a refresh option.

4 Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.

Important Notes

Rename

This functionality is available for all platforms.

The Rename dialog box lets you rename an object.

Microsoft SQL Server

Microsoft SQL Server lets you rename a database if you own it. Before renaming a database, set it to single-user mode.

Microsoft SQL Server does not rename the table if it is referenced within the body of other objects that call it, such as tables, triggers or views. As a result, renaming a table can result in broken dependencies with other objects. Also, Microsoft SQL Server does not let you rename System Tables.

IBM DB2 LUW for OS/390 and z/OS

Rapid SQL lets you rename a primary key if the underlying table has only one owner.

The rename operation does not rename the table if it is referenced within the body of other objects, such as tables, triggers or views, that call it. As a result, renaming a table can result in broken dependencies with other objects.

Sybase ASE

Before renaming a database, set it to single-user mode.

System indexes can not be renamed.

The rename operation does not rename the stored procedure if it is referenced within the body of other objects, such as another stored procedure, that call it. As a result, renaming a stored procedure can result in broken dependencies with other objects.

The rename operation does not rename the table if it is referenced within the body of other objects, such as tables, triggers or views, that call it. As a result, renaming a table can result in broken dependencies with other objects.

The rename operation does not rename the view if it is referenced within the body of other objects, such as stored procedures, triggers or other views, that call it. As a result, renaming a view can result in broken dependencies with other objects.

The table below describes the options and functionality on the Rename dialog box.

NOTE: Options differ by platform.

>

Option	Description
New Name	Lets you type the new name of the object.

For more information, see Completing the Rename Dialog Box.

Completing the Rename Dialog Box

To complete this dialog box, do the following:

1 On the **Database Explorer**, select the target object node.

Rapid SQL displays the target objects in the Database Explorer.

2 On the **Database Explorer**, right-click the target object, and then select **Rename**.

Rapid SQL opens the Rename dialog box.

3 In **New Name**, type the new name.

4 Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.
Analysis	Opens the Impact Analysis dialog box. This option is not available for every dialog box.

For more information, see Completing a Dialog Box.

Reorganize

Reorganize functionality is available for IBM DB2 LUW for Linux, Unix, and Windows, Oracle, and Sybase ASE only.

The Reorganize dialog box lets you alter a table's physical storage to ensure that it is stored efficiently and to eliminate fragmentation.

Important Notes

None

For more information, see Completing the Reorganize Dialog Box.

Completing the Reorganize Dialog Box

To complete this dialog box, do the following:

1. On the **Database Explorer**, select the target object node.

   Rapid SQL displays the target objects in the Database Explorer.

2. On the **Database Explorer**, right-click the target object, and then select **Reorganize**.

   Rapid SQL opens the Reorganize dialog box.

3. If you want to move the table(s) to a new tablespace, click the **New Tablespace** list and select the target tablespace.

4. In the **Data Block Storage** box, indicate the data block storage parameters:

   - In the **Percent Free** box, type the appropriate percent free value for the table.
   - In the **Percent Used** box, type the appropriate percent used value for the table.
   - In the **Initial Transactions** box, type the appropriate initial transactions value for the table.
   - In the **Max Transactions** box, type the appropriate maximum transactions value for the table.

5. In the **Extents** box, indicate the extents parameters:

   - In the **Initial Extent** box, type the appropriate initial extent KB value for the table.
   - In the **Next Extent** box, type the appropriate next extent KB value for the table.
   - In the **Percent Increase** box, type the appropriate percent increase value for the table.
   - In the **Minimum Extents** box, type the appropriate minimum extents value for the table.
   - In the **Maximum Extents** box, type the appropriate maximum extents value for the table.

6. To modify freelist parameters, in the **Freelists** box:

   - In the **Freelists** box, type the new value.
   - In the **Freelist Group** box, type the new value.

7. Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.

For more information, see:

Reorganize

Completing a Dialog Box

>

Reorganizing IBM DB2 LUW for Linux, Unix, and Windows Objects

Reorganize Dialog Box (One Table)

The table below describes the options and functionality on the Reorganize dialog box.

Option	Description
Index	Associates a temporary index with the table's index. You can select another index from the list.
Temporary Tablespace	Associates a temporary tablespace with the table's tablespace. You can select another tablespace from the list.

Reorganize Dialog Box (Multiple Tables)

The table below describes the options and functionality on the Reorganize dialog box.

Option	Description
Temporary Tablespace	Associates a temporary tablespace with the table's tablespace. You can select another tablespace from the list.

For more information, see Completing the Reorganize Dialog Box.

Reorganizing Oracle Objects

The Reorganize dialog box lets you reduce query processing time against tables. This functionality is available for both tables.

For more information, see Completing the Reorganize Dialog Box.

Reorganizing Sybase ASE Objects

The Reorganize dialog box lets you reduce query processing time against tables. This functionality is available for both tables and indexes.

For more information, see Completing the Reorganize Dialog Box.

Reorganizing Sybase ASE Tables

The Reorganize Table dialog box lets you reduce the query processing time against a table by reorganizing the table to ensure that space is properly allocated to it. For lengthy reorganization processes, this dialog box also lets you execute a process in increments, lets you resume an incomplete process, and lets you specify the duration of each increment.

> **TIP:** Frequent update activity on a table can cause data rows to migrate and to chain over multiple data pages. Chained or forwarded rows can degrade performance because more physical reads are required to access a row of data. Consequently, you should monitor chained rows regularly to spot performance bottlenecks before they become severe. In addition, altering physical storage parameters can lead to fragmentation of space on your data pages, which also results in reduced performance levels.

You should consider reorganizing a table if you are experiencing slow performance due to:

- A large number of chained or forwarded rows on your data pages
- A large amount of fragmentation in your data pages

The table below describes the options and functionality on the Reorganize Table dialog box:

Option	Description
Compact	Lets you reclaim space and undo row forwarding. Minimizes interference with other activities by using multiple small transactions of brief duration. Each transaction is limited to eight pages of reorg processing. These three commands also provide resume and time options that allow you to set a time limit on how long a reorg runs and to resume a reorg from the point at which the previous reorg stopped, making it possible to use a series of partial reorganizations at off-peak times to reorg a large table.
Reclaim Space	Lets you reclaim unused space resulting from deletions and row-shortening updates on a page. Minimizes interference with other activities by using multiple small transactions of brief duration. Each transaction is limited to eight pages of reorg processing. These three commands also provide resume and time options that allow you to set a time limit on how long a reorg runs and to resume a reorg from the point at which the previous reorg stopped, making it possible to use a series of partial reorganizations at off-peak times to reorg a large table.
Rebuild	Lets you undo row forwarding and reclaim unused page space. It also rewrites all rows to comply with the target table's clustered index, writes rows to data pages to comply with space management setting changes (via sp_chgattribute), and drops and re-creates all the target table's (or tables') indexes. Reorg rebuild holds an exclusive table lock for its entire duration. On a large table this can be a significant amount of time. However, reorg rebuild accomplishes everything that dropping and re-creating a clustered index does and takes less time. In addition, reorg rebuild rebuilds the table using all of the table's current space management settings. Dropping and re-creating an index does not use the space management setting for reservepagegap. In most cases, reorg rebuild requires additional disk space equal to the size of the table it is rebuilding and its indexes.

>

Option	Description
Undo Row Forwarding	Lets you undo row forwarding, a process that occurs when an update increases a row's length in a data-only-locked table such that the row is too large to fit on its original page.
Options	Start at the point where a previous reorg left off - Select to resume a previously initiated but incomplete partial reorganization. Then specify the duration for which you want the resumed reorganization to continue before stopping again. This box is disabled for the rebuild command.

For more information, see Completing the Reorganize Dialog Box.

Incremental Reorganizations

If target tables are too long to reorganize in one session, Rapid SQL lets you reorganize them in increments over multiple sessions by specifying a maximum duration for each session. After Rapid SQL reorganizes tables for the specified duration, the operation stops until you resume it again from the Options box of the ReOrganize Table dialog box. The Options box lets you specify to resume a previously initiated but incomplete partial reorganization. It also lets you specify the duration for which you want a resumed reorganization to continue before stopping again. The Option box is disabled for the rebuild command.

NOTE: The duration you specify refers to elapsed time, not CPU time

In the option box, if you select the check box without specifying a duration, Rapid SQL executes the reorg at the point where the previous reorg stopped and continues to the end of the target tables. If you clear the check box and specify a duration, the reorg starts at the beginning of the target tables and continues for the specified number of minutes. If you select the check box and specify a duration, Rapid SQL runs the reorg from the point where it last left off, and continues for the specified number of minutes.

NOTE: If you reorganize a table using one command (Compact, Reclaim Space, or Undo Forwarding) for a specified duration, you cannot resume the process from its resume point using a different command. For example, you cannot compact a table for an hour, and then reclaim space on the remainder of the table. A resumed reorganization process must utilize the same command from start to finish. Selecting a different command begins a new reorganization process.

CAUTION: While this option lets you reorganize a large table in multiple manageable pieces, any updates to the table between reorganization runs can cause pages to be skipped or processed more than once.

For more information, see Completing a Dialog Box.

Reorganize Sybase ASE Indexes

The Reorganize Index dialog box lets you reduce the query processing time against a table by running a reorg rebuild command on the target index.

This operation:

- Undoes row forwarding and reclaim unused page space
- Rewrites all rows in the table to comply with the table's clustered index
- Writes rows to data pages to comply with space management setting changes (via sp_chgattribute)
- Drops and re-creates the table's indexes

Reorg rebuild holds an exclusive table lock for its entire duration. On a large table this can be a significant amount of time. However, reorg rebuild accomplishes everything that dropping and re-creating a clustered index does and takes less time. In addition, reorg rebuild rebuilds the table using all of the table's current space management settings. Dropping and re-creating an index does not use the space management setting for reservepagegap. In most cases, reorg rebuild requires additional disk space equal to the size of the table it is rebuilding and its indexes.

For more information, see Completing the Reorganize Dialog Box.

Report

This functionality is available for all platforms.

The Generate Report dialog box lets you generate detailed reports about all the objects in your database. The reports give you the complete information about the properties of your objects. They derive their contents from the information displayed in the object editors. To facilitate the online publication of these reports, Rapid SQL generates these reports in HTML. You can view these reports directly in Rapid SQL's built-in HTML browser.

Important Notes

None

For more information, see Completing the Generate Report Dialog Box.

Completing the Generate Report Dialog Box

To complete the Generate Report dialog box, do the following:

1. On the **Database Explorer**, select the target object node.

   Rapid SQL displays the target objects in the Database Explorer.

2. On the **Database Explorer**, right-click the target object, and then select **Report**.

   Rapid SQL opens the Generate Report dialog box.

Generating a Summary Report

1. Select the **Summary Report (Listing all items)** option.

   Rapid SQL displays the report. You can find data in the report, save, send, and print the report.

2. To exit the report, click **Close**.

Generating a Detail Report

1. Select the **Detail Report (Report on each supported item)** option.

   Rapid SQL opens the Report dialog box.

2. In **Report Home Page File Name**, type the report name or click **Browse** to locate the report.

3. In Report **Title**, type the report title.

   Rapid SQL displays Object Name and Object Type.

4. Click **Execute**.

   Rapid SQL displays the report. You can find data in the report, save, send, and print the report.

5. To exit the report, click **Close**.

>

For more information, see:

Report

Completing a Dialog Box

Restart

This functionality is available for IBM DB2 LUW for Linux, Unix, and Windows only.

The Restart Sequence dialog box lets you restart a sequence.

A sequence is a programmable database objects that generates a definable sequence of values. A sequence can be made available to many users.

Important Notes

None

For more information, see Completing a Dialog Box.

Revoke Role

This functionality is available for all platforms.

The Revoke Role dialog box lets you revoke a role to restrict user access to objects.

Important Notes

None

For more information, see Completing the Revoke Role Dialog Box.

Completing the Revoke Roles Dialog Box

To complete this dialog box, do the following:

1. In the **Database Explorer**, select the target user.
2. Right-click the target user, and select **Open**.

   Rapid SQL opens the Users Editor.
3. On the Definition Tab of the Users Editor, select the **Role**, and then click **Drop**.

   Rapid SQL opens the Revoke Roles dialog box.
4. Select the role(s) to revoke.
5. Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.

>

Button	Description
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.

For more information, see Completing a Dialog Box.

NOTE: This functionality is available for IBM DB2 LUW for OS/390 and z/OS.

Schema

This functionality is available for all platforms.

The Schema dialog box lets you view everything that makes up a selected table.

Important Notes

None

For more information, see Viewing Schema.

Viewing Schema

To view schema, do the following:

1. On the **Database Explorer**, select the target object node.

   Rapid SQL displays the target objects in the Database Explorer.

2. On the **Database Explorer**, right-click the target object, and then select **Schema**.

   Rapid SQL opens the Schema window.

For more information, see Completing a Dialog Box.

Select * From

This functionality is available for all platforms.

The Select * From dialog box lets you retrieve all data from a selected table or view.

Important Notes

None

For more information, see Completing the Select * From Dialog Box.

Completing the Select * From Dialog Box

To complete this dialog box, do the following:

1 On the **Database Explorer**, select the target object node.

Rapid SQL displays the target objects in the Database Explorer.

2 On the **Database Explorer**, right-click the target object, and then select **Select * From**.

Rapid SQL opens the Select * From dialog box.

For more information, see Completing a Dialog Box.

Set Default

This function lets you set a tablespace as the default tablespace. Users created without a specified default tablesapce will be assigned this default tablespace. If no default tablespace is set, users created without a specified tablespace will have their default tablespace set to SYSTEM.

NOTE: This functionality is available for Oracle 10g tablespaces.

To set a tablespace as the default:

1 On the **Datasource Explorer**, expand nodes until Oracle tablespace nodes are displayed.

2 Right-click an Oracle 10g tablespace and select **Set Default** from the context menu. The **Set Default** wizard opens.

3 Use the following table as a guide to understanding and modifying settings in the wizard:

Step	Settings and tasks
Action options	Verify that the panel displays the tablespace to be set as default.
Dependencies	Review the referring and referred objects that will be automatically resolved when you execute this operation.
Preview	Preview the DDL generated for the operation and when ready, use the **Schedule** or **Execute** button to perform this action.

Set Online/Offline

This functionality is available for Microsoft SQL Server, Oracle, and Sybase ASE only.

The Set Database(s) Online/Offline dialog box lets you disable your databases to prevent access, and enable your databases to grant access through the Datasource menu.

Important Notes

For Sybase, Rapid SQL only lets you set databases online.

For more information, see Completing the Set Database(s) Online/Offline Dialog Box.

Completing the Set Database(s) Online/Offline Dialog Box

To complete this dialog box, do the following:

1 On the **Database Explorer**, select the **Databases** node.

Rapid SQL displays the Databases in the Database Explorer.

2 On the **Database Explorer**, right-click the database, and then select **Set Online/Offline**.

Rapid SQL opens the Set Database(s) Online/Offline dialog box.

3 Select an option:

- Set Online
- Set Offline

4 Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.
Analysis	Opens the Impact Analysis dialog box. This option is not available for every dialog box.

For more information, see Completing a Dialog Box.

Set Tablespaces Quota

This functionality is available for Oracle only.

The Set Tablespaces Quota dialog box lets you set a quota for a tablespace. When you assign a quota:

- Users with privileges to create certain types of objects can create those objects in the specified tablespace.
- Oracle limits the amount of space that can be allocated for storage of a user's objects within the specified tablespace to the amount of the quota.

Important Notes

None

The table below describes the options and functionality on the Set Tablespaces Quota dialog box.

Option	Description
Quota	Lets you set a quota on the selected tablespace. You can select an unlimited, or specified size. Unlimited - Lets you place an unlimited quota on the tablespace. Other - Lets you place a specified quota in KB or MB on the tablespace.

For more information, see Completing the Set Tablespaces Quota Dialog Box.

Completing the Set Tablespaces Quota Dialog Box

To complete this dialog box, do the following:

1. On the **Database Explorer**, select the **Tablespaces** node.

   Rapid SQL displays the Tablespaces in the Database Explorer.

2. On the **Database Explorer**, right-click the tablespace, and then select **Quota**.

   Rapid SQL opens the Set Tablespaces Quota dialog box.

3. Click the **Unlimited** or **Other** option button.
4. If you click **Other**, type the value of the quota and then click list to indicate **KB** or **MB**.
5. Click **OK**.
6. Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.
Analysis	Opens the Impact Analysis dialog box. This option is not available for every dialog box.

For more information, see:

Set Tablespaces Quota

Completing a Dialog Box

Set UNDO Tablespace

NOTE: This functionality is available for Oracle 9 or later.

Set UNDO Tablespace dialog box lets you dynamically set an UNDO tablespace if the tablespace is running in AUTO UNDO mode.

>

To dynamically set an UNDO tablespace:

1 On the **Datasource Explorer**, select the **Tablespaces** node.

Rapid SQL displays the Tablespaces in the right pane of the Explorer window.

2 On the **Datasource Explorer** tool bar, click **Command**, and then select **Set UNDO Tablespace**.

Rapid SQL opens the Set UNDO Tablespace dialog box.

Use the following table as a guide to understanding and modifying the settings on this wizard:

Step	Functionality
Action Options	Displays the tablespace you selected to be set as an Undo tablespace.
Dependencies	View the dependencies on the tablespace.
Preview	Preview the DDL generated from your choices.

3 Click **Execute**.

Completing the Set UNDO Tablespace Dialog Box

To complete this dialog box, do the following:

1 On the **Database Explorer**, select the **Tablespaces** node.

Rapid SQL displays the Tablespaces in the Database Explorer.

2 On the **Database Explorer**, right-click the tablespace, and then select **Set Undo Tablespace**.

Rapid SQL opens the Set Undo Tablespace dialog box.

3 In **New Undo Tablespace** select from the possible UNDO tablespace choices. Select NULL to un-assign all UNDO tablespaces

4 Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.

For more information, see:

Set Tablespaces Quota

Completing a Dialog Box

Shrink

NOTE: The Shrink functionality is available for Microsoft SQL Server and Oracle 7.3 or later.

>

Microsoft SQL Server

The Shrink Database dialog box lets you reclaim space from a database that is too large.

Important Notes

None

The table below describes the options and functionality on the Shrink Database dialog box.

Option	Description
Move data pages to beginning of file before shrink	Select to move data pages to the beginning of the file before the shrink.
Release All Unused Space	Deselect to set the target free space to retain, and then in the Target Free Space to Retain (percent) box, type the new value of free space to retain. The new size for the database must be at least as large as the Minimum Allowable Size displayed in the Current File Size box.
Target free space percent after shrink	Lets you specify the target free space percent after the shrink.

Oracle

The Shrink Rollback Segments dialog box lets you shrink the size of rollback segments. The proper sizing of rollback segments is critical to their overall performance. Performance degrades whenever a rollback segment must extend, wrap or shrink in response to transaction loads. Ideally, you want to make the extents of rollback segments as small as possible while still ensuring that each transaction can fit into a single extent.

After an abnormally large transaction load, you might consider shrinking a rollback segment to eliminate unnecessary space. Oracle 7.3 or later lets you shrink a rollback segment manually by a specific amount or back to its Optimal Size.

Important Notes

For Oracle 9i or later, Shrink is not available if auto-UNDO management is enabled.

The table below describes the options and functionality on the Shrink Rollback Segments dialog box:

Option	Functionality
Specify the size...	If you do not provide a specific number the Rollback Segment uses the OPTIMAL value specified in the Storage clause. If an OPTIMAL value is not specified, the size defaults to the MINEXTENTS value of the Storage clause.

For more information, see Completing a Dialog Box.

Status

NOTE: The Status functionality is available for Microsoft SQL Server, Oracle, and Sybase ASE.

The Set Constraint(s) Status dialog box lets you change the status of check constraints, foreign key constraints, primary key constraints, and unique key constraints.

>

Important Notes

None

For more information, see Completing the Set Constraint(s) Status Dialog Box.

Completing the Set Constraint(s) Status Dialog Box

To complete this dialog box, do the following:

1. On the **Database Explorer**, select the target object node.

   Rapid SQL displays the target objects in the Database Explorer.

2. On the **Database Explorer**, right-click the target object, and then select **Status**.

   Rapid SQL opens the Set Constraint(s) Status dialog box.

3. Select dialog box options.

4. Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.
Analysis	Opens the Impact Analysis dialog box. This option is not available for every dialog box.

For more information, see:

Setting Constraint Status for Microsoft SQL Server Objects

Setting Constraint Status for Oracle

Completing a Dialog Box.

Setting Constraint Status for Microsoft SQL Server Objects

The Set Constraint Status dialog box lets you specify the ability of a group of constraints to be replicated, and (for Microsoft SQL Server version 7 or later) enable or disable check constraints, foreign key constraints, primary key constraints, and unique key constraints.

The table below describes the options and functionality on the Set Constraint Status dialog box.

Option	Description
Enabled	Deselect to temporarily override listed check constraints. Useful when you need to execute special processes that would ordinarily incur constraint-related errors.

>

Option	Description
Not for Replication	When you duplicate the table schema and data of a source database containing constraints marked "Not for Replication", these objects are not carried over to the duplicate of the schema.

For more information, see:

Status

Completing a Dialog Box

Setting Constraint Status for Oracle

The Set Constraint(s) Status dialog box lets you change the status of check constraints, foreign key constraints, primary key constraints, and unique key constraints. Rapid SQL lets you enable or disable selected constraints and, in the case of primary key and unique key constraints, lets you enable with or without validation and disable with or without the changes cascading.

When enabled, the rule defined by the constraint is enforced on the data values in the columns on which the constraint is placed. When disabled, the constraint rule is not enforced but the constraint continues to be stored in the data dictionary.

Temporarily disabling constraints can improve performance when you are loading large amounts of data or when you are making massive changes to a table. Disabling constraints also can be useful if you are importing or exporting one table at a time.

NOTE: Primary keys for index-organized tables cannot be disabled.

NOTE: You cannot drop a unique or primary key constraint that is part of a referential integrity constraint without also dropping the foreign key. To drop the referenced key and the foreign key together, select the Cascade check box in the Set Constraint(s) Status dialog box.

The table below describes the options and functionality on the Set Constraint(s) Status dialog box.

NOTE: The options differ by object.

Option	Description
Enable	Enabling the constraint and not selecting the Validate check box automatically uses Oracle ENABLE NOVALIDATE clause which enables a constraint so that it does not validate the existing data. A table using constraints in enable novalidate mode can contain invalid data but you cannot add new invalid data to that table.The enable novalidate mode is useful as an intermediate state or when you do not want the constraint to check for possible exceptions (e.g., after a data warehouse load).
Validate	Enabling the constraint and selecting the Validate check box causes Oracle to validate all existing data in the key columns of the table with the constraint. If an exception exists, Oracle returns an error and the constraint remains disabled.

>

Option	Description
Cascade	Selecting the Cascade check box when disabling a primary key or foreign key constraint instructs Oracle to simultaneously disable any constraints that depend on the primary or unique key. Selecting the Delete Cascade check box instructs Oracle to delete data in the child table (on which the foreign key is defined) if the referenced data is the parent table is deleted.

For more information, see:

Status

Completing a Dialog Box

Summary Definition

This functionality is available for IBM DB2 LUW for Linux, Unix, and Windows only.

The Summary Definition dialog box lets you enter the query for your table. If you are creating a table as a result of a query, you need to include the query in the AS FullSelect box.

TIP: You can open the query in the ISQL Editor and use the copy/paste function to add the query to the AS FullSelect box.

Important Notes

You must complete the Summary Definition dialog box to proceed with the Table Wizard.

The table below describes the options and functionality on the Summary Definition dialog box:

Option	Description
Table Name	Read-only field that displays the table name.
AS FullSelect	Enter the query in box.
Summary table Options	Lets you set able options for the table you are creating. Definition Only - Lets you set copy options for the table definition. If you select this check box, you can set the copy options to include Column Defaults and Identity Column Attr. The default selection is Column Defaults. Refreshable Options - Lets you set table refresh options for data and query.

For more information, see Completing a Dialog Box.

Switch Online

NOTE: The Switch Online functionality is available for IBM DB2 LUW for Linux, Unix, and Windows only.

The Switch Online dialog box lets you access a tablespace by switching it online after the parent container(s) have been recovered or restored.

>

Important Notes

None

For more information, see Completing the Switch Online Dialog Box.

Completing the Switch Online Dialog Box

To complete this dialog box, do the following:

1 On the **Database Explorer**, select the target object node.

Rapid SQL displays the target objects in the Database Explorer.

2 On the **Database Explorer**, right-click the target object, and then select **Switch Online**.

Rapid SQL opens the Switch Online dialog box.

3 Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.

Truncate

NOTE: The Truncate functionality is available for IBM DB2 LUW for Linux, Unix, and Windows, Microsoft SQL Server, Oracle, IBM DB2 LUW for OS/390 and z/OS and Sybase ASE.

The Truncate dialog box lets you quickly delete the rows of a table.

Important Notes

If you truncate a table, Rapid SQL deletes all the rows. These rows are not logged as individual drops and cannot be recovered from a transaction log or other type of log.

For more information, see Completing the Truncate Dialog Box.

Completing the Truncate Dialog Box

To complete this dialog box, do the following:

1 On the **Database Explorer**, select the target object node.

Rapid SQL displays the target objects in the Database Explorer.

2 On the **Database Explorer**, right-click the target object, and then select **Truncate**.

Rapid SQL opens the Truncate dialog box.

3 Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.

For more information, see:

Completing a Dialog Box

Truncating IBM DB2 LUW for Linux, Unix, and Windows Objects

Truncating Microsoft SQL Server Objects

Truncating Oracle Objects

Truncating IBM DB2 LUW for OS/390 and z/OS Objects

Truncating Sybase ASE Objects

Truncating IBM DB2 LUW Objects

The Truncate dialog box lets you quickly delete the rows of a table.

NOTE: If you truncate a table, Rapid SQL deletes all the rows. These rows are not logged as individual drops and cannot be recovered from a transaction log or other type of log.

For more information, see:

Truncate

Completing the Truncate Dialog Box

Truncating Microsoft SQL Server Objects

The Truncate dialog box lets you quickly delete the rows of a table.

NOTE: If you truncate a table, Rapid SQL deletes all the rows. These rows are not logged as individual drops and cannot be recovered from a transaction log or other type of log.

For more information, see:

Truncate

Completing the Truncate Dialog Box

Truncating Oracle Objects

The Truncate dialog box lets you truncate tables and clusters. Truncating a table or cluster is a quick and efficient way to delete all of a table's or a cluster's existing rows. You can truncate any table or cluster in their schema or, if you have the DROP ANY TABLE system privilege, you can truncate any table in any schema.

>

When you truncate a table or cluster, you can specify whether space currently allocated for the table is returned to the containing tablespace or if it is returned to the system. The table below includes notes on the objects you can truncate:

Object	Notes
Cluster	Before truncating a cluster containing a parent key, disable all referencing foreign keys existing in different tables. Truncating a cluster does not generate any rollback information and commits immediately. Oracle alters the storage parameter NEXT to the size of the last extent deleted from the segment.
Table	Before truncating a table containing a parent key, disable all referencing foreign keys existing in different tables. Truncating a table does not generate any rollback information and commits immediately. Oracle alters the storage parameter NEXT to the size of the last extent deleted from the segment. Oracle automatically deletes all data in the table's indexes and any materialized view direct-load INSERT information associated with a truncated table. If the table is not empty, all associated nonparititioned indexes and all partitions of associated global partitioned indexes are marked unusable. You cannot truncate a hash cluster nor can you truncate individual tables in a hash cluster or an index cluster.

The table below describes the options and functionality on the Truncate dialog box.

Option	Description
Storage Handling	Drop Storage - Select if you want the freed extents returned to the system where they can be used by other objects. Reuse Storage - Select if you want the space to remain allocated to the table or cluster you have just truncated.

For more information, see:

Truncate

Completing the Truncate Dialog Box

Truncating IBM DB2 LUW for OS/390 and z/OS Objects

The Truncate dialog box lets you quickly delete the rows of a table.

CAUTION: If you truncate a table, Rapid SQL deletes all the rows. These rows are not logged as individual drops and cannot be recovered from a transaction log or other type of log.

Truncating a table is a faster alternative to deleting all of its rows. You cannot recover a truncated table because TRUNCATE TABLE is an unlogged command.

For more information, see:

Truncate

Completing the Truncate Dialog Box

Truncating Sybase ASE Objects

The Truncate dialog box lets you truncate single or multiple tables. Truncating a table is a faster alternative to deleting all its rows. You cannot recover a truncated table because TRUNCATE TABLE is an unlogged command.

NOTE: You cannot truncate a table referenced by a foreign key constraint. Instead, use a DELETE statement without a WHERE clause.

TIP: When you truncate a table, Sybase ASE removes all rows from the target table, but retains the table structure (its indexes, columns, constraints, etc.). The counter used by an identity for new rows is reset to the seed for the column. To retain the identity counter, use a DELETE statement instead of TRUNCATE. To remove the target table definition and its data, use a DROP TABLE statement.

For more information, see:

Truncate

Completing the Truncate Dialog Box

Update Statistics

The Update Statistics dialog box lets you update the statistics for an active table or index. As indexes grow and shrink in response to data modification, the accuracy of their statistics can deteriorate.

NOTE: The Update Statistics dialog box is available for IBM DB2 LUW for Linux, Unix, and Windows, Microsoft SQL Server, and Sybase ASE.

Important Notes

None

For more information, see Completing the Update Statistics Dialog Box.

Completing the Update Statistics Dialog Box

To complete this dialog box, do the following:

1 On the **Database Explorer**, select the target object node.

Rapid SQL displays the target objects in the Database Explorer.

>

2 On the **Database Explorer**, right-click the target object, and then select **Update Statistics**.

Rapid SQL opens the Update Statistics dialog box.

3 Select dialog box options.

4 Do one of the following:

Button	Description
Preview	Opens the Preview dialog box.
Schedule	Opens Embarcadero Job Scheduler, or (if unavailable) another scheduling application. For more, see Scheduling.
Execute	Executes the task.

For more information, see:

Completing a Dialog Box

Updating IBM DB2 LUW for Linux, Unix, and Windows Object Statistics

Updating Microsoft SQL Server Object Statistics

Updating Sybase ASE Object Statistics

Updating IBM DB2 LUW for Linux, Unix, and Windows Object Statistics

The table below describes the options and functionality on the Update Statistics dialog box.

Tab	Option	Description
Table Options	Update table statistics	Updates table statistics.
	Do not collect column statistics	Column statistics provide information that the optimizer uses to choose the best access plans for queries.
	Collect column statistics on key columns only	Collects column statistics on columns that make up all the indexes defined on the table. Column statistics provide information that the optimizer uses to choose the best access plans for queries.
	Collect column statistics on all columns	Collects column statistics for all columns. Column statistics provide information that the optimizer uses to choose the best access plans for queries.

Tab	Option	Description
	Do not collect distribution statistics	Does not collect basic statistics or distribution statistics on the columns. For efficiency both of RUNSTATS and subsequent query-plan analysis, you might collect distribution statistics on only the table columns that queries use in WHERE, GROUP BY, and similar clauses. You might also collect cardinality statistics on combined groups of columns. The optimizer uses such information to detect column correlation when it estimates selectivity for queries that reference the columns in the group.
	Collect distribution statistics on key columns only	Collects both basic statistics and distribution statistics on key columns only. For efficiency both of RUNSTATS and subsequent query-plan analysis, you might collect distribution statistics on only the table columns that queries use in WHERE, GROUP BY, and similar clauses. You might also collect cardinality statistics on combined groups of columns. The optimizer uses such information to detect column correlation when it estimates selectivity for queries that reference the columns in the group.
	Collect distribution statistics on all columns	Collects both basic statistics and distribution statistics on all columns. For efficiency both of RUNSTATS and subsequent query-plan analysis, you might collect distribution statistics on only the table columns that queries use in WHERE, GROUP BY, and similar clauses. You might also collect cardinality statistics on combined groups of columns. The optimizer uses such information to detect column correlation when it estimates selectivity for queries that reference the columns in the group.
	Frequency	Lets you specify the maximum number of frequency values to collect, between 1 and 32767.

>

Tab	Option	Description
	Quantiles	Lets you specify the maximum number of distribution quantile values to collect, between 1 and 32767.
	Exclude XML columns	Lets you collect statistics on non-XML columns only. XML columns are not included in statistics collection.
Index Options	Update index statistics	Updates index statistics.
	Collect extended index statistics	Collects extended index statistics, the CLUSTERFACTOR and PAGE_FETCH_PAIRS statistics that are gathered for relatively large indexes.
	Collect sample statistics	Rapid SQL uses a CPU sampling technique when compiling the extended index statistics. If the option is not specified, every entry in the index is examined to compute the extended index statistics.
	Select Indexes	Lets you select the indexes.
Access Options	Allow read only access during collection	Allows read only access while Rapid SQL updates the statistics.
	Allow read/write access during collection	Allows read and write access while Rapid SQL updates the statistics.

For more information, see:

Update Statistics

Completing the Update Statistics Dialog Box

Updating Table Statistics

Collecting Column Statistics

Collecting Distribution Statistics for Tables

Setting Access Levels While Updating Statistics for Indexes

Collecting Extended Index Statistics

Collecting Sample Statistics for Indexes

Updating Table Statistics

To update table statistics, do the following:

Collecting Column Statistics

To collect column statistics, do the following:

Collecting Distribution Statistics for Tables

To collect distribution statistics for tables, do the following:

Setting Access Levels While Updating Statistics for Indexes

To set access levels while updating statistics for an index, do the following:

Collecting Extended Index Statistics

To collect extended index statistics, do the following:

Collecting Sample Statistics for Indexes

To collect sample statistics for indexes, do the following:

Updating Microsoft SQL Server Object Statistics

You can update statistics so that Microsoft SQL Server performs the most efficient query possible. This feature updates statistical information on your database so that the query processor can determine the optimal strategy for evaluating a query. These statistics record the key values used for distribution in an database.

You can use the Update Statistics dialog box if there is significant change in the key values in the database, if a large amount of data in an indexed column has been added, changed, or removed, or if a table has been truncated causing significant changes in the distribution of key values.

The Update Statistics dialog box lets you specify tables and indexes for validation. This dialog box offers different update options depending on your version of Microsoft SQL Server.

> **TIP:** Avoid updating statistics on your target tables during busy access periods. Microsoft SQL Server locks remote tables and indexes while reading data for update statistics.

For Microsoft SQL Server version 7 or later, the Update Statistics dialog box lets you specify a full or a percentage of a full scan to be used for updating table or index statistics. It also lets you enable or disable future automatic recomputations of statistics. These recomputations are made at Microsoft SQL Server's discretion. When updating statistics for tables, this dialog box also lets you specify the type of statistics you require.

Updating Objects

The table below describes the options and functionality on the Update Statistics dialog box for objects.

Option	Description
Scan Range	Full Scan - Select when you want index statistics on every available row. Sample Scan - Select when database size prohibits a full scan and you can afford to rely on statistics extrapolated from a sample of all available rows.

>

Option	Description
Statistics Type	Index - Select if you only require statistics on the target tables' indexed columns. Columns - Select if you require statistics on the target tables in their entirety. All existing statistics - Select if you require statistics on the whole database. **NOTE:** Only available for updating statistics on tables.
Statistics Recompute	Select if you want Microsoft SQL Server to recompute and update the statistics for the index as part of its normal internal maintenance. Deselect if you want the scheduling of future recomputations to be solely your responsibility.

Updating Databases

The table below describes the options and functionality on the Update Statistics dialog box for databases.

Option	Description
Database(s) to Update	Lets you specify the database(s) to update.

For more information, see:

Update Statistics

Completing the Update Statistics Dialog Box

Updating Sybase ASE Object Statistics

The Update Statistics dialog box lets you specify tables and indexes for validation. This dialog box offers different update options depending on your version of Sybase ASE.

> **TIP:** Avoid updating statistics on your target tables during busy access periods. Sybase ASE locks remote tables and indexes while reading data for update statistics.

For more information, see:

Update Statistics

Completing the Update Statistics Dialog Box

Important Notes

None

SQL Scripting

Rapid SQL incorporates a powerful SQL scripting environment, the ISQL Editor. The ISQL Editor lets you write, debug, test and deploy solid SQL code for your database applications. The scripting environment lets you:

- Open multiple interactive script windows.
- Execute multiple scripts on the same desktop.
- Capture multiple result sets on the same desktop.

Rapid SQL's scripting environment is comprised of different windows:

- ISQL Editor
- DDL Editor
- Results Editor

These windows are context sensitive to the type of script you are opening or extracting. For example, if you extract the schema for a table, Rapid SQL opens a DDL Window containing the script. If you execute a script, a result window displays containing the results of your execution statement.

TIP: Since you must drop a database object before you can recreate it, you can set the DDL Editor to automatically include DROP statements for specified objects.

TIP: You can have multiple ISQL windows open at the same time, with each running separate queries.

ISQL Editor

The ISQL Editor includes the ISQL Window and DDL Editor.

The ISQL Window lets you:

- Insert files and open files.
- Rename and configure query tabs.
- Find and replace with regular expressions.
- Mail your script files.

TIP: To enlarge or reduce (zoom) the display font size, press Ctrl-= or Ctrl-- (plus or minus on the numeric pad), or hold the Ctrl key while scrolling the mouse wheel. To return to the default size, press Ctrl-/ (on the numeric pad).

TIP: To toggle to the next SQL window, press CTRL +T.

TIP: The row limit option lets you display only the first 'n' rows from any submitted query.

TIP: For Oracle, Rapid SQL displays REF CURSOR contents in the ISQL Window and Results Tab.

TIP: For IBM DB2 LUW for Linux, Unix, and Windows and Oracle, you can access the Code Completion functionality with the CTRL+K shortcut.

Related Topics

- Toolbar Options
- Opening ISQL Windows
- Opening DDL Editors
- Opening Script Files

- Inserting Files into an ISQL Window
- Splitter Windows
- Find and Replace in an ISQL Window
- Regular Expressions
- Navigating in an ISQL Window
- Scheduling
- Sending SQL Scripts
- Renaming and Closing Query Window Tabs
- Printing a Script
- Saving and Closing Scripts
- SQL Preprocessor

SQL Preprocessor

Rapid SQL provides SQL preprocessing similiar to functionality provided by C language compiler directives. The ISQL Editor supports a simplified version of the **#define** and **#include** directives.

> **NOTE:** In addition to the ISQL Editor, the **#define** and **#include** directives are also supported in the Procedure Object Editor and the Package Body Object Editor.

#include functionality and syntax

Rapid SQL support for the **#include** directive provides a means to include the contents of a file in a script at the location of the directive. For example, if a script contains the following:

```
#include mydeclarations.sql
```

then on execution of the script, there are two effects:

- The line containing the **#include** directive is commented out before the script is sent to the database
- The text in the file mydeclarations.sql is placed in the script following the commented out line with the **#include** directive.

The **#include** directive is supported for simple file names only. Supported syntax of the **#include** directive for use in the ISQL editor, Procedure Object Editor, or Package Body Object Editor, is as follows:

#include *filename.ext*
where:

- *filename.ext* is a simple filename and extension

> **NOTE:** For those familiar with C compiler functionality, angle bracket and quoted forms are supported only indirectly. While #include <filename.ext> and #include "filename.ext" forms are valid, they are functionally equivalent to the #include filename.ext. Using the angle bracket or quoted forms has no effect on locations searched for the target file.

Searches are performed in the following locations, in the following order:

1. The location specifed on the **Datasource Properties** tab of the Datasource Registration Wizard/Editor.
2. The location specifed on the Directories tab of the Options editor.

Error processing is as follows:

- If the preprocessor fails to include the specified file, it displays an error message noting the reason for the failure (such as the file does not exist, insufficient permissions on the file, or file too large). In this case, execution of the script will not continue.
- If the preprocessor finds the file but cannot open it (permission denied for example), will not attempt to locate the file in other paths specified on the Datasource Properties tab of the Datasource Registration Wizard/Editor or the Directories tab of the Options editor.
- If there are execution errors (the script in the specified file has errors), you are offered the option to view the preprocessed script. . If he chooses "yes" a new tab in ISQL will be opened, containing the preprocessed script and having the error lines marked.

#define functionality and syntax

The **#define** directive provides a simple, global search and replace function within a script. For example, if a script contains the following:

```
#define &&PI 3.14159
```

then on execution of the script, there are two effects:

- All instances of **&&PI** in the script would be replaced by **3.14159** on execution of the script
- The line containing the **#define** directive is commented out before the script is sent to the database

The **#define** directive is supported for symbolic constants only. Supported syntax of the #define directive for use in the ISQL editor, Procedure Object Editor, or Package Body Object Editor, is as follows:

#define &&*Identifier Replacement_text*
where:

- *Identifier* is any character string appearing in the script
- *Replacement_text* is the string that will replace all instances of the string specified by the *Identifier* argument. Valid values are strings, numbers or combinations consisting of the digits **0**-**9**, characters **a**-**z**, characters **A** -**Z**, and the underscore character.

  NOTE: In addition to the actual #define directive appearing in a script, the ampersand notation is also required in all references that are to be replaced.

Nested #define directives are also supported. For example if a script contains the following:

#define &&myTable Clients

```
#define &&embtClients Embarcadero
#define &&tempTable New&&myTable
#define &&embtTempTable &&embtClients&&myTable

Select * from &&tempTable;
Select * from &&embtTempTable
```

The result sent to the database would be:

```
Select * from  NewClients;
Select * from EmbarcaderoClients
```

Toolbar Options

The table below describes the options of the ISQL Editor toolbar:

Option	Description
Lock	Lets you lock an ISQL Window to a specific datasource connection. When locked, the ISQL Window does not respond to datasource change events, and only uses the current connection for execution.
Format	Transforms spaghetti-style written SQL code into an easier read format.
Syntax Check	Checks any set of SQL to ensure it is valid before it is submitted to the database.
Analyze Code	Reports the number and type of statements contained within the SQL code.
Debug	Opens the Embarcadero SQL Debugger.

ISQL Windows

A script is a collection of SQL statements used to perform a task. Scripts, stored as files, form the foundation of most application projects. Definitions of tables, indexes, stored procedures, as well as reports and batch jobs, are usually stored in script files and shared by groups of developers using version control software. You can manage SQL scripts in SQL windows. Rapid SQL lets you open multiple SQL windows in one or more workspaces.

Opening ISQL Windows

To open the ISQL Window, do the following:

1 On the **File** menu, click **New ISQL**.

OR

On the **Main** tool bar, click **New ISQL**.

Rapid SQL opens an SQL window in your current workspace.

For more information, see

ISQL Window Status Bar

ISQL Editor.

ISQL Window Status Bar

The ISQL window Status bar lets you view:

- Auto commit status (Oracle) - Automatically commits SQL statements as soon as the statements are run.
- Begin Transaction ON/OFF (SQL Server and Sybase)

TIP: For Microsoft SQL Server and Sybase, to set Begin Transaction status to “Yes”, on the ISQL Window toolbar, click the SQL Begin Tran button.

TIP: For Oracle, you can apply auto commit status changes to all open ISQL windows. You can modify the Oracle Auto Commit status and ISQL tab of the Options Editor. For details, see ISQL options.

DDL Editors

NOTE: This functionality is available for all platforms.

Rapid SQL lets you open a new DDL Editor when you want to create a script that is tied to an object type in your database. The DDL Editor opens containing a template script for the selected object type. Because the DDL Editor is directly tied to a database, database warning messages can be issued. For example, if you have a create table script which includes a DROP TABLE statement, the DDL Editor warns you about the existence of this statement and that you could lose existing table data.

Important Notes

None

The table below describes the options and functionality on the Create New Database Object dialog box.

Option	Description
Object Type	Lets you select the object type to which you want to attach the script.
Owner	Lets you type the name of the object owner for the object. The name of the owner connected to the current datasource is used as the default.
Object Name	Lets you type the name of the object type.

Rapid SQL opens a DDL Editor containing a template for the object type you selected.

For more information, see Opening DDL Editors.

Opening DDL Editors

To open DDL Editors, do the following.

1. On the **File** menu, click **New DDL Editor**.

   OR

   On the **Main** tool bar, click the **Down** arrow on **New**, and then click **DDL Editor**.
2. In **Object Type** select the object type to which you want to attach the script.
3. In **Owner** type the name of the object owner for the object. The name of the owner connected to the current datasource is used as the default.
4. In **Object Name** type the name of the object type.
5. Click **OK**.

   Rapid SQL pastes the DDL into the ISQL Editor.

For more information, see ISQL Editor.

Open Files

NOTE: This functionality is available for all platforms.

The Open Files dialog box lets you open existing files.

>

Important Notes

None

The table below describes the options and functionality on the Open Files dialog box.

Option	Description
File Name	Lets you type a script file name. You can open multiple script files simultaneously by selecting multiple file names in the file list.
Files of Type	Lets you control the files displayed in the file list by changing the selection. Rapid SQL displays multiple default file extensions.
Open Button	Click to open one or more files into the current workspace.

Completing the Open Files Dialog Box

To complete the Open Files dialog box, do the following:

1. On the **File** menu, click **Open**.

   OR

   On the **Main** tool bar, click **Open**.

2. Select a script file.

   OR

3. In **File Name**, type a script file name.
4. In **Files of type**, select types of files to display.
5. Click **Open** to open one or more files into the current workspace.

   Rapid SQL pastes the script into the ISQL Editor.

For more information, see ISQL Editor.

What Type of File

NOTE: This functionality is available for all platforms.

The What Type of File Is dialog box lets you select options for unknown file types.

Important Notes

None

The table below describes the options and functionality on the What Type of File Is dialog box:

Option	Description
The file is a general purpose SQL script	Select if the unknown file is a SQL script.

>

Option	Description
The file contains the DDL to create a database object of the file contains Oracle Anonymous PL/SQL.	Lets you select object type, type the owner, and object name.
Always open unknown files into a SQL window without prompting.	Select to hide What Type of File Is Dialog Box for future unknown file types.

For more information, see Completing the What Type of File Is Dialog Box.

Completing the What Type of File Is Dialog Box

To complete the What Type of File Is dialog box, do the following:

1 On the **File** Menu, click **Open**.

Rapid SQL opens the Open File(s) dialog box.

2 In the **Open File(s)** dialog box, select the target script, and then click **Open**.

Rapid SQL opens the What type of file dialog box.

3 Select options, and then click **OK**.

Rapid SQL opens the target script in an SQL Editor.

For more information, see ISQL Editor.

Insert File into Current File

NOTE: This functionality is available for all platforms.

The ISQL Editor facilitates the reuse of SQL scripts by letting you insert an existing file into another script.

The table below describes the options and functionality on the Insert File into Current File dialog box.

Option	Description
File Name	Lets you type a script file name. You can open multiple script files simultaneously by selecting multiple file names in the file list.
Files of Type	Lets you control the files displayed in the file list by changing the selection. Rapid SQL displays multiple default file extensions.
Open Button	Click to insert one or more files into the current workspace.

Important Notes

None

For more information, see Completing the Insert File into Current File Dialog Box.

Completing the Insert File into Current File Dialog Box

To complete the Insert File into Current File dialog box, do the following:

1. On the **Edit** menu, click **Edit Insert File**.

   OR

   On the **Edit** tool bar, click **Edit Insert File**.

   Rapid SQL opens the Insert File into Current File dialog box.

2. Select a script file.

   OR

3. In **File Name**, type a script file name.

4. In **Files of type**, select types of files to display.

5. Click **Open** to insert one or more files into the current workspace.

   Rapid SQL inserts the file.

For more information, see ISQL Editor.

Splitting Windows

You can split a SQL window into four different screens so that you can view different sections of a document simultaneously. You have the option to split the ISQL Window horizontally, vertically or into quadrants.

Splitting the ISQL Window Horizontally

To split the ISQL Window horizontally, do the following:

1. Point to the split box at the top of the vertical scroll bar on the right side of the SQL window.
2. When the pointer changes, drag it to the desired position.

Splitting the ISQL Window Vertically

To split the ISQL Window vertically, do the following:

1. Point to the split box at the top of the horizontal scroll bar on the bottom left side of the SQL window.
2. When the pointer changes, drag it to the desired position.

Removing Splits from an ISQL Window

Double-click the appropriate split bar to return the SQL window to its normal state.

For more information, see ISQL Editor.

Find

NOTE: This functionality is available for all platforms.

The Find dialog box lets you search text in your SQL scripts.

>

Important Notes

None

The table below describes the options and functionality on the Find dialog box.

Option	Description
Find What	Lets you type your search string.
Match whole word only	Select to search for only the complete word.
Match Case	Select to make the search case-sensitive.
Regular expression	Select if you are looking for a regular text expression.
Wrap around search	Lets you search from the end of the script and back to the insertion point.
Direction	Lets you specify the direction you want to search. Click the Up or Down option button.
Find Next Button	Click to find the next occurrence of your search string.
Mark All Button	Click to place a small blue dot next to every line number in the script which meets the required search string criteria.

For more information, see Completing the Find Dialog Box.

Completing the Find Dialog Box

To complete the Find dialog box, do the following

1. On the **Edit** menu, click **Find**.

   OR

   On the **Edit** tool bar, click **Find**.
2. In **Find What**, type your search string.
3. Select **Match whole word only** to search for only the complete word.
4. Select **Match Case** to make the search case-sensitive.
5. Select **Regular expression** to search for a regular text expression.
6. Select **Wrap around search** to search from the end of the script and back to the insertion point.
7. In **Direction**, click **Up** or **Down**.
8. Click **Find Next** to find the next occurrence of your search string.
9. Click **Mark All** to place a small blue dot next to every line number in the script which meets the required search string criteria.

   The ISQL Editor highlights the object name if it matches the search criteria.

For more information, see Find.

>

Replace

NOTE: This functionality is available for all platforms.

The Replace dialog box lets you search and replace text in your SQL scripts.

The table below describes the options and functionality on the Replace dialog box.

Option	Description
Find What	Lets you type your search string.
Replace With	Lets you type the replacement text.
Match Case	Select to make the search case-sensitive.
Regular expression	Select if you are looking for a regular text expression.
Wrap around search	Lets you search from the end of the script and back to the insertion point.
Direction	Lets you specify the direction you want to search. Click the Up or Down option button.
Find Next Button	Click to find the next occurrence of your search string.
Replace Button	Click replace the current selection.
Replace All Button	Click to automatically find and replace all occurrences of your search string within the current window.

For more information, see Completing the Replace Dialog Box.

Completing the Replace Dialog Box

To complete the Replace dialog box, do the following:

1. On the **Edit** menu, click **Replace**.

   OR

   On the **Edit** tool bar, click **Replace**.
2. In **Find What**, type your search string.
3. In **Replace With**, type the replacement text.
4. Select **Match whole word only** to search for only the complete word.
5. Select **Match Case** to make the search case-sensitive.
6. Select **Regular expression** to search for a regular text expression.
7. Select **Wrap around search** to search from the end of the script and back to the insertion point.
8. In **Direction**, click **Up** or **Down**.
9. Click **Find Next** to find the next occurrence of your search string.
10. Click **Replace** to replace the current selection.

>

11 Click **Replace All** to automatically find and replace all occurrences of your search string within the current window.

For more information, see ISQL Editor.

Regular Expressions

Regular Expressions are offered as an optional search criteria in the SQL windows search facility. Regular Expressions serve as powerful notation for describing string matching patterns. Special characters are used to denote certain match criteria on which the ISQL Editor should conduct its search. The table below describes the special characters and their meanings:

Character	Meaning	Example
^	Circumflex - Constrains the search to the start of a line	^Rap -- Match lines beginning with Rap ^Emb -- Match lines beginning with Emb
$	Dollar - A dollar as the last character of the string constrains matches to the end of lines.	if$--Match lines ending with if ^end$-- Match lines consisting of the single word end
.	Period - A period anywhere in the string matches any single character.	T..l -- Matches Tool, Till, Tail etc. H.w -- Matches Huw, How, Haw etc. ^Sin.ers -- Matches lines beginning with Sinders, Sinners etc.
*	Asterisk - An expression followed by an asterisk matches zero or more occurrences of that expression.	to* -- Matches t, to, too etc. 00* -- matches 0, 00, 000, 0000 etc.
+	Plus - An expression followed by a plus sign matches one or more occurrences of that expression.	to+ -- Matches to, too etc. 10+ -- Matches 10, 100, 1000, 10000 etc. /(:d+/) -- Matches (0), (12464), (12) etc.
?	Question mark - An expression followed by a question mark optionally matches that expression.	for? -- Matches f and for 10? -- Matches 1 and 10
()	Brackets - Brackets can be used to group characters together prior to using a * + or?.	Rap(id)? -- Matches Rap and Rapid B(an)*a -- Matches Ba, Bana and Banana
[ ]	Square brackets - A string enclosed in square brackets matches any character in that string, but no others. If the first character of the string is a circumflex, the expression matches any character except the characters in the string. A range of characters can be specified by two characters separated by a -. These should be given in ASCII order (A-Z, a-z, 0-9 etc.).	{[0-9]} -- Matches {0}, {4}, {5} etc. /([0-9]+/) -- Matches (100), (342), (4), (23456) etc. H[uo]w -- Matches Huw and How Gre[^py] -- Matches Green, Great etc. but not Grep, Grey etc. [z-a] -- Matchesnothing ^[A-Z] -- Match lines beginning with an upper-case letter

>

Character	Meaning	Example
\	Backslash - A backslash quotes any character. This allows a search for a character that is usually a regular expression specifier.	\$ -- Matches a dollar sign $ \+ -- Matches a +

For more information, see ISQL Editor.

Goto

NOTE: This functionality is available for all platforms.

The Goto dialog box lets you move to a specific line or column in your script.

Important Notes

None

The table below describes the options on the Goto dialog box:

Option	Description
Line Number	Lets you type or select the target line number.

Completing the Goto Dialog Box

To complete the Goto dialog box, do the following:

1. On the **Edit** menu, click **Goto**.

   Rapid SQL opens the Go To dialog box.

2. In **Line Number**, type or select the target line number.

3. Click **OK**.

   Rapid SQL moves the cursor to the target line.

For more information, see ISQL Editor.

Column Look-up

Column Look-up allows users to quickly reference and select table column names while coding or editing queries in the ISQL window.

Important Notes

You can set the options for column look-up in the Code Workbench.

>

Using Column Look-up

To use this feature, do the following:

1 In the **ISQL Window**, type the name of the table, view, or alias and then a period. You must construct a clause containing the table, view, or alias name before the column look-up feature will work. For example:

```
SELECT employee.
```

Rapid SQL opens the list of available columns.

2 Select the target column name.

Rapid SQL adds the column name to the SQL statement.

Code Templates

Rapid SQL lets you paste code templates into any open editable window. Code templates are complete code blocks that can be easily added to open windows or scripts with a few keystrokes. Templates let you define standard comment blocks or add common exit and error handling routines to new or existing objects.

To paste a code template, do the following:

1 Open **ISQL Window**.

2 Type the code template shortcut.

3 Type the template hot key.

OR

4 In the Code Templates dialog box, select the target template.

For more information, see:

Code Workbench

Edit Code Template Dialog Box

Sending SQL Scripts

If you have MAPI-compliant E-mail software installed on your computer, then you can send SQL scripts to other users.

To send a SQL script, do the following:

1 On the **File** menu, click **Send**.

OR

On the **Main** tool bar, click **Send**.

Rapid SQL opens your E-mail application.

2 In the **Address** box, type the name of the addressee(s) and any other options.

NOTE: The ISQL Editor automatically attaches a file containing your SQL script to the e-mail message.

3 Click **Send**.

Rapid SQL sends the result set to the specified addressee(s).

For more information, see ISQL Editor.

Renaming and Closing Query Window Tabs

SQL windows are tabbed windows that can be closed or renamed.

To rename a Query Tab, you need an open SQL window that includes an executed script. For information on how to execute scripts, see:

- Executing Scripts
- Script Execution Facility

Renaming a Query Window Tab

To rename a Query Window Tab, do the following:

1. Right-click the **Query Tab** on the **SQL window**, and then click **Rename**.

   Rapid SQL opens the Rename Tab dialog box.

   NOTE: The Query Tab can be located on the top or bottom of the SQL window. You can set the location of the tab when configuring Datasource options.

2. In the **New Name** box, type the name of the new **Query** window.
3. Click **OK**.

   Rapid SQL changes the name and closes the Rename Tab dialog box. The new name of the tab displays directly on the Query Window Tab at the top of the window.

Closing a Query Window Tab

To close a Query Window Tab, do the following:

1. At the top of the **ISQL window,** right-click the **Query Tab**, and then click **Close** or **Close All**.

   Rapid SQL closes the Query.

For more information, see ISQL Editor.

Print

NOTE: This functionality is available for all platforms.

The Print dialog box lets you can specify a range of panels to print, or print the contents of a script window to a file.

Important Notes

None

The table below describes the options and functionality on the Print dialog box.

Tab	Option	Description
Scope	Printer	Displays default printer.
	Print Range	Lets you select the appropriate print range.
	Number of Copies	Lets you click the Up or Down arrow or type the number of copies you want.

Tab	Option	Description
Page Setup	Header	Lets you type header type to display at the top of the page.
	Footer	Lets you type header type to display at the bottom of the page.
	Header/Footer not within Margins	Select to position header and footer outside the margins.
	Margins	Lets you specify margins in either inches or centimeters.
Options	Chromacoding	Lets you select Use Color if you have a color printer. Lets you select Use Font if script includes italics and bold fonts.
	Line Numbering	Lets you specify the interval between numbered lines.
	Other Options	Lets you select other options.
Documents	Document Box	Lets you select documents to print.
	Clear	Click to clear list.
	Invert	Click to switch printing order.
Configurations	New Configuration Name	Lets you type a new configuration which saves you current settings, and then click Create.
	Delete	Lets you delete an existing configuration.
	Load	Lets you load an existing configuration.
	Update	Lets you update an existing configuration.

The table below describes the buttons on the Print dialog box:

Button	Description
Save Settings	Lets you save settings.
Font	Lets you open the Font dialog box and select fonts.
Setup	Lets you open the Print Setup dialog box and select printer options.
Preview	Lets you open the Print Preview dialog box that lets you preview the document before you print it.
Print	Lets you print the document.

For more information, see Completing the Print Dialog Box.

Completing the Print Dialog Box

To complete the Print dialog box, do the following:

1 On the **File** menu, click **Print**.

OR

On the **Main** tool bar, click **Print**.

2 On the tabs, select options.

3 Click **Print**.

For more information, see ISQL Editor.

Saving and Closing Scripts

Untitled scripts are named SQL1...SQLn by default, and all scripts are saved with the SQL extension. You can save your files with any valid name.

For more information, see:

Saving a Script

Closing a Script

Closing the Error List

ISQL Editor

Saving a Script

To complete the Save dialog box, do the following:

1 On the **File** menu, click **Save**.

OR

On the **Main** tool bar, click **Save**.

Rapid SQL opens the Save As dialog box.

2 If this is a new file, in the **File Name** box, type the name of the file.

3 If this is an existing file and you want to use save as, on the **Main** menu, click **Save As,** and in the **File Name** box, type the name of the file.

4 Click **Save**.

Rapid SQL closes the Save As dialog box.

For more information, see Saving and Closing Scripts.

Saving Modified Documents

The table below describes the options and functionality on the Save Modified Documents dialog box:

Option	Description
Save All	Click to save documents in all open ISQL windows.
Save Selected	Click to save selected documents.
Invert	Click to clear selection.
Save None	Click to not save documents and close the application.

>

Important Notes

None

For more information, see Saving and Closing Scripts.

Closing a Script

To close a script, do the following:

1. On the on the **Main** menu, click **Close**.

   OR

   On the **ISQL window** tool bar, click **Close**.

   OR

   In the upper right corner of the window, double-click the **System** menu icon.

   `Rapid SQL starts closing` the script.

2. If you have not saved your script, Rapid SQL prompts you to save the file. Click **Yes** to save and **No** to close without saving.

For more information, see Saving and Closing Scripts.

Closing the Error List

To close the error list, do the following:

1. On the **Query** menu, click **Show Errors**.

   OR

   On the **ISQL window** tool bar, click **Show Errors**.

   `Rapid SQL closes the error` list.

For more information, see ISQL Editor.

Editing Scripts

The ISQL Window incorporates a powerful editor that lets you edit your SQL scripts. The ISQL Window includes editing features such as:

- Uppercase or lowercase character conversion.
- Commenting and uncommenting blocks of text.
- Selecting text.
- Inserting PL/SQL tags.
- Setting and navigating with bookmarks.

The ISQL Editor provides Paste SQL Syntax and Paste SQL Statements utilities from which you can paste syntax for SQL commands and functions directly into an ISQL Window.

>

Editing a Script

To edit a script, do the following:

1 In the **SQL** window, type your changes or additions.

2 When you are finished with your changes, on the **ISQL** window tool bar, click **Execute** to compile the script.

For more information, see ISQL Editor.

Paste SQL Syntax

NOTE: This functionality is available for all platforms.

The Paste SQL Syntax facility lets you paste SQL syntax without having to refer to documentation to find syntax for SQL commands. You can also paste the SQL directly into an ISQL window.The Paste SQL Syntax facility that includes SQL syntax for:

- Commands
- Functions
- XML
- Other object syntax

Important Notes

None

The table below describes the options and functionality on the SQL Syntax dialog box.

Option	Description
SQL Statements	Lets you select the target command, functions, or optimizer hint.
Syntax	Displays the syntax.
Paste Button	Click to paste the SQL statement into your ISQL Window.

NOTE: You must change the placeholders (e.g., expression) in the statements to reflect the specific objects in your database. For assistance with basic SQL statements, such as Select, Insert, Update, or Delete, use the Paste SQL Statement facility instead.

The table below describes options for each RDBMS platform:

Oracle	Sybase ASE	Microsoft
SQL Commands	SQL Commands	SQL Commands
Number Functions	Aggregate Functions	Aggregate Functions
Character Functions	Datatype Conversion Functions	Datatype Conversion Functions
Date Functions	Date Functions	Date Functions
Conversion Functions	Mathematical Functions	Mathematical Functions
Group Functions	String Functions	String Functions

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Oracle	Sybase ASE	Microsoft
Other Functions (User, NVL, etc.)	System Functions	System Functions
Optimizer Hints	System Diagnostics	Text/Image Functions

For more information, see Completing the SQL Syntax Dialog Box.

Completing the SQL Syntax Dialog Box

To complete the SQL Syntax dialog box, do the following:

1. Place your insertion point in an open **SQL** window.
2. On the **Edit** menu, click **Paste SQL Syntax**.

   OR

   On the **ISQL Window** tool bar, click **Paste SQL Syntax**.
3. In **SQL Statements**, select the target command, functions, or optimizer hint.
4. To paste the SQL statement into your ISQL Window, click **Paste**.

For more information, see Editing Scripts.

Paste SQL Statements

NOTE: The functionality is available for all platforms.

The Paste SQL Statement facility lets you create Select, Insert, Update, and Delete SQL statements. The Paste SQL Statement window displays all available database object names from which you can choose to construct SQL statements. These statements are dependent on the object type you choose.

Important Notes

None

The table below describes the options and functionality on the Paste SQL dialog box.

Option	Description
Datasource	Lets you select the target datasource.
Database	Lets you select the target database.
Owner	Lets you select the owner.
Object Type	Lets you select the target object type.
Select	Click if you want a SELECT SQL statement.
Update	Click if you want an UPDATE SQL statement.
Insert	Click if you want an INSERT SQL statement.
Delete	Click if you want a DELETE SQL statement.

Option	Description
Object Type Box	Rapid SQL displays a column of objects, given your selections of datasource, owner, and object type. Lets you select the check box next to the target object type, or click All to select all. Paste - Click to paste this object into your Editor window.
Middle Box	Rapid SQL displays attributes appropriate to the type of object you selected. For example, if you select Tables, Rapid SQL fills the second column with the columns of the table you select in the first column. If you select Procedures, Rapid SQL fills the second column with available parameters for the procedure you select in the first column. Lets you click the target object type properties or click All to select all. For example, if you selected a Table, then select one or more columns in the middle box; or, if you selected a Procedure, then select parameters in the middle box. Paste - Click to paste the object properties into your Editor window, under the Object Type box.
Right Box	Displays the SQL statement. Paste - Click when you are satisfied with the entire SQL statement. Rapid SQL pastes the SQL statement into your Editor window.

For more information, see Completing the Paste SQL Dialog Box.

Completing the Paste SQL Dialog Box

To complete the Paste dialog box, do the following

1. Place your insertion point in an open **Editor** window.
2. On the **Edit** menu, click **Paste SQL**.

   OR

   On the **Editor** window tool bar, click **Paste SQL**.
3. In **Datasource**, select the target datasource.
4. In **Database**, select the target database.
5. In **Owner**, select the owner.
6. In **Object Type**, select the target object type.
7. Click **Select** if you want a SELECT SQL statement.
8. Click **Update** if you want an UPDATE SQL statement.
9. Click **Insert** if you want an INSERT SQL statement.
10. Click **Delete** if you want a DELETE SQL statement.
11. In the **Object Type Box**, select the check box next to the target object type, or click All to select all.
12. Click **Paste** to paste this object into your Editor window.

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13 In the **Middle Box**, click the target object type properties or click All to select all.

14 Click **Paste** to paste the object properties into your Editor window, under the Object Type box.

Rapid SQL the SQL statement in the right box.

15 In the **Right Box**, click **Paste** when you are satisfied with the entire SQL statement.

Rapid SQL pastes the SQL statement into your Editor window.

For more information, see Editing Scripts.

Selecting Text

The ISQL Editor lets you select a single word, a single line, or a block of text.

Selecting a Single Word

To select a single word, do the following:

1 In the **ISQL Editor** window, position the pointer in the word and double-click.

Selecting a Line of Text

Rapid SQL offers two ways to select a line of text:

1 In the **ISQL Editor** window, click the line number listed on the left side of the window.

OR

2 Position the pointer at the beginning of the line of text, hold down the SHIFT key, and then click the end of the line of text.

Selecting a Block of Text

To select a block of text, do the following:

1 In the **ISQL Editor** window, drag until the block of text is selected.

For more information, see Editing Scripts.

Moving and Copying Text in an ISQL Window

You can move or copy information anywhere in an Editor window or into a different Editor window by dragging it.

Moving Text

To move text, do the following:

1 In the **ISQL Editor** window, select the text you want to move.

2 Drag to the target location.

Copying Text

To copy text, do the following:

1 In the **ISQL Editor** window, select the text you want to copy.

2 On the **Edit** menu, click **Copy**.

3 Drag to the target location.

NOTE: If you are dragging between different Editor windows, arrange the Editor windows so that the source and destination windows are open and visible. You must be able to see both the original and target locations.

For more information, see Editing Scripts.

Commenting and Uncommenting Scripts

For most developers and development teams, documenting code is a fundamental part of the coding process. Besides contributing explanatory material for others who need to analyze or maintain your code later, the ability to comment and uncomment code can be very useful for bypassing statements in a procedure during compilation.

Commenting Code

To commenting out code, do the following:

1 On the **Edit** menu, click **Comment Out**.

OR

Select a line of code, and on the **Edit** tool bar, click **Comment Out**.

Rapid SQL comments code.

Uncommenting Code

To uncomment code, do the following:

1 On the **Edit** menu, click **Undo Comment Out**.

OR

Select a line of code, and on the **Edit** tool bar, click **Undo Comment Out**.

Rapid SQL uncomments code.

For more information, see Editing Scripts.

Changing Case

When writing SQL scripts, you can change the letter casing of certain statements or lines of code. You can change case from lowercase to uppercase, or from uppercase to lowercase, using the case functions.

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Changing Case

To change case, do the following:

1. Select one or more letters in your script.
2. On the **Edit** menu, click **Upper Case**.

   OR

   On the **Edit** menu, click **Lower Case**.

   OR

   On the **Edit** tool bar, click **Upper Case**.

   OR

   On the **Edit** tool bar, click **Lower Case**.

   Rapid SQL changes the case.

For more information, see Editing Scripts.

Cutting, Copying and Pasting Text and Columns in an ISQL Window

The Editor window incorporates Cut, Copy and Paste text, and whole columns functions. You can move the selected text or columns to and from the Windows clipboard.

For more information, see:

Copying and Pasting Text

Cutting and Pasting Text

Copying and Pasting a Column

Cutting and Pasting a Column

Copying and Pasting Text

To copy and paste text, do the following:

1. In the **Editor** window, select the target text.
2. On the **Edit** menu, click **Copy**.

   OR

   On the **Editor** tool bar, click **Copy**.

   Rapid SQL copies the text.
3. On the **Edit** menu, click **Paste**.

   OR

   On the **Editor** tool bar, click **Paste**.

   Rapid SQL pastes the text.

For more information, see Cutting, Copying and Pasting Text and Columns in an ISQL Window.

Cutting and Pasting Text

To cut and paste text, do the following:

1. In the **Editor** window, select the target text.
2. On the **Edit** menu, click **Cut**.

   OR

   On the **Editor** tool bar, click **Cut**.

   Rapid SQL cuts the text.
3. On the **Edit** menu, click **Paste**.

   OR

   On the Editor tool bar, click **Paste**.

   Rapid SQL pastes the text.

For more information, see Cutting, Copying and Pasting Text and Columns in an ISQL Window.

Copying and Pasting a Column

To copy and paste a column, do the following:

1. In the **Editor** window, position the pointer in front of the column of the target text.
2. Press **ALT** and simultaneously drag the pointer over the target column.
3. On the **Edit** menu, click **Copy**.

   OR

   On the **Editor** tool bar, click **Copy**.

   OR

   Right-click the text, and then click **Copy**.

   Rapid SQL copies the column.
4. In the **Editor** window, position the pointer where you want to paste the column.
5. On the **Edit** menu, click **Paste**.

   OR

   On the **Editor** tool bar, click **Paste**.

   OR

   Right-click the text, and then click **Paste**.

   Rapid SQL pastes the column.

For more information, see Cutting, Copying and Pasting Text and Columns in an ISQL Window.

Cutting and Pasting a Column

To cut and paste a column, do the following:

1. In the **Editor** window, position the pointer in front of the column of the target text.
2. Press **ALT** and simultaneously drag the pointer over the target.

>

3 On the **Edit** menu, click **Cut**.

OR

On the **Editor** tool bar, click **Cut**.

OR

Right-click the text, and then click **Cut**.

Rapid SQL cuts the column.

4 In the **Editor** window, position the pointer where you want to paste the column.

5 On the **Edit** menu, click **Paste**.

OR

On the **Editor** tool bar, click **Paste**.

OR

Right-click the text, and then click **Paste**.

Rapid SQL pastes the column.

For more information, see Cutting, Copying and Pasting Text and Columns in an ISQL Window.

Setting Bookmarks

Bookmarks are useful tools for navigating throughout an Editor window. You can jump back and forth between bookmarks easily, and there is no practical limit to the number of bookmarks you can set.

The table below describes the options for setting bookmarks:

Feature	Description
Bookmarks:	Bookmarks are valuable navigation aids for jumping from one portion of a script to another. You can add bookmarks in important areas of your scripts, then jump back and forth between bookmarks.

Setting a Bookmark

To set a bookmark, do the following:

1 In the **Editor** window, position the pointer in front of the line you want to bookmark.

2 On the **Editor** window tool bar, click **Bookmark**.

Rapid SQL inserts a blue dot in the gutter next to the line you have book marked.

For more information, see:

Moving Between Bookmarks

Clearing Bookmarks

Moving Between Bookmarks

You use the Next Bookmark and the Previous Bookmark buttons to move back and forth between bookmarks.

>

Goto the Next Bookmark

To goto the next bookmark, do the following:

1 In the **Editor** window, position the pointer where you have set bookmarks, and then click **Bookmark**.

Rapid SQL jumps to the next bookmark.

Goto the Previous Bookmark

To goto the previous bookmark, do the following:

1 In the **Editor** window, position the pointer where you have set bookmarks, and then click **Goto Bookmark**.

Rapid SQL jumps to the previous bookmark.

For more information, see Setting Bookmarks.

Clearing Bookmarks

To clear bookmarks, do the following:

1 On the **Editor** tool bar, click **Clear Bookmark**.

Rapid SQL clears all bookmarks.

NOTE: This does not clear any error indicators (red dots) that might be showing in the gutter.

For more information, see Setting Bookmarks.

Executing Scripts

The ISQL Editor lets you execute all or part of your SQL scripts. Unless you are executing large scripts that have multiple statements within them, or you need to view optimizer statistics, you execute most of your SQL scripts without options.

NOTE: For Oracle Client 8.0.5, if you execute a multi-line SQL statement with an error in the syntax, the cursor does not jump to the line of the error.

The ISQL Editor incorporates multiple features to refine and ease script execution. The table below describes these features:

Feature	Description
Script Execution Facility	The Script Execution Facility lets you execute scripts in parallel against multiple datasources. The facility also lets you schedule a job to perform the script execution at the appointed time, which saves development time and ensures accuracy and integrity across your databases.
Step Execution Facility	The Step Execution Facility processes batches from one delimiter to the next.
Query Plan	The Query Plan Facility provides a graphical display that lets you identify the execution path that your SQL follows. Rapid SQL's Query Plan window now displays data for the estimated costs, number of rows, and bytes returned by each plan step.

Feature	Description
Query Options Dialog Box	MICROSOFT SQL SERVER and SYBASE ASE ONLY: The Query Options dialog box lets you customize what you see when you execute your query.

Executing a Script

To execute a script, do the following:

1 On the **Editor** window tool bar, click **Execute**.

OR

In the **Editor** window, right-click, and then click **Execute**.

Rapid SQL starts executing the script.

Executing Partial Scripts

To execute a partial script, select the portion of the script to be executed and follow the steps outlined above. This feature is helpful while debugging large scripts and stored procedures.

Script Execution Facility

Rapid SQL has a Script Execution Facility that lets you run parallel queries against multiple datasources. This facility is also a stand-alone utility that is available from the utilities tool bar. If used as a stand-alone utility, you can directly type your script or copy and paste a script in an additional tab. Once you have selected the desired options, Rapid SQL establishes multiple threads and database connections to run the script simultaneously against the selected target datasources. Additionally, ANSI SQL scripts can run against multiple datasources from different DBMS vendors. For example, you can simultaneously execute an ordinary SELECT statement against Oracle, Sybase ASE, Microsoft SQL Server and IBM DB2 LUW for Linux, Unix, and Windows servers.

The Script Execution Facility runs with two output modes:

- Graphical
- File

Graphical output mode opens multiple result windows, one for each target datasource.

File output mode sends all output to a specified file or files. This feature allows for the execution of scripts against a large number of target datasources in a single operation and enables scheduling capabilities.

Once the scripts have finished executing, you have the option to send a notification message indicating that the script execution has completed via e-mail or Net Send. This message includes attachments of all the output files generated.

For more information, see Executing Scripts Against Multiple Datasources.

Executing Scripts Against Multiple Datasources

To execute scripts against multiple datasources, do the following:

1 On the **Utilities** menu, click **Script Execution Facility**.

OR

On the **Utilities** tool bar, click **Script Execution Facility**.

OR

On the **Editor** window tool bar, click **Script Execution Facility**.

>

The table below describes the options and functionality on the Script Execution Facility dialog box.

NOTE: This option is not available for a DDL Editor or PL/ISQL Editor. To execute a script from a DDL or a PL/ISQL Editor, use the stand-alone Script Execution Facility.

2 If you selected **File** output:

Option	Description
Script	Lets you type, copy and paste, or cut and paste a script.
Target	Only Connected Datasources - Select to see only your currently connected datasources. All DBMS Types - Select to see all DBMS types. In the Datasource grid, select the check boxes next to the datasources against which you want to run your query, or click Select All to select all datasources. Database - Lets you type the name of the target database.
Output	Specify how you want the output to be handled Graphical Output - Select for graphical output. File Output - Select for file output. In the Directory box, type the full path and directory name in which you want to place the output file, or click Browse File icon to locate the directory. Click the File Type list to specify the file type you want to apply to the output file. Include column titles when saving - Select to include column titles in your saved file. Open files with registered applications - Select to open the files with registered application.
Notify	Job Description - Lets you type a job description to supply a subject in your e-mail message. E-mail addresses - Lets you type the e-mail address(es) separated by semi-colons. Net Send User Names - Lets you type the Net Send user name(s) separated by semi-colons.
Schedule Button	This option is available when you select the File Output Option button and have the Microsoft Task Scheduler installed. For more information regarding scheduling, see Scheduling.

For more information, see Script Execution Facility.

Compilation Error Tab

Rapid SQL displays any errors encountered when a package, function or procedure was last compiled by a user in a separate tab of those object editors. The Errors Tab provides the line number, column position and error message for each compilation error.

For more information, see Executing Scripts.

Command History

The ISQL Editor is equipped with a command history box, which lets you keep a history of previously used SQL commands. The Command History is a list that is available in the Results window. Command history lets you go back and run previously used commands from the list rather than opening or inserting a script.

Executing from Command History

To execute from Command History, do the following:

1 In the **Results** window, click the **Command History** list, and then click the command you want to execute.

The **Query** window is automatically populated with the selected command.

2 To execute the command, click **Execute**.

For more information, see Executing Scripts.

Canceling a Query

The ISQL Editor lets you cancel a query while the rows are still being returned.

Canceling a Query

To cancel a query, do the following:

1 On the **Editor** window tool bar, click **Cancel**.

NOTE: This button is only enabled after a script has begun executing.

For more information, see Executing Scripts.

Step Execution Facility

Step execution of scripts is an invaluable method to debug your scripts. The Step Execution facility lets you step through each batch in your script. While some batches can include many lines of code, some batches can consist of one line. Rapid SQL parses the statements and moves from batch to batch during the step execution process, each step controlled by you clicking the step execution button.

The table below describes how Rapid SQL provides a number of useful tools for working with step execution of your scripts:

Feature	Description	
ISQL Window Gutter	The ISQL Window Gutter is a vertical gray display bar located to the left of the ISQL window. It includes location indicators such as line numbers, error indicators, and bookmarks. The gutter is a quick visual cue to your current position in the script.	
Script Line Numbers	Line numbers are included to let you navigate large scripts. Error messages in the output window indicate the line number where the error occurred.	
Automatic Error Flagging	When using the Step Execution mode, Rapid SQL flags errors with a red dot in the ISQL window gutter. The errors are flagged sequentially as they are stepped into.	
Point and Click Error Navigation	Rapid SQL displays errors in the output window at the bottom of the screen and selects the errors as they occur. You can click each error and Rapid SQL takes you directly to the line where that error occurred.	
Step		Click the **Step** button to step into the next batch of code.

Feature	Description	
Step Back		Click the **Step Back** icon to step back to the most previous batch of code.
Step Over		Click the **Step Over** icon to jump over a batch to the next batch.
Run to Cursor		Click the **Run to Cursor** icon to execute all of the code between the beginning of the script to wherever you have inserted the pointer.
Cancel Step Execution		Click the **Cancel Step Execution** icon to change to regular execution mode.

For more information, see Using the Step Execution Facility.

Using the Step Execution Facility

Rapid SQL offers three ways to use the step execution facility:

1 Open a script.

2 On the **Query** menu, click **Step-Execute**.

OR

On the **Editor** window tool bar, click **Step-Execute**.

OR

Right-click, and then click, **Step-Execute**.

Rapid SQL starts the procedure and displays errors at the bottom of the Editor window.

NOTE: Rapid SQL indicates each executing line with a yellow arrow in the gutter of the Editor window. The gutter is that gray area between the line numbers on the left and the code window. As you step through your batches, Rapid SQL moves the arrow to indicate your current location.

3 To continue stepping through the script, on the **Editor** window tool bar, click **Step**, which displays in the **Editor** window after you have started the **Step Execute** procedure.

4 To step back, on the **Editor** window tool bar, click **Step Back,** which displays in the **Editor** window after you have started the **Step Execute** procedure.

5 To step over a batch and execute the next batch, on the **Editor** window tool bar, click **Step Over**, which displays in the **Editor** window after you have started the **Step Execute** procedure.

6 To stop **Step Execution** mode, on the **Editor** window tool bar, click **Stop Step Execute,** which displays in the **Editor** window after you have started the **Step Execute** procedure.

7 To **Run to Cursor**, on the **Editor** window tool bar, click **Run to Cursor**, which is available when the pointer is in the **Editor** window.

For more information, see Executing Scripts.

Using the Query Plan Facility

Each RDBMS platform lets you view the execution path that your SQL follows. For details, see the following topics:

- Viewing a tree-based Query Plan (IBM DB2 for LUW, SQL Server, Sybase)
- Viewing a graphical Query Plan (Oracle)

Viewing a tree-based Query Plan (IBM DB2 for LUW, SQL Server, Sybase)

For IBM DB2 for Windows, Unix, and Linux, Microsoft SQL Server, and Sybase ASE, Rapid SQL lets you view a tree-based representation of a query plan. The Query Plan toolbar button is a toggle. Set it to enable the Show Plan mode.

Rapid SQL's Query Plan window displays data for the estimated costs, number of rows, and bytes returned by each plan step.

> **NOTE:** For IBM DB2 for Linux, Unix, and Windows, Rapid SQL includes a tree view of statements and associated costs.

To view a tree-based representation of a query plan:

1. Open a script.
2. On the **Query** menu, click **Query Plan**.

   Rapid SQL starts the Show Plan mode.
3. To generate the **Show Plan** in a separate result window, click **Execute**.

For more information, see Query Options.

Viewing a graphical Query Plan (Oracle)

For Oracle, Rapid SQL lets you view a graphical representation of a query plan. You can toggle the view between the graph-based view and a tree-based view, view details for each step, and work with a number of viewing options.

The Query Plan toolbar button is a toggle. Set it to enable the Show Plan mode.

To view a graphical representation of a query plan:

1. Open a script.
2. On the **Query** menu, click **Query Plan**.

   Rapid SQL starts the Show Plan mode.
3. To generate the **Show Plan** in a separate result window, click **Execute**.

Options when working with the Query Plan facility include:

- Hovering the mouse over an execution step node to display detailed cost details for that step
- Right-clicking and choosing **Find Node** or **Find Next Node** to search large plans for nodes whose label contains a specified text string
- Right-clicking and choosing **Zoom In** or **Zoom Out**
- Right-clicking and choosing an **Orientation** sub-menu command to change the orientation of the view
- Right-clicking and choosing **Overview Window** to open a small window showing the entire plan
- Right-clicking and choosing **Save to File** to open a dialog that lets you save the graphical plan as a graphics file
- Clicking the Query Plan button to toggle between the graphical view and a tree-based view
- For multiple plans created rom the same script/ISQL window, using the dropdown at the top of the plan to change the plan displayed

Query Options

NOTE: The Query Options dialog box is available for Microsoft SQL Server and Sybase ASE only. Rapid SQL lets you customize what you see when you execute your query using the Query Options dialog box. The Query Options are available in the Query Options dialog box which is organized by query analysis, transactions, arithmetic and miscellaneous.

TIP: For Rapid SQL, the Code Analyst is a tool to identify time-consuming lines of code. Code Analyst lets you perform detailed response time analysis on the execution of Procedures and Functions.

Important Notes

- The options you select only apply to the current window. To make options permanent, set the options in the Options Editor .

Completing the Query Options Dialog Box

To complete the Query Options dialog box, do the following:

1 On the **Query** menu, click **Query Options**.

OR

In the **ISQL Editor** window, right-click, and then click **Query Options**.

`Rapid SQL opens the` Query Options dialog box.

2 Select the appropriate options.To reset the all of the options to the default settings, click **Reset**.

TIP: Rapid SQL lets you limit the number of rows returned to the result window of the ISQL window.

3 Click **OK**.

Rapid SQL accepts your selections and closes the Query Options dialog box.

For information on the sections of the Query Options dialog box, see:

- Query Analysis
- Misc
- Transactions
- Arithmetic
- DBCC Traceflags

Query Analysis

NOTE: The options you select only apply to the current window. To make options permanent, set the options in the Options Editor .

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The table below describes the options and functionality in the Query Analysis section.

Option	Description
Show Plan	Reports data retrieval methods chosen by the Microsoft SQL Server query optimizer.
No Count	Terminates the message indicating the number of rows affected by a Transact-SQL statement from being returned as part of the results.
No Exec	Compiles each query without executing it.
Statistics IO	Displays information regarding the amount of disk activity generated by Transact-SQL statements.
Statistics Time	Displays the number of milliseconds required to parse, compile, and execute each statement.
Statistics Subquery Cache	SYBASE ASE ONLY: Displays the number of cache hits, misses, and the number of rows in the subquery cache for each subquery.
Parse Only	Checks the syntax of each Transact-SQL statement and returns any error messages without compiling or executing the statement. Selecting this check box makes Microsoft SQL Server only parse the statement. Clearing this check box, makes Microsoft SQL Server compile and execute the statement. Do not use Parse Only in a stored procedure or a trigger.
Force Plan	Processes a join in the same order as tables appear in the FROM clause of a SELECT statement only.
Prefetch	SYBASE ASE ONLY: Selecting this check box enables large I/Os to the data cache. Clearing this check box disables large I/Os to the data cache.
Table Count	SYBASE ASE ONLY: Sets the number of tables that Sybase ASE considers at one time while optimizing a join.

TIP: The Code Analyst is a tool to identify time-consuming lines of code. Code Analyst lets you perform detailed response time analysis on the execution of Procedures and Functions.

For more information, see Using the Query Options Dialog Box.

Misc

NOTE: The options you select only apply to the current window. To make options permanent, set the options in the Options Editor .

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The table below describes the options and functionality in the Misc section

Option	Description
Row Count	Terminates the query after returning the specified number of rows.
ANSI NULL	Specifies SQL-92 compliant actions of the Equals (=) and Not Equal to (<>) comparison operators when used with null values. Select to makes ANSI_NULLS compare the Equal and Not Equal operators and returns NULL when one of its arguments is NULL. Clearing this check box makes the operators return TRUE or FALSE depending on whether both arguments are NULL.
Quoted Identifier	Determines how Microsoft SQL Server reads double quotation marks. Select to make double quotation marks delimit an identifier, such as a column name. Clearing this check box makes double quotation marks delimit a character string, just as single quotes do.
Transact SQL Warning	SYBASE ASE ONLY:

TIP: For Rapid SQL, the Code Analyst is a tool to identify time-consuming lines of code. Code Analyst lets you perform detailed response time analysis on the execution of Procedures and Functions.

For more information, see Using the Query Options Dialog Box.

Microsoft SQL Server Transactions

NOTE: The options you select only apply to the current window. To make options permanent, set the options in the Options Editor .

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The table below describes the options and functionality in the Transaction section.

Option	Description
Read Uncommitted	The lowest level of transaction isolation. Transactions are isolated to ensure that physically corrupt data is not read. Applies dirty read, or isolation level 0 locking, which ensures that no shared locks are issued and no exclusive locks are honored. If set, it is possible to read uncommitted or dirty data values in the data can be changed and rows can appear or disappear in the data set before the end of the transaction.
Read Committed	Microsoft SQL Server default transaction isolation level. Specifies that shared locks are held while data is read to avoid dirty reads. You can change the data before the end of the transaction, resulting in nonrepeatable reads or phantom data.
Repeatable Read	Places locks on all data used in a query, preventing other users from updating the data. Other users can insert new phantom rows into the data and are included in later reads in the current transaction. Concurrency is lower than Read Committed. Use this option only when necessary.
Serializable	The highest level of transaction isolation. Transactions are completely isolated from one another. Places a range lock on the data set, preventing other users from updating or inserting rows into the data set until the transaction is complete. Concurrency is lower than Repeatable Read. Use this option only when necessary.

TIP: For Rapid SQL, the Code Analyst is a tool to identify time-consuming lines of code. Code Analyst lets you perform detailed response time analysis on the execution of Procedures and Functions.

For more information, see Using the Query Options Dialog Box.

Sybase ASE Transactions

NOTE: The options you select only apply to the current window. To make options permanent, set the options in the Options Editor .

Transaction or Isolation levels specify the kinds of actions which are not permitted while the current transaction executes. The table below describes the options and functionality in the Transaction section.

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Option	Description
Chained	Invokes a begin transaction before the following statements: delete, insert, open, fetch, select, and update. You must still explicitly close the transaction with a commit.
Isolation Level 1	Sybase default isolation level. Prevents dirty reads.
Isolation Level 2	Prevents dirty and non-repeatable reads.
Isolation Level 3	Prevents dirty and non-repeatable reads and phantoms. This level is equivalent to performing all selects with holdlock.

TIP: For Rapid SQL, the Code Analyst is a tool to identify time-consuming lines of code. Code Analyst lets you perform detailed response time analysis on the execution of Procedures and Functions.

For more information, see Using the Query Options Dialog Box.

Arithmetic

NOTE: The options you select only apply to the current window. To make options permanent, set the options in the Options Editor .

The table below describes the options and functionality in the Arithmetic section.

Option	Description
Ignore Arithmetic Overflow	Controls whether error messages are returned from overflow or divide-by-zero errors during a query.
Abort On Arithmetic Overflow	Stops a query when an overflow or divide-by-zero error occurs during query execution.
Abort on Arithmetic Trunc	SYBASE ASE ONLY: Specifies behavior following a loss of scale by an exact numeric datatype during an implicit datatype conversion. Selecting this check box aborts the statement that causes the error but continues to process other statements in the transaction or batch. Clearing this check box truncates the query results and continues processing.

NOTE: For more information, see Microsoft SQL Server 7 Books Online or Sybase ASE 12.0 Online Reference Manual.

TIP: For Rapid SQL, the Code Analyst is a tool to identify time-consuming lines of code. Code Analyst lets you perform detailed response time analysis on the execution of Procedures and Functions.

For more information, see Using the Query Options Dialog Box.

DBCC Traceflags

NOTE: The options you select only apply to the current window. To make options permanent, set the options in the Options Editor .

NOTE: This section is available for Sybase ASE only.

Traceflags, specifically for Index Selection (302) and Join Selection (310), are valuable when tuning query performance.

The table below describes the options and functionality in the DBCC Traceflags section.

Option	Description
Index Selection (302)	Valuable when tuning query performance.
Join Selection (310)	Valuable when tuning query performance.
Output to Execution Window	Lets you select an option.
Output to Server Error Log	Lets you select an option.

TIP: For Rapid SQL, the Code Analyst is a tool to identify time-consuming lines of code. Code Analyst lets you perform detailed response time analysis on the execution of Procedures and Functions.

For more information, see Using the Query Options Dialog Box.

Result Options

The Result Options dialog box lets you set the SQL Results Window options. The table below describes Results options:

NOTE: The options you select only apply to the current window. To make options permanent, set the options in the Options Editor .

Interface Element	Option	Description	Default
Result Window	Single Window	Displays all results in one tabbed result window. Multiple result sets are appended together in the window. Single Window and Multiple Windows options are mutually exclusive.	Selected
	Multiple Windows	Displays multiple result sets one result set per window. Single Window and Multiple Windows options are mutually exclusive.	Not selected
Placement	Attached to Editor	Used in conjunction with Single Window option or Multiple Window option. Indicates that results appear as tabbed windows attached to the ISQL Window. Attached to Editor and Unattached options are mutually exclusively.	Selected

Interface Element	Option	Description	Default
	Unattached	Used in conjunction with Single Window option or Multiple Windows option. Indicates that results appear in windows separate from the ISQL Window. Attached to Editor and Unattached options are mutually exclusive.	Not Selected
Format	Standard Grid	Displays all result sets in a standard grid format. Result sets are only displayed in grid format in SQL Editors that are opened after you have selected this option. It does not apply to SQL Editors that are already open.	Selected
	HTML	Displays all result sets as HTML tables. Result sets are only displayed in HTML format in SQL Editors that are opened after you have selected this option. It does not apply to SQL Editors that are already open.	Not selected
	ASCII Text	Displays all result sets as ASCII Text. Result sets are only displayed in ASCII Text format in SQL Editors that are opened after you have selected this option. It does not apply to SQL Editors that are already open.	Not selected

Using the Token Matching Capability

When you are working with a large script with multiple levels of embedded steps, compare left and right parentheses, curly braces, square brackets and BEGIN/END pairs to make sure that you have delimited your code properly.

The Token Matching capability of Rapid SQL helps you achieve clean code.

Finding Matching Tokens

To find matching tokens, do the following:

1. Position the insertion pointer just to the left of the first token in a token pair you want to locate.
2. Click **Match Token**.

   Rapid SQL jumps the pointer to the next available token.

For more information, see Query Plan Facility.

Results Editor

The results of your SQL queries are displayed in the Results Tab of each Editor Window, which captures result sets in a virtual data grid that accommodates large result sets. The data grid offers many of the features of a basic Windows spreadsheet, giving you a great deal of flexibility in editing the worksheet and formatting its contents.

TIP: For Oracle, Rapid SQL displays REF CURSOR contents in the ISQL Window and Results Tab.

You have many choices for navigating and viewing your SQL query results. The Results window includes functionality to set result window options, find and replace, export data to other products such as Microsoft Excel, and mail your results files.

For more information, see Configuring Result Set Windows.

Configuring Result Set Windows

Result set windows can be configured in a variety of ways. You can configure your result set windows to present result sets in multiple or single panels, attached or detached from the corresponding ISQL window. These options can be set globally to save you the hassle of setting options for each result window. Additionally, Result windows can be torn off and dropped onto an open area of the workspace to create separate windows. These are known as Tear Off Tab Windows.

You can set the Result Window to display result sets in any of the following modes:

- Single result sets in one attached tab window.
- Multiple result sets in one attached tab window.
- Single result sets in one separate unattached tab windows.
- Multiple result sets in one separate unattached tab windows.
- Tear Off Tab windows.

Viewing Multiple Result Sets in Separate Unattached Windows

To set the option to have multiple result sets displayed in multiple unattached windows, do the following:

1. On the **File** menu, click **Options**.

   OR

   On the **Main** tool bar, click **Options**.

   Rapid SQL opens the Options Editor.
2. In the **Options Editor**, click the list, and then click **Results** or click the **Results Tab**.
3. In the **Results Window** grid, click the **Multiple Windows** option.
4. In the **Results Window** grid, click the **Unattached** option.
5. Click **OK**.

   Rapid SQL saves the settings and closes the Options Editor.

For more information, see Configuring Result Set Windows.

Viewing Multiple Result Sets in One Attached Tab Window

To set the option to have multiple result sets displayed in one attached tab window, do the following:

1. On the **File** menu, click **Options**.

   OR

   On the **Main** tool bar, click **Options**.

   Rapid SQL opens the Options Editor.

2 In the **Options Editor**, click the list, and then click **Results** or click the **Results Tab**.

3 In the **Results Window** grid, click the **Multiple Windows** option.

4 In the **Results Window** grid, click the **Attached to Editor** option.

5 Click **OK**.

Rapid SQL saves the settings and closes the Options Editor.

For more information, see Configuring Result Set Windows.

Viewing Single Result Sets in One Separate Unattached Window

To set the option to have a single result set displayed in one unattached window, do the following:

1 On the **File** menu, click **Options**.

OR

On the **Main** tool bar, click **Options**.

Rapid SQL opens the Options Editor.

2 In the **Options Editor**, click the list, and then click **Results** or click the **Results Tab**.

3 In the **Results Window** grid, click the **Single Window** option.

4 In the **Results Window** grid, click the **Unattached** option.

5 Click **OK**.

Rapid SQL saves the settings and closes the Options Editor.

For more information, see Configuring Result Set Windows.

Viewing Single Result Sets in One Attached Tab Window

To set the option have all SQL query results displayed in a single attached tab window, do the following:

1 On the **File** menu, click **Options**.

OR

On the **Main** tool bar, click **Options**.

Rapid SQL opens the Options Editor.

2 In the **Options Editor,** click the list, and then click **Results** or click the **Results Tab**.

3 In the **Results Window** grid, click the **Multiple Windows** option.

4 In the **Results Window** grid, click the **Attached to Editor** option.

5 To re-use the same result set window for subsequent result sets, select the **Reuse** window check box. This option is only valid for single, attached result windows.

6 Click **OK**.

Rapid SQL saves the settings and closes the Options Editor.

For more information, see Configuring Result Set Windows.

Exporting Data to Other Products

You can export data from a result set to traditional spreadsheet products, such as Microsoft Excel. You can copy part or all of a result set and paste it into your traditional spreadsheet product by way of the Microsoft Windows Clipboard function. You can also save your result sets as tab delimited files, comma separated files or as HTML tables. HTML tables can be opened in your default Internet browser. Tab delimited files and CSV files can be opened in any spreadsheet or word processing program.

NOTE: Rapid SQL supports pipe delimited ('|") files when you save result sets.

For more information, see Results Editor.

Setting Result Windows to Read Only Mode

To set your result windows to read only mode to keep anyone from accidentally editing or altering a result set, do the following:

1. Select a **Result** window that you want to make read only.
2. On the **Edit** menu, click **Read Only**.

   Rapid SQL places a check-mark next to read only and sets the command.

   NOTE: The Read Only command is a toggle. When it is set, the formatting buttons on the Edit menu are not available.

For more information, see Results Editor.

Result Window Status Bar

The Result Window Status Bar displays information about each Result window at the bottom of each window. You can display or hide the status bar by setting the Status Bar preference. This preference applies to all result windows.

For more information, see Results Editor.

Mailing Result Sets

If you have MAPI-compliant electronic mail software installed on your computer, then you can mail result sets to other users.

Mailing a Result Set

To mail a result set, do the following:

1. Open the **Message** dialog box:
2. On the **File** menu, click **Send**.

   OR

   On the **File** tool bar, click **Send**.

   Rapid SQL opens the open Message dialog box.
3. In the **Address** box, type the name of the addressee(s) and any other options.

   The ISQL Editor automatically attaches a file containing your result set to the mail message.

4 Click **Send**.

Rapid SQL sends the result set to the specified addressee(s).

For more information, see Results Editor.

Closing and Renaming Result Window Tabs

Rapid SQL lets you close or rename tabbed Result set windows.

Renaming a Result Window Tab

To rename a Result Window Tab, do the following:

1 Place your pointer over the **Results Tab**.

2 Right-click the **Results Tab**, and then click **Rename**.

Rapid SQL opens the Rename Tab Editor.

3 In the **New Name** box, type the new name.

4 Click **OK**.

Rapid SQL changes the name and closes the Rename Tab Editor.

Closing a Result Window Tab

To close a Result Window Tab, do the following:

1 On the **Result Window Tab** tool bar, click **Close**.

OR

Right-click the **Results Tab**, and then click **Close.**

Rapid SQL closes the Result Window Tab.

For more information, see Results Editor.

Saving and Closing Result Sets

You can save your result sets using the standard Save and Save As functions. You can save multiple copies of the same result set and modify each copy to specific formatting requirements.

Saving Results

To save results, do the following:

1 On the **File** menu, click **Save**.

OR

On the **Main** tool bar, click **Save**.

Rapid SQL opens the Save Results dialog box.

2 In the **File name** box, type the name of the result set.

3 In **Save as type**, select the file type.

TIP: You can now save data in Excel 2000 or later .xls, user-specified delimited .txt, and XML formats.

4 To include column titles, select **Include column titles when saving**.

5 For delimited results, in **User Specified Delimiter** type the delimiter.

6 Click **Save**.

Rapid SQL saves the file and closes the Save As dialog box.

Closing a Result Set

To close a result set, do the following:

1 On the **Main** menu, click **Close**.

OR

On the **Result** tool bar, click **Close**.

OR

In the upper-right corner of the window, double-click the **System** menu icon.

Rapid SQL closes the Result Set.

2 If you have not saved your result set, Rapid SQL prompts you to save the file. Click **Yes** to save and **No** to close without saving.

For more information, see Results Editor.

Editing Result Sets

The Results Editor provides many ways to edit and customize your result windows. The Data Grid offers a host of features for manipulating, sorting and formatting data.

Topics

- Cutting, Copying, and Pasting Cell Contents
- Cutting, Copying, and Pasting Rows
- Cutting, Copying, and Pasting Columns
- Adding and Inserting Rows
- Adding and Inserting Columns
- Deleting Rows and Column
- Resizing Rows and Columns
- Sorting Data

Cutting, Copying, and Pasting Cell Contents

The Result window supports standard cut, copy and paste functionality.

Cutting Cell Contents

To cut cell contents, do the following:

1. In the **Results** window, double click or tab to the target cell. A double line bounds the selected cell. You can also select text using standard text selection techniques.
2. On the **Edit** menu, click **Cut**.

   OR

   On the **Result** tool bar, click **Cut**.

   Rapid SQL cuts the cell.

Copying Cell Contents

To copy cell contents, do the following:

1. In the **Results** window, double click or tab to the target cell. A double line bounds the selected cell. You can also select text using standard text selection techniques.
2. On the **Edit** menu, click **Copy**.

   OR

   On the **Result** tool bar, click **Copy**.

   Rapid SQL copies the cell.

Pasting Cell Contents

To paste cell contents, do the following:

1. In the **Results** window, double click or tab to the target cell. A double line bounds the selected cell.
2. On the **Edit** menu, click **Paste**.

   OR

   On the **Result** tool bar, click **Paste**.

   Rapid SQL pastes the cell.

For more information, see Editing Result Sets.

Cutting, Copying, and Pasting Rows

You can perform standard cut, copy, and paste functions on rows, just as you can on individual cells.

Cutting Rows

To cut a row, do the following:

1. In the **Results** window, click the numbered row heading on the left side of the row.
2. On the **Edit** menu, click **Cut**.

   OR

   On the **Result** tool bar, click **Cut**.

   Rapid SQL cuts the row.

Copying Rows

To copy rows, do the following:

1. In the **Results** window, double click or tab to the target row. A double line bounds the selected row. You can also select text using standard text selection techniques.
2. On the **Edit** menu, click **Copy**.

   OR

   On the **Result** tool bar, click **Copy**.

   Rapid SQL copies the row.

Pasting Rows

To paste rows, do the following:

1. In the **Results** window, double click or tab to the target row. A double line bounds the selected row.
2. On the **Edit** menu, click **Paste**.

   OR

   On the **Result** tool bar, click **Paste**.

   Rapid SQL pastes the row.

For more information, see Editing Result Sets.

Cutting, Copying, and Pasting Columns

You can perform standard cut, copy, and paste functions on columns, just as you can on rows.

Cutting Columns

To cut columns, do the following:

1. In the **Results** window, click the column heading above the first row.
2. On the **Edit** menu, click **Cut**.

   OR

   On the **Result** tool bar, click **Cut**.

   Rapid SQL cuts the column.

Copying Columns

To copy columns, do the following:

1. In the **Results** window, click the column heading.
2. On the **Edit** menu, click **Copy**.

   OR

   On the **Result** tool bar, click **Copy**.

   Rapid SQL copies the column.

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Pasting Columns

To paste columns, do the following:

1. In the **Results** window, click the column heading above the first row to select the target column.
2. On the **Edit** menu, click **Paste**.

   OR

   On the **Result** tool bar, click **Paste**.

   Rapid SQL pastes the column.

For more information, see Editing Result Sets.

Adding and Inserting Rows

You can add or insert rows to expand or rearrange your result sets.

Adding a Row

To add a row, do the following:

1. To add a row as the last row of the result set, position the pointer inside the result set.
2. On the **Edit** menu, click **Add Row.**
3. To add a row inside the result set, click the numbered row heading where you want to add a row.
4. On the **Edit** menu, click **Add Row**.

Inserting a Row

To insert a row, do the following:

1. To insert a row as the last row of the result set, position the pointer inside the result set.
2. On the **Edit** menu, click **Insert Row.**
3. To insert a row inside the result set, click the numbered row heading where you want to insert a row.
4. On the **Edit** menu, click **Insert Row**.

For more information, see Editing Result Sets.

Adding and Inserting Columns

You can add or insert columns to expand or rearrange your result sets.

Adding a Column

To add a column, do the following:

1. Position the pointer inside the result set.
2. Select **Edit**, **Add Column** from the main menu. The new column is added as the last column of the result set.

Inserting a Column

To insert a column, do the following:

1. Select the column where you want to insert a column.
2. Select **Edit**, **Insert Column** from the main menu. The new column is inserted to the left of the column that you selected.

For more information, see Editing Result Sets.

Deleting Rows and Columns

You can delete entire rows and columns to edit your result sets.

Deleting a Row

To delete a row, do the following:

1. Select the target row of data to delete.
2. On the **Edit** menu, click **Delete Row**.

   OR

   Right-click the row, and then click **Delete Row**.

   Rapid SQL deletes the row.

Deleting a Column

To delete a column, do the following:

1. Select the target column of data to delete.
2. On the **Edit** menu, click **Delete Column**.

   OR

   Right-click the column, and then click **Delete Column**.

   Rapid SQL deletes the column.

For more information, see Editing Result Sets.

Resizing Rows and Columns

Resizing rows and columns can aid readability of the spreadsheet contents or condense space for editing and formatting purposes.

Resizing Rows to Their Default Height

To resize rows to their default height, do the following:

1. Select one or more rows by clicking on the numbered row headings to the left of the rows.
2. Right-click the selected rows, and then click **Resize Rows.**

Resizing Rows to a New Height

To resize rows to a new height, do the following:

1. Select one or more rows by clicking the numbered row headings to the left of the rows.
2. Change the pointer to a solid horizontal bar with arrows on top and bottom by moving it to one of the upper or lower borders of the row heading.
3. Click and grab the row border and drag the pointer to enlarge or shrink the height of the row.

Resizing Columns to Their Default Widths

To resize columns to their default widths, do the following:

1. Select one or more columns by clicking the column headings.
2. Right-click the selected columns, and then click **Resize Columns.**

Resizing Columns to a New Width

To resize columns to a new width, do the following:

1. Select one or more columns by clicking the column headings.
2. Change the pointer to a solid horizontal bar with arrows on top and bottom by moving it to one of the upper or lower borders of the column heading.
3. Click and grab the column border and drag the pointer to enlarge or shrink the height of the column.

For more information, see Editing Result Sets.

Sorting Data

To order and organize data in a coherent manner, you can sort columns alphanumerically in single result sets.

Sorting Data

To sort data, do the following:

1. In the data grid, select the column(s) you want to sort.
2. Double click the column header(s) to sort the data in the column in ascending, alphanumeric order. To sort the column in descending order, double click the column header again.

   NOTE: This option is not valid for multiple result sets.

For more information, see Editing Result Sets.

Formatting Result Sets

The ISQL Editor provides flexibility in formatting result sets, for analysis and reporting, from within a Result Window. Result sets can be formatted to best suit your purpose, whether it be sending via e-mail, printing, or exporting a file to other programs, such as Microsoft Excel. Some of these features change only the screen display of the results, while others allow you to format for printing.

Topics

- Setting Alignment Properties
- Setting Border Properties

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- Setting Result Set Display Properties
- Setting Fonts
- Setting Colors

Setting Alignment Properties in Result Windows

You can use the format menu or the shortcut menu to alter result set alignment properties. Selecting the Alignment command displays the Format Styles tabbed dialog box:

Setting Alignment Properties

To set alignment properties, do the following:

1. On the **Format** menu, click **Alignment**.

   OR

   Right-click the **Result** data grid, and then click **Alignment**.

   Rapid SQL opens the Format Styles dialog box.

2. Click the **Align Tab**.
3. To change **Horizontal** properties, click the appropriate **option** button in the **Horizontal** box.
4. To enable **Wrap Text**, **Allow Enter** and/or **Auto Size,** select the appropriate check boxes.
5. To disable **Wrap Text**, **Allow Enter** and/or **Auto Size,** select the appropriate check boxes and deselect these options.

The table below describes alignment properties:

Property	Option	Description
Horizontal	Standard	Aligns data in cells based on their default datatype alignment properties. For example, numbers are right aligned, whereas text is left aligned.
	Left Aligned	Forces all data to be left aligned, regardless of datatype
	Center	Forces centering of all data, regardless of datatype
	Right Aligned	Forces all data to be right aligned, regardless of datatype
Vertical	Standard	Aligns data in cells based on their default datatype alignment properties. For example, numbers are right aligned, whereas text is left aligned.
	Top	Forces all data to be aligned to the top of each cell
	Center	Forces all data to be aligned in the center of each cell
	Bottom	Forces all data to be aligned at the bottom of each cell
Wrap Text		Specifies that data exceeding the length of the cell should wrap to additional lines in the same cell
Allow Enter		Specifies that the contents of cells can be edited or not
Auto Size		Specifies whether or not rows should size automatically to accommodate the longest data item in a column

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For more information, see Formatting Result Sets.

Format Border Styles

You can use the format menu or the shortcut menu to alter border properties. Selecting the Border command displays the Format Styles tabbed dialog box.

Completing the Format Styles Dialog Box

To complete the Format Styles dialog box, do the following:

1. On the **Format** menu, click **Borders**.

   OR

   Right-click the **Result** data grid, and then click **Borders**.

   Rapid SQL opens the Format Styles dialog box.

2. Click the **Borders Tab**.
3. On the **Border** box, you can indicate whether or not a border should appear on the top, bottom, right, left, or for a range of cells by clicking the corresponding boxes.
4. To set a range of cells apart by setting a particular border style around that range, select the range in the result set before opening the **Format Styles** dialog box. To select the **Range** property, click the range box.
5. In the **Type** box, you can select the type of line you want to border the cell or cells by clicking the corresponding boxes.
6. To select a color, click the **Color** list, and then click the border color.
7. Click **OK**.

   Rapid SQL saves your changes and closes the Format Styles dialog box.

For more information, see Formatting Result Sets.

Display Settings

You can use the format menu or the shortcut menu to alter display properties. Selecting the Properties command displays the Display Setting dialog box.

The Display Settings dialog box lets you set a number of format properties for the result set window:

- How titles and grid lines are displayed.
- How lines in the grid are displayed.
- How the result set window background is displayed.
- How current cells, rows and columns are indicated.

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Completing the Display Settings Dialog Box

To complete the Display Settings dialog box, do the following:

1 On the **Format** menu, click **Properties**.

OR

Right-click the **Result** data grid, and then click **Properties**.

Rapid SQL opens the Display Settings dialog box.

2 In the **Titles and Gridlines** box, select the target display properties check boxes. The change is displayed in the right-pane **Preview** window of the **Properties** dialog box.

3 **In the Color** box, click the property you want to change, and then click the new color. Changes are propagated automatically when you change them.

4 To alter the user properties, in the **User Properties** list, click the attribute you want applied to the current cell.

5 To save your changes to the current configuration, select the **Save settings to profile** check box.

6 Click **OK**.

Rapid SQL saves your changes and closes the Properties dialog box.

For more information, see Formatting Result Sets.

Format Font Styles

You can use the format menu or the shortcut menu to alter font properties. Selecting the Font command displays the Format Styles tabbed dialog box.

Completing the Format Styles Dialog Box

To complete the Format Styles dialog box, do the following:

1 On the **Format** menu, click **Font**.

OR

Right-click the **Result** data grid, and then click **Font**.

`Rapid SQL opens` the Format Styles dialog box.

2 Click the **Font Tab**.

3 In the **Font Combo** box, type or click the font you want to use.

4 In the **Outline Combo** box, type or click the outline you want to use.

5 In the **Size Combo** box, type or click the size you want to use.

6 To make a line cross through the length of the text, in the **Effects** box, select the **Strikeout** check box.

7 To underline the text, in the **Effects** box, select the **Underline** check box.

8 To change the text color, click the **Text Color** list, and then click the new color.

The Preview box displays the sample text of your selections

For more information, see Formatting Result Sets.

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Format Color Styles

You can use the format menu or the shortcut menu to alter color properties. Selecting the Color command displays the Format Styles tabbed dialog box.

The table below describes the options and functionality on the Format Styles dialog box:

Option	Description
Interior	To change the result set pattern, in the box, click the list, and then click a new pattern. To set the foreground color of the result set, in the box, click a foreground group color button. To set the background color of the result set, in the box, click a background group color button.
3D-Effect	To change the 3D-Effect, in the box, click the appropriate option button: The Normal option button provides a standard flat appearance. The Raised option button provides a raised 3D appearance in the selected cells. The Inset option button provides a depressed appearance in the selected cells. The default is typically set to Normal.

Completing the Format Styles Dialog Box

To complete the Format Styles dialog box, do the following:

1 On the **Format** menu, click **Color**.

OR

Right-click the **Result** data grid, and then click **Color**.

Rapid SQL opens the Format Styles dialog box.

For more information, see Formatting Result Sets.

Notes on XML types and Unicode display in the Results editor

When viewing data in the Results grid, keep the following in mind:

- XML data types are supported for IBM DB2 for Windows, Unix, and Linux, Microsoft SQL Server, and Oracle. In the Results grid, XML data types are displayed as LOB content.

- Support for display of Uincode characters is provided as follows:
  - IBM DB2 for Windows, Unix, and Linux V8 and V9: **character**, **clob**, **varchar**, and **longvarchar** types
  - SQL Server 2000: for **nchar**, **nvarchar**, and **ntext** types
  - SQL Server 2005: **nchar**, **nvarchar**, **ntext**, and **nvarchar(max)** types
  - Oracle 8i, 9i, and 10g: **NCHAR**, **NVARCHAR2** and **NCLOB** for non-Unicode UTF8 Character Set Instances and **NCHAR**, **NVARCHAR2**, **CHAR**, **VARCHAR2**, **LONG**, **NCLOB** and **CLOB** for Unicode UTF8 Character Set Instances
  - Sybase 12.5 and 15.2: **UNICHAR**,**UNIVARCHAR** and **UNITEXT** for non-Unicode UTF8 Character Set Instances and **UNICHAR**, **UNIVARCHAR**, **UNITEXT**, **NCHAR**, **NVARCHAR**, **CHAR**, **VARCHAR** and **TEXT** for Unicode UTF8 Character Set Instances

Permissions Management

Rapid SQL includes permissions management capabilities that include:

- Explicit Permissions
- Cascading Permissions
- Using Roles to Grant Permissions and Privileges
- Using Roles to Revoke Permissions and Privileges
- Grant Privilege(s) To
- Revoke Privilege(s) From
- Deny Privileges From

Explicit Permissions

Explicit permissions are permissions specifically granted by one user to another. Granting a permission is an integral part of database security and management. Rapid SQL tracks explicit permission changes across your enterprise. Multiple explicit permissions can be consolidated in roles. Different groups and roles can share permissions for an object. Rapid SQL lets you grant permissions with the Roles Editor. Embarcadero lets you edit permissions on the Privileges tabs of the object editors.

TIP: The Admin option is similar to the grantable option for privileges. If the user has the admin option, they can grant that role to other people.

TIP: In most cases, you will want to make all roles granted, default roles. If you do not make a role default for a user, they will have to enable it with a SQL command. To avoid this complication, assign roles as default unless business rules specify otherwise.

TIP: The Grantable option gives the user the ability to grant that privilege to other users. Use the Grantable option SPARINGLY.

For more information, see Permissions Management.

Cascading Permissions

Cascading permissions are the path of privileges granted from one user to another user, group, or role. Using cascading permissions is a way to manage multiple sets of permissions and privileges for groups of users. When you drop a user with a revoke cascade command, all permissions and privileges granted by the dropped user are also revoked. Embarcadero lets you edit and set grant permission parameters with the Permissions Editor.

Once a user with grant permission privileges is dropped with cascade, reinstate permissions for all affected users.

For more information, see Permissions Management.

Using Roles to Grant Permissions and Privileges

Roles are sets of user privileges you associate with access to objects within a database. Roles streamline the process of granting permissions. You can use roles to grant sets of permissions and privileges to users and groups. Rapid SQL lets you grant permissions to roles with the Roles Editor.

For more information, see Permissions Management.

Using Roles to Revoke Permissions and Privileges

Roles can be effective in revoking permissions and privileges from users. Rather than individually revoke permissions from users, you can revoke groups of permissions from multiple users simultaneously using roles. Rapid SQL lets you revoke permissions with the Roles Editor.

Rapid SQL lets you identify existing users and their database permissions, and to detect and manage changes to user permissions by rolling change back or forward. Rapid SQL lets you manage database permissions in a cross-platform database environment. and gives you the ability to compare objects/permissions and migrate them to other instances. Using the compare functionality for permissions management, Rapid SQL gives you:

- Enhanced permissions management across the enterprise (Oracle, Sybase ASE, Microsoft SQL Server, and IBM DB2 LUW for Linux, Unix, and Windows).
- Faster detection of changed user rights.
- Ability to detect database accounts (users/logins) that are invalid.
- Rollback of invalid permissions in a single click.
- Archives of users, groups, roles and their permissions.

For more information, see Permissions Management.

Grant Privilege(s) To

The Grant Privilege(s) To dialog box lets you select or clear the check boxes corresponding to the target privileges.

Permissions and privileges allow or limit access to system database administration and database objects. To manage databases, it is important to monitor who can access the enterprise structure and change the underlying schema. It is also important to monitor who can grant and revoke permissions and privileges in the enterprise. Rapid SQL lets you manage permissions and privileges in the Grant Privilege(s) To dialog box.

On the Privileges Tab of the editor, you can see whether a privilege was inherited from a role or group, or if it was granted explicitly by a user.Rapid SQL also shows if the privilege is grantable (granted with the GRANT OPTION.) The table below describes the icons:

NOTE: The available privileges depend on the target DBMS and object.

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The table below describes the options and functionality on the Grant Privilege(s) From Dialog Box:

Option	Description
Privilege	Lets you select or clear the check boxes corresponding to the target privileges.
Grantable	Select No to prevent cascading the privileges to other users.

The table below describes the object permissions:

Object	Permission(s)
Index	CONTROL
Packages	BIND, CONTROL, EXECUTE
Schema	ALTERIN, CREATIN, DROPIN (w/GRANT OPTION)
Tables	ALTER, CONTROL, DELETE, INDEX, INSERT, REFERENCES (& on column), SELECT, UPDATE (& on column) (w/GRANT OPTION)
Tablespaces	USE (w/GRANT OPTION)
Views	CONTROL, DELETE, INSERT, SELECT, UPDATE (& on column) (w/GRANT OPTION)

For more information, see:

Completing a Dialog Box

Permissions Management

Revoke Privilege(s) From

The table below describes the options and functionality on the Revoke Privilege(s) From dialog box:

Option	Description
Privilege	Lets you select or clear the check boxes corresponding to the target privileges.
Cascade	Select No to prevent cascading the revocation privileges to other users.

For more information, see:

Completing a Dialog Box

Permissions Management

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Deny Privileges From

NOTE: Deny Privileges is available for Microsoft SQL Server only.

The Deny Privileges From dialog box lets you deny a privilege from a security account in the current database.

The table below describes the options and functionality on the Deny Privilege(s) From dialog box:

Option	Description
Privilege	Lets you select or clear the check boxes corresponding to the target privileges.
Cascade	Select No to prevent cascading the deny privileges to other users.

TIP: On the editor, the Deny privilege can be Revoked, just as a Grant permission can be revoked.

For more information, see:

Completing a Dialog Box

Permissions Management

Project Management

Rapid SQL database project management facilities help you organize, alter, and keep track of changes to database objects or SQL scripts. The project management facilities act as a repository to maintain all source code for a database project. Rapid SQL also incorporates version control functions and build management facilities to help you manage and build projects. Once a project has been created, Rapid SQL lets you:

- Review a file's history.
- Return to earlier versions of a file.
- Develop concurrently.

A project generally includes SQL script files that you can maintain and create in unison with your database administration and development cycle. Projects can also contain subfolders (for easy categorization) as well as other projects (subprojects.) You can create projects manually by inserting existing SQL script files. You can also create projects automatically by reverse-engineering a database schema or an existing version control project.

When administering or developing SQL database schemas, SQL source code files are the foundation of effective change management for database objects. The DDL commands used to create database objects on SQL database servers are often in a constant state of flux as new columns and constraints are added to table schemas or stored procedure logic is changed. The ability to track and store these changes to files directly from Rapid SQL alleviates any disruption in the development environment.

Lengthy script files containing the DDL to compile stored procedures and triggers on a database server such as Oracle or Sybase Adaptive Server go through constant revisions similar to C program files and word processing documents. Rapid SQL's Project Management facilities let you effectively monitor revisions for your database servers.

For more information, see:

Create a New Project

Working With Projects

Create a New Project

Creating a project can be a very time-consuming task. Rapid SQL eases this task by providing step-by-step wizards to guide you through the process. You have a variety of options to choose from when you create a new project. Rapid SQL lets you create new projects:

- From a database.
- From existing files.
- From a version control project.
- Without initialization.

The New Project dialog box lets you select how you want to create a new project. Using the New Project dialog box, you can name, specify a file location, and provide a description of the project.

New Project Dialog Box

The New Project dialog box lets you select how you want to create a new project. Using the New Project dialog box, you can name, specify a file location, and provide a description of the project.

Important Notes

None

The table below describes the options and functionality of the New Project dialog box:

Option	Description
Name	Lets you enter a name for the project.
Location	Lets you type or browse and locate a directory for the project. **NOTE:** This is set as the working directory for your project.
Description	**OPTIONAL:** Lets you enter a description of the project.
Initialize New Project	Lets you select how you want to create a new project. From Database - Lets you reverse engineer an existing database. From Existing Files - Lets you create a project from scratch, or use an existing project. From Version Control - Lets you reverse-engineer a project from existing version control system projects. This is helpful for users who have already created database projects in their version control systems. Do Not Initialize - Lets you create an empty project where you can later add files and/or database objects.

For more information, see Completing the New Project Dialog Box.

Completing the New Project Dialog Box

To complete the New Project Dialog Box, do the following:

1 On the **File** menu, select **New**, and then **Project**.

Rapid SQL opens the New Project Dialog Box.

2 In **Name**, enter a name for the project.

3 In **Location**, type or browse and locate a directory for the project.

4 **OPTIONAL:** In **Description**, lets you enter a description of the project.

5 In **Initialize New Project**, select how you want to create a new project.

6 Click **OK**.

Create a New Project From a Database

Rapid SQL offers a context-sensitive wizard that reverse-engineers all or part of an existing database. When extracting database schema, Rapid SQL captures the complete definition of the following objects:

- Tables
- Views
- Stored Procedures
- Functions

Rapid SQL then creates a project containing files based on the relevant object types. Rapid SQL creates a separate file for each database object.

Reverse engineering is a powerful tool for analyzing, controlling, and documenting existing database objects. You can use the extracted SQL source code for archival and reference purposes.

Important Notes:

- You must create a New Project from a Database in order to access the New Project Reverse Engineering Wizard.
- Rapid SQL automatically discovers and sets the project script file build order by referencing the system catalog to determine dependencies.
- In the New Project dialog box, you must select the From Database option.

For more information, see Creating a New Project from a Database.

Creating a New Project from a Database

To create a new project, do the following:

1 On the **File** menu, click **New**, and then click **Project**.

OR

On the **Main** toolbar, click the drop-down arrow to the right of the **New** button.

OR

On the **Project** toolbar, click the **New Project**.

OR

In the workspace, right-click **New**, and then click **Project**.

Rapid SQL opens the New Project dialog box.

2 Complete the New Project dialog box and select the **From Database** option.

3 Click **OK**.

Rapid SQL opens the New Project Reverse Engineering Wizard.

>

4 Complete the New Project Reverse Engineering Wizard.

Completing the New Project Reverse Engineering Wizard

NOTE: You must create a New Project from a Database in order to access the New Project Reverse Engineering Wizard.

NOTE: Rapid SQL automatically discovers and sets the project script file build order by referencing the system catalog to determine dependencies.

To complete the New Project Reverse Engineering Wizard, do the following:

1 Complete the New Project dialog box, and then click **OK**.

NOTE: You must select the From Database option.

Rapid SQL opens the New Project Reverse Engineering Wizard.

2 Complete the wizard.

3 To make changes, click **Back** to the appropriate panels of the Wizard and make changes.

4 When you are satisfied with the definition, click **Execute**.

Rapid SQL starts creating project files from database.

For more information, see New Project Reverse Engineering Wizard - Panel.

New Project Reverse Engineering Wizard - Panel 1

The first panel of the New Project Reverse Engineering Wizard lets you specify the datasource that you want to reverse engineer into a project.

The table below describes the options and functionality of the first panel of the New Project Reverse Engineering Wizard:

Option	Description
Select a Datasource	Lets you select a datasource to reverse engineer. Select a datasource.

For more information, see Completing the New Project Reverse Engineering Wizard.

New Project Reverse Engineering Wizard - Panel 2

The second panel of the New Project Reverse Engineering Wizard lets you specify the target database on the server.

The table below describes the options and functionality of the second panel of the New Project Reverse Engineering Wizard:

Option	Description
Select Database to reverse-engineer	Lets you select a database to reverse engineer. Select a database.

For more information, see Completing the New Project Reverse Engineering Wizard.

New Project Reverse Engineering Wizard - Panel 2

The third panel of the New Project Reverse Engineering Wizard lets you specify the database object owners, the database object types, and general script types of the objects you want to extract.

The table below describes the options and functionality of the third panel of the New Project Reverse Engineering Wizard:

Option	Description
Select Database Object Types	Owner list - Lets you select the owner of the objects you want to extract. Objects - Lets you select the objects types you want to extract. **TIP:** To select or deselect all object types right-click to Select or Unselect all.
Extract Scope	Lets you select the objects to extract from the database. All Objects - Lets you extract all objects for each object type that you select. Opens Panel 4 for All Objects. Selected Objects Only - Lets you specify the specific objects that you want to extract. Opens Panel 4 for Selected Objects. **NOTE:** Rapid SQL continues to a different Panel 4 depending on which option you choose for the Extract Scope.
Include Indexes with Table DDL	If selected, includes indexes when extracting table DDL.
Include FKs with Table DDL	If selected, includes foreign keys when extracting table DDL.
Include Drop Statement	If selected, includes drop statements when extracting database SQL.
Include Object Privileges	If selected, includes object privileges when extracting database SQL.

For more information, see Completing the New Project Reverse Engineering Wizard.

New Project Reverse Engineering Wizard - Panel 3 for All Objects

This panel of the New Project Reverse Engineering Wizard lets you specify the ownership.

The table below describes the options and functionality of the fourth panel of the New Project Reverse Engineering Wizard for All Objects:

Option	Description
Retain	Select to include the existing object owners' names in the CREATE statements.
Exclude	Select to exclude the object owners' names in the CREATE statements.
Transfer	Select to include the designated owner's name in the CREATE statements. Select a user.

For more information, see Completing the New Project Reverse Engineering Wizard.

New Project Reverse Engineering Wizard - Panel 4 for Selected Objects

This panel of the New Project Reverse Engineering Wizard only applies if you have chosen to generate a customized script. You can select specify objects and set script options for each object type.

The table below describes the options and functionality of the fourth panel of the New Project Reverse Engineering Wizard for selected objects.

NOTE: You must select options and statements for each object type you select.

Option	Description
Object Type	Lets you select an object type.
Object list	Lists the owner and names of objects for the selected type in the database.
Options for Objects	Lets you select an option for the object type. **NOTE:** Options vary depending on the object type selected.
Statements	Lets you select a script option for the particular object type. **NOTE:** Statements vary depending on the option and object type selected.

For more information, see Completing the New Project Reverse Engineering Wizard.

New Project Reverse Engineering Wizard - Panel 4

This panel of the New Project Reverse Engineering Wizard lets you review the Reverse Engineering definition to verify its accuracy.

NOTE: If you have specified to integrate Rapid SQL with an underlying version control system during installation, Rapid SQL asks to add the new files to version control. Click Yes to add the files.

For more information, see Completing the New Project Reverse Engineering Wizard.

Create a New Project From Existing Files

Rapid SQL lets you create a new project from:

- Scratch.
- Existing files.

To create a new project from an existing file, do the following:

1 On the **File** menu, click **New**, and then click **Project**.

OR

On the **Main** toolbar, click the drop-down arrow to the right of the **New** button.

OR

On the **Project** toolbar, click the **New Project**.

OR

In the workspace, right-click **New**, and then click **Project**.

Rapid SQL opens the New Project dialog box.

2 Complete the New Project dialog box and select the **From Existing Files** option.

3 Click **OK**.

Rapid SQL opens the Add File(s) to Project dialog box.

4 In the **Add File(s) to Project** dialog box, type the files that you want to add in the **File** name field. Use the following to help locate the files:

- In **Directories**, browse by clicking a directory.
- In the **List files of type** list, select a file type.
- In the **Drives** list, select a drive.

5 Click **Add** to add a file or click **Add All** to add all the files.

6 When you finish, click **OK**.

Rapid SQL creates the project.

NOTE: If you have specified to integrate Rapid SQL with an underlying version control system during installation, Rapid SQL asks to add the new files to version control. Click Yes to add the files.

Create a New Project From a Version Control Project

Rapid SQL lets you reverse-engineer a project from existing version control system projects. This is helpful if you have already created database projects in a version control system.

NOTE: The Intersolv PVCS API does not support the creation of a project from a source code control project.

Rapid SQL also lets you create a project from a version control project that contains sub-directories, while including files from those sub-directories in the Rapid SQL project.

To create a new project from a Version Control project, do the following:

1 On the **File** menu, click **New**, and then click **Project**.

OR

On the **Main** toolbar, click the drop-down arrow to the right of the **New** button.

OR

On the **Project** toolbar, click the **New Project**.

OR

In the workspace, right-click **New**, and then click **Project**.

Rapid SQL opens the New Project dialog box.

2 Complete the New Project dialog box and select **From Version Control Project**.

3 Click **OK**.

Rapid SQL opens the Choose project from (Version Control name) dialog box.

4 Select the project or files you want to include, and then click **OK**.

Rapid SQL opens the Files to be included in (project path) dialog box.

5 Select the project of files you want to include, and then click **OK**.

Rapid SQL creates the project.

Create a New Project Without Initialization

Rapid SQL gives you the option to not initialize a project. Rapid SQL creates a project tab with the name you specify in the New Project dialog box. This tab functions as a shell to:

- Add files.
- Add database objects.

To create a new project without initialization, do the following:

1 On the **File** menu, click **New**, and then click **Project**.

OR

On the **Main** toolbar, click the drop-down arrow to the right of the **New** button.

OR

On the **Project** toolbar, click the **New Project**.

OR

In the workspace, right-click **New**, and then click **Project**.

Rapid SQL opens the New Project dialog box.

2 Complete the New Project dialog box and select the **Do Not Initialize** option.

3 Click **OK**.

Rapid SQL creates the Project Tab.

Working with Projects

A project is similar to a file system. Both are a collection of files that you create and maintain. Because projects are hierarchical, you can place a subproject under another project, and a subproject under a subproject. Once you have created a new project, Rapid SQL provides many functions to help you maintain and modify the project.

Related Topics

New Project Dialog Box

Opening an Existing Project

Opening a Recent Project

Closing a Project

Build Project

Set Build Order

Add Database Object File(s) to Project Wizard

Execute Project Files

Add File(s) to a Project

>

Open a File from a Project

Subprojects

Project Properties

Confirm Delete Dialog Box

Opening an Existing Project

To open an existing project, do the following:

1 On the **File** menu click **Open Project**.

Rapid SQL opens the Open Project dialog box.

2 In **File name**, type the name and location of the project or use browse to locate the project.

NOTE: Project files are designated with a *.epj extension.

3 Click **Open**.

Rapid SQL opens the Project Tab containing the project.

For more information, see Working with Projects.

Opening a Recent Project

To open a recent project, do the following:

1 On the **File** menu select **Recent Project**, and then select a project.

Rapid SQL opens the Project Tab containing the project.

For more information, see Working with Projects.

Closing a Project

To close a project, do the following:

1 On the **File** menu, click **Close Project**.

2 On the **Project Tab**, right-click and then click **Close Project**.

Rapid SQL closes the project.

For more information, see Working with Projects.

Build Project

The Build Project dialog box lets you:

- Generate a project build script and display it in a SQL window.
- Execute the project build immediately on build target.
- Schedule a project build.

>

Important Notes

None

The table below describes the Build Project dialog box:

Option	Description
Datasource	Displays the target datasource.
Database	Displays the target database.
Build subprojects	Select to include subprojects.
Generate a Project Build Script and Display it in a SQL window.	Select to generate the project build script and have Rapid SQL display it in a SQL window.
Execute Project Build Immediately on Build Target	Select to execute build immediately.
Schedule Project Build for a Later Time	Select to schedule the build and then specify optional options.

For more information, see Completing the Build Project Dialog Box.

Completing the Build Project Dialog Box

To complete the Build Project dialog box, do the following:

1 On the **File** menu click **Open Project**.

Rapid SQL opens the Open Project dialog box.

2 In **File name**, type the name and location of the project or use browse to locate the project.

NOTE: Project files are designated with a *.epj extension.

3 Click **Open**.

Rapid SQL opens the Project Tab containing the project.

1 On the **Project Tab**, right-click the target project, and then select **Build**.

Rapid SQL opens the Build Project dialog box.

2 Select options.

3 Click **OK**.

Rapid SQL builds the project according to your specifications.

Set Build Order

You can specify the order in which you want Rapid SQL to build your project files in the Set Build Order dialog box. If you created your project manually or from a version control project, you must specify a build order, otherwise the files are built in the order that they appear in the tree of the Project Tab.

>

Setting Build Order

1 On the **File** menu click **Open Project**.

Rapid SQL opens the Open Project dialog box.

2 In **File name**, type the name and location of the project or use browse to locate the project.

NOTE: Project files are designated with a *.epj extension.

3 Click **Open**.

Rapid SQL opens the Project Tab containing the project.

4 On the **Project** menu, click **Build Order**.

OR

On the **Project** toolbar, click **Build Order**.

OR

On the **Project Tab**, right-click a project file, and then click **Build**.

Rapid SQL opens the Set Build Order dialog box.

5 Click the files you want to move and then click the **Up** and **Down** to change the order to build the files.

6 When you finish specifying the order, select **OK**.

Rapid SQL sets the build order.

NOTE: The next time you build the project, Rapid SQL uses this build order.

Add Database Object File(s) to Project Wizard

You can add database objects to an existing project using a simple wizard that can reverse-engineer an entire database or any portion of it. This lets you keep your project in sync with databases where objects are constantly being created and updated.

For more information, see:

Working with Projects

Completing the Add Database Object File(s) to Project Wizard

Completing the Add Database Object File(s) to Project Wizard

To add database objects to a project, do the following:

1 On the **File** menu click **Open Project**.

Rapid SQL opens the Open Project dialog box.

2 In **File name**, type the name and location of the project or use browse to locate the project.

NOTE: Project files are designated with a *.epj extension.

3 Click **Open**.

Rapid SQL opens the Project Tab containing the project.

>

4 On the **Project** menu, click **Add Database Objects**.

OR

On the **Project** toolbar click **Add Database Objects**.

OR

On the **Project Tab**, right-click and then click **Add Database Objects**.

Rapid SQL opens the first panel of the Add Database Object File(s) to Project Wizard.

For more information, see Add Database Objects to a Project Wizard.

Add Database Object File(s) to Project Wizard - Panel 1

The first panel of the Add Database Object File(s) to Project Wizard lets you specify the datasource that you want to reverse engineer into a project.

The table below describes the options and functionality of the first panel of the Add Database Object File(s) to Project:

Option	Description
Select a Datasource	Lets you select a datasource to reverse engineer.

For more information, see Completing the Add Database Object File(s) to Project Wizard.

Add Database Object File(s) to Project Wizard - Panel 2

The second panel of the Add Database Object File(s) to Project Wizard lets you specify the target database on the server.

The table below describes the options and functionality of the second panel of the Add Database Object File(s) to Project:

Option	Description
Select Database to reverse-engineer	Lets you select a database to reverse engineer.

For more information, see Completing the Add Database Object File(s) to Project Wizard.

Add Database Object File(s) to Project Wizard - Panel 3

The third panel of the Add Database Object File(s) to Project Wizard lets you specify the database object owners, the database object types, and general script types of the objects you want to extract.

The table below describes the options and functionality of the third panel of the Add Database Object File(s) to Project:

Option	Description
Select Database Object Types	Owner list - Lets you select the owner of the objects you want to extract. Objects - Lets you select the objects types you want to extract. **TIP:** To select or deselect all object types, in the Object list, right-click to Select or Unselect all.

>

Option	Description
Extract Scope	Lets you select the objects to extract from the database. All Objects - Lets you extract all objects for each object type that you select. Opens Panel 4 for All Objects. Selected Objects Only - Lets you specify the specific objects that you want to extract. Opens Panel 4 for Selected Objects. **NOTE:** Rapid SQL opens a different Panel 4 depending on which option you choose for the Extract Scope.
Include Indexes with Table DDL	Includes indexes when extracting table DDL.
Include FKs with Table DDL	Includes foreign keys when extracting table DDL.
Include Drop Statement	Includes drop statements when extracting database SQL.
Include Object Privileges	Includes object privileges when extracting database SQL.

For more information, see Completing the Add Database Object File(s) to Project Wizard.

Add Database Object File(s) to Project Wizard - Panel 4 for Selected Objects

This panel of the Add Database Object File(s) to Project Wizard only applies if you have chosen to generate a customized script. You can select specify objects and set script options for each object type.

The table below describes the options and functionality of the fourth panel of the Add Database Object File(s) to Project for selected objects.

NOTE: You must select options and statements for each object type you select.

Option	Description
Object Type list	Lets you select an object type.
Object list	Lists the owner and names of objects for the selected type in the database.
Options for Object list	Lets you select an option for the object type. **NOTE:** Options vary depending on the object type selected.
Statement list	Lets you select a script option for the particular object type. **NOTE:** Statements vary depending on the option and object type selected.

For more information, see Completing the Add Database Object File(s) to Project Wizard.

Add Database Object File(s) to Project Wizard - Panel 4 for All Objects

The fourth panel of the Add Database Object File(s) to Project Wizard lets you specify the ownership.

The table below describes the options and functionality of the fourth panel of the Add Database Object File(s) to Project for All Objects:

Option	Description
Retain	Select to include the existing object owners' names in the CREATE statements.

>

Option	Description
Exclude	Select to exclude the object owners' names in the CREATE statements.
Transfer	Select to include the designated owner's name in the CREATE statements. Select a user.

For more information, see Completing the Add Database Object File(s) to Project Wizard.

Add Database Object Files(s) to Project Wizard - Panel 5

This panel of the Add Database Object File(s) to Project Wizard lets you retain, exclude, or transfer object ownership.

The table below describes the options and functionality on this panel:

Option	Description
Retain	Select to retain object ownership.
Exclude	Select to exclude object ownership.
Transfer ownership to following user:	Select to transfer ownership, and then select the target user from the list.

For more information, see Completing the Add Database Object File(s) to Project Wizard.

Add Database Object File(s) to Project Wizard - Panel 6

This panel of the Add Database Object File(s) to Project Wizard lets you review the Reverse Engineering definition to verify its accuracy.

NOTE: If you have specified to integrate Rapid SQL with an underlying version control system during installation, Rapid SQL asks to add the new files to version control. Click Yes to add the files.

For more information, see Completing the Add Database Object File(s) to Project Wizard.

Execute Project Files

You can directly execute project script files from the Project Tab using the File Execution Facility. You can also execute multiple scripts in parallel against different datasources. If a file has been placed under version control, you need to perform a Check Out operation to execute the file. Otherwise, the file opens in read-only mode.

For more information, see:

Working with Projects

Executing Project Files

Executing Project Files

To execute project files, do the following:

1 On the **Project Tab**, right-click the files you want to execute, and then click **File Execution Facility**.

Rapid SQL opens the File Execution Facility dialog box.

>

For more information, see Execute Project Files.

Add File(s) to a Project

You can add external files to your project. This lets you manipulate and expand your project as needed.

The Add File(s) to Project dialog box lets you add files to a project.

The table below describes the options and functionality of the Add Files to Project dialog box:

Option	Description
File Name	Lets you type the files that you want to add.
Directories	Lets you browse by select a directory.
List files of type	Lets you select a file type.
Drives	Lets you select a drive.
Network	Open the Map Network Drive dialog box.
Add	Lets you add a file.
Add All	Lets you add all the files.

For more information, see:

Working with Projects

Completing the Add Files to Project Dialog Box

Completing the Add File(s) to Project Dialog Box

To add files to a project from, do the following:

1. On the **Project** menu, click **Add Files**.

   OR

   On the **Project Tab**, right-click and then click **Add Files**.

   Rapid SQL opens the Add Files to Project dialog box.
2. In **File name**, type the file name(s) or select the file(s) that you want to add to the project.
3. In **Directories** browse for the project. that contains the file(s) that you want to add to the project.
4. In the **List files of type** select the type of files you want to add to the project.
5. In **Drives** select a drive.
6. Click **Network** to open the Map Network Drive dialog box.
7. Click **Add** to add a file or click **Add All** to add all of the files.
8. Click **OK**.

   Rapid SQL adds the files to the project.

Open a File from a Project

You can open a file directly from the Project Tab using a number of different methods.

For more information, see:

Working with Projects

Opening a File from a Project

Opening a File from a Project

To open a file from a project, do the following:

1 On the **Project Tab**, right-click the file(s) you want to open, and then click **Open**.

OR

On the **Project Tab**, double-click the file(s).

Rapid SQL opens the file(s) in a new SQL window.

For more information, see Open a File from a Project.

Subprojects

Subprojects are projects within projects. you can use them to help categorize your source code files. On the Project Tab of the Database Explorer Rapid SQL lets you:

- Create subprojects.
- Delete subprojects.
- Rename subprojects.
- Sort subprojects.

For more information, see Working with Projects.

Creating a New Subproject

Rapid SQL offers three ways to create a new subproject:

1 On the **File** menu click **Open Project**.

Rapid SQL opens the Open Project dialog box.

2 In **File name**, type the name and location of the project or use browse to locate the project.

NOTE: Project files are designated with a *.epj extension.

3 Click **Open**.

Rapid SQL opens the Project Tab containing the project.

4 On the **Project** menu, click **New SubProject**.

OR

On the **Project** toolbar, click **New SubProject**.

OR

On the **Project Tab**, right-click the project or subproject, and then click **New SubProject**.

5 Type the name of the new subproject and then press **Enter**.

For more information, see Subprojects.

Deleting a Subproject

To delete a project, do the following:

1 On the **File** menu click **Open Project**.

Rapid SQL opens the Open Project dialog box.

2 In **File name**, type the name and location of the project or use browse to locate the project.

NOTE: Project files are designated with a *.epj extension.

3 Click **Open**.

Rapid SQL opens the Project Tab containing the project.

4 On the **Project Tab**, right-click a subproject, and then click **Delete**.

OR

On the **Project Tab**, select a subproject, and then click **Delete**.

Rapid SQL opens the Confirm Delete dialog box.

5 In the **Confirm Delete** dialog box, select the **Delete local copy** to delete the local copy of the subproject, and then click **OK**.

Rapid SQL deletes the subproject.

For more information, see Subprojects.

Confirm Delete Dialog Box

The table below describes the options and functionality on the Confirm Delete Dialog Box:

Option	Description
Delete local copy	Deletes the local copy of the subproject.

For more information, see Deleting a Subproject.

>

Renaming a Subproject

To rename a subproject, do the following:

1 On the **File** menu click **Open Project**.

Rapid SQL opens the Open Project dialog box.

2 In **File name**, type the name and location of the project or use browse to locate the project.

NOTE: Project files are designated with a *.epj extension.

3 Click **Open**.

Rapid SQL opens the Project Tab containing the project.

4 On the **Project Tab**, right-click a subproject, and then click **Rename**.

5 Type the name of the new subproject and then press **Enter**.

Rapid SQL renames the subproject.

For more information, see Subprojects.

Sorting Subprojects

So sort a subproject, do the following:

1 On the **File** menu click **Open Project**.

Rapid SQL opens the Open Project dialog box.

2 In **File name**, type the name and location of the project or use browse to locate the project.

NOTE: Project files are designated with a *.epj extension.

3 Click **Open**.

Rapid SQL opens the Project Tab containing the project.

4 On the **Project Tab**, right-click the directory containing the subprojects you want to sort and then click **Sort**.

Rapid SQL sorts the subproject(s).

For more information, see Subprojects.

Project Properties

Rapid SQL lets you view properties of Projects, Subprojects and individual files in Projects or Subprojects. The Project Properties, Subproject Properties, and File Properties dialog boxes display information about the Projects, Subprojects, and files.

For more information, see Working with Projects.

Viewing Project Properties

To view project properties, do the following:

1 On the **File** menu click **Open Project**.

Rapid SQL opens the Open Project dialog box.

>

2 In **File name**, type the name and location of the project or use browse to locate the project.

NOTE: Project files are designated with a *.epj extension.

3 Click **Open**.

Rapid SQL opens the Project Tab containing the project.

4 On the **Project** menu, click **Project Properties**.

OR

On the **Project Tab**, right-click a project and then click **Properties**.

Rapid SQL opens the Project File Properties dialog box.

5 Complete the Project File Properties dialog box.

6 Click **OK**.

For more information, see:

Project Properties

Project File Properties Dialog Box

Project File Properties Dialog Box

The table below describes the options and functionality of the Project Properties dialog box:

Option	Description
Name	Displays the name of the project.
Full Specification	Displays the project location.
Description	Displays the project description. **OPTIONAL:** Lets you type or edit the project description.
Associated Datasource	Lets you select a datasource for the project.
Associated Database	Lets you type the name of the database.

For more information, see Viewing Project Properties.

Viewing Subproject Properties

To view subproject properties, do the following:

1 On the **File** menu click **Open Project**.

Rapid SQL opens the Open Project dialog box.

2 In **File name**, type the name and location of the project or use browse to locate the project.

NOTE: Project files are designated with a *.epj extension.

3 Click **Open**.

Rapid SQL opens the Project Tab containing the project.

4 On the **Project Tab**, select a subproject.

>

5 Right-click the subproject, and then click **Properties**.

Rapid SQL opens the Subproject Properties dialog box.

6 Complete the Subproject Properties dialog box.

7 Click **OK**.

For more information, see:

Project Properties

Subproject Properties Dialog Box

Subproject Properties Dialog Box

The table below describes the options and functionality of the Subproject Properties dialog box:

Option	Description
Name	Displays the name of the subproject. You can enter or edit the subproject name.
Full Specification	Displays the subproject location.
Status	Displays the subproject status.

For more information, see Viewing Subproject Properties.

Viewing File Properties

To view file properties, do the following:

1 Click **File** and then **Open Project**.

Rapid SQL opens the Open Project dialog box.

2 Type the project name or select the project.

3 Click **Open**.

Rapid SQL opens the project on the Projects Tab.

4 On the **Project Tab**, select a file.

5 Right-click the file, and then click **Properties**.

Rapid SQL opens the File Properties dialog box.

6 Complete the File Properties dialog box.

7 Click **OK**.

For more information, see:

Project Properties

File Properties Dialog Box

File Properties Dialog Box

The table below describes the options and functionality of the File Properties dialog box:

Option	Description
Name	Displays the file name.
Full Specification	Displays the file location.
Description	Displays the file description. **OPTIONAL:** Type or edit the file description.
Include In Build	Sets the file to be included in the build.
Last Modified	Displays the date and time of the last modification.
Size	Displays the file size.
Status	Displays the file status.
Object Type	Displays the file object type. Select an object type if the file is unspecified.

Version Control

Version control archives files and tracks changes to files over time. With an integrated version control in Rapid SQL, you can easily track changes to database objects.

Version control addresses the following issues:

- **Team Development** By controlling access to a file so that only one person at a time can modify, it prevents accidental replacement or loss of another user's changes.
- **Version Tracking** By archiving and tracking versions of source code files, you can to retrieve them if necessary, thereby effectively creating files so that source code can be reused.
- **Safety** By adding database object scripts and files, it creates backups in case of loss, thereby ensuring a recovered version of source code.

When you create a project, Rapid SQL lets you place the project immediately into version control. You can also add projects and files to version control later.

To use integrated version control in Rapid SQL, you must have the version control client software installed on the same computer as Rapid SQL. You must also select the appropriate version control system during installation or after installation on the Version Control Tab of the Option Editor.

Rapid SQL offers version control integration for the following version control systems:

- Rational ClearCase 5.0 and 6.0
- Merant/Intersolv PVCS Version Manager version 6.0
- Microsoft Visual SourceSafe 5.0 and 6.0
- MKS Source Integrity version 7.3c

For more information, see:

Version Control Integration

Version Control Configuration

Using Version Control

Version Control Integration

Rapid SQL offers version control integration so you can take advantage of the following version control systems:

- Rational ClearCase 5.0 and 6.0
- Merant Version Manager version 6.0 or later
- Microsoft Visual SourceSafe 5.0 and 6.0
- MKS Source Integrity version 7.3c

For more information, see:

Integrating with Merant Version Manager

Integrating with Microsoft Visual Source Safe

Integrating with MKS Source Integrity

Integrating with Merant Version Manager

Rapid SQL works with Merant Version Manager version 6.0. or later.

To integrate Merant Version Manager with Rapid SQL, do the following:

1 Install Merant Version Manager (formerly PVCS) 8.0.

2 In the setup option for the client, select **IDE Client**.

This installs the correct DLLs and registry entries, and "Merant Version Manager" appears in the Version Control Tab of the Options Editor.

NOTE: To use Rapid SQL with an existing Merant project, you must import the individual files into a native Rapid SQL project. Merant does not provide the third party API support for projects that it does for basic version control operations on archived files.

For more information, see Version Control Integration.

Integrating with Microsoft Visual SourceSafe

Rapid SQL works with Microsoft Visual SourceSafe versions 5.0. and 6.0. Rapid SQL uses your default Visual SourceSafe database unless you override the setting on the Version Control Tab of the Option Editor. This file is always called srcsafe.ini.

Troubleshooting

If you are having trouble configuring Rapid SQL to use Visual SourceSafe, check the system registry to determine that the COM automation portion of Visual SourceSafe has been properly installed. To check the registry, do the following:

1 From the Windows **Start** button, click **Run** and then type REGEDIT to view the system registry.

Windows opens the Registry Editor.

2 Click the **HKEY_CLASSES_ROOT** directory.

3 Click the **SourceSafe** key.

4 Ensure that the Key contains the subkeys **CLSID** and **CurVer**.

5 If either of these keys are missing, reinstall **Visual SourceSafe**.

For more information, see Version Control Integration.

Integrating with MKS Source Integrity

Rapid SQL works with MKS Source Integrity version 7.3c.

1 After installing **MKS Source Integrity**, install the **MKS Source Integrity Extensions**.

For more information, see Version Control Integration.

Version Control Configuration

Rapid SQL lets you configure version control. You can add or remove entire projects or specific files to and from version control. The Version Control Tab of the Option Editor lets you configure version controls to your specific needs.

To use version control functions, you must have a version control system up and running on your system. You can integrate Rapid SQL with:

- Rational ClearCase 5.0 and 6.0
- Merant Version Manager version 6.0 or later
- Microsoft Visual SourceSafe 5.0 and 6.0
- MKS Source Integrity version 7.3c

Configuring Version Control During Installation

1 If you have version control installed on your machine, during the Rapid SQL installation, select the option for your version control system.

NOTE: If you select None, Rapid SQL does not support any version control functions in Rapid SQL until you select a version control system from the application. See below.

Configuring Version Control After Installation

1 On the **File** menu, click **Options**.

Rapid SQL opens the Options Editor.

2 Select **Version Control** to open the **Version Control Tab**.

3 Select your version control system.

4 Click **OK**.

Working with Projects in Version Control

Projects can exist independently of version control. You can add an entire project to version control at any point. When you decide to place a project under version control, Rapid SQL creates a project on the underlying version control system that has been specified.

Once a project or file has been added to version control, the features of your version control system are available directly from the Project Tab within Rapid SQL. Any changes you make to a project or file from within Rapid SQL are simultaneously changed in your version control system.

The table below describes the options and functionality on the Add to Version Control dialog box:

Option	Description
Files to be added	Lets you select files to add to Version Control.
Comment	**OPTIONAL:** Lets you add a comment.
Check out immediately	Select to add file and keep it checked-out.
Store only latest	Select to add the latest version.
Remove local copy	Select to add file and remove the local copy.

For more information, see:

Completing the Add to Version Control Dialog Box

Completing the Add to Version Control Dialog Box

To add a project to version, do the following:

1. Click **File** and then **Open Project**.

   Rapid SQL opens the Open Project dialog box.

2. Type the project name or select the project.
3. Click **Open**.

   Rapid SQL opens the project on the Projects Tab.

4. On the **Project** menu, click **Version Control**.

   OR

   On the **Project Tab**, right-click a project file.

   Rapid SQL opens the Add to Version Control dialog box.

5. Click **Add to Version Control**.
6. Select options.
7. Click **OK** to add a project, and then click **Create**.

   Rapid SQL adds the project to version control.

   NOTE: Rapid SQL dims the project file icon to indicate that the project has been placed under version control.

For information on opening projects, see Working with Projects.

Working with Files in Version Control

Rapid SQL lets you view and work with files stored in various projects in a version control system without including the files in a Rapid SQL project. The Add Version Control Files dialog box lets you create a list of files in a version control system, select the version control project, and then add it and its files to the VC Files Tab.

The table below describes the options and functionality on the Add Version Control Files dialog box:

Option	Description
Project	Lets you type the version control project path.
Browse	Click to open Choose project from (version control name) dialog box.
List Files	Click to view the project's files in the Version control project files tree.
File Types	Click to list the project's available files, filtered by file type.
Version control project files	List the project available files. **NOTE:** If the VC Files Tab is already open and contains files from the project previously selected in the Add Version Control Files dialog box, only files not already in the VC Files Tab will be listed.
Add	Click to add selected file(s) to the Files being added to version control files list box.
Add All	Click to add all file(s) to the Files being added to version control files list box.
Files being added to version control files list	Displays the files that will appear on the VC Tab.
Remove	Click to remove selected file from the Files being added to version control files list box.
Check Out	Select to automatically check out the file from version control on the VC Files Tab.
Get Latest Version	Select to automatically get latest version of the file from version control on the VC Files Tab.

For more information, see:

Completing the Add Version Control Files Dialog Box

Completing the Add Version Control Files Dialog Box

To add files to version control, do the following:

1. Click **File** and then **Open Version Control Files List**.

   Rapid SQL opens the version control system login dialog box.

2. Type login information.

   Rapid SQL opens the Add Version Control Files dialog box.

3. In **Project**, type the project name, or click **Browse** to open the **Choose project from (version control name)** dialog box.

4. Select the project and click **OK**.

   Rapid SQL displays the files in the Version control project files box.

5. Click **File Types** to list the project's available files, filtered by file type.

6. In **List files of type** select the type of files to list.

7. In the Version control project files box, select the target files and click **Add** or **Add All** to add the files to the version control files list.

>

8 In **Options**, select **Check Out** or **Get Latest Version**.

9 Click **OK**.

```
Rapid SQL opens the Check Out File or Get File dialog box.
```

10 In **Comment**, type a comment. If you select multiple files, the comment will apply to all the files.

11 In **To**, type the directory to place the file(s).

12 For **SourceSafe**, for advanced options, click **Advanced**.

13 Click **OK**.

Rapid SQL adds the files in the Files being added to version control files list box to the VC Files Tab. If you selected the Check Out option, Rapid SQL opens the Check Out (Files) dialog box. If you selected the Get Latest Version option, Rapid SQL opens the Get from Version Control dialog box.

Using Version Control

Once you add a project or file to version control, most functions found in the underlying version control system are available directly from the Rapid SQL interface, including the VC Files Tab. Basic version control procedures include:

- Get Latest Version
- Check Out
- Check In
- Undo Check Out
- Open
- Show History
- Show Difference
- Version Control Properties

NOTE: Your Rapid SQL version control functionality depends on your underlying version control system. For more information on version control procedures, consult the documentation included with your version control system.

VC Files Tab

The VC Files Tab displays version control files listed in the *.evc (Embarcadero version control file.) The tab displays file icons indicating their current status, for example if they are checked out to the user logged in to the source control system. The files can be opened from this list, as well as operated on to manipulate their version control properties. For example, a file can be checked out or checked into the system from the VC File Tab.

The table below describes the VC Files Tab icons:

Icon	Description
File	File is not checked out by anyone.
File with single red check mark	File is checked out non-exclusively and only by the user logged into source control.

Icon	Description
File with a single black check mark	File is checked out non-exclusively only by a one user who is not the user logged into source control.
File with a single red check mark and a red border	File is checked out exclusively and only by the user logged in to source control.
File with a single black check mark and a red border	File is checked out exclusively and only by a user who is not the user logged in to source control.
File with two red check marks	File is checked out by multiple users, including the user logged in to source control.
File with two black check marks	File is checked out by multiple users, not including the user logged in to source control.

For more information, see:

VC Files Tab Available Functionality

Opening the VC Files Tab

Closing the VC Files Tab

VC Files Tab Available Functionality

Once the files are on the list in the VC Files Tab, you can use the various version control functionalities.

At the VC Files level, Rapid SQL lets you:

- Add Files
- Sort
- Get Latest Version
- Check Out
- Check In
- Undo Checkout
- Remove from Version Control
- Expand All
- Collapse All
- Refresh
- Close Files List

At the Project level, Rapid SQL lets you:

- Add Files
- Delete
- Sort
- Get Latest Version
- Check Out
- Check In

>

- Undo Checkout
- Remove from Version Control
- Expand All
- Collapse All
- Refresh
- Close Files List

At the Directory (file type) level, Rapid SQL lets you:

- Add Files
- Delete
- Sort
- Get Latest Version
- Check Out
- Check In
- Undo Checkout
- Remove from Version Control
- Expand All
- Collapse All
- Refresh
- Close Files List

At the File level, Rapid SQL lets you:

- Open
- Delete
- Get Latest Version
- Check Out
- Check In
- Undo Checkout
- Show History
- Show Differences
- Remove from Version Control
- Version Control Properties
- Refresh
- Close Files List

For more information, see:

Opening the VC Files Tab

>

Closing the VC Files Tab

Working with Files in Version Control

Opening the VC Files Tab

1 Select **File**, **Open Version Control File List**.

If you have files on your version control list, Rapid SQL opens the VC Files Tab. If you do not have files on your version control list, Rapid SQL opend the Add Version Control Files dialog box.

For more information, see:

Working with Files in Version Control

Closing the VC Files Tab

Closing the VC Files Tab

1 Select **File**, **Close Version Control File List**.

Rapid SQL closes the VC Files Tab.

For more information, see:

Working with Files in Version Control

Opening the VC Files Tab

Version Control Functionality - Open

The Open functionality opens the selected file(s) with the application registered for the type(s) of the selected file(s).

For more information, see Working with Files in Version Control.

Version Control Functionality - Delete

The Delete functionality deletes the local copy of the selected item from the tree. To remove a file from version control, see Remove From Version Control.

For more information, see Working with Files in Version Control.

Version Control Functionality - Sort

The Sort functionality sorts the tree items alphabetically.

For more information, see Working with Files in Version Control.

Version Control Functionality - Get Latest Version

The Get Latest Version functionality lets you access the latest version of a file for viewing only. The Get functionality creates a local copy of the most current version of a project file in your working folder. The file is read-only, so any modifications cannot be saved.

Before working with a project, you should perform a Get on the entire project to ensure that you are working with the latest copy of the project. You should also perform a project-level, recursive Get at intervals to ensure that you have the latest version of files, in the event that they have been altered by others working on the same project.

The following table describes the option and functionality on the Get from Version Control dialog box:

Option	Description
Files to Get	Lets you select file(s) to get latest version of.
Advanced	Click to open the Advanced Get Options dialog box.

TIP: You can specify the file directory in the Version Control option of the Options Editor. For details, see Version Control options.

Getting Latest Version of a Project

To get the latest version of project, do the following:

1. Click **File** and then **Open Project**.

   Rapid SQL opens the Open Project dialog box.

2. Type the project name or select the project.
3. Click **Open**.

   Rapid SQL opens the project on the Projects Tab.

4. Click the project or target files.
5. On the **Project** menu, click **Version Control**.

   OR

   On the **Project** toolbar, click **Version Control**.

   OR

   On the **Project Tab**, right-click a project or file.

   Rapid SQL opens the Get From Version Control dialog box.

6. Click **Get Latest Version**.

   Rapid SQL opens the Get From Version Control dialog box.

7. In the **Files to Get** box, click the project or files.
8. For advanced options, click **Advanced**.
9. Click **OK**.

   Rapid SQL writes the most current version of the file to your working directory.

Getting Latest Version of a File

To get the latest version of a file, do the following:

1. On the **VC Tab**, right-click the target file(s) and select **Get Latest Version**.

   Rapid SQL opens the Get From Version Control dialog box.

2 Click **Get Latest Version**.

Rapid SQL opens the Get From Version Control dialog box.

3 In the **Files to Get** box, select the file(s).

4 For advanced options, click **Advanced**.

5 Click **OK**.

Rapid SQL writes the most current version of the file to the VC Tab.

For more information, see Using Version Control.

Version Control Functionality - Check Out

The Check Out functionality retrieves a copy of one or more selected files and creates a writable working file copy in the working directory. You must perform a Check Out to edit any file that has been placed under version control.

You can check out a single file, multiple files at once or an entire project. Rapid SQL displays a red check mark over the file icon to indicate that the file has been checked out and is writable. This does not prevent other users from performing a Get or a Check Out on the file unless you are using the exclusive Check Out feature found in MKS Source Integrity and Merant/Intersolv PVCS.

The following table describes the options and functionality on the Check Out File(s) dialog box:

Option	Description
Files to be Checked Out	Displays list of files that are eligible for check out. A black mark indicates that another user has the file(s) checked out.
Advanced	Click to open the Advanced Check Out Options dialog box.

TIP: You can specify the file directory in the Version Control Working Directory option of the Options Editor. For details, see Version Control options.

Checking Out a Project

To check-out a project, do the following:

1 Click **File** and then **Open Project**.

Rapid SQL opens the Open Project dialog box.

2 Type the project name or select the project.

3 Click **Open**.

Rapid SQL opens the project on the Projects Tab.

4 Select the target project.

5 On the **Project** menu, click **Version Control**.

OR

On the **Project** toolbar, click **Check Out**.

OR

On the **Project Tab**, right-click a project.

6 Select **Check Out**.

Rapid SQL opens the Check Out dialog box.

7 In the **Files to Be Checked Out** box select the project.

8 For advanced options, click **Advanced**.

9 Click **OK**.

Rapid SQL checks out the project or files from version control and writes the most current version of the file to your working directory.

Check Out a File

To check out a file, do the following:

1 On the **VC Tab**, right-click the target file(s) and select **Check Out**.

Rapid SQL opens the Check Out File(s) dialog box.

2 In the **Check Out File(s)** dialog box select the files.

3 For advanced options, click **Advanced**.

4 Click **OK**.

Rapid SQL checks out the file(s) from version control and writes the most current version of the file to the VC Tab.

For more information, see Using Version Control.

Version Control Functionality - Check In

After editing your files, you must Check In the revised file in order save the changes you made to the file in a project. The Check In functionality stores the new version of the updated file in the current project. The Check In functionality is only available if you have Checked Out a file. You have the option to Check In an entire project or individual files.

> **TIP:** You can specify the file directory in the Version Control Working Directory option of the Options Editor. For details, see Version Control options.

The table below describes the options and functionality on the Check In dialog box:

Option	Description
Files to be checked in	Lets you specify the file(s) to check in.
Keep checked out	Adds latest version(s) of file(s) to source control but keeps the file(s) checked out.
Comment	**OPTIONAL:** Lets you type an optional comment.

Checking In a Project

To check-in a project, do the following:

1 Click **File** and then **Open Project**.

Rapid SQL opens the Open Project dialog box.

2 Type the project name or select the project.

3 Click **Open**.

Rapid SQL opens the project on the Projects Tab.

4 On the **Project** menu, click **Version Control**, and then **Check In**.

OR

On the **Version Control** toolbar, click **Check In**.

OR

On the **Project Tab**, right-click a project or file, and then **Check In**.

Rapid SQL opens the Check In dialog box.

5 In the **Files to Be Checked In** box click the project or files.

6 To update the version control copy but keep the project or files checked out so that you can continue working, select the **Keep Checked Out** check box.

7 To remove the file from the working directory and from the *.xml file, and from the VC Files Tab, select **Remove Local Copy**.

8 **OPTIONAL:** In the **Comment** text box type a description of the changes.

9 Click **OK**.

Rapid SQL saves the modified project into version control.

Check In a File

To check in a file, do the following:

1 On the **VC Tab**, right-click the target file(s) and select **Check In**.

Rapid SQL opens the Check In File(s) dialog box.

2 In the **Check In File(s)** dialog box select the files.

3 To update the version control copy but keep the files checked out so that you can continue working, select the **Keep Checked Out** check box.

4 To remove the file from the working directory and from the *.evc file, and from the VC Files Tab, select **Remove Local Copy**.

5 **OPTIONAL:** In the **Comment** text box type a description of the changes.

6 Click **OK**.

Rapid SQL saves the modified file(s) into version control.

For more information, see Using Version Control.

Version Control Functionality - Undo Check Out

If you decide that you do not want to save any revisions you have made to a checked out file, you can undo the procedure that releases the lock placed on the project or file. However, you do not have the option of deleting the local copy of the file.

> **TIP:** You can specify the file directory in the Version Control Working Directory option of the Options Editor. For details, see Version Control options.

The table below describes the options and functionality on the Undo Check Out dialog box.

Option	Description
Cancel the checkout for the following files	Lets you specify the files to undo checkout.
Advanced	Opens the Undo Check Out Advanced Options dialog box that lets you leave, replace, or apply the default action to your local copy.

Undoing Checkout for a Project

To undo a checkout, do the following:

1. Click **File** and then **Open Project**.

   Rapid SQL opens the Open Project dialog box.

2. Type the project name or select the project.
3. Click **Open**.

   Rapid SQL opens the project on the Projects Tab.

4. Click the project.
5. On the **Project** menu, click **Version Control**.

   OR

   On the **Project** toolbar, click **Undo Check Out**.

   OR

   On the **Project Tab**, right-click a project or file.

6. Click **Undo Check Out**.

   Rapid SQL opens the Undo Check Out dialog box.

7. In the **Cancel the check out for the following files** box of the **Undo Check Out** dialog box, click the project.
8. Click **OK**.

   Rapid SQL undoes the check out the project from version control.

   NOTE: If you Undo Check Out, you lose any changes you have made to the local copy of your project.

Undoing Checkout for a File

To undo checkout for a file, do the following:

1. On the **VC Tab**, right-click the target file(s) and select **Undo Checkout**.

   Rapid SQL opens the Undo Checkout dialog box.

2. In the **Cancel the check out for the following files** box of the **Undo Check Out** dialog box, click the project.
3. Click **OK**.

   Rapid SQL undoes the check out the file from version control.

   NOTE: If you Undo Check Out, you lose any changes you have made to the local copy of your file(s).

For more information, see Using Version Control.

Version Control Functionality - Show History

The Show History functionality lets you view the history of version control files.

Showing History for a Project

To show history, do the following:

1. Click **File** and then **Open Project**.

   Rapid SQL opens the Open Project dialog box.

2. Type the project name or select the project.

3. Click **Open**.

   Rapid SQL opens the project on the Projects Tab.

4. Click the target file.

5. On the **Project** menu, click **Version Control**, and then select **Show History**.

   OR

   On the **Project Tab**, right-click the a file, and then select **Show History**.

   Rapid SQL opens the History Options dialog box.

   NOTE: The History dialog box depends on your version control system.

Showing History for a File

To show history, do the following:

1. On the **VC Tab**, right-click the target file(s) and select **Show History**.

   Rapid SQL opens the History Options dialog box.

   NOTE: The History dialog box depends on your version control system.

For more information, see Using Version Control.

Version Control Functionality - Show Differences

The Show Differences functionality lets you view any differences between the current files in your working folder and the master files in the version control database. You cannot make changes to the files from this dialog box because it is used for display purposes only.

Viewing Project Differences

To view project differences, do the following:

1. Click **File** and then **Open Project**.

   Rapid SQL opens the Open Project dialog box.

2. Type the project name or select the project.

3. Click **Open**.

   Rapid SQL opens the project on the Projects Tab.

4. Click the target file.

5 On the **Project** menu, click **Version Control**.

OR

On the **Project Tab**, right-click a file.

6 Click **Show Differences**.

Rapid SQL opens the Differences dialog box.

If the file in your working directory is the same as the one in the project, a message tells you they are identical. If there are differences, the Differences dialog box from your version control system opens and displays the two versions of the file side-by-side, highlighting any differences.

7 In the **Differences** dialog box, you can maneuver through the files by using the **Up** and **Down** arrows.

8 To set **Diff Options**, click the **Options** button.

NOTE: The Differences dialog box and Options depend on your version control system.

Showing History for a File

To show history, do the following:

1 On the **VC Tab**, right-click the target file(s) and select **Show History**.

Rapid SQL opens the Difference Options dialog box.

2 In the **Difference Options** dialog box, you can maneuver through the files by using the **Up** and **Down** arrows.

NOTE: The Difference Options dialog box and options depend on your version control system.

For more information, see Using Version Control.

Version Control Functionality - Remove from Version Control

The Remove from Version Control functionality lets you remove entire projects or files from version control.

NOTE: This functionality does not destroy the file permanently from the source control system or remove the local copies of the file(s).

Removing a Project from Version Control

To remove a project from Version Control, do the following:

1 Click **File** and then **Open Project**.

Rapid SQL opens the Open Project dialog box.

2 Type the project name or select the project.

3 Click **Open**.

Rapid SQL opens the project on the Projects Tab.

4 On the **Project** menu, click **Version Control**, and then click **Remove from Version Control**.

OR

On the **Project Tab**, right-click a project file, and then click **Remove from Version Control**.

Rapid SQL opens the Remove File(s) dialog box.

>

5 To permanently destroy the project select the check box, click **OK**.

Rapid SQL removes the project from version control. The project remains active in Rapid SQL.

Removing a File from Version Control

The table below describes the options and functionality of the Remove Files dialog box:

Option	Description
Files to be removed	Lets you specify the files to be removed from version control. **NOTE:** Does not delete the file(s) in version control.

To remove a file from Version Control, do the following:

1 On the **VC Tab**, right-click the target file(s) and select **Remove from Version Control**.

Rapid SQL opens the Remove File(s) dialog box.

2 Specify the file(s).

3 Click **OK**.

Rapid SQL removes the file(s) from version control. The project remains active in Rapid SQL.

For more information, see Working with Files in Version Control.

Version Control Properties

The Version Control File Properties dialog box displays general information and check out status, links, and paths.

Viewing Version Control Properties for a Project

To view the version control properties, do the following:

1 Click **File** and then **Open Project**.

Rapid SQL opens the Open Project dialog box.

2 Type the project name or select the project.

3 Click **Open**.

Rapid SQL opens the project on the Projects Tab.

4 Click the target file.

5 On the **Project** menu, click **Version Control**, and then **Version Control Properties**.

OR

On the **Project Tab**, right-click the a file, and then select **Version Control Properties**.

Rapid SQL opens the Version Control Properties dialog box.

6 Review properties.

7 Click **Close**.

Viewing Version Control Properties for a File

To view the version control properties, do the following:

1. On the **VC Tab**, right-click the target file(s) and select **Version Control Properties**.

   Rapid SQL opens the Version Control Properties dialog box.

2. Review properties.
3. Click **Close**.

For more information, see Using Version Control.

Version Control Functionality - Expand All

The Expand All functionality expands all tree items under the selected item(s).

For more information, see Working with Files in Version Control.

Version Control Functionality - Collapse All

The Collapse All functionality collapses all tree items under a selected item(s).

For more information, see Working with Files in Version Control.

Version Control Functionality - Refresh

The Refresh functionality obtains the current version control status for the file(s).

For more information, see Working with Files in Version Control.

Version Control Functionality - Close Files List

The Close Files List functionality closes the list of files.

For more information, see Working with Files in Version Control.

Tools

Rapid SQL incorporates a number of powerful tools to help you create, edit and manage your development environment. You can use Tools to:

- Conduct extensive database searches across multiple databases.
- Execute scripts or files across multiple databases.
- Schedule tasks.
- Identify differences in files or objects.
- Graphically build complex queries.
- Auto-generate complete procedures and packages.
- Code and test basic macros.
- Administer your ODBC data sources.

Tools is divided into sections. The table below describes each section:

Section	Description
Find in Files	This section describes the Find in Files dialog box that lets you find a phrase or character in your files.
Database Search	This section describes the powerful database search utility that helps you to find instances of a string across multiple databases.
Script Execution Facility	This section describes the Script Execution Facility, a stand-alone utility that establishes multiple threads and database connections letting you simultaneously execute SQL statements against multiple Oracle, Sybase Adaptive Server, Microsoft SQL Server, and IBM DB2 LUW for Linux, Unix, and Windows datasources.
File Execution Facility	This section describes the File Execution Facility, a stand-alone utility that establishes multiple threads and database connections that lets you execute parallel queries and ANSI SQL files against multiple, cross-platform datasources.
Scheduling	The Rapid SQL scheduling programs and utilities let you schedule and execute jobs on local datasources anytime.
Visual Difference	Rapid SQL lets you compare two files or database objects. Using the Visual Difference Utility, you can easily synchronize and analyze database objects or files across multiple database platforms.
Query Builder	This section describes Query Builder, a tool that lets you construct, structure, and manipulate up to five different types of queries simultaneously.
Data Editor	This section describes the Data Editor to edit your tables in real-time. The Data Editor supports all editable datatypes and is an alternative way to add, edit, or delete data from your tables.
Embarcadero Products	The Tools menu lists all installed Embarcadero Technologies products. This lets you toggle to or start another Embarcadero product.

Section	Description
Code Workbench	This section describes the Code Workbench that lets you enable table column look-up and population in the ISQL window, define auto replacement expressions that can be used to quickly insert commonly used blocks of SQL syntax or commands in any open window and to import and export Code Workbench specific settings for client sharing purposes.

Section	Description
Find in Files	This section describes the Find in Files dialog box that lets you find a phrase or character in your files.
Database Search	This section describes the powerful database search utility that helps you to find instances of a string across multiple databases.
Script Execution Facility	This section describes the Rapid SQL Script Execution Facility, a stand-alone utility that establishes multiple threads and database connections letting you simultaneously execute SQL statements against multiple Oracle, Sybase Adaptive Server, Microsoft SQL Server, and IBM DB2 LUW for Open Systems datasources.
File Execution Facility	This section describes the Rapid SQL File Execution Facility, a stand-alone utility that establishes multiple threads and database connections that lets you execute parallel queries and ANSI SQL files against multiple, cross-platform datasources.
Scheduling	The Rapid SQL scheduling programs and utilities let you schedule and execute jobs on local datasources anytime.
Visual Difference	Rapid SQL lets you compare two files or database objects. Using the Visual Difference Utility, you can easily synchronize and analyze database objects or files across multiple database platforms.
Query Builder	This section describes Query Builder, a tool that lets you construct, structure, and manipulate up to five different types of queries simultaneously.
Data Editor	This section describes the Data Editor to edit your tables in real-time. The Data Editor supports all editable datatypes and is an alternative way to add, edit, or delete data from your tables.
Code Generation Facility	This section describes the Code Generation Facility that offers a quick way to generate DML statements for tables and views.
Import Data	This section describes the Import Data Wizard that lets you create insert statements based on external files including Excel spreadsheets and text files.
Embarcadero Products	The Tools menu lists all installed Embarcadero Technologies products. This lets you toggle to or start another Embarcadero product.
Code Workbench	This section describes the Code Workbench that lets you enable table column look-up and population in the ISQL window, define auto replacement expressions that can be used to quickly insert commonly used blocks of SQL syntax or commands in any open window and to import and export Code Workbench specific settings for client sharing purposes.

Section	Description
Code Analyst	This section describes the Code Analyst that lets you capture response time metrics on stored procedures. You can select one or multiple objects, execute them, view the results, and save those results for later viewing or comparing.

Find in Files

The Find in Files dialog box lets you find a phrase or character in your files.

Completing the Find in Files Dialog Box

1 On the **Tools** menu, click **Find in Files**.

OR

On the **Tools** toolbar, click **Find in Files**.

Rapid SQL opens the Find in Files dialog box.

The table below describes the options and functionality on the Find in Files dialog box.:

Option	Description
Find what	Specifies the character(s) or phrase you want to find. Use the browse arrow button next to the textbox to choose options from a pop-up list.
In files/file types	Specifies the files in which to search for the character(s) or phrase. Either enter the filename(s) in the drop-down box, or click the arrow to choose a file type.
In folder	Specifies the directory where the file(s) is located. Click the browse button to view your Windows Explorer.
Match whole word only	Specifies the application to find only the entire phrase.
Match case	Specifies the application to find only the specified phrase in the case you have entered.
Regular Expression	Tells the application whether the specified character(s) is a regular expression.
Look in subfolders	Specifies the application to search the file(s) any folders located within the specified folder.
Output to Pane 2	Specifies the application to display the results in another window.

NOTE: You can also use the Find feature to locate a phrase or character in an ISQL window.

Database Search

The powerful database search utility helps you to find instances of a string across multiple databases.

>

Starting the Database Search Wizard

1 On the **Tools** menu, click **Database Search**.

OR

On the **Tools** toolbar, click **Database Search**.

Rapid SQL opens the first panel of the Database Search Wizard.

Database Search Wizard - Panel 1

The first panel of the Database Search Wizard lets you specify the owner.

The table below describes the options and functionality on the first panel of the Database Search Wizard:

Option	Description
Select the owner(s) whose objects you would like to search	Lets you expand the nodes, select the target owner, and then click the right arrow button to include the target owner.

1 Click **Next**.

Rapid SQL opens the next panel of the wizard.

Database Search Wizard - Panel 2

The second panel of the Database Search Wizard lets you specify the search criteria.

The table below describes the options and functionality on the second panel of the Database Search Wizard:

Option	Description
Search Database For	Lets you enter the search string. Strings can also be searched for using DB2-standard wildcards. And for multiple string searches, separate each string with a vertical bar (for example, DEPARTMENTS|wage_cap|status). When searching for strings that already contain vertical bars, enclose each string in double quotation marks.
Match Case	Select Yes tot make the search case sensitive. **NOTE:** IBM DB2 LUW for OS/390 and Microsoft SQL Server 7.0 or before searches are always case insensitive.
Search DDL of these Objects	In the grid, select the target object check boxes. **NOTE:** Event Monitors are available for IBM DB2 LUW for Linux, Unix, and Windows only.

1 Click **Execute** to start the operation.

Rapid SQL displays a progress dialog box while the search runs. When the search completes, Rapid SQL opens the Database Search Window.

Database Search Results

Rapid SQL displays Database Search operation results in a Database Search Window, listing all of the objects containing the search string in the left pane. You can browse instances of the search string by selecting different objects in the tree. The DDL of the objects displays in the right pane and the search string is highlighted.

The table below describes the buttons on the Database Search Window toolbar:

Button	Description
Search	Opens the first panel of the Database Search Wizard.
Criteria	Opens the Search Criteria dialog box.
Open	Opens the editor for the target object.
Extract	Lets you extract the target object.
Print	Lets you print the target object SQL.

Script Execution Facility

Rapid SQL's Script Execution Facility is a stand-alone utility that establishes multiple threads and database connections letting you simultaneously execute SQL statements against multiple Oracle, Sybase Adaptive Server, Microsoft SQL Server, and IBM DB2 LUW for Linux, Unix, and Windows datasources. After completing a scheduled job, Rapid SQL generates a results report that lists errors, verifies script execution, and details the output of the job. The Script Execution Facility also works in conjunction with Rapid SQL's scheduling facilities, letting you schedule script execution jobs. When used in conjunction with a scheduler, Rapid SQL can automatically send the results report to any e-mail or network recipients. The Script Execution Facility is a tabbed dialog box where you set the parameters and options for the script execution. In the Script Execution Facility dialog box you can:

- Type or paste the target SQL script.
- Specify the datasources against which to execute the script.
- Specify the output mode for the results report.
- Open one of the Rapid SQL scheduling programs to schedule the script execution.
- Specify execution notification e-mail and Net Send addresses.

For more information, see Completing the Script/File Execution Facility.

File Execution Facility

Rapid SQL's File Execution Facility is a stand-alone utility that establishes multiple threads and database connections that lets you execute parallel queries and ANSI SQL files against multiple, cross-platform datasources. The Script Execution Facility also works in conjunction with Rapid SQL's scheduling facilities, letting you schedule script execution jobs. After completing a scheduled job, Rapid SQL generates a results report that lists errors, verifies execution, and details the output of the job. When used in conjunction with a scheduler, Rapid SQL can automatically send the results report to any e-mail or network recipients. The File Execution Facility is a tabbed dialog box where you set the parameters and options for the file execution. In the File Execution Facility dialog box you can:

- Specify the target files or ANSI SQL scripts.
- Specify the datasources against which to execute the files.
- Specify the output mode for the results report.

- Open one of the Rapid SQL scheduling programs to schedule the file execution.
- Specify execution notification e-mail and Net Send addresses.

For more information, see Completing the Script/File Execution Facility.

Completing the Script/File Execution Facility

Rapid SQL lets you run parallel queries against multiple datasources with the File Execution Facility.

1 On the **Tools** menu, click **Script Execution Facility** or **File Execution Facility**.

OR

On the **Tools** toolbar, click **Script Execution Facility** or **File Execution Facility**.

Rapid SQL opens the Script or File Execution Facility dialog box.

2 Complete the Script Tab (Script Execution Facility)

3 Complete the Files Tab (File Execution Facility)

4 Complete the Target Tab.

5 Complete the Output Tab.

6 Complete the Notify Tab.

For more information, see:

File Execution Facility

Script Execution Facility

Script Execution Facility - Script Tab

The table below describes the options and functionality on the Script Tab of the File/Script Execution Facility:

Option	Description
Script box	Lets you type or paste a script.

For more information, see:

File Execution Facility

Script Execution Facility

Completing the Script/File Execution Facility

File Execution Facility - Files Tab

The table below describes the options and functionality on the Files Tab of the File Execution Facility:

Option	Description
Show Full File Paths	Select to display the full path. Deselect to display only the file name.

>

Option	Description
File Name	Displays the file names.
Add	Click to open the Select Files dialog box.
Remove	Click to remove the selected file.
View	Opens the View File dialog box.
Up	Click to move the selected file up in the list.
Down	Click to move the selected file down in the list.

For more information, see:

File Execution Facility

Script Execution Facility

Completing the Script/File Execution Facility

File/Script Execution Facility - Target Tab

The table below describes the options and functionality on the Target Tab of the File/Script Execution Facility:

Option	Description
Select the Target Datasource(s) to Execute the Script Against	Only Connected Datasources - Displays only datasources that are currently connected in the Datasource grid. All DBMS Types - Displays all DBMS types in the Datasource grid.
Datasource grid	Displays the target datasource(s) to execute the script/file against. Select a datasource name. If the datasource has multiple databases, type in a database in the Database box.

For more information, see:

File Execution Facility

Script Execution Facility

Completing the Script/File Execution Facility

File/Script Execution Facility - Output Tab

The table below describes the options and functionality on the Output Tab of the File/Script Execution Facility:

Option	Description
Graphical Output	If selected, specifies a graphical output.

>

Option	Description
File Output	If selected, specifies a file output. Directory - Type or browse to enter the full path and directory name in which you want to place the output file. File Type - Specifies a file type. Include column titles when saving - If selected, lets you save column titles. Open files with registered applications - If selected, opens files with registered applications.

For more information, see:

File Execution Facility

Script Execution Facility

Completing the Script/File Execution Facility

File/Script Execution Facility - Notify Tab

The table below describes the options and functionality on the Notify Tab of the File/Script Execution Facility:

Option	Description
Job Description	Lets you enter a job description. This description will be the subject of the notification E-mail.
E-mail address	Lets you enter E-mail addresses. Separate each E-mail address with a semicolon (;).
Net Send User Names	Lets you enter net send user names. Separate each name with a semicolon (;).

For more information, see:

File Execution Facility

Script Execution Facility

Completing the Script/File Execution Facility

Scheduling

The Rapid SQL scheduling programs and utilities let database administrators schedule and execute jobs on local datasources 24-hours-a-day, 7-days-a-week. After completing a scheduled job, Rapid SQL generates a results report that lists errors, verifies script execution, and details the output of the job. Rapid SQL can automatically send the results report to any e-mail or network recipients.

Rapid SQL offers the following programs and utilities to let you schedule routine tasks and jobs:

- Embarcadero Job Scheduler
- Microsoft Task Scheduler
- Embarcadero ETSQLX

The default scheduler for the Rapid SQL Script Execution Facility and File Execution Facility is the Embarcadero Job Scheduler. The Embarcadero Job Scheduler is sold separately. If you do not have the Embarcadero Job Scheduler, the Script Execution Facility and the File Execution use the Microsoft Task Scheduler for scheduling jobs.

Rapid SQL's scheduling facilities let you:

- Execute scheduled jobs without running Rapid SQL.
- Run batch files to automate tasks.
- Run a script in parallel against multiple datasources.
- Automatically send result reports to e-mail or network recipients when jobs complete.

Embarcadero Job Scheduler

Embarcadero Job Scheduler is the default scheduling application for Rapid SQL. If you do not have Embarcadero Job Scheduler installed, you can schedule jobs with the Microsoft Task Scheduler.

> **NOTE:** Embarcadero Job Scheduler is sold separately. For information, go to Embarcadero Technologies Web site.

Embarcadero Job Scheduler is a full-featured job scheduling application that lets you schedule routine tasks including database administration, batch processing and system backup. Embarcadero Job Scheduler performs such tasks as executing command line batches and SQL scripts, and then transmits customized, notification messages via e-mail or network broadcast. Embarcadero Job Scheduler includes an easy-to-use interface for defining and managing tasks and notifications, calendars, client machines and users.

The table below describes the tabs of the Job Scheduler dialog box:

Tab	Description
General	On the tab, specify the job settings. For more information on job settings, see "Embarcadero Job Scheduler Application" in the Embarcadero Job Scheduler documentation.
Schedule	On the tab, select the time parameters. For more information on time parameters, see "Calendars" in the Embarcadero Job Scheduler documentation.
Notification	On the tab, specify the notification parameters. For more information on notifications, see "Notifications" in the Embarcadero Job Scheduler documentation.

This section includes the following:

- Scheduling a Job
- Opening the Embarcadero Job Scheduler through Rapid SQL

Opening the Embarcadero Job Scheduler Through Rapid SQL

1 On the **Tools** menu, click **Task Scheduler**.

OR

On the **Tools** toolbar, click **Task Scheduler**.

Rapid SQL opens the Embarcadero Job Scheduler.

TIP: For more information on using the Embarcadero Job Scheduler, see the Embarcadero Job Scheduler Documentation.

Microsoft Task Scheduler

If you do not have the Embarcadero Job Scheduler add-on program, Rapid SQL lets you use the Microsoft Task Scheduler to schedule jobs. The Microsoft Task Scheduler is included with various Microsoft applications. If you do not have either of these programs on your system, the first time you attempt to schedule a job, Rapid SQL provides you with a link to the Microsoft Web site where you can download the Microsoft Task Scheduler at no cost.

The table below describes the options and functionality on the Schedule Action dialog box:

Option	Description
Job Name	Lets you type the name of the job.
Job Description	Lets you type a job description that will appear in the subject line in your e-mail and Net Send messages.
E-mail Address(es)	Lets you type the e-mail address(es) to which you want to send notifications.
Net Send	Lets you type the network user(s) to whom you want to send notifications.
Action Output Directory	Lets you type the full path for the directory in which to place the output file or click browse to open the Select Directory dialog box.

The table below describes the tabs on the Job Scheduler dialog box:

Tab	Description
Schedule	Lets you set your scheduling parameters.
Settings	Lets you set your settings parameters.

NOTE: Rapid SQL's ETSQLX command line utility runs a scheduled job even if Rapid SQL is not running.

This section includes the following:

- Scheduling a Job
- Opening the Microsoft Scheduled Task Directory Through Rapid SQL

Select Directory

The select directory dialog box lets you locate the directory in which to place the output file.

For more information, see Microsoft Task Scheduler.

Opening the Microsoft Scheduled Task Directory Through Rapid SQL

In the Microsoft Scheduled Tasks directory, Microsoft lets you create, view, edit, and delete jobs.

1 On the **Tools** menu, click **Task Scheduler**.

OR

On the **Tools** toolbar, click **Task Scheduler**.

Rapid SQL opens the Microsoft Scheduled Tasks directory.

Scheduling a Job

1 In a dialog box or wizard, click the **Schedule** button.

Rapid SQL opens the Schedule Job dialog box.

2 In **Job Scheduler**, select **Embarcadero Job Scheduler** or **Microsoft Task Scheduler**.

3 To set the selected scheduler as the default, select **Set as default**.

4 Click **OK**.

Rapid SQL opens the Embarcadero Job Scheduler or Microsoft Task Scheduler.

TIP: For more information on using the Embarcadero Job Scheduler, see the Embarcadero Job Scheduler documentation.

ETSQLX Command Line Utility

Rapid SQL's ETSQLX command line utility, is a multi threaded, cross-platform, SQL scripting engine. You can use ETSQLX in conjunction with the Microsoft Task Scheduler to schedule and automate routine jobs. ETSQLX creates batch files (with the extension.cfg) containing commands to execute automated and scheduled jobs. ETSQLX creates a directory, CFG, in which it stores the.cfg files. You can run.cfg files directly from the command line.

NOTE: ETSQLX supports.csv,.tab,.htm, and.html formats for result reports attachments.

Visual Difference

Rapid SQL lets you compare two files or database objects. Using the Visual Difference dialog box, you can easily synchronize and analyze database objects or files across multiple database platforms. The files are displayed side by side in the Visual Difference dialog box. The Visual Difference Utility highlights any differences between two files. Viewing differences between objects and files helps you negotiate between the different phases of development as well as providing a visual aid to rapidly changing and evolving production environments.

NOTE: Because contents of the Visual Difference dialog box are read-only, you will not be able to modify your files or objects directly from this dialog box.

The Visual Difference dialog box is composed of two panes; the left pane displays your source object or file and the right pane shows your target object or file. The Visual Difference dialog box also contains its own toolbar which lets you:

- Search
- Navigate differences

- Set options
- Print

Opening the Visual Difference Dialog Box

1 On the **Tools** menu, click **Visual Diff**.

OR

On the **Tools** toolbar, click **Visual Diff**.

Rapid SQL opens the Visual Difference dialog box.

For more information, see:

Comparing Files

Comparing Database Objects

Navigating in the Visual Difference Dialog Box

Printing a Pane of the Visual Difference Dialog Box

Searching in the Visual Difference Dialog Box

Setting Options in the Visual Difference Dialog Box

Comparing Files

You can compare two files side-by-side in the Visual Difference dialog box. The file you want to compare is called the Source. The file you want to compare the first file to is the Target.

Comparing Items

1 On the **Tools** menu, click **Visual Diff**.

OR

On the **Tools** toolbar, click **Visual Diff**.

Rapid SQL opens the Visual Difference dialog box.

2 On the **Visual Difference** toolbar, click the **Source** icon or click the **Down** arrow next to the **Source** icon and then click **File.**

Rapid SQL opens the Select the 1st File to Compare dialog box.

3 Click the file that you want to be the **Source** file.

4 On the **Visual Difference** toolbar, click the **Target** icon or click the **Down** arrow next to the **Target** icon and then click **File**.

Rapid SQL opens the Select the 2nd File to Compare dialog box.

NOTE: The Visual Difference Utility highlights all differences between the two files.

For more information, see Visual Difference Utility.

Comparing Database Objects

The schema of database objects is automatically extracted so you can view the underlying differences between object and perform a side-by-side comparison in the Visual Difference Dialog.

Comparing Database Objects

1. On the **Tools** menu, click **Visual Diff**.

   OR

   On the **Tools** toolbar, click **Visual Diff**.

   Rapid SQL opens the Visual Difference dialog box.

2. On the **Visual Difference** toolbar, click the **Down** arrow next to the **Source** icon and then click **Database Object.**

   Rapid SQL opens the Select the 1st Database Object to Compare dialog box.

3. Click the datasource and then click **OK** to connect.

4. Navigate through the datasource tree and double-click the database object that you want to be the **Source**.

5. On the **Visual Difference** toolbar, click the **Down** arrow next to the **Target** icon and then click **Database Object.**

   Rapid SQL opens the Select the 2nd Database Object to Compare dialog box.

   NOTE: The Visual Difference Utility highlights all differences between the two database objects.

For more information, see Visual Difference Utility.

Navigating in the Visual Difference Dialog Box

You can navigate through the Visual Difference dialog box using the up and down arrow buttons. You can move back and forth between highlighted differences in your compared files or database objects.

Going To the Next Difference

1. From the **Visual Difference** dialog box, click down arrow to go to the next difference.

Going To the Previous Difference

1. From the **Visual Difference** dialog box, click up arrow to go to the next difference.

For more information, see Visual Difference Utility.

Printing a Pane of the Visual Difference Dialog Box

You can print each pane of the Visual Difference dialog box.

Printing a Pane of the Visual Difference Dialog Box

1. Position your cursor inside the pane you want to print.

2. Click the **Print** icon on the **Visual Difference** toolbar.

   Rapid SQL opens the Print Setup dialog box.

3 Click **OK** to print the pane.

NOTE: You can only print one pane of the Visual Difference dialog box at a time.

For more information, see Visual Difference Utility.

Searching in the Visual Difference Dialog Box

The Visual Difference dialog box lets you search for text in your files or database objects.

Searching for Text

1 Place your cursor inside the pane you want to search.

2 Click the **Find** icon on the **Visual Difference** toolbar.

Rapid SQL opens the Find dialog box.

3 In the **Find What** box, enter the search string.

4 To match whole words only, select the **Match whole word only** check box.

5 To make the search case sensitive, select the **Match case** check box.

6 Click **Find Next** to find the next occurrence of your search string. You can also click the **Find Next** icon on the **Visual Difference** toolbar to search for the next occurrence at a later time.

For more information, see Visual Difference Utility.

Setting Options in the Visual Difference Dialog Box

The Visual Difference dialog box lets you set display and comparison options to help you customize the dialog box to view differences in a comprehensive manner.

Setting Options

1 Click the **Options** icon on the **Visual Difference** toolbar.

Rapid SQL opens the Visual Diff Options dialog box.

The following table describes the check box options:

Option	Description	Default
Display Line Numbers	Indicates that line numbers should appear in the Visual Diff dialog box.	Off
Display Hidden Characters	Indicates that hidden characters (nonprintable) should be displayed.	Off
Ignore White Space	Indicates that White Space (such as spaces, carriage returns, line feeds, and tabs) should be ignored. If this option is set on, text will be considered equivalent regardless of white space, otherwise the text will be shown as being different.	On

>

Option	Description	Default
Ignore Hidden Characters	Indicates that hidden characters (nonprintable) should be excluded.	Off
Ignore Case	Indicates that case should not be a differentiating factor.	On

2 Click **OK**.

Rapid SQL accepts the options.

For more information, see Visual Difference Utility.

Query Builder

Query Builder is a database productivity tool that lets you construct, structure, and manipulate up to five different types of queries simultaneously. It includes a separate graphical interface that opens within your current workspace. You can run Query Builder against all Embarcadero Technologies supported database platforms.

Query Builder displays the interconnections of your queries as you work. The powerful visual components of Query Builder let you see your query grow and change to fit your needs. Query Builder eases the task of drawing data from tables by automatically creating correct SQL code as you build a statement. You can use Query Builder to create and execute SELECT statements for tables and views. You can also test queries, and easily adjust your information, before you save. Query Builder does not rely on knowledge of the underlying SQL code.

You can save and reopen queries in Query Builder. Query Builder automatically checks for changes in your tables or columns between the time you save the query and the time you reopen it.

The table below describes the types of queries available in Query Builder:

Query Type	Description
SELECT	Create, manipulate and execute SELECT Statements for tables and views.
INSERT	Create and manipulate INSERT Statements for tables.
UPDATE	Create and manipulate UPDATE Statements for tables.
DELETE	Create and manipulate DELETE Statements for tables.
CREATE VIEW	Create and manipulate CREATE VIEW Statements for tables and views.

NOTE: You can execute SELECT statements directly from Query Builder. INSERT, UPDATE, DELETE, and CREATE VIEW statements must be moved to an ISQL Editor for execution.

For more information, see:

Query Builder Design

Using Query Builder

>

Query Builder Design

Query Builder lets you build DML statements using an intuitive, graphical interface. It offers you a powerful and flexible way to quickly create complex statements without sacrificing time manipulating SQL code. Query Builder lets you add tables or columns, create joins, and change statements within the graphic display without leaving Rapid SQL. It also lets you have multiple sessions working at the same time.

Query Builder includes many different features to assist you in building and manipulating your query:

- Query Builder Statement Properties
- Workspace Windows
- Query Builder Explorer
- Tool Bar
- SQL Diagram Pane
- SQL Statement Pane

For more information, see Build Query.

Workspace Windows

The Workspace Windows provide a comprehensive view of your data structure and query. The table below describes the Workspace Windows:

Pane	Description
Query Builder Explorer Window	Includes two tabs that display selected object details: Tables/Views DML
SQL Diagram Pane	Displays tables or views included in the current query.
SQL Statement Pane	Displays the SQL code, and when appropriate, a Results Tab.

For more information, see Build Query.

Query Builder Explorer Window

The Query Builder Explorer is a separate tree that exposes all the tables and views in your target database. It also displays your current query structure. The Query Builder Explorer includes two tabs that display information about the selected objects:

- Tables/Views
- DML

Tables/Views Tab

The Tables/View Tab displays information about the selected tables or views. You can use the drop-down lists to change your table or view, and when appropriate, the owner. The table below describes each drop-down list on the Tables/Views Tab:

>

List	Description
First	Displays all databases for a target Microsoft SQL Server or Sybase ASE.
Second	Displays all valid owners.

NOTE: To change your current database, select the new database in the Explorer, and then open another Query Builder session. Query Builder prompts you to save the current session prior to opening a new session.

DML Tab

The DML Tab displays all the basic elements of a query statement in the SQL Statement Tree. You can access any element of the current statement display and perform SQL editing from the SQL Statement Tree.

For more information, see:

Creating a Clause Using the SQL Statement Tree

Build Query

SQL Diagram Pane

The SQL Diagram Pane displays tables, views, and joins included in the current query. You can manipulate elements of your query, using the mouse functionality, in the SQL Diagram Pane. From the SQL Diagram Pane you can:

- Add and Remove tables and views.
- Create and delete joins.
- Add and Subtract columns.

All changes in the SQL diagram reflect in correct SQL code in the SQL Statement Pane.

For more information, see Build Query.

SQL Statement Pane

The SQL Statement Pane displays the current query SQL code. When you run a query, Query Builder displays results to your query in the SQL Statement Pane. The SQL Statement Pane is divided into two tabs:

- SQL Tab
- Results Tab

SQL Tab

The SQL Tab displays the query in progress. It displays each element of your query as you build it, and updates as you do edits such as selecting or deselecting columns, adding clauses, and creating joins. Rapid SQL lets you open the current statement directly into an ISQL editor or copy it to the clipboard for later use.

Results Tab

The Results Tab displays the results of your executed query in the Results grid. To edit data, use the Data Editor application from Query Builder. When you begin building a new query, the tab title changes to Old Results until you execute the new query.

For more information, see Build Query.

Query Builder Tool Bar

The Query Builder tool bar lets you access commonly used features.

The table below describes Query Builder tool bar functionality:

Name	Function
Copy	Copies the current SQL statement to the clipboard.
Statement Box	Displays the type of statement currently on display in the main workspace window.
Stop Execution	Stops an executing query.
Execute	Executes the current SELECT or CREATE VIEW statement. If the button is not available, the statement is not executable.
New	Adjusts to the target node in the Query Builder Explorer window.
Edit	Displays, on the DML Tab, the ORDER BY or GROUP BY dialog boxes when target node is selected.
Delete	Deletes the target object.
Auto Layout	Resets the main workspace to the auto layout mode.
Auto Join	Finds and joins, automatically, like items by name.
Statement Check	Checks query syntax.
Edit Data	Opens Data Editor.
Close	Closes the current query.

NOTE: Query Builder adjusts tool availability to match the current query functionality.

For more information, see Build Query.

Tables and Views Shortcut Menus

Query Builder includes a shortcut menu that lets you manipulate a table or view. The table below describes the table shortcut options:

Option	Description
Delete	Removes the table from the SQL Diagram Pane, and the SQL Statement.
Title Font	Specifies the table title font for this diagram.
Column Font	Specifies the column font for this diagram.
Background Color	Specifies the table background color for this diagram.
Select Star	Selects every column in the table.
Select None	Deselects every column in the table.
Bring to Front	Moves the table to the top layer of the diagram.
Properties	Opens the Table Properties dialog box.

NOTE: Your selection applies to all selected tables and views.

For more information, see Build Query.

Tables and Views Keyboard Commands

Query Builder provides a number of keyboard shortcuts that let you quickly construct queries. The table below describes the keyboard commands:

Keyboard Command	Location	Description
ESCAPE	SQL Diagram Pane	Breaks off a join.
F5	Query Builder	Refreshes screen and runs Schema Change Detection. In a CREATE VIEW, this key adds the new view to the Table Tree Pane.
CTRL A	SQL Diagram Pane	Selects all tables and joins in the current diagram.
F1	Query builder and application	Obtains context sensitive Help.

For more information, see Build Query.

Query Builder Dialog Boxes

Query Builder includes a number of dialog boxes to assist you in building and customizing your query.

Dialog Box	Description
Statement Properties	Specifies general properties in an individual Query Builder session.
Table Properties	Specifies column selection and alias names for a table or view.
Column Properties	Specifies column functionality within SELECT and CREATE VIEW statements.

>

For more information, see Build Query.

Statement Properties

The Statement Properties dialog box lets you customize properties in an individual Query Builder session. For example, you can set options to limit the number of rows returned in a query to save execution time, or turn off the auto join function to manually control all joins for an individual query. The table below describes the options and functionality of the Statement Properties dialog box.

>

Interface Element	Option	Description	Default
Code Generation	Generate Use Database statement	Adds a line of SQL code indicating which database or instance is used in the statement.	Selected
	Generate owner names	Adds a line of SQL code showing the table owner name as part of the query.	Selected
	Include Row Count limits	Includes the output row limit set in the Execution settings.	Selected
Execution	Max Row Count in Results Set	Sets row count limits to build and check a query without congesting server processes when a query executes.	1000 rows
General	Show Column Data types in Query Diagram	Lets Query Builder reveal the data type in each column for tables in the SQL Diagram Pane.	Not selected
	Confirm on Item delete	Lets Query Builder open a Confirm Delete dialog box when an item is deleted. **NOTE:** Clearing this function can result in unexpected changes to your query diagram and statement.	Selected
	Auto populate views	Lets Query Builder automatically populate views.	Not selected
Auto Join	Require Indexes	Joins indexed columns automatically, and requires indexed columns for joins.	Selected
	Require same data type	Automatically joins columns with the same data type.	Selected
Syntax Checker	Automatic Syntax Check	Lets Query Builder check syntax every time an execute statement, refresh or copy statement begins.	Selected
	Run Automatically	Lets Query Builder automatically detect like names and data types and create joins for multiple tables.	Selected
Display	Columns Font	Lets you set the font, font style, size, and color of column fonts.	Available
	Title Font	Lets you set the font, font style, size, and color of table/view title fonts.	Available
	Table Color	Lets you set the background color of your tables in the SQL Diagram Pane.	Available

NOTE: If you set options while Query Builder is running, Rapid SQL displays a warning indicating that you are about to change options or properties.

For more information, see Completing the Statement Properties Dialog Box.

Completing the Statement Properties Dialog Box

To complete the Statement Properties dialog box, do the following:

1. On the **Query Builder** menu, click **Statement Properties**.

   OR

   In the **SQL Diagram Pane**, right-click, and then click **Statement Properties**.

2. Set options.

3. Click **OK**.

   Query Builder saves the options.

For more information, see Build Query.

Table Properties

The Tables Properties dialog box lets you set parameters for tables or views in your SQL Diagram. The table below describes the options and functionality on the Table Properties dialog box.

Option	Description
Table Alias	Creates an alias name for your table.
Show Datatypes	Shows or hides the datatype for every column in the target table.
Displayed Columns	Displays columns visible in the SQL Diagram.
Hidden Columns	Displays columns hidden in the SQL Diagram.
Hide All	Moves all non selected columns in the table to the Hidden Columns window.
Display All	Moves all columns in the table to the Displayed Columns window.
Right Arrow	Moves a target file from Displayed Columns to Hidden Columns.
Left Arrow	Moves a target file from Hidden Columns to Displayed Columns.

For more information, see Completing the Table Properties Dialog Box.

Completing the Table Properties Dialog Box

To complete the Table Properties dialog box, do the following:

1. Double click the target table or view title bar.

   OR

   Right-click target table or view, and then click **Properties**.

2. If you only want to hide or display columns in your table, click the arrow button on the table title bar.

3. You can also edit view properties from the Table Properties dialog box.

4. Click **OK**.

   Query Builder saves the changes.

For more information, see Build Query.

Column Properties

The Column Properties dialog box lets you set properties for individual columns in your SELECT or CREATE VIEW statements. You can set aggregate functions and create an alias for an individual column.

The Column Properties dialog box is not available for INSERT, UPDATE or DELETE statements.

The table below describes the options and functions Columns Properties dialog box:

Interface Element	Description
Tables/Views	Displays all tables and views in the SQL Diagram Pane.
Aggregate	Specifies aggregate options for the target column. AVG - An average is taken for a column with an int or numeric datatype. COUNT - Returns the number of rows which contain data for the target column. MAX - Returns the highest number in a row in the column. MIN - Returns the lowest number in a row in the column. SUM - Returns the sum of the target column in all rows which contain data. This function is only operable on int or numeric datatypes.
Alias	Displays the alias name for the target column. Lets you type the name of the alias. **NOTE:** Query Builder displays the results of an aggregate column without a column name unless you create an alias for that column.
Available Columns	Displays all available columns in the target table or view.
Selected Columns	Displays all selected columns in the target table or view. To create an aggregate function or alias for a different column, select target column, select an aggregate function, and then type the name of the alias.
Select All	Moves all columns in the Available Columns box to the Selected Columns box.
Clear All	Moves all columns in the Selected Columns box to the Available Columns box.
Right Arrow	Moves target column in the Available Columns box to the Selected Columns box.
Left Arrow	Moves target column in the Selected Columns box to the Available Columns box.
Select List Statement	Displays the current query.

Completing the Column Properties Dialog Box

To complete the Column Properties dialog box, do the following:

1. On the **SQL Statement Tree**, double-click target column.
2. Select options.
3. Click **OK**.

For more information, see Build Query.

Join Properties

Query Builder lets you edit joins with the Join editor. You can edit join parameters in a SELECT, UPDATE, DELETE, and CREATE VIEW Statement.

The table below describes the options and functionality on the Join dialog box.

Option	Description
From Table Column	The primary column in the join.
To Table Column	The secondary column in the join.
Select the join relation operator	Click the target join operator. If it is not equals, the operator displays on the join in the SQL Diagram Pane.
Join Type: Inner	Click to make the join an inner join. Aggregates are only available for inner joins.
Join Type: Left Outer	Click to make the join a left outer join.
Join Type: Right Outer	Click to make the join a right outer join.

NOTE: For IBM DB2 LUW for Linux, Unix, and Windows servers, there is an additional join object in the SQL Statement Tree. The Join On node displays join relations between columns in IBM DB2 LUW for Linux, Unix, and Windows tables and views.

Completing the Join Dialog Box

To complete the Join dialog box, do the following:

1. In the **SQL Diagram Pane**, right-click the target join, and then click **Properties**.

   OR

   In the **SQL Diagram Pane**, double-click the target join.

   OR

   On the **SQL Statement Tree**, expand the **Where** and **And** nodes, and then double-click the target join.
2. Select options.
3. Click **OK**.

For more information, see Build Query.

Using Query Builder

Query Builder provides a visual display of your queries as you construct them. You can run Query Builder against any registered datasource in Rapid SQL. Query Builder lets you build five separate types of queries simultaneously:

- SELECT
- INSERT
- UPDATE
- DELETE
- CREATE VIEW

You can execute a SELECT statement from Query Builder. To execute an INSERT, UPDATE, DELETE, and CREATE VIEW statement, copy them to an ISQL Editor. You can also copy the statements to the clipboard for later use in the ISQL Editor. Query Builder also lets you save a statement at any time so that you can open them later for editing or execution.

Rapid SQL lets you open Query Builder with multiple tables or views with the same or different owners. If you open tables or views with different owners, Query Builder displays “All Owners” in the Owner drop-down list. You can start multiple Query Builder sessions from Rapid SQL. You can use different tables and views for each query. You can also toggle back and forth among each of the queries.

You can save and reopen queries in Query Builder. Query Builder automatically checks for changes in your database or instance between the time you save the query and the time you reopen it with the Schema Change detection component.

Query Builder is integrated with Data Editor so you can edit data in real time and then continue to build your query with the new information embedded in the query.

Using Query Builder

To use Query Builder, do the following:

- Select an instance or database
- Select a statement.
- Select a table(s) or view(s).
- Select a column or columns.

NOTE: You can start Query Builder directly from a table or view which automatically selects the instance or database which contains that table or view.

1 On the **Tools** menu, click **Query Builder**.

OR

On the **Datasource Explorer**, expand the **Database** or **Schema** node, click **Tables,** and then on the **Command** Menu, click **Build Query**.

OR

On the **Tools** tool bar, click **Build Query**.

OR

On the **Explorer**, expand **Tables**, right-click the target table(s), and then click **Build Query**.

OR

On the **Explorer**, expand **Views**, right-click the target view(s), and then click **Build Query**.

Rapid SQL opens Query Builder.

Selecting a Database

To create an SQL statement, first select an instance or database.

NOTE: You can start Query Builder directly from a table or view which automatically selects the database which contains that table or view.

If you are working with Microsoft SQL Server or Sybase ASE, Query Builder provides two drop-down lists. The first drop-down list displays all available databases for the target server. The second drop-down list displays owners.

If you are working with Oracle or IBM DB2 LUW for Linux, Unix, and Windows the first drop-down list is unavailable.

> **NOTE:** You can start Query Builder directly from a table or view which automatically selects the database which contains that table or view.

1. Start **Query Builder**.
2. In the database drop-down list, click the target instance or database.
3. In the owners drop-down list, select the appropriate owner.

   Query Builder is ready for Statement selection.
4. To select different instances or databases while Query Builder is running, on the **Tables/Views** Tab, in the database drop-down list, click the target instance or database.

   Rapid SQL clears the current query and displays a warning prompt.
5. To save the current query, click **Yes**.

   Rapid SQL opens the Save As dialog box.
6. To continue without saving, click **No**.

   Rapid SQL clears the SQL Diagram Pane and SQL Statement Pane.

For more information on saving queries in Query Builder, see Saving and Reopening Queries.

Selecting a Statement

Query Builder lets you build SELECT, INSERT, UPDATE, DELETE, and CREATE VIEW queries simultaneously.

To select a statement, do the following:

1. On the **Query Builder** tool bar, click the statement drop-down list, and then click the target statement type.

   OR

   In the **SQL Diagram Pane**, right-click, and then click the target statement type.

For more information, see Using Query Builder.

Selecting Tables and Views

To build a query, open one or more tables or views in the SQL Diagram Pane. You can use different tables or views for each type of query.

> **TIP:** For multiple tables: Press **SHIFT+click** for adjacent tables or **CTRL+click** for nonadjacent tables. You can also drag the bounding line with your pointer to select multiple tables.

To select a Table or View, do the following:

1 In the **Tables/Views Tab**, drag the target table or view to the **Diagram Pane**.

OR

In the **Tables/Views Tab**, click target table or view and then, on the **Query Builder** tool bar, click **Add**.

OR

In the **Tables/Views Tab**, right-click target table or view, and then click **Add**.

Query Builder displays the target table(s) and view(s) in the SQL Diagram Pane.

For more information, see Using Query Builder.

Selecting Columns

You must select at least one column to build a query. Query Builder displays columns in each table in the SQL Diagram window. By default, Query Builder exposes every column in a table. You can select the columns you want to use for your query. Query Builder orders them, in your statement, in the select order.

Query Builder lets you select columns in the:

- SQL Diagram Pane.
- SQL Statement Tree.

You can select an individual column or all columns. Query Builder orders them, in your statement, in the select order. You can reorder columns after you set them in your diagram or statement.

For more information, see:

Selecting Columns in the SQL Diagram Pane

Selecting Columns in the SQL Statement Tree

Selecting All Columns

Selecting Columns in the SQL Diagram Pane

To select a column in the SQL Diagram Pane, do the following:

1 Select the check box to the left of the target column name.

For more information, see Using Query Builder.

Selecting Columns in the SQL Statement Tree

Query Builder lets you select and set individual properties using the Selected Column Properties Dialog Box.

For more information, see Using Query Builder.

Selecting All Columns

Query Builder uses columns in statements based on the order of selection. When you select all columns, Query Builder displays the columns in the order they appear in the table.

NOTE: Query Builder lets you select all columns in single or multiple tables.

>

To select all columns, do the following:

1 On the **Query Builder** menu, click **Select Star**.

OR

On the **SQL Statement Tree**, or in the **SQL Diagram**, right-click target table, or any of a group of selected tables, and then click **Select Star**.

For more information, see Using Query Builder.

Building a Query

Query Builder lets you build five different queries, which you can run separately or simultaneously, depending on your needs. The table below describes these queries:

Query Type	Description
SELECT	Lets you create, manipulate and execute SELECT Statements for tables and views.
INSERT	Lets you create and manipulate INSERT Statements for tables.
UPDATE	Lets you create and manipulate UPDATE Statements for tables.
DELETE	Lets you create and manipulate DELETE Statements for tables.
CREATE VIEW	Lets you create and manipulate CREATE VIEW Statements for tables and views.

To build a Query, do the following:

- Select an instance or database.
- Select a Statement.
- Select your table(s) or view(s).
- Select your columns.

NOTE: You can start Query Builder directly from a table or view which automatically selects the database which contains that table or view.

Query Builder lets you build queries that include both tables and views in the SQL Diagram Pane for SELECT and CREATE VIEW statements. For the INSERT, UPDATE, and DELETE statements, use one or the other object, but you cannot use both.

Once you make your selections, you can edit, restructure, and streamline your query. Query Builder offers many options for streamlining your queries.

For more information, see:

Working with Tables and Views in the SQL Diagram Pane

Working with Columns in the SQL Diagram Pane

Joins

Creating a Clause using the SQL Statement Tree

Moving Tables and Columns in the SQL Statement Tree

Subqueries

Aliases

Building a SELECT Statement

Query Builder lets you construct and execute simple-to-complex SELECT statements using data from any table or view. You can also create and edit joins for SELECT statements. Query Builder can check your query and warn you if there are syntax errors with the Syntax Checker.

To build a SELECT statement, do the following:

1. On the **Tools** menu, click **Query Builder**.

   OR

   On the **Datasource Explorer**, expand the **Database** or **Schema** node, click **Tables**, and then on the **Command** menu, click **Build Query**.

   OR

   On the **Tools** tool bar, click **Query Builder**.

   OR

   On the **Explorer**, expand **Tables**, right-click the target table(s), and then click **Build Query**.

   OR

   On the **Explorer**, expand **Views**, right-click the target view(s), and then click **Build Query**.

   Rapid SQL opens Query Builder.
2. In the statement drop-down list, click **SELECT**.
3. In the **Table Tree Pane**, select target table(s) or view(s) and move them to the **SQL Diagram Pane**.
4. In the target table or view, click target column(s), or click **Select Star** to select every column.
5. To check syntax, click **Check**.
6. To copy the statement, click **Copy**.
7. To execute the statement, click **Execute**.

Copying a SELECT Statement from the SQL Statement Pane

To copy any part of a statement from the SQL Statement Pane, do the following:

1. Open **Query Builder**, then begin a new SELECT statement.

   OR

   Open an existing SELECT statement.
2. In the **SQL Statement Pane**, select all, or the target portion of the statement.
3. On the **Query Builder** tool bar, click **Copy**.

   OR

   In the **SQL Statement Pane**, right-click, and then click **Copy**.

   Query Builder makes the target statement portion available on the clipboard.

For more information, see Building a Query.

Building an INSERT Statement

Query Builder lets you construct and execute simple-to-complex INSERT statements using data from any table. To execute an INSERT statement, copy it to an ISQL Editor. You can also copy the statement to the clipboard for later use in the ISQL Editor. Query Builder also lets you save your statement at any time so that you can open it later for editing or execution.

Building an INSERT Statement

To build an INSERT Statement, do the following:

1. On the **Tools** menu, click **Query Builder**.

   OR

   On the **Datasource Explorer**, expand the **Database** or **Schema** node, click **Tables**, and then on the **Command** menu, click **Build Query**.

   OR

   On the **Tools** tool bar, click **Query Builder**.

   OR

   On the **Explorer**, expand **Tables**, right-click the target table(s), and then click **Build Query**.

   OR

   On the **Explorer**, expand **Views**, right-click the target view(s), and then click **Build Query**.

   ```
   Rapid SQL opens Query Builder.
   ```

2. In the statement drop-down list, click **INSERT.**
3. In the **Table Tree** Pane, select target table, and move it to the **SQL Diagram Pane**.
4. In the target table, click target column(s).

Copying an INSERT Statement from the SQL Statement Pane

To copy any part of a statement from the SQL Statement Pane, do the following:

1. Open Query Builder, then begin a new INSERT statement.

   OR

   Open an existing INSERT statement.

2. In the **SQL Statement Pane**, select all, or the target portion of the statement.
3. On the **Query Builder** tool bar, click **Copy**.

   OR

   In the **SQL Statement Pane**, right-click, and then click **Copy**.

   Query Builder makes the target statement portion available on the clipboard.

For more information, see Building a Query.

Building an UPDATE Statement

Query Builder lets you construct and execute simple-to-complex UPDATE statement using data from any table. To execute an UPDATE statement, copy it to an ISQL Editor. You can also copy the statement to the clipboard for later use in the ISQL Editor. Query Builder also lets you save your statement at any time so that you can open it later for editing or execution.

Building an UPDATE Statement

To build an UPDATE statement, do the following:

1. On the **Tools** menu, click **Query Builder**.

   OR

   On the **Datasource Explorer**, expand the **Database** or **Schema** node, click **Tables**, and then on the **Command** menu, click **Build Query**.

   OR

   On the **Tools** tool bar, click **Query Builder**.

   OR

   On the **Explorer**, expand **Tables**, right-click the target table(s), and then click **Build Query**.

   OR

   On the **Explorer**, expand **Views**, right-click the target view(s), and then click **Build Query**.

   Rapid SQL opens Query Builder.

2. In the statement drop-down list, click **UPDATE.**
3. In the **Table Tree Pane**, select target table and move it to the **SQL Diagram Pane**.
4. In the target table, click target column(s).

Copying an UPDATE Statement from the SQL Statement Pane

To copy any part of a statement from the SQL Statement Pane, do the following:

1. Open **Query Builder**, then begin a new UPDATE statement.

   OR

   Open an existing UPDATE statement.

2. In the **SQL Statement Pane**, select all, or the target portion of the statement.
3. On the **Query Builder** tool bar, click **Copy**.

   OR

   In the **SQL Statement Pane**, right-click, and then click **Copy**.

   Query Builder makes the target statement portion available on the clipboard.

For more information, see Building a Query.

Building a DELETE Statement

Query Builder lets you construct DELETE statements using data from any table. Query Builder displays a Confirmation Option Message box when you create a DELETE statement. You can set the Statement Properties dialog box to display or hide this message when creating a DELETE statement.

To execute a DELETE statement, copy it to an ISQL Editor. You can also copy the statement to the clipboard for later use in the ISQL Editor. Query Builder also lets you save your statement at any time so that you can open it later for editing or execution.

Building a DELETE Statement

To build a DELETE statement, do the following:

1. On the **Tools** menu, click **Query Builder**.

   OR

   On the **Datasource Explorer**, expand the **Database** or **Schema** node, click **Tables**, and then on the **Command** menu, click **Build Query**.

   OR

   On the **Tools** tool bar, click **Query Builder**.

   OR

   On the **Explorer**, expand **Tables**, right-click the target table(s), and then click **Build Query**.

   OR

   On the **Explorer**, expand **Views**, right-click the target view(s), and then click **Build Query**.

   Rapid SQL opens Query Builder.

2. In the statement drop-down list, click **DELETE.**
3. In the **Table Tree** Pane, select target table, and move it to the **SQL Diagram Pane**.

Copying a DELETE Statement from the SQL Statement Pane

To copy any part of a statement from the SQL Statement Pane, do the following:

1. Open Query Builder, then begin a new DELETE statement.

   OR

   Open an existing DELETE statement.

2. In the **SQL Statement Pane**, select all, or the target portion of the statement.
3. On the **Query Builder** tool bar, click **Copy**.

   OR

   In the **SQL Statement Pane**, right-click, and then click **Copy**.

   Query Builder makes the target statement portion available on the clipboard.

For more information, see Building a Query.

Building a CREATE VIEW Statement

Query Builder lets you construct and execute simple-to-complex CREATE VIEW statements using data from any table or view. You can also copy the statement to the clipboard for later use in the ISQL Editor. Query Builder also lets you save your statement at any time so that you can open it later for editing or execution.

>

To build a CREATE VIEW statement, do the following:

1 On the **Tools** menu, click **Query Builder**.

OR

On the **Datasource Explorer**, expand the **Database** or **Schema** node, click **Tables**, and on the **Command** menu, click **Build Query**.

OR

On the **Tools** tool bar, click **Query Builder**.

OR

On the **Explorer**, expand **Tables**, right-click the target table(s), and then click **Build Query**.

OR

On the **Explorer**, expand **Views**, right-click the target view(s), and then click **Build Query**.

```
Rapid SQL opens Query Builder.
```

2 In the statement drop-down list, click **CREATE VIEW.**

3 In the **Table Tree Pane**, select target table or view and move it to the **SQL Diagram Pane**.

NOTE: Query Builder supports multiple tables and views in a CREATE VIEW statement.

4 In the target table or view, click the target column(s).

5 To check syntax, click **Check**.

6 To copy the statement, click **Copy**.

7 To execute the CREATE VIEW Statement, click the **SQL Statement Pane**, and then press any key.

Query Builder opens the Edit SQL dialog box.

8 Click **OK**.

CAUTION: If you have used this method previously, and you selected the Please do not show me this dialog again check box, on the Edit SQL dialog box, Query Builder does not display the Edit SQL dialog box. It pastes your statement directly to the ISQL Editor.

Rapid SQL opens the ISQL Editor.

9 In the **ISQL Editor**, on the line, CREATE VIEW NAME AS, replace the word NAME with a name for your view.

10 On the tool bar, click **Execute**.

Rapid SQL executes the CREATE VIEW query.

11 To close the Editor, click **Close**.

Rapid SQL opens the ISQL Editor save message.

12 Click **No**.

Rapid SQL returns to Query Builder.

13 To add the view to the table tree, on the **Query Builder** menu, click **Refresh**.

OR

Press **F5**.

Query Builder adds the view to the Table Tree Pane.

Copying a CREATE VIEW Statement from the SQL Statement Pane

To copy any part of a statement from the SQL Statement Pane, do the following:

1 Open Query Builder, then begin a new CREATE VIEW statement.

OR

Open an existing CREATE VIEW statement.

2 In the **SQL Statement Pane**, select all, or the target portion of the statement.

3 On the **Query Builder** tool bar, click **Copy**.

OR

In the **SQL Statement Pane**, right-click, and then click **Copy**.

Query Builder makes the target statement portion available on the clipboard.

For more information, see Building a Query.

Working with Tables and Views in the SQL Diagram Pane

Query Builder lets you organize your tables and views in the SQL Diagram Pane. You can also customize appearance, change visual aspects, and adjust layout while continuing to manufacture a query. You can resize or customize a selected table and view, or move them to the front or back of the diagram. The key symbol indicates a column that is indexed or participates in a primary key.

- Selecting and Deselecting Tables and Views
- Moving Tables and Views
- Moving Additional Tables and Views to the SQL Diagram Pane
- Deleting Tables and Views

Query Builder can automatically dictate a layout in the SQL Diagram Pane using the Auto Layout button.

Selecting and Deselecting Tables and Views

You can select tables and views in the SQL Diagram Pane. You can make changes to more than one table or view simultaneously by selecting multiple tables or views.

To select and deselect Tables and Views, do the following:

1 To select a table, click the table title bar.

2 To select more than one table, drag the pointer to enclose all target tables with the bounding line.

Query Builder selects all target tables; none have handles.

3 To select all tables, in the **SQL Diagram**, right-click, and then click **Select All**.

4 Click the **SQL Diagram** workspace to deselect all tables.

For more information, see Working with Tables and Views.

Moving Tables and Views

Query Builder lets you move tables and views in the SQL Diagram Pane. It also moves selections and joins with the tables and views.

To move Tables and Views, do the following:

1 To move a table or view, drag the title bar to the target location.

NOTE: If you select more than one table or view, Query Builder moves all selected tables and views and any joins with the pointer.

For more information, see Working with Tables and Views.

Moving Additional Tables and Views to the SQL Diagram Pane

Query Builder sets tables and views in your statement in the order that you move them to the SQL Diagram Pane. Tables and views moved into the Diagram Pane appear first in your statement, including all joins connecting that table. To change the order of tables, move them back into the Table Tree and re-select them in the order in which you would like to join them.

Moving Additional Tables or Views

To move additional tables or views, do the following:

1 Click the target table or view and drag it to the **Diagram Pane**.

For multiple tables or views: Use **SHIFT+click** for adjacent tables or views or use CTRL+click for nonadjacent tables and views.

OR

Click the target table or view, and then on the **Query Builder** tool bar, click **Add**.

OR

Right-click the target table or view, and then click **Add**.

For multiple tables or views: Use **SHIFT+click** for adjacent tables or views or use **CTRL+click** for non-adjacent tables and views.

NOTE: Moving a table or view to the SQL Diagram Pane is not available while a query is executing.

For more information, see Working with Tables and Views.

Deleting a Table or View

To delete tables from the SQL Diagram Pane, do the following:

1 Right-click the target table or view, and then click **Delete**.

OR

In the **SQL Diagram**, click target table or view, and then on the **Query Builder** tool bar, click **Delete**.

OR

In the **SQL Diagram**, right-click the target table or view, and then click **Delete**.

Query Builder deletes the table from the SQL Diagram, SQL Statement, and SQL Statement Tree.

For more information, see Working with Tables and Views.

Working with Columns in the SQL Diagram Pane

You can customize queries by selecting and deselecting columns in the SQL Diagram Pane. You can customize columns using the Selected Column Properties dialog box.

Selecting and Deselecting Columns

You can select and deselect columns in the SQL Diagram. Query Builder lets you select and deselect individual columns or all columns. Your results reflect the order of selection. You can change the order of columns after you set them in your diagram or statement.

TIP: You can also select, re-order and deselect columns in the SQL Statement Tree.

Selecting Individual Columns

To select individual columns, do the following:

1 To select a column, in the **SQL Diagram**, select the check box to the left of the target column name.

Deselecting Individual Columns

To deselect individual columns, do the following:

1 To deselect a column, in the **SQL Diagram**, select the check box to the left of the target column name.

NOTE: When you clear the columns, Query Builder deletes the columns and any sub clauses from the SQL Statement Pane and SQL Statement Tree.

Selecting All Columns

To select all columns, do the following:

1 On the **Query Builder** menu, click **Select Star**.

OR

On the **SQL Statement Tree**, or in the **SQL Diagram**, right-click target table, or any of a group of selected tables, and then click **Select Star**.

NOTE: Query Builder uses columns in statements based on the order of selection. When you select all columns, Query Builder displays the columns as they appear in the table.

Deselecting All Columns

To deselect all columns, do the following:

1 On the **Query Builder** menu, click **Select None**.

OR

On the **SQL Statement Tree**, or in the **SQL Diagram**, right-click target table, or any of a group of selected tables, and then click **Select None**.

Query Builder adds or removes selected columns from the SQL Statement Tree and the SQL Statement Pane.

Selecting ALL or DISTINCT Columns

Selecting ALL or DISTINCT columns is a way to filter data in your query. Selecting ALL columns means all rows displays results in the grid regardless of duplication in non-primary key columns. The DISTINCT column function is a query process that limits duplicate data in non-primary key columns to rows with the first iteration of any identical data. For example, if there are two identical addresses for different last names, and the column with a primary key does not participate in the query, only the row with the first instance of the address displays in the results of the query.

To select ALL or DISTINCT columns, do the following:

1 In the **Statement Tree pane**, right-click the **ALL** or **DISTINCT** node, click **Properties,** and then select the **ALL** or **DISTINCT** check box.

OR

In the **Statement Tree pane**, double click the **ALL** or **DISTINCT** node. Query Builder toggles to the opposite function.

NOTE: You can change between ALL or DISTINCT at any time prior to executing or copying a query.

Joins

Joins let you distill the information in your database to a usable form. Query Builder lets you create, manipulate, and edit work with joins without requiring knowledge of the underlying SQL code. Query Builder lets you create any type of join for SELECT and CREATE VIEW Statements. You can create self joins for UPDATE or DELETE Statements. You cannot create joins for INSERT Statements.

Query Builder includes four types of joins. The table below describes joins and their availability in Query Builder:

Join	Statement Availability	Description
Inner Join	SELECT, CREATE VIEW, DELETE, UPDATE	Returns data from the joined tables that match the query's join criteria and set a relation between tables or views. Inner joins return results where the join condition is true.
Left Outer Join	SELECT, CREATE VIEW	Returns all data from the primary table and data from the joined tables that match the query's join criteria and set a join relation operator from a column in a primary table or view to a column in a secondary table or view.

Join	Statement Availability	Description
Right Outer Join	SELECT, CREATE VIEW	Returns all data from the primary table and data from the joined tables that match the query's join criteria and set a join relation operator from a column in a secondary table or view to a column in a primary table or view.
Self Join	SELECT, CREATE VIEW	Set a relation between columns in the same table.

In the Query Builder SQL Diagram Pane, you can create, edit, and delete joins. You can edit joins in the Join dialog box.

Joins are the way you can filter data in relational databases. Query Builder lets you change the types of joins between tables, views and columns. It is important that you have some knowledge of the data in your tables, and the datatypes for each column. This information helps you frame a better query, and filter your data for maximum effect.

For more information, see Joins.

Inner Joins

Inner joins are the most common types of joins for SELECT statements. An inner join returns information from two tables where the relation between two target columns is true for both columns.

The join operand determines the relation results, for example, if the join operand is equals, then identical data, in two columns, is the only result. If the join operand is not equals, Query Builder only returns data that is different between two columns.

For example, if you have an inner join matching territory numbers between the table dbo.Managers and dbo.Clients, running the query returns all Managers and Clients with matching territory numbers:

Query Builder displays the following results from this query with an inner join

NOTE: Query Builder displays results of columns in the order of selection. You can reorder columns by deselecting and selecting in the SQL Diagram Pane, the Selected Columns Properties dialog box, or the SQL Statement Tree.

For more information, see Joins.

Left Outer Joins

Left outer joins bring back a different data set than inner joins. Left outer joins retrieve all the data in columns selected from the primary table, and only matching data from the joined or secondary table.

For example, in the same pair of tables, a left inner join from dbo.Managers to dbo.Clients, where the columns Current Territory and Territory are joined, displays different results.

NOTE: There is one additional manager who does not have a client, but because a left outer join includes all data from selected columns in the primary table, the last entry in the illustration is displayed.

For more information, see Joins.

Right Outer Joins

Right outer joins return opposite results from a left outer join. In a right outer join, you are asking for all the information in the secondary table's column, and the join operator's matching information from the primary table.

For example, in the same set of data we used in the left outer join example, a right outer join returns all clients from dbo.Client, and only managers who match territory numbers, in the joined column.

> **NOTE:** The managers are the same as the first, inner join, but a right outer join returns the additional clients without matching managers.

For more information, see Joins.

Self Joins

A self join is a join within a single table. Query Builder lets you return specific information from a single table using a self join.

For example, in our example table, there is a column for the number of clients and another column with the goal client total for a territory.

A self join can ascertain which managers are reaching their quota. Notice that the join relation operator in the example is greater than or equal to, which shows managers exceeding quota as well.

For more information, see Joins.

Adding and Deleting a Join in the SQL Diagram Pane

Query Builder lets you add and delete joins. This method adds a WHERE clause in your query. You can join different tables and or views in a SELECT or CREATE VIEW statement.

Adding a Join

To add a Join, do the following:

1. In the **SQL Diagram Pane**, drag the target column to the second column.

   Query Builder displays both a line joining the two columns in the SQL Diagram Pane and the corresponding SQL code in the SQL Statement Pane.

Removing a Join

Query Builder lets you remove joins from your query. Query Builder automatically deletes joins from the query in the SQL Statement Pane, when you remove them from the SQL Diagram Pane.

To remove a join, do the following:

1. Click the target join, and then on the **Query Builder** tool bar, click **Delete**.

   OR

   Right-click the target join, and then click **Delete**.

   Query Builder deletes the Join.

For more information, see Joins.

Editing Joins

Query Builder lets you edit joins with the Join editor. You can edit join parameters in a SELECT, UPDATE, DELETE, and CREATE VIEW Statement.

The table below describes the options in the Join dialog box:

Option	Description
From Table Column	The primary column in the join.
To Table Column	The secondary column in the join.
Select the join relation operator	Click the target join operator. If it is not equals, the operator displays on the join in the SQL Diagram Pane.
Join Type: Inner	Click to make the join an inner join. Aggregates are only available for inner joins.
Join Type: Left Outer	Click to make the join a left outer join.
Join Type: Right Outer	Click to make the join a right outer join.

Completing the Join Dialog Box

1 In the **SQL Diagram Pane**, right-click the target join, and then click **Properties**.

OR

In the **SQL Diagram Pane**, double-click the target join.

OR

On the **SQL Statement Tree**, expand the **Where** and **And** nodes, and then double-click the target join.

Query Builder opens the Join dialog box.

NOTE: For IBM DB2 LUW for Linux, Unix, and Windows servers, there is an additional join object in the SQL Statement Tree. The Join On node displays join relations between columns in IBM DB2 LUW for Linux, Unix, and Windows tables and views.

Changing a Join Color

Query Builder lets you change the color at a join in the SQL Diagram Pane. Complex statements using many tables and multiple joins can be easier to view if joins have different colors.

To change the color of a join, do the following:

1 Right-click the target join, and then click **Color**.

Query Builder opens the Color dialog box.

2 In the **Basic colors** grid, click a target color

OR

Click **Define Custom Colors**, then create a custom color.

NOTE: Query Builder lets you save custom colors for the current color. Click Add to Custom Color to have the option of using that color for your queries.

3 Click **OK**.

For more information, see Joins.

Auto Layout

The Auto Layout function displays tables and views in the SQL Diagram Pane. It makes the best use of the available area in the SQL Diagram Pane by placing your tables and views in the most efficient manner. If the automatic join function is on, Query Builder displays all joins between columns in your diagram. Query Builder lets you run the automatic layout function any time you have tables or views in the SQL Diagram Pane.

Using Auto Layout

To use Auto Layout, do the following:

1 On the **Query Builder** menu, click **Auto Layout**.

OR

On the **Query Builder** tool bar, click **Auto Layout**.

OR

In the **SQL Diagram Pane**, right-click, and then click **Auto Layout**.

Query Builder organizes your tables in the SQL Diagram Pane.

Auto Joins

Query Builder includes an automatic join function that displays joins between selected tables and views in the SQL Diagram Pane. The Auto Join function seeks columns with the same name and data type. You can set global automatic join parameters in the Rapid SQL Options Editor. You can use the Statement Properties Editor to set local join parameters for the current Query Builder session without changing the global parameters.

Using Auto Join

To use Auto Join, do the following:

1 On the **Query Builder** menu, click **Auto Join**.

OR

On the **Query Builder** tool bar, click **Auto Join**.

OR

In the **SQL Diagram Pane**, right-click, and then click **Auto Join**.

Query Builder joins columns in the SQL Diagram Pane.

Creating a Clause Using the SQL Statement Tree

Query Builder lets you build more detailed WHERE, ORDER BY, GROUP BY, and HAVING clauses using the SQL Statement Tree. Query Builder lets you add clauses to SELECT, UPDATE, DELETE, and CREATE VIEW statements.

NOTE: Query Builder does not support clauses for INSERT statements.

The table below describes these clauses:

Clause	Description
WHERE	Limits rows in the query.
ORDER BY	Orders the results of the query to a target column.

>

Clause	Description
GROUP BY	Groups target columns in the query.
HAVING	Filters out groups of data.

Creating a WHERE Clause

Query Builder lets you create a WHERE clause from the SQL Statement Tree which automatically displays in your query.

NOTE: Any additional WHERE clauses are displayed as HAVING clauses.

The table below describes the options and functionality on the Where dialog box.

Option	Description
Operand (Left)	Lets you click the target column for the first part of your WHERE clause. **NOTE:** Query Builder lists every column in all tables in the SQL Diagram in the Operand lists.
Operator	Lets you select the target operator.
Operand (Right)	Lets you click the target column for the second part of your WHERE clause. Query Builder automatically writes the query language in the Statement option box.

NOTE: Query Builder does not display clause phrases created from the SQL Statement Tree in the SQL Diagram Pane.

Creating a WHERE Clause

To Create a WHERE clause, do the following:

1 Click the **WHERE** node, and then on the **Query Builder** tool bar, click **New**.

OR

Right-click the **WHERE** node, and then click **New**.

For more information, see Creating a Clause using the SQL Statement Tree.

Deleting a WHERE Clause

To delete a WHERE clause, do the following:

1 Expand the **AND** node, and then on the **Query Builder** tool bar, click **Delete**.

OR

Expand the **AND** node, right-click target column and then click **Delete**.

Query Builder deletes the target clause and removes it from the SQL Statement Pane.

For more information, see Creating a Clause using the SQL Statement Tree.

>

Creating an AND Clause in a WHERE Clause

Query Builder lets you add an AND clause from the SQL Statement Tree which automatically displays in your query.

The table below describes the options and functionality on the Where dialog box.

Option	Description
Operand (Left)	Lets you click the target column for the first part of your WHERE clause.
Operator	Lets you select the target operator.
Operand (Right)	Lets you click the target column for the second part of your WHERE clause. Query Builder automatically writes the query language in the Statement option box.
New Button	Click to clear your selections but remain in the Where dialog box. Query Builder adds another AND clause to your query.

To open the Where dialog box, do the following:

1 Click the **AND** node, and then on the **Query Builder** tool bar, click **New**.

OR

Expand the **WHERE** node, right-click the **AND** node, and then click **New**.

For more information, see Creating a Clause using the SQL Statement Tree.

Deleting an AND Clause

To delete an AND clause, do the following:

1 Expand the **AND** node, click target column, and then on the **Query Builder** tool bar, click **Delete**.

OR

Expand the **AND** node, click target column, and then on the keyboard press **DELETE**.

OR

Expand the **AND** node, right-click the target column, and then click **Delete**.

Query Builder deletes the target clause and removes it from the SQL Statement Pane.

For more information, see Creating a Clause using the SQL Statement Tree.

Inserting an AND or OR Clause

Query Builder lets you insert an AND or an OR WHERE clause from the SQL Statement Tree which automatically displays in your query. Query Builder lets you insert AND or OR clauses at any appropriate point in the SQL Statement Tree.

The table below describes the options and functionality on the Where dialog box.

Option	Description
Operand (Left)	Lets you click the target column for the first part of your WHERE clause.
Operator	Lets you select the target operator.
Operand (Right)	Lets you click the target column for the second part of your WHERE clause. Query Builder automatically writes the query language in the Statement option box.
New Button	Click to clear your selections but remain in the Where dialog box. Query Builder adds another AND clause to your query.

To insert an AND or OR Clause, do the following:

1 On the **SQL Statement Tree**, expand the **WHERE** node, right-click the target **AND** node, then click **Insert**, and then click **And** or **Or**.

For more information, see Creating a Clause using the SQL Statement Tree.

Deleting an OR Clause

To delete an OR clause, do the following:

1 Expand the **OR** node, and then on the **Query Builder** tool bar, click **Delete**.

OR

Expand the **OR** node, right-click the target column and then click **Delete**.

Query Builder deletes the target clause and removes it from the SQL Statement Pane.

For more information, see Creating a Clause using the SQL Statement Tree.

Creating an ORDER BY Clause

Query Builder lets you create an ORDER BY clause from the SQL Statement Tree which automatically displays in your query.

The table below describes the Order By Columns dialog box.

Option	Description
Available Columns	Select target column(s) and click the right arrow. Query Builder moves target column from the Available Columns list to the Order By Columns list. **NOTE:** Query Builder sorts query results based on the order that columns are placed in the ORDER BY clause.

Option	Description
Order	Lets you select the target sort order. ASC - Ascending DESC - Descending Query Builder displays the SQL language in the Order By Statement box.

To open the Order By Columns dialog box, do the following:

1 On the **SQL Statement Tree**, click the **ORDER BY** node, and then on the **Query Builder** tool bar, click **Properties**.

OR

On the **SQL Statement Tree**, right-click the **ORDER BY** node, and then click **Properties**.

For more information, see Creating a Clause using the SQL Statement Tree.

Changing the Sort Order in an ORDER BY Clause

To quickly change the sort order of a column in a query, do the following:

1 On the **SQL Statement Tree**, expand the **ORDER BY** node, and then double-click the target column.

OR

On the **SQL Statement Tree**, expand the **ORDER BY** node, then right-click the target column, and then click **Properties**.

Query Builder opens the Order dialog box.

2 Click the target sort order, and then click **OK**.

Query Builder appends the Order By clause for target column with the appropriate sort order in the SQL Statement Pane.

For more information, see Creating a Clause using the SQL Statement Tree.

Deleting an ORDER BY Clause

To delete an ORDER BY clause, do the following:

1 Expand the **ORDER BY** node, and then on the **Query Builder** tool bar, click **Delete**.

OR

Expand the **ORDER BY** node, right-click the target column, and then click **Delete**.

Query Builder deletes the target clause and removes it from the SQL Statement Pane.

For more information, see Creating a Clause using the SQL Statement Tree.

Creating a GROUP BY Clause

The table below describes the options and functionality on the Group By Columns dialog box.

Option	Description
Selected Columns	Select target column(s) and click the right arrow. Or click the Select All button. Query Builder moves target column from the Selected Columns list to the Group By Columns list. **NOTE:** Query Builder sorts query results based on the order that columns are placed in the ORDER BY clause.
Clear All Button	Click to move target column from the Group By Columns list to the Selected Columns list. Query Builder displays the SQL language in the Group By Statement window.

Creating a GROUP BY Clause

To create a GROUP BY clause from the SQL Statement Tree which automatically displays in your query, do the following:

1 On the **SQL Statement Tree**, double-click the **GROUP BY** node.

OR

On the **SQL Statement Tree**, right-click the **GROUP BY** node, and then click **New**.

Query Builder adds all the selected columns in your table(s) to the GROUP BY node in the SQL Statement Tree, and to the appropriate location in the SQL Statement Pane.

2 On the **GROUP BY** node, double-click any column.

OR

On the **GROUP BY** node, click any column, then on the **Query Builder** menu, click **New**.

OR

On the **GROUP** BY node, right-click any column, then click **Properties**.

For more information, see Creating a Clause using the SQL Statement Tree.

Deleting a GROUP BY Clause

To delete a GROUP BY clause, do the following:

1 On the **SQL Statement Tree**expand the **GROUP BY** node, and then on the **Query Builder** tool bar, click **Delete**.

OR

On the **SQL Statement Tree**Expand the **GROUP BY** node, right-click the target column, and then click **Delete**.

Query Builder deletes the target clause and removes it from the SQL Statement Pane.

For more information, see Creating a Clause using the SQL Statement Tree.

Creating a HAVING Clause

A HAVING clause is a type of WHERE clause. It filters additional information from your tables. Query Builder lets you create a HAVING clause from the SQL Statement Tree which automatically displays in your query. Query Builder lists every column in all tables in the SQL Diagram in the Operand lists. Query Builder displays the datatype of a column in the operand boxes.

The table below describes the options and functionality on the Having dialog box.

Option	Description
Operand (Left)	Lets you click the target column for the first part of your HAVING clause.
Operator	Lets you select the target operator.
Operand (Right)	Lets you click the target column for the second part of your HAVING clause. Query Builder automatically writes the query language in the Statement option box.
New Button	Click to clear your selections but remain in the Having dialog box. Query Builder adds another AND clause to your query.

NOTE: Query Builder does not display clause phrases created from the SQL Statement Tree in the SQL Diagram Pane.

To create a HAVING clause, do the following:

1 On the **SQL Statement Tree**, expand the **HAVING** node, and then expand the **And** node. If there is not a join listed on the **And** node, double-click **And**. If there is a join listed, use the shortcut option below.

OR

On the **SQL Statement Tree**, right-click the **HAVING** node, and then click **New**.

For more information, see Creating a Clause using the SQL Statement Tree.

Deleting a HAVING Clause

To delete a HAVING clause, do the following:

1 On the **SQL Statement Tree**expand the **HAVING** node, and then on the **Query Builder** tool bar, click **Delete**.

OR

On the **SQL Statement Tree** expand the **HAVING** node, right-click the target column, and then click **Delete**.

Query Builder deletes the target clause and removes it from the SQL Statement Pane.

For more information, see Creating a Clause using the SQL Statement Tree.

Changing Tables and Columns Location in the SQL Statement Tree

Query Builder lets you move tables and columns on the SQL Statement Tree by dragging them to new locations. You can move columns from the AND and OR nodes to an AND or OR node on the WHERE and HAVING clause nodes. Query Builder changes the query in the SQL Statement Pane to match each move. Query Builder moves tables or columns you are dragging below target table or column.

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To move a table or column in the SQL Statement Tree, do the following:

1 Expand target node, then drag the target table or column to a new location.

Query Builder makes the appropriate change in the query in the SQL Statement Pane.

NOTE: Query Builder lets you select multiple tables or columns.

2 To move a table or column to the bottom of a node, drag it to the target node.

Query Builder displays the target table or column at the bottom of target node.

For more information, see Creating a Clause using the SQL Statement Tree.

Subqueries

Query Builder lets you build subqueries for SELECT and CREATE VIEW statements in the WHERE or HAVING clause. The table below describes the options available for a subquery in Query Builder:

Operand	Location	Description
EXISTS	Left operand	Specifies data that exists in a column.
NOT EXISTS	Left operand	Specifies data that does not exist in a column.
ANY	Right operand	Specifies data satisfying the operator parameters.
ALL	Right operand	Specifies data satisfying the operator parameters.
SELECT	Right operand	Specifies data satisfying the operator parameters.

The table below describes the options and functionality on the Where or Having dialog boxes.

Option	Description
Operand (Left)	Lets you click the target column for the first part of your clause.
Operator	Lets you select the target operator.
Operand (Right)	Lets you click the target column for the second part of your clause. Query Builder displays the working subquery in the Statement window.
Subquery	Paste or type the SUBQUERY statement.

To use the WHERE and HAVING dialog boxes to create subqueries, do the following:

1 On the **SQL Statement Tree**, expand the **Where** or **Having** node, and then expand the **And** node. If there is not a join listed on the **And** node, double-click **And**. If there is a join listed, use the shortcut option below.

OR

On the **SQL Statement Tree**, right-click the **Where** or **Having** node, and then click **New**.

For more information, see Creating a Clause using the SQL Statement Tree.

Syntax Checker

The Syntax Checker scans SQL statements for errors. You can check your syntax at any time while you are fashioning a query, or a Procedure or Function. Query Builder can automatically run a syntax check to validate your query when you are executing or copying a statement.

NOTE: Query Builder lets you continue with your query even if there are errors detected in the syntax.

Using the Syntax Checker

The table below describes the possible syntax errors the Query Builder Syntax Checker tool displays, in order:

Error	Description
Does the query contain duplicate aliases?	Query Builder returns an error message when it detects duplicate aliases.
If the query has a HAVING clause, is there a GROUP BY clause?	Query Builder returns an error message when it detects a HAVING clause without a GROUP BY clause.
If there are aggregates, or a GROUP BY clause, are all columns in one or the other?	Query Builder returns an error message when it detects an aggregate, or a GROUP BY clause without all columns in one or the other.
Are there joins against non-indexed columns, or columns not participating in a primary key?	Query Builder returns a warning when it detects a join against a non-indexed column, or a column not participating in a primary key.
Are there joins between different datatypes?	Query Builder returns a warning when it detects a join between different datatypes.
Are there cross-products in the query?	Query Builder returns a warning when it detects a cross-product in the query.

Saving and Reopening Queries

You can save and reopen queries in Query Builder. Saving a query saves the SQL Diagram, SQL Statement, and Query Builder Explorer view. Query Builder automatically checks for changes in your database or instance between the time you save the query and the time you reopen it. Query Builder prompts you to save any time you try to close Query Builder, or any time you attempt quitting Rapid SQL.

Query Builder runs Schema Change detection any time you set a query to execute, refresh the data, or open a saved query.

Rapid SQL lets you open multiple saved queries simultaneously.

Saving Queries

To save a query using standard **Save** and **Save As** functions, do the following:

1 On the **File** menu, click **Save** or **Save As**.

OR

On the **Main** tool bar, click **Save As**.

Rapid SQL opens the Save As dialog box.

2 In the **File name** box, type the name of the query.

NOTE: By default, the product appends the.qbl extension to Query Builder files. If there is more than one Query Builder session in progress when you save, the file is further appended with an integer, for example.qbl2.

TIP: Rapid SQL lets you save data in text (*.txt) and XML (*.xml) file formats.

3 Click **OK**.

Rapid SQL saves the file and closes the Save As dialog box.

Reopening Queries

You can open a query using standard Open functions. Query Builder displays the Query Builder diagram, statement and Query Builder Explorer Pane and it checks the instance or database for schema changes.

The Query Builder Schema Change Detection component checks for:

- Renamed or dropped tables referenced in the query. Renamed tables that have been renamed are considered dropped.
- Renamed or dropped columns referenced in the query. Renamed columns are considered dropped and inserted.
- Columns added or reordered in tables referenced in the query.

If Query Builder detects a change, it opens the Schema Change Detected dialog box. The dialog box displays details of changes to your schema.

Query Builder opens an ISQL Editor with the last saved versions of the SQL statement.

Using Data Editor with Query Builder

SELECT statements. Rapid SQL lets you open multiple Data Editor sessions so that you can continue to change your data until you find the best match for your query.

CAUTION: Data Editor is a real-time editor. Changes in your data using Data Editor are permanent.

Opening the Data Editor from Query Builder

To open the Data Editor from Query Builder, do the following:

1 On the **Tools** menu, click **Query Builder**.

OR

On the **Datasource Explorer**, expand the **Database** or **Schema** node, click **Tables**, and then on the **Command** menu, click **Build Query**.

OR

On the **Tools** tool bar, click **Query Builder**.

OR

On the **Explorer**, expand **Tables**, right-click the target table(s), and then click **Build Query**.

OR

On the **Explorer**, expand **Views**, right-click the target view(s), and then click **Build Query**.

Rapid SQL opens Query Builder.

2 Select a database or instance.

3 Select a table.

4 Select a column, or columns.

5 On the **Query Builder** menu, click **Edit Data**.

OR

On the **Query Builder** tool bar, click **Edit Data**.

Rapid SQL opens Data Editor.

For more information on using the Data Editor, see Using Data Editor.

Data Editor

The Edit Data function opens the Data Editor. You can use the Data Editor to edit your tables in real-time. The Data Editor supports all editable datatypes and is an alternative way to add, edit, or delete data from your tables.

NOTE: You can use Data Editor within Query Builder to edit data in tables while you create SELECT statements. You can open multiple Data Editor sessions so that you can continue to change your data until you find the best match query.

The Data Editor includes a Data Editor Filter that lets you select the columns in your table that you want to edit. You must select at least one column to use the Data Editor. The Data Editor Filter is not available for the Query Builder.

For more information, see:

Data Editor Design

Using Data Editor

Data Editor Design

The Data Editor includes the following components:

- Edit Window
- ISQL Window
- Tool Bar
- Data Editor Filter
- Date/Time Format Builder
- Using Data Editor

Data Editor Edit Window

Data Editor displays all the information in the target table in the Data Editor Edit Window. You can edit data directly in this window.

For more information, see:

ISQL Window

>

Tool Bar

Data Editor Filter

Date/Time Format Builder

Using Data Editor

Data Editor ISQL Window

The Data Editor ISQL Window displays the active SQL statement, which uses the data from the target table.

When appropriate, Data Editor displays a History Tab. The History Tab displays all SQL Statements created in the current session. If there is an error, Data Editor displays an Error Tab. The Error Tab details any errors in data entry encountered during execution.

For more information, see:

Edit Window

Tool Bar

Data Editor Filter

Date/Time Format Builder

Using Data Editor

Data Editor Tool Bar

The Data Editor tool bar lets you access commonly used features.

The table below describes the function of each Data Editor tool.

Description	Function
Stop Button.	Stops loading data to the Data Editor. Data Editor displays rows up to the stopping point.
List of options for the target table.	Displays the editing mode for the target table.
Execute SQL button	Executes the current SQL statement for the target table.
Insert Record button	Inserts new record for the target table. New records display at the end of the table.
Save Current Row button	Saves data in the current selected row. Data Editor prompts to save when you attempt to leave a row in Live mode.
Remove Data button	Removes data in target row. Data Editor displays an optional prompt.
Clear SQL Text button	Clears SQL text from the SQL Statement Pane.
Undo button	Undoes the most recent operation.
Redo button	Redoes the most recent operation.
First Record button	Moves to the first record in the target table.
Last Record button	Moves to the final record in the target table.
Filter Data button	Filters table using the target cell as the filter parameter.

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Description	Function
Refresh button	Reloads data for target table
Calendar button	Sets correct format for target date/time cell. Enables the Calendar window.
Date/Time Format Builder button	Opens the Date/Time Format Builder dialog box.
Date/Time Format Undo button.	Undoes the last date/time format display.
Date/Time Format Redo button.	Redoes the last date/time format display.
Close button	Closes and exits Data Editor.

For more information, see:

Edit Window

ISQL Window

Data Editor Filter

Date/Time Format Builder

Using Data Editor

Data Editor Filter

The Data Editor Filter displays the columns of a target table and the corresponding SELECT SQL Statement. You can select columns from the filter for selective data editing.

For more information, see:

Edit Window

ISQL Window

Tool Bar

Date/Time Format Builder

Using Data Editor

Notes on XML types and Unicode display in the Data editor

When working with data in the Data editor, keep the following in mind:

- XML data types are supported for IBM DB2 for Windows, Unix, and Linux, Microsoft SQL Server, and Oracle. In the Data editor, XML data types are displayed and entered as LOB content.

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- Support for display of Uincode characters is provided as follows:
  - IBM DB2 for Windows, Unix, and Linux V8 and V9: **character**, **clob**, **varchar**, and **longvarchar** types
  - SQL Server 2000: for **nchar**, **nvarchar**, and **ntext** types
  - SQL Server 2005: **nchar**, **nvarchar**, **ntext**, and **nvarchar(max)** types.
  - Oracle 8i, 9i, and 10g: **NCHAR**, **NVARCHAR2** and **NCLOB** for non-Unicode UTF8 Character Set Instances and **NCHAR**, **NVARCHAR2**, **CHAR**, **VARCHAR2**, **LONG**, **NCLOB** and **CLOB** for Unicode UTF8 Character Set Instances
  - Sybase 12.5 and 15.2: **UNICHAR**,**UNIVARCHAR** and **UNITEXT** for non-Unicode UTF8 Character Set Instances and **UNICHAR**, **UNIVARCHAR**, **UNITEXT**, **NCHAR**, **NVARCHAR**, **CHAR**, **VARCHAR** and **TEXT** for Unicode UTF8 Character Set Instances

Using Data Editor

Data Editor lets you edit data in your tables with any editable datatype without leaving the parent application. Data Editor lets you use your new data immediately.

CAUTION: Data Editor is a real-time editor. Changes in your data using Data Editor are permanent.

The table below describes the functions and options of the Data Editor:

Option	Description
Live	Edits data one row at a time. You must execute when you leave the row.
Batch	Edits data in multiple rows before executing.

NOTE: You can also use the Data Editor to edit date and time functions in a table.

NOTE: If you make an incorrect edit in a cell, Data Editor displays the error on the Error Tab of the ISQL Editor. Data Editor does not incorporate this error(s) in data into the table. Data Editor saves any changes in data prior to the error message.

CAUTION: Data Editor is a real-time editor. Changes in your data using Data Editor are permanent.

For more information, see:

Edit Window

ISQL Window

Tool Bar

Data Editor Filter

Date/Time Format Builder

Editing Date and Time Functions

The Data Editor lets you edit date and time functions in a table. Data Editor uses a calendar tool to guarantee accurate input for date and time data. You can also change the display of date and time using the Date/Time Format Builder.

For more information, see:

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Calendar Button

Date/Time Format Builder

Date/Time Format Builder

The Date/Time Format Builder lets you customize your date/time display. The Data Editor uses this format to display your dates and times. You control how the Data Editor displays the dates and time by using predefined formats, or by customizing a format to fit your needs.

The Data Editor uses the default date/time format of your Operating System. If you do not make any global changes in Rapid SQL, the Date/Time Format Builder displays dates and times using the default formats of your operating system.If you make changes to dates and times in the Data Editor, Rapid SQL commits the changes in the format used by the database.

NOTE: The changes you make using the Date/Time Format Builder do not affect the way your database stores dates and times.

Editing the Date/Time Display

You can edit the date/time display on a global, table, or column level. The table below describes the different ways you can edit your date/time format display:

Option	Description	Access
Global	Lets you make global changes to the Data Editor date display.	Options Editor
Grid	Lets you make changes to the date display of the entire Data Editor grid for that session only.	Data Editor grid
Column	Lets you make changes to the date display of a single column in the Data Editor for that session only.	Data Editor column

NOTE: Date/Time formats changed on a table or column level are valid for that session only.

Editing Date/Time Globally

You can use the Options Editor to make global changes to your date/time display in the Data Editor. When you change the date/time format, using the Options Editor, the Data Editor displays all dates and times in the global manner. To change the date/time display for a particular session, see Editing Grid Date/Time Format or Editing Column Date/Time Format.

To edit the date and time globally, do the following:

1 On the **File** menu, click **Options**.

OR

On the **Main** tool bar, click **Options**.

Rapid SQL opens the Options Editor.

2 On the **Options Editor**, click the **Data Editor Tab**.

3 On the **Data Editor Tab**, click **...**

Rapid SQL opens the Date/Time Format Builder dialog box.

4 On the **Date/Time Format Builder** dialog box, click the **Date/Time Format** list, and then click the target predefined date/time format.

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5 To customize the date/time format to your specifications, click **Customize**.

Rapid SQL opens the Date/Time Format Builder dialog box.

6 On the **Date/Time Format Builder** dialog box, select the appropriate Date/Time Format Options:

Option	Description
Date/Time Format	Displays the predefined Date/Time format.
Day Format	Lets you choose the day display.
Separator	Lets you choose the display separator between the day, month, and year.
Month Format	Lets you choose the month display.
Year Format	Lets you choose the year display.
Date Order	Lets you choose the date order display.
Hour Format	Lets you choose the hour display.
Minute	Lets you choose the minute display.
Sec Format	Lets you choose the second display.
AM/PM	Lets you choose the AM/PM display.
Date/Time Order	Lets you choose the date/time order display.
Format Display	Displays the current format.
Sample	Displays a sample of the current format.

7 When you have finished selecting the Date/Time format options, click **OK**.

Rapid SQL accepts the date/time format changes and closes the Date/Time Format Builder dialog box.

8 On the **Options Editor**, select the appropriate Default Date/Time Format options:

Option	Description
Use Calendar Control as default	If selected, Rapid SQL uses the Calendar Control window.
Two-digit year system setting warning	If selected, Rapid SQL sends a warning when you use a two-digit year system setting.

9 Click **OK**.

Rapid SQL accepts the Default Date/Time Format changes and closes the Options Editor.

NOTE: To use a different format for a particular session, change the date/time at the session level.

Editing Grid Date/Time

You can change the date/time display for a particular session when working in the Data Editor. The Data Editor does not maintain the format changes once you close your session. To make this display permanent, use the Editing Global Date/Time Format.

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To edit the grid date and time, do the following:

1 On the **Datasource Explorer**, select the target table.

2 Right-click the table, and then click **Edit Data**.

Rapid SQL opens the Data Editor.

3 On the **Data Editor** tool bar, click **Date/Time Format Builder**.

Rapid SQL opens the Date/Time Format Builder.

4 On the **Date/Time Format Builder**, click the **Date/Time Format** list, and then click the target predefined date/time format.

5 To customize the date/time format to your specifications, click **Customize**.

Rapid SQL opens the Date/Time Format Builder dialog box.

6 On the **Date/Time Format Builder** dialog box, select the appropriate Date/Time Format Options:

Option	Description
Date/Time Format	Displays the predefined Date/Time format.
Day Format	Lets you choose the day display.
Separator	Lets you choose the display separator between the day, month, and year.
Month Format	Lets you choose the month display.
Year Format	Lets you choose the year display.
Date Order	Lets you choose the date order display.
Hour Format	Lets you choose the hour display.
Minute	Lets you choose the minute display.
Sec Format	Lets you choose the second display.
AM/PM	Lets you choose the AM/PM display.
Date/Time Order	Lets you choose the date/time order display.
Format Display	Displays the current format.
Sample	Displays a sample of the current format.

7 When you have finished selecting the Date/Time format options, click **OK**.

Rapid SQL accepts the date/time format changes and closes the Date/Time Format Builder dialog box.

- To undo changes, on the **Data Editor** tool bar, click **Undo Change**.
- To redo changes, on the **Data Editor** tool bar, click **Redo Change**.

NOTE: Date/Time formats changed on a table level are valid for that session only.

Editing Column Date/Time

You can change the date/time display for a particular column when working in the Data Editor. The Data Editor does not maintain the format changes once you close your session. To change the format for the entire grid, see Editing Grid Date/Time Format. To make this display permanent, Editing Global Date/Time Format.

To edit the column date and time, do the following:

1 On the **Datasource Explorer**, select the target table.

2 Right-click the table, and click **Edit Data**.

Rapid SQL opens the Data Editor.

3 On the **Data Editor**, click the column header to select the column.

4 Right-click the column and click **Format**.

Rapid SQL opens the Date/Time Format Builder.

5 On the **Date/Time Format Builder** dialog box, click the **Date/Time Format** list, and then click the target predefined date/time format.

6 To customize the date/time format to your specifications, click **Customize**.

Rapid SQL opens the Date/Time Format Builder dialog box.

7 On the **Date/Time Format Builder** dialog box, select the appropriate Date/Time Format Options:

Option	Description
Date/Time Format	Displays the predefined Date/Time format.
Day Format	Lets you choose the day display.
Separator	Lets you choose the display separator between the day, month, and year.
Month Format	Lets you choose the month display.
Year Format	Lets you choose the year display.
Date Order	Lets you choose the date order display.
Hour Format	Lets you choose the hour display.
Minute	Lets you choose the minute display.
Sec Format	Lets you choose the second display.
AM/PM	Lets you choose the AM/PM display.
Date/Time Order	Lets you choose the date/time order display.
Format Display	Displays the current format.
Sample	Displays a sample of the current format.

8 When you have finished selecting the Date/Time format options, click **OK**.

Rapid SQL accepts the date/time format changes and closes the Date/Time Format Builder dialog box.

- To undo changes, on the **Data Editor** tool bar, click **Undo Format**.
- To redo changes, on the **Data Editor** tool bar, click **Redo Format**.

NOTE: Date/Time formats changed on a column level are valid for that session only.

Page Setup

The table below describes the options and functionality on the Page Setup dialog box:

Option	Functionality
Margins	Lets you select the size of the left, right, top, and bottom margins.
Titles and Gridlines	Lets you select options.
Preview	Displays how the table will appear when printed.
Page Order	Lets you specify when to print columns and rows.
Center on Page	Lets you select how table floats on the page.

Code Generation Facility

The Rapid SQL Code Generation Facility offers a quick way to generate DML statements for tables and views. The Code Generation Facility provides an efficient way to establish and enforce coding standards within the application by generating code with standardized formatting. The Code Generation Facility also lets you:

- Create packages and procedures for Oracle.
- Create procedures for IBM DB2 LUW, Microsoft SQL Server, and Sybase ASE.

NOTE: The Code Generation Facility can generate procedures for IBM DB2 LUW that are based on tables but not views.

The table below describes the options and functionality on the Embarcadero Code Generator:

Option	Description
Datasource List	To change the default datasource, click the list and then click a new datasource. **NOTE:** If you are not connected to the target datasource, click the Connect button to establish a connection. The current datasource, and database and datasource user name where applicable, are preselected when you open Code Generation Facility.
Database List	Lets you click the list and then click a target database.
Owner List	Lets you click the list and then click the new owner.
Tables Option Button	Click this option to see a list of the tables in the scroll box. In the scroll box, click the target table to be used as a code generation base. **NOTE:** The list of objects corresponds to the selected datasource owner schema. If there are no tables in the target schema, the list will be empty.
Views Option Button	Click this option to see a list of the views in the scroll box. In the scroll box, click the target view to be used as a code generation base. **NOTE:** The list of objects corresponds to the selected datasource owner schema. If there are no views in the target schema, the list will be empty.
Select 1 or More Where Clause	In the grid, select the check boxes that correspond to the target where clauses. **NOTE:** Columns of primary keys are preselected.

Option	Description
Select 1 or More Output Columns	In the grid, select the check boxes that correspond to the target output columns. **NOTE:** All existing columns are preselected.
Provide and Output File Name	In the box, enter the file name in the File box or click the Browse button to locate the output file.
Open	Select to open the file after the procedure runs.
Execute Immediately	Select to execute the file immediately.
Generate	To generate an SQL statement for tables, click the Object Type list and then click the object type. **NOTE:** If you are generating an SQL statement for Views, you only have the Select option.
Grant Execute to	If you are a DBA or have DBA privileges, select the Users, Roles, and Groups check boxes to grant execute privileges.

Using the Code Generation Facility

1 On the **Tools** menu, click **Code Generation Facility**.

OR

On the **Tools** toolbar, click **Code Generation Facility**.

Rapid SQL opens the Embarcadero Code Generator dialog box.

Import Data

It is often necessary to import data into database tables from an external source. Developers commonly need to bring sample test data into a database to assist with Use Case scenarios. These scenarios may simulate particular data retrievals where segments of the data are preferred over performing a full data load. Business Analysts often acquire spreadsheets from outside sources. It is helpful to them to load this data into tables to perform more in-depth queries and pull meaningful data to make informed decisions.

To leverage the power of Microsoft Excel, database users may prefer to pull data from the database and load it into spreadsheet. Once using manipulations like Average, Aggregate, Row Count, or simple additions or deletions have been used on the data, the need remains to import this massaged data back into the database. Additionally, once the data is placed back in the database, recurring reporting and documentation are easily accomplished.

Rapid SQL's Import Data tool eliminates the time-consuming, manual process of working with data. The Import Data Wizard lets you pull data from a text file or a Microsoft Excel spreadsheet.

Important Notes

None

Completing the Import Data Wizard

1 On the **Tools** menu, click **Import Data.**

Rapid SQL opens the first panel of the Import Data Wizard.

2 On the first panel of the Wizard, specify the location of the file and enter the catalogue, schema (owner), and table into which the data will be imported.

3 Click **Next**.

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4 On the second panel of the Wizard, select the character delimited type for the columns in the data file – Tab, Semi colon, Comma, Space, or Other (Custom – Tilde, Ampersand etc.)

5 You can select the option that the first row of the data contains field names.

6 Click **Next**.

7 On the third panel of the Wizard, you can preview and confirm the data format. You can also use the custom mapping to match columns in the table.

8 If you need to make any changes, click **Back** to scroll back to the appropriate panels of the wizard to make your corrections.

9 Click **Finish**.

Rapid SQL generates the Insert statements that can be saved as a *.sql file for re-use across several datasources (versus simply loading the data directly into the database).

Import Data Wizard - Panel 1

The table below describes the options and functionality on this panel of the Import Data Wizard:

Option	Description
Specify the file to be used in this data load operation.	Lets you type the file path or browse for the file.
Which table do you want to load data into?	Lets you select the catalog, schema, and the table to create the insert statements.

For more information, see Import Data.

Import Data Wizard - Panel 2 for Text Files

The table below describes the options and functionality on this panel of the Import Data Wizard:

Option	Description
What character delimited the columns in the data file?	Lets you select the character delimited type for the columns in the data file: Tab, Semicolon, Comma, Space, or Other (Custom – Tilde, Ampersand etc.)
First Row Contains Field Names	Select for the first row of the data to contain field names.

For more information, see Import Data.

Import Data Wizard - Panel 3 for Text Files

This panel of the Import Data Wizard lets you assign column names to fields. Column names in red indicate an invalid mandatory column names. Blue columns are already used.

For more information, see Import Data.

Import Data Wizard - Panel 2 for Excel Files

The table below describes the options and functionality on this panel of the Import Data Wizard:

Option	Description
The spreadsheet you have selected contains more than one worksheet. Which worksheet contains the data you wish to import?	Lets you select the worksheet to import.
Start Cell	Lets you type the first cell of data to import.
End Cell	Lets you type the last cell of data to import.
First Row Contains Field Names	Select to assign column names to fields in the grid.

For more information, see Import Data.

Embarcadero Products

The Tools menu lists all installed Embarcadero Technologies products. This lets you toggle to or start another Embarcadero product.

To open the Performance Center web client, do the following:

Code Workbench

The Code Workbench tool reduces the time needed for the most common day-to-day coding tasks. The Code Workbench lets you:

- Enable table column auto lookup and population in the ISQL Window.
- Define auto replacement expressions that can be used to quickly insert commonly used blocks of SQL syntax or commands.
- Create customized code templates of blocks of code that you can add to scripts.
- Import and Export Code Workbench settings for client sharing purposes.

NOTE: No privileges are required to use the Code Workbench options.

The table below describes the options and functionality on the Code Workbench dialog box.

Tab	Option	Description
Settings	Enable Column Auto Lookup	Lets you easily add columns to ISQL Window queries without having to type. The ISQL Window auto-populates table columns.

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Tab	Option	Description
	Popup Delay	Lets you specify setting how long (in milliseconds) the editor should wait before populating and presenting the column list.
	Enable Auto Replacement	Lets you define simple keystrokes that will be automatically replaced with predefined expressions when some activation keyboard event is performed (space, new line, special character, etc.). This also lets you define correction actions for common misspellings or SQL syntax coding errors.
	Enable Code Templates	When you press the defined hot key in the ISQL Window, the application will open the Code Templates dialog box. For details on how to define the hot key, see Customizing general user interface appearance.
	Edit Hot Keys	Lets you change the hot key for the Code Templates dialog box. For details, see Customizing general user interface appearance.
Code Templates	Add	Opens the Edit Code Template dialog box.
	Edit	Opens the Edit Code Template dialog box.
	Delete	Click to delete the selected code template.
Auto Replace	Add	Click to open the Edit Auto Replace Expression dialog box.
	Edit	Click to open the Edit Auto Replace Expression dialog box.
	Clone	Click to open the Edit Auto Replace Expression dialog box.
	Delete	Click to delete the selected auto replace expression.
	Import Settings	Click to import settings from a local or network directory.
	Export Settings	Click to export your settings to a local or network directory.
	Restore Settings	Click to restore the Code Workbench settings to the original settings.

Common Tasks

Using Column Auto Lookup in the ISQL Window

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[Creating and Modifying Code Workbench Code Templates]

[Defining the Hot Key for the Code Templates Dialog Box]

[Using Code Templates in the ISQL Window]

[Creating and Modifying Code Workbench Auto Replace Shortcuts]

[Using Code Workbench Auto Replace Shortcuts in the ISQL Window]

[Importing and Exporting Settings in Code Workbench]

Code Workbench Tutorial

Code Workbench creates a personal toolbox of coding accessories for the ISQL Window. This tutorial will take you through the steps of using the Code Workbench.

1 Select **Tools**, and then **Code Workbench**.

2 On the **Settings Tab** keep defaults.

3 On the **Auto Replace Tab**, Code Workbench includes a set of Auto Replace entries.

4 Close the **Code Workbench**.

5 Select **File**, **New**, and then **SQL**.

6 In the **ISQL Window**, type a replace expression. For example, type **beg**.

The application displays begin.

1 For Microsoft SQL Server, connect to the **Northwind** database.

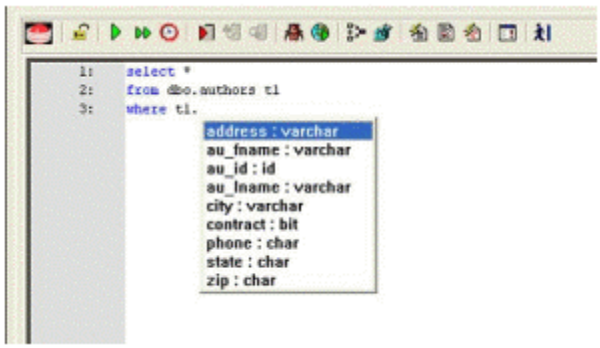
2 Confirm that the **Northwind** database is selected in the database list.

3 Select **File**, **New**, and then **SQL**.

4 Type `select * from dbo.Orders t1`

5 On the next line type `where t1.`

The application displays a list of columns for the target table.



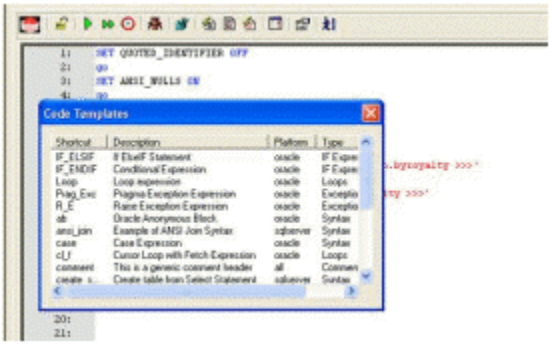
6 You can use your keyboard arrow keys or the mouse to select the column.

The application pastes the column name in the ISQL Window.

7 Select **File**, **New**, and then **SQL**.

8 In the **ISQL Window**, open the **Code Templates** dialog box by pressing **CTRL+SPACE**.

9 Select the code template to be inserted into the ISQL window.



The application pastes the code template into the ISQL Window.

Common Tasks

Using Column Auto Lookup in the ISQL Window

Creating and Modifying Code Workbench Code Templates

Defining the Hot Key for the Code Templates Dialog Box

Using Code Templates in the ISQL Window

Creating and Modifying Code Workbench Auto Replace Shortcuts

Using Code Workbench Auto Replace Shortcuts in the ISQL Window

Importing and Exporting Settings in Code Workbench

Using Column Auto Lookup in the ISQL Window

In the **ISQL Window**, when **Enable Auto Replacement** is selected on the **Setting Tab**, the application uses "dot completion" auto population to display the list of columns for the target table.

1 For example, for Microsoft SQL Server, connect to the **Northwind** database.

2 Confirm that the **Northwind** database is selected in the database list.

3 Select **File**, **New**, and then **SQL**.

4 Type `select * from dbo.Orders t1`

5 On the next line type `where t1.`

The application uses "dot completion" auto population to display the list of columns for the target table.

6 Use your keyboard arrow keys or the mouse to select the column.

The application pastes the column name in the ISQL Window.

For more information, see Code Workbench.

Creating and Modifying Code Workbench Code Templates

Code templates are complete code blocks that can be easily added to open windows or scripts with a few keystrokes. Templates let you define standard comment blocks or add common exit and error handling routines to new or existing objects. The Edit Code Template dialog box lets you modify an existing code template or create a new template.

> **TIP:** When you Paste SQL, you cannot customize the actual script templates, but you can customize code templates.

1. Select **Tools**, **Code Workbench**.
2. On the **Code Template Tab**, select **Add**.

   The application opens the Edit Code Template dialog box.
3. In **Shortcut**, type a new template name or select an existing template.
4. In **Description**, type a description.
5. In **Platform** assign the template to a specific DBMS platform. Groups and sorts in the Code Templates tab and helps you browse available code templates from an open, editable window (ISQL, text, HTML, Java, etc.).
6. In **Type** assign the template to a specific code type. You can type or select a type. Groups and sorts in the Code Templates tab and helps you browse available code templates from an open, editable window (ISQL, text, HTML, Java, etc.).
7. In the window type the template code.
8. Click **OK**.

   Code Workbench creates the template and displays it on the Code Templates Tab.

For more information, see Code Workbench.

Defining the Hot Key for the Code Templates Dialog Box

When you press the hot key in the ISQL Window, the application will open the Code Templates dialog box. For details on how to define the hot key, see Customizing general user interface appearance..

1. Select **Tools**, **Code Workbench**.
2. On the **Settings Tab**, select **Edit Hot Keys**.

   The application opens the Customize dialog box. For details, see Customizing general user interface appearance.

For more information, see Code Workbench.

Using Code Templates in the ISQL Window

Code templates are complete code blocks that can be easily added to scripts with a few keystrokes. Templates let you define standard comment blocks or add common exit and error handling routines to new or existing objects.

1. Select **File**, **New**, and then **SQL**.
2. In the **ISQL Window**, open the **Code Templates** dialog box by pressing **CTRL+SPACE**.
3. In the **Code Templates** dialog box, select the desired code template to be inserted into the ISQL window.

   The application pastes the code template into the ISQL Window.

For more information, see Code Workbench.

>

Creating and Modifying Code Workbench Auto Replace Shortcuts

The Edit Auto Replace Expression dialog box lets you define shortcut expressions for commonly used SQL syntax or commands. You can define what keys or key combination activate the auto replacement of the defined shortcut.

1. Select **Tools**, **Code Workbench**.
2. On the **Auto Replace Tab**, select **Add**.
3. In **Expression** type a new expression.
4. In **Activation** type activation information. For example, CTRL+SPACE.
5. In **Replace With** type replace with information.
6. Click **OK**.

   The replace expression is now ready for use in the ISQL Window.

For more information, see:

Using Code Workbench Auto Replace Shortcuts in the ISQL Window

Code Workbench

Using Code Workbench Auto Replace Shortcuts in the ISQL Window

When Enable Auto Replacement is selected on the Setting Tab of the Code Workbench, you can type a replace expression in the ISQL Window instead of typing a complete command.

1. Select **File**, **New**, and then **SQL**.
2. In the **ISQL Window**, type a replace expression. For example, type **beg**.

   The application displays begin.

For more information, see Code Workbench.

Importing and Exporting Settings in Code Workbench

The feature helps standardize your application settings. Exporting settings is useful when you want to give your templates and auto replace expressions to another ISQL Window user. Importing settings is useful when another user wants to give you their templates and auto replace expressions.

Importing Settings

1. Select **Tools**, **Code Workbench**.
2. Click **Import Settings**.

   Code Workbench opens the Open dialog box.
3. Locate the .xml file, and then click **Open**.

   Code Workbench imports the settings.

>

Exporting Settings

1. Select **Tools**, **Code Workbench**.
2. Click **Export Settings**.

   Code Workbench opens the Save As dialog box.
3. Specify a location, and file name, and then click **Save**.

   Code Workbench saves your settings as an .xml file. You can send the .xml file to the user you want to import your settings.

For more information, see Code Workbench.

Code Analyst

The Code Analyst is a tool to identify time-consuming lines of code. Code Analyst lets you:

- Perform detailed response time analysis on the execution of Procedures and Functions.
- Benchmark the execution of one or more procedures or functions to determine exactly what code objects and lines of code are taking the longest to run.
- Save response time metrics and perform intelligent compares against current execution times so you can determine deviations from previous acceptable response times.

  TIP: You can set Code Analyst options in the Code Analyst options.

Important Notes

- For DB2, before profiling with Code Analyst, Compile all procedures with the debugging option selected.
- For Oracle, when using the Oracle Debugger, Compile all procedures with the debugging option selected before profiling with Code Analyst.

Common Tasks

Creating a Code Analyst Session

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Deleting a Code Analyst Session

Stopping a Code Analyst Session Execution

Executing a Code Analyst Session

Scheduling a Code Analyst Session

Unscheduling a Code Analyst Session

Refreshing a Code Analyst Session

Saving Results in Code Analyst

Printing Results in Code Analyst

Viewing Run Details in Code Analyst

>

Viewing Unit Summary Information in Code Analyst

Viewing Unit Details in Code Analyst

Setting View Options for the Unit Detail Tab in Code Analyst

Extracting SQL Text in Code Analyst

Executing SQL in Code Analyst

Code Analyst DBMS Notes

Code Analyst is available for:

- Microsoft SQL Server 7 or later
- Oracle 7 or later
- IBM DB2 LUW 8
- Sybase ASE 12.0.0.3 or later

Rapid SQL utilizes debugger technology to capture the data for each line of executed code. For Oracle, you can use the debugger or using Oracle's supplied DBMS_Profiler package.

> **TIP:** For Oracle, you can specify to use the debugger or the DBMS_Profiler package on the Code Analyst options.

The Code Analyst will step through each line of code, stopping to record data for those lines of code onto which a breakpoint can be issued. Some debuggers cannot capture time metrics for all lines of a stored procedure or function.

Procedures and functions that contain looping constructs will require more time to run. The additional amount of time needed to run is proportional to the number of iterations in the loop.

For more information, see:

IBM DB2 LUW 8i Data Captured by Code Analyst

Microsoft SQL Server Data Captured by Code Analyst

Oracle Data Captured by Code Analyst

Sybase ASE Data Captured by Code Analyst

IBM DB2 LUW 8i Data Captured by Code Analyst

Code Analyst utilizes the IBM Debugger when capturing time data.

The debugger is verified to run on IBM DB2 LUW version 7.2 and up. There is a known issue running version 7.2 with Fixpack 9.

DB2 has documented limitations on lines of code can be profiled.

>

The following are SQL statements that are NOT valid break point lines:

BEGIN

BEGIN

BEGIN NOT ATOMIC

BEGIN ATOMIC

CLOSE CURSOR

DECLARE cursor WITH RETURN FOR <sql statement>

DECLARE , var without default

DECLARE CONDITION (CONDITION) FOR SQLSTATE (VALUE) "..."

DECLARE CONTINUE HANDLER

DECLARE CURSOR

DECLARE EXIT HANDLER

DECLARE RESULT_SET_LOCATOR [VARYING]

DECLARE SQLSTATE

DECLARE SQLCODE (unless there is a default)

DECLARE UNDO HANDLER (unless they are entered)

DO

ELSE

END

END CASE

END IF

END FOR

END REPEAT

END WHILE

ITERATE

LEAVE

LOOP

OPEN CURSOR

REPEAT (as a keyword alone)

RESIGNAL

SIGNAL

THEN

labels, e.g. P1:

NOTE: Code containing these statements will not have times associated with them.

>

For more information, see Code Analyst DBMS Notes.

Microsoft SQL Server Data Captured by Code Analyst

In order to execute a Code Analyst session against a Microsoft SQL Server database, the SQL Server debugger must be installed and functioning properly. Please refer to Embarcadero SQL Debugger for Microsoft SQL Server for details concerning set up.

Related Information

Code Analyst DBMS Notes

Oracle Data Captured by Code Analyst

When using the PL/SQL Profiler, Oracle has documented an issue regarding extremely large times being returned by the profiler. The times are sometimes hundred times larger than the actual run time of the stored procedure or function. Oracle documents that this is a vendor/os problem rather than an Oracle problem, because the RDTSC instruction is reporting wrong time stamp counter. They indicate that they have seen this problem on some INTEL Pentium processors.

Related Information

Code Analyst DBMS Notes

Sybase ASE Data Captured by Code Analyst

Sybase has documented a problem with their debugger API. The problem involves reporting the wrong line number through the debugger. Because of this bug, Code Analyst may report back data for blank lines or lines that contain comments. Sybase has fixed this problem release 12.5.2 of the database. All procedures affected must be dropped and recreated in order to correct the problem.

Related Information

Code Analyst DBMS Notes

Code Analyst Requirements

Debuggers

The Code Analyst uses the Embarcadero SQL Debuggers to profile, so you need valid Embarcadero SQL Debugger licenses. Rapid SQL Pro includes all the necessary licenses.

> **TIP:** Select Help>About to open the About Embarcadero Rapid SQL dialog box that displays your license information.

For more information on configuring the debuggers, see:

- Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows Requirements
- Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows Requirements
- Embarcadero SQL Debugger for Oracle Options
- Embarcadero SQL Debugger for Oracle Interface

>

Using Code Analyst with the Oracle Profiler

Oracle users have the option of either using the Oracle Debugger or the Oracle Profiler with Code Analyst to capture statistics. To use Code Analyst with the profiler option, Oracle's profiler package must be installed. The install is user specific, so it must be installed by each user wishing to use Code Analyst. To install the package, users can invoke the Rapid SQL PL/SQL Profiler.

> **TIP:** You can set profiler options in the Code Analyst options. You can specify that Code Analyst display the actual run time on the database, and does not include the time it takes to get to the server.

Privileges

For Oracle, SYS privileges are required to install the Code Analyst tables. If you do not have SYS privileges, ask your Server Administrator to log into the Oracle datasource as SYSDBA, and then open Code Analyst to install the tables.

During install, the following privileges are set for the Code Analyst tables.

- DB2 – Permissions are granted to the Public Group
- Oracle – Permissions are granted to the Public group.
- Microsoft SQL Server – Permissions are granted to the Public role.
- Sybase – Permissions are granted to the Public group.

All users can use the Code Analyst but each user will only see their own run ids. Users need to belong to the public group.

> **TIP:** You can check this/modify privileges in the Users Editor.

Installing Code Analyst

To install Code Analyst, do the following:

1. On the **Tools** menu, select **Code Analyst**.
2. In **Select the database you would like to install the tables on**, select a database.
3. For IBM DB2 LUW for Open Systems, in **select the tablespace you would like to install the tables on**, select a tablespace.
4. For IBM DB2 LUW for Open Systems, in **select the schema you would like to install the tables on,** select a schema. The default is EMBTCA schema.
5. In **Select the filegroup you would like to install the tables to**, select a filegroup.

Code Analyst installs the following repository tables in the repository:

- EMBT_CODE_ANA_RUNS - Holds all the code analyst sessions created by users.
- EMBT_CODE_ANA_UNITS - Holds all the objects to be run for all.
- EMBT_CODE_ANA_PARAMS - Contains all the parameters for the objects that were run.
- EMBT_CODE_ANA_DATA - Contains the run data and is used to populate all the charts and statistics.
- EMBT_CODE_ANA_VERSION - Contains the version number of code analyst.

Code Analyst opens to the Run Summary tab.

6. Create a session using the Creating a Code Analyst Session.

Uninstalling Code Analyst

The Uninstall functionality lets you uninstall Code Analyst from the server.

> **NOTE:** To uninstall a repository table, you need create table and grant privileges. Generally, you need sysadmin privileges.

1. On the **Tools** menu, select **Code Analyst**.
2. Select a session or object, and then select **Uninstall**.

Code Analyst removes the repository tables in the repository:

- EMBT_CODE_ANA_RUNS - Holds all the code analyst sessions created by users.
- EMBT_CODE_ANA_UNITS - Holds all the objects to be run for all.
- EMBT_CODE_ANA_PARAMS - Contains all the parameters for the objects that were run.
- EMBT_CODE_ANA_DATA - Contains the run data and is used to populate all the charts and statistics.
- EMBT_CODE_ANA_VERSION - Contains the version number of code analyst.

Code Analyst Product Design

Code Analyst performs detailed response time analysis. Code Analyst steps through each line of code and profiles those lines of code that the debugger or profiler can capture time metrics for.

> **NOTE:** Some debuggers do not capture time metrics for all lines of a procedure or function. For more information, see Code Analyst DBMS Notes.

After capturing the time metrics, Code Analyst displays the data in an easy-to-read format on the tabs.

The Code Analyst is comprised of the following tabs:

Tab	Option	Description
Run Summary	Session	Lets you select the run session(s).
	Session	Displays the name of the session as created by the user.
	Run ID	Displays the run ID for the run(s). This number is system generated.
	Run Date	Displays the time and date of the session.
	Total Profile Time (ms)	Displays the total time taken for the profiled code to execute. This time is limited to the lines of code that are profiled. Overhead is not included in this calculation.
	Total Analysis Time	Displays the total time taken for the session to complete, including all overhead time needed to analyze the procedure or function.
	Scheduler	Displays the scheduler used to schedule the session. This information displays until the scheduled job has been run.
Run Detail	Session	Lets you select the object execution session.
	Run	Lets you select the object execution.
	Unit Type	Lets you select the object type for the object execution.
	Unit Owner	Lets you select the object owner for the object execution.

Tab	Option	Description
	Unit Database	Lets you select the object database for the object execution.
	Time Unit	Lets you specify the time unit for the Unit Execution graph.
	Unit Owner	Displays the owner of the procedure or function.
	Unit Name	Displays the name of the procedure or function.
	Unit Type	Displays the types of captured objects, including Anonymous Block, Function, Package Body, and Procedure for Oracle databases. Also displays SQL Statement and Procedure for the other platforms.
	Unit Database	Displays the database on which the object is stored.
	Total Profiled Time	Displays the total time taken for the profiled code to execute.
	% of Profiled Time	Displays the percentage of the Total Profiled Time for the run that this unit accounts for.
Comparison	Base Run	Lets you select the earlier object execution.
	New Run	Lets you select the later object execution.
	Unit Owner	Displays the owner of the procedure or function.
	Unit Name	Displays the name of the procedure or function.
	Unit Type	Displays the types of captured objects, including Anonymous Block, Function, Package Body, and Procedure for Oracle databases. Also displays SQL Statement and Procedure for the other platforms.
	Unit Database	Displays the object database for the object execution.
	Time Diff	Displays the time difference in milliseconds between the base run and the new run.
	New Profiled Time	Displays the profiled time of the new run.
	Base Profiled Time	Displays the profiled time of the base run.
Unit Summary	Unit Owner	Lets you select the object owner for the session(s).
	Unit Name	Lets you select the object name for the session(s).
	Unit Database	Lets you select the object database for the session(s).
	Number of Top Runs	Lets you specify the number of top object executions to display in the Top 5 Runs graph and select the unit of time for the Unit Time graph.
	Session	Displays the name of the session as created by the user.
	Run ID	Displays the unique id for the Run. This number is system generated.
	Run Date	Displays the time and date of the session.
	Total Analysis Time	Displays the total time taken for the session to complete, including all overhead time needed to analyze the procedure or function.
	Total Profiled Time	Displays the total time taken for the profiled code to execute.
	Unit Profiled Time	Displays the unit time for the session(s).
	% of Profiled Time	Displays the percentage of the Total Profiled Time for the run that this unit accounts for.
	% of Run Time	Displays the percentage of object execution time for the session(s).

>

Tab	Option	Description
Unit Detail	Session	Lets you select the session.
	Run	Lets you select the object execution.
	Unit Name	Lets you select the object name for the session.
	Number of Top Lines	Lets you specify the number of top lines in the Top 5 Lines Execution Time graph and select the total time units.
	Percentage Calculation	Lets you specify total object execution time or object run time.
	Calls	Displays the number of times the line was executed.
	Total Time	Displays the total time the line was executed.
	% of Total Profiled	Displays the percentage of the Total Profiled Time that this line of code was responsible for.
	Avg Time	Displays the average profiled time for this line.
	Min Time	Displays the minimum recorded time for execution of this line.
	Max Time	Displays the maximum recorded time for execution of this line.
	Dependency	Displays the UNIT_NUMBER of the dependency object that was called by that line. Lets you right-click and quickly go to that UNIT_NUMBER to see its Unit detail information.
	Source	Displays the object's SQL source code.

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Comparing Code Analyst Sessions

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Viewing Unit Details in Code Analyst

Setting View Options for the Unit Detail Tab in Code Analyst

Extracting SQL Text in Code Analyst

Executing SQL in Code Analyst

Code Analyst Tutorial

The following tutorial guides you through the process of using the Code Analyst.

Creating a Code Analyst Session

1 On the **Tools** menu, select **Code Analyst**.

Initially, Code Analyst installs the repository tables. For more information, see Installing Code Analyst. Then Rapid SQL opens the Code Analyst to the Run Summary tab.

2 On the Code Analyst **Tools** toolbar, click the **Create New Collection** button.

Rapid SQL opens the first panel of the Code Analyst Wizard.

3 Select the individual object or group of objects to analyze. In this example, an individual stored procedure (CREATE_ADMISSION2) is selected.

TIP: Code Analyst does not let you select objects that do not have stored procedures.

4 Click **Next**.

If the object(s) selected to be analyzed requires parameters, the second panel of the wizard prompts you to enter the parameters.

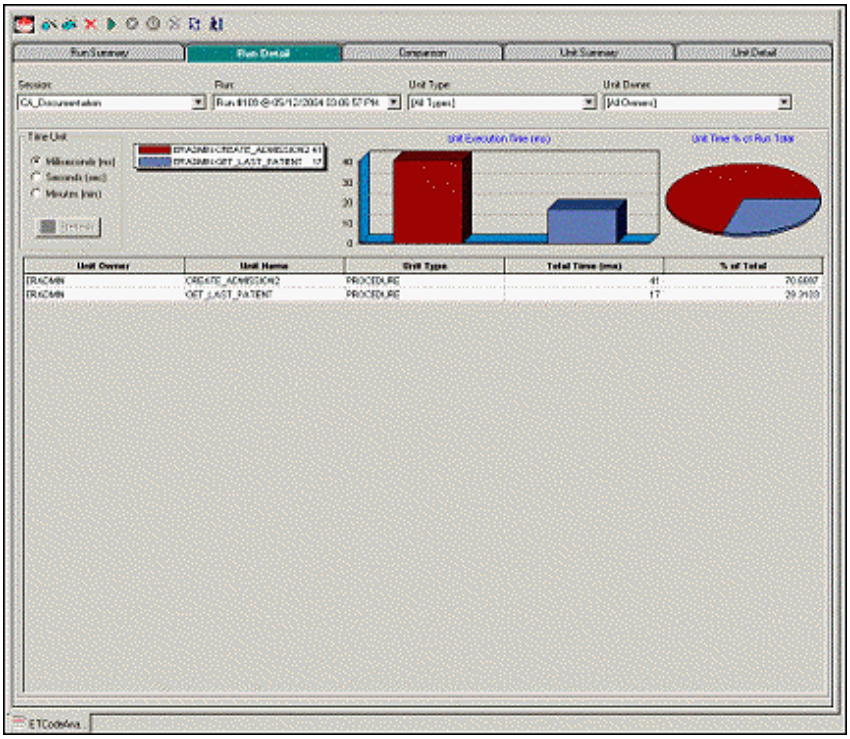
5 Double-click the object to set the parameters.

6 For IBM DB2 LUW for Open Systems and Oracle, the **Compile** button opens the **Confirm Compile** dialog box that lets you compile the objects to ensure that the Code Analyst can capture the time metrics.

7 Click **Finish**.

Code Analyst displays a message that the Code Analyst will run longer than the actual code. Then Code Analyst analyzes the objects, using the Embarcadero SQL Debugger to profile and then opens the Run Detail tab.

TIP: You can select the "Please do not show me this dialog again" option in the dialog box or set the option on the Code Analyst options.

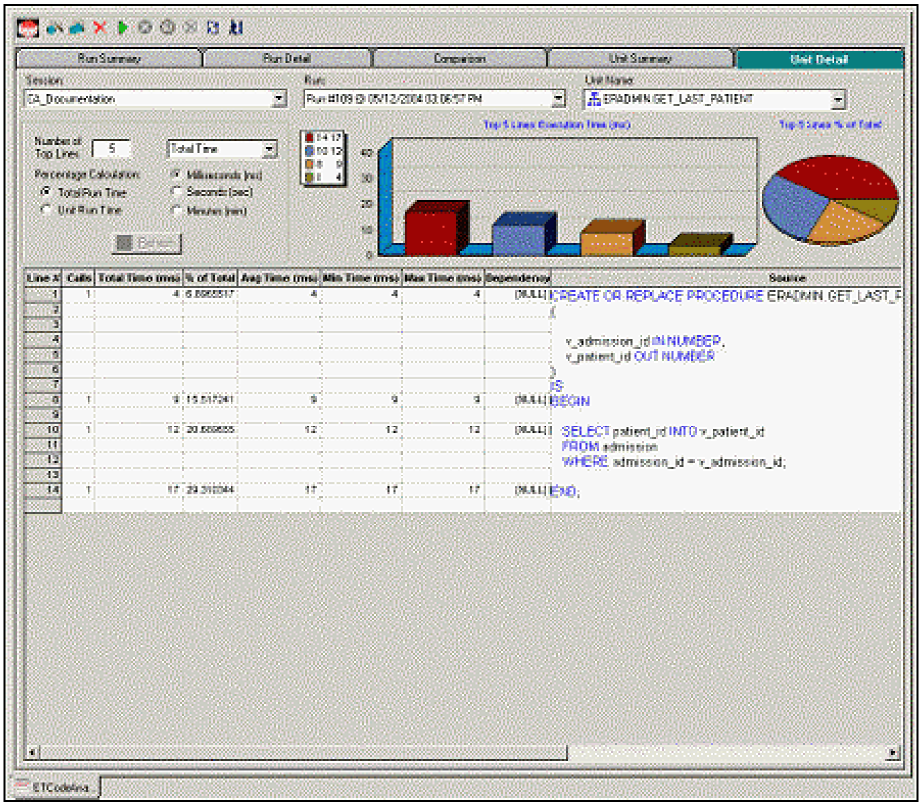


Identifying and Fixing Bottlenecks Using Code Analyst

The Run Detail tab displays the total time for the objects being analyzed. The tab information may be enough to identify the potential bottleneck.

1 To view more detailed information, double-click the **Unit Name**.

Code Analyst opens to the Unit Detail tab.



The Unit Detail Tab displays the object code and other information related to the individual lines of code. You can determine which line of code is taking too long and why. The Unit Detail Tab is where you troubleshoot, and then resolve the problem in the Object Editors.

2 In **Rapid SQL**, open the object editor, and then modify the code on the **Definition** tab.

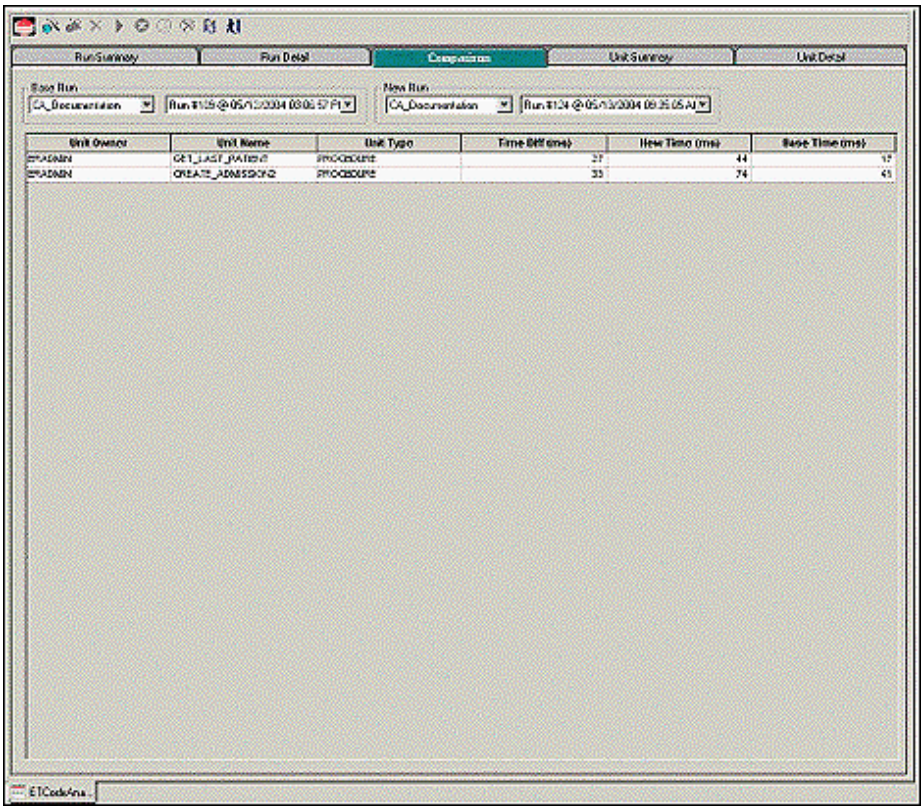
3 Click **Alter**.

4 In **Code Analyst**, on the **Unit Detail** Tab, click **Execute**.

>

Comparing Code Analyst Sessions

1 Click the **Comparison** tab.



Code Analyst has a Comparison facility to allow quick compares of two object executions, showing the base time and the new time, as well as the time differences. The Comparison tab lets you compare which of the two procedures or functions ran faster.

2 Examine the **Time Diff** which indicates improvement to code.

3 If necessary, continue to modify the code on the **Definition** tab of the object editor, and then press **Alter**.

4 In **Code Analyst**, on the **Unit Detail** Tab, click **Execute**.

5 Examine the **Time Diff** until the bottleneck is solved.

Common Tasks

Creating a Code Analyst Session

Identifying and Fixing Bottlenecks Using Code Analyst

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Cloning a Code Analyst Session

Deleting a Code Analyst Session

Stopping a Code Analyst Session Execution

Executing a Code Analyst Session

Scheduling a Code Analyst Session

>

Unscheduling a Code Analyst Session

Refreshing a Code Analyst Session

Saving Results in Code Analyst

Printing Results in Code Analyst

Viewing Run Details in Code Analyst

Viewing Unit Summary Information in Code Analyst

Viewing Unit Details in Code Analyst

Setting View Options for the Unit Detail Tab in Code Analyst

Extracting SQL Text in Code Analyst

Executing SQL in Code Analyst

Using the Code Analyst

When working with database code stored in database objects, it is sometimes difficult to pinpoint bottlenecks within the code. When situations like this arise, Code Analyst can assist in identifying the trouble spots. Code Analyst can be used to analyze one object or a group of objects. You select one or multiple objects, execute them, view the results, and save those results for later viewing or comparing.

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Extracting SQL Text in Code Analyst

Executing SQL in Code Analyst

Creating a Code Analyst Session

The Code Analyst Wizard creates a new Code Analysis session that creates data for the Code Analyst tabs:

1. On the **Tools** menu, select **Code Analyst**.
2. On the Code Analyst **Tools** toolbar, click **Create New Collection**.

   Rapid SQL opens the first panel of the Code Analyst Wizard.
3. Select the individual object or group of objects to analyze.
4. Click **Next**.

   If the object(s) selected to be analyzed requires parameters, the second panel of the wizard prompts you to enter the parameters.
5. Double-click the object to set the parameters.
6. For IBM DB2 LUW for Open Systems and Oracle, the **Compile** button opens the **Confirm Compile** dialog box that lets you compile the objects to ensure that the Code Analyst can capture the time metrics.
7. Click **Finish**.

   Code Analyst displays a message that the Code Analyst will run longer than the actual code. Then Code Analyst analyzes the objects, using the Embarcadero SQL Debugger to profile and then opens the Run Detail tab.

   TIP: You can also select the "Please do not show me this dialog again" option in the dialog box or set the option on the Code Analyst options.

For more information, see Code Analyst Wizard.

Code Analyst Wizard

The table below describes the options and functionality of the Code Analyst Wizard:

Option	Description
Session Name	Lets you type a name.
Select by Owner	Code Analyst Wizard queries the database to get the list of procedures and functions and lets you select objects to retrieve Codes for. Select to display available objects by owner, and then select the database(s).
Select by Object	Code Analyst Wizard queries the database to get the list of procedures and functions and lets you select objects to retrieve Codes for. Select to display available objects by object, and then select the object(s).
Object Name	Double-click each object to specify the input parameters. Specify which object executes first by clicking the Up and Down buttons.
Compile	**IBM DB2 LUW FOR OPEN SYSTEMS AND ORACLE ONLY:** Opens the Confirm Compile dialog box that lets you compile the objects to ensure that the Code Analyst can capture the time metrics.
Schedule	Opens the Select Scheduler dialog box or opens scheduling application.

Option	Description
Finish	Code Analyst analyzes the code.

For more information, see: Creating a Code Analyst Session.

Identifying and Fixing Bottlenecks Using Code Analyst

The Unit Detail Tab displays the object code and other information related to the individual lines of code. You can identify time-consuming lines of code in the Unit Detail Tab. The Unit Detail Tab is where you troubleshoot, and then resolve the problem in the Object Editors.

1. On the **Tools** menu, select **Code Analyst**.
2. Click the **Unit Detail** Tab.

   Percent of Run Time displays the percentage of object execution time for the session(s).
3. Identify an object that contains time-consuming code.
4. In **Rapid SQL**, open the object editor, and then modify the code on the **Definition** tab.
5. Click **Alter.**
6. In **Code Analyst**, on the **Unit Detail** Tab, click **Execute**.
7. Click the **Comparison** tab.

The Comparison Tab lets you compare times of the objects in two different object executions to determine which run was more efficient. The Comparison Tab displays the base time and the new time, as well as the time differences. The Comparison tab lets you compare which of the two procedures or functions ran faster.

8. Examine the **Time Diff** which indicates improvement to code.
9. If necessary, continue to modify the code on the **Definition** tab of the object editor, and then press **Alter**.
10. Create new Code Analyst sessions and examine the **Time Diff** until the bottleneck is solved.

For more information, see:

Code Analyst Product Design

Using the Code Analyst

Comparing Code Analyst Sessions

The Comparison Tab lets you compare times of the objects in two different object executions to determine which run was more efficient. The Comparison Tab displays the base time and the new time, as well as the time differences. The Comparison tab lets you compare which of the two procedures or functions ran faster.

1. On the **Tools** menu, select **Code Analyst**.
2. On the **Run Summary** tab, right-click the sessions, and then select **Compare**.
3. Examine the **Time Diff** which indicates improvement to code.

For more information, see:

Code Analyst Product Design

Using the Code Analyst

Cloning a Code Analyst Session

The Clone Collection functionality lets you clone an existing Code Analyst session using the Code Analyst Wizard. Clone lets you reset the parameters or the order of the objects in the session without creating a new session.

1. On the **Tools** menu, select **Code Analyst**.
2. On the **Run Summary** tab, select the session to clone.
3. On the Code Analyst **Tools** toolbar, click **Clone Collection**.

   Rapid SQL opens the first panel of the Code Analyst Wizard.

For more information, see:

Code Analyst Product Design

Using the Code Analyst

Deleting a Code Analyst Session

The Delete Collection functionality lets you delete the selected Code Analyst session.

1. On the **Tools** menu, select **Code Analyst**.
2. On the **Run Summary** tab, select the session to delete.
3. On the Code Analyst **Tools** toolbar, click **Delete Collection**.

   Code Analyst deletes the session.

For more information, see:

Code Analyst Product Design

Using the Code Analyst

Stopping a Code Analyst Session Execution

The Stop Execution kills the execution of the selected collection.

1. On the **Tools** menu, select **Code Analyst**.
2. On the **Run Summary** tab, select the session to kill.
3. On the Code Analyst **Tools** toolbar, click **Stop Execution**.

   Code Analyst kills the execution.

For more information, see:

Code Analyst Product Design

Using the Code Analyst

Executing a Code Analyst Session

The Execute Collection functionality extracts the SQL text and then executes the code.

1. On the **Tools** menu, select **Code Analyst**.
2. On the **Run Summary** tab, select the session to execute.
3. On the Code Analyst **Tools** toolbar, click **Execute Collection**.

   Code analyst extracts and executes the SQL.

For more information, see:

Code Analyst Product Design

Using the Code Analyst

Scheduling a Code Analyst Session

The Schedule Session functionality lets you schedule the session for a future run.

1. On the **Tools** menu, select **Code Analyst**.
2. On the **Run Summary** tab, select the session to schedule.
3. On the Code Analyst **Tools** toolbar, click **Schedule Session**.

   Code Analyst opens the default scheduler.

For more information, see:

Scheduling

Code Analyst Product Design

Using the Code Analyst

Unscheduling a Code Analyst Session

The Delete Session functionality lets you remove the session from a schedule.

1. On the **Tools** menu, select **Code Analyst**.
2. On the **Run Summary** tab, select the session to unschedule.
3. On the Code Analyst **Tools** toolbar, click **Delete Session**.

For more information, see:

Scheduling

Code Analyst Product Design

Using the Code Analyst

>

Refreshing a Code Analyst Session

The Refresh Data functionality refreshes the data.

1. On the **Tools** menu, select **Code Analyst**.
2. On the tab, on the Code Analyst **Tools** toolbar, click **Refresh Data**.

For more information, see:

Code Analyst Product Design

Using the Code Analyst

Saving Results in Code Analyst

The Save functionality lets you save results for later viewing or comparing.

1. On the **Tools** menu, select **Code Analyst**.
2. On the tab, right-click the session or unit, and then select **Save**.

   Code Analyst opens the Save Results dialog box.

For more information, see:

Code Analyst Product Design

Using the Code Analyst

Printing Results in Code Analyst

The Print functionality lets you print results for later viewing or comparing.

1. On the **Tools** menu, select **Code Analyst**.
2. On the tab, right-click the session or unit, and then select **Print**.

   Code Analyst opens the Print Results dialog box.

For more information, see:

Print

Code Analyst Product Design

Using the Code Analyst

Viewing Run Details in Code Analyst

The Run Detail tab displays the total time for the objects being analyzed. The tab information may be enough to identify the potential bottleneck.

To open the Run Details Tab in Code Analyst, do the following:

1. On the **Tools** menu, select **Code Analyst**.
2. On the **Run Summary** tab, right-click the session, and then select **Run Detail**.

   OR
3. On the **Unit Summary** tab, right-click the session, and then select **Run Detail**.

>

For more information, see:

Code Analyst Product Design

Using the Code Analyst

Viewing Unit Summary Information in Code Analyst

The Unit Summary Tab in Code Analyst displays the individual runs for a session.

To open the Unit Summary Tab in Code Analyst, do the following:

1 On the **Tools** menu, select **Code Analyst**.

2 On the **Comparison** tab, right-click the session, and then select **Unit Summary**.

For more information, see:

Code Analyst Product Design

Using the Code Analyst

Viewing Unit Details in Code Analyst

The Unit Detail Tab displays the object code and other information related to the individual lines of code. You can identify time-consuming lines of code in the Unit Detail Tab. The Unit Detail Tab is where you troubleshoot, and then resolve the problem in the Object Editors.

To open the Unit Details tab in Code Analyst, do the following:

1 On the **Tools** menu, select **Code Analyst**.

2 On the **Unit Summary** tab, right-click the session, and then select **Unit Detail**.

For more information, see:

Code Analyst Product Design

Using the Code Analyst

Setting View Options for the Unit Detail Tab in Code Analyst

The table below describes the options on the shortcut menu for the Unit Details Tab in Code Analyst:

Option	Description
Dependency Details	Displays dependency details.
Show Only Hit Lines	Displays only those lines with time metrics.
Show Only Missed Lines	Displays only those lines without time metrics.
Show All Lines	Resets the view to show all lines.
Advanced View	Displays the default view.
Normal View	Displays a limited number of data columns.

>

Extracting SQL Text in Code Analyst

The Extract SQL Text functionality extracts SQL text to an ISQL window.

1. On the **Tools** menu, select **Code Analyst**.
2. On the **Unit Detail** tab, right-click the session, and then select **Extract SQL Text**.

   Code analyst extracts the SQL text to an ISQL window.

For more information, see:

Extract

Code Analyst Product Design

Using the Code Analyst

Executing SQL in Code Analyst

The Execute SQL functionality extracts SQL text to an ISQL window, and then executes the code.

1. On the **Tools** menu, select **Code Analyst**.
2. On the **Unit Detail** tab, right-click the session, and then select **Execute SQL**.

   Code analyst extracts the SQL text to an ISQL window and executes the code.

For more information, see:

Execute

Code Analyst Product Design

Using the Code Analyst

Rapid SQL Add-On Tools

Rapid SQL includes the following add-on tools:

Embarcadero SQL Debugger for IBM DB2 LUW

Embarcadero SQL Debugger for Microsoft SQL Server

Embarcadero SQL Debugger for Oracle

Embarcadero SQL Debugger for Sybase ASE

Rapid SQL PL/SQL Profiler

Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows

Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows lets you locate and fix bugs in procedures and triggers for IBM DB2 LUW for Linux, Unix, and Windows version 7.2 or later. Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows lets you debug triggers by debugging the procedures that call them.

NOTE: The Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows is an optional add-on module.

TIP: For Rapid SQL, Code Analyst is a tool to identify time-consuming lines of code. Code Analyst lets you perform detailed response time analysis on the execution of Procedures and Functions.

The table below describes the sections of this chapter:

Section	Description
Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows Features	This section describes how Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows lets you identify problems within your code.
Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows Interface	This section describes the Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows graphical interface that includes an editor window and four debug view windows.
Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows Functionality	This section describes the functionality on the Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows.
Using the Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows	This section describes how to run a debug session.

Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows Features

The Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows lets you identify problems within your code. The Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows lets you:

- Interactively step through the flow of script execution.
- Examine the value of variables.
- Solve logical problems with your script design.

NOTE: The Debugger is available on the Rapid SQL main menu, the Procedures window, the DDL Editor and ISQL windows.

The Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows offers fundamental debugging features and options to fine tune debugging. The table below describes these features:

Debugging Feature	Description
Step Into	Lets you execute each instruction step-by-step and step inside a stored object.
Step Out	Lets you stop stepping through the current object and execute the remainder of the script. This option is only active when the pointer indicates a child dependent instruction.
Step Over	Lets you execute the current instruction without stepping into any child dependents.
Breakpoints	Lets you specify positions in a program where the debugger stops execution.

To set specific Debugger values on Rapid SQL's Options Editor, see Debugger Options.

Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows Requirements

Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows requires proper configuration of the server and client.

For more information, see:

Prerequisites for Adding and Compiling Procedures

Configuring the IBM DB2 LUW for Linux, Unix, and Windows Server for Procedures

Prerequisites for Debugging Procedures

Prerequisites for Adding and Compiling Stored Procedures

The Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows requires the following products and components.

Client

- IBM DB2 LUW for Linux, Unix, and Windows 7.2 or later
- DB2 Application Development Client
- DB2 Administration Client
- Communications Protocols
- Stored Procedure Builder

- Applications Development Interfaces
- System Bind Files
- DB2 Connect Server Support
- Documentation
- Base DB2 LUW for Windows/Unix Support
- Administration and Configuration Tools

Server

- IBM DB2 LUW for Linux, Unix, and Windows 7.2 or later
- DB2 Enterprise Edition
- Communications Protocols
- Stored Procedure Builder
- Applications Development Interfaces
- System Bind Files
- DB2 Connect Server Support
- Documentation
- Base DB2 LUW for Windows/Unix Support
- Administration and Configuration Tools
- Microsoft Visual Studio, Visual C++

NOTE: The server must have a local directory structure and file C:\program files\sqllib\function\routine\sr_cpath.bat. This file is installed with IBM DB2 LUW 7.2 and includes the C compiler options needed to compile the procedure on the server. If it is not found, install the IBM DB2 LUW 7.2 Administration and Configuration Tools option on the server.

Configuring the IBM DB2 LUW for Linux, Unix, and Windows Server for Procedures

Rapid SQL lets you create procedures on the targeted server using Rapid SQL.

To create or run any procedure, set up the configuration environment and enable the C compiler options on the server.

To configure your server, do the following:

1 Open a DB2 **Command Window**, and then type:

```
DB2set DB2_SQLROUTINE_COMPILER_PATH="C:\program
files\sqllib\function\routine\sr_cpath.bat"
```

DB2 sets the DB2_SQLROUTINE_COMPILER_PATH DB2 registry variable to call the required initialization script for the C compiler on the server.

To enable the C compiler options on your server:

1 Open the file C:\program files\sqllib\function\routine\sr_cpath.bat.

2 Remove the REM (remarks) prefix on the lines that match the version of Visual Studio that is installed on the server. VCV6 = version 6.0 and VCV5 = version 5.0.

NOTE: Only remove the REM prefix on the lines that apply to your installation of Visual Studio

>

3 Restart the DB2 services on the server.

Prerequisites for Debugging Procedures

To enable debugging on the server, do the following:

1 Open a **DB2 Command** window and type:

```
Db2set DB2ROUTINE_DEBUG=ON
```

NOTE: Client must have a licensed or evaluation copy of the Embarcadero LUW SQL Debugger.

Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows Options

You can specify debugger options from the Debug Tab of Rapid SQL's Options editor. The Debug Tab of the Options Editor lets you set the duration of your debug initialization and debug session, enable DBMS output, and refresh dependencies.

Setting Debugger Options

To set debugger options, do the following:

1 On the **File** menu, click **Options**.

OR

On the **Main** toolbar, click **Options**.

Rapid SQL opens the Options Editor.

2 Specify debugger options. The table below describes the options available:

Option	Description	Default
Initialization Timeout (seconds)	Specifies the number of seconds Rapid SQL tries to initialize the debugger. If it cannot initialize the debugger in the specified time, a message displays in the Debug Output window.	60
Debug Session Timeout (seconds)	Specifies, in seconds, the length of your debug session.	7200
Enable DBMS Output	Toggles the print output. Enable this option if you use dbms_output.put_line calls in your procedures and you want these lines displayed.	Selected
Refresh Dependencies for each run	Refreshes dependencies for each run. This potentially time-consuming process is useful if the target procedure has rapidly varying dependencies that can require updating during the debugging process.	Cleared

3 Click **Close**.

Rapid SQL closes the Options Editor.

For more information, see Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows Features.

Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and

Windows Interface

The Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows includes an editor window and four debug view windows. When you open a debug session, Rapid SQL extracts the code for the object into a DDL Editor and opens four debug view windows at the bottom of the screen. The four debug view windows are optional, dockable windows designed to let you debug your script.

> **TIP:** All Embarcadero debuggers display Performance Metrics that let you measure the execution time of each statement in the debug session.

The Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows's includes five windows:

1. DDL Editor window
2. Watch window
3. Variables window
4. Call Stack window
5. Dependency Tree window

Working with T-SQL Debugger Windows

Rapid SQL lets you resize, move, dock and float the following windows:

- Watch window
- Variables window
- Call Stack window
- Dependency Tree window

1. To resize the target window, click its frame and drag it.

   Rapid SQL resizes the window.

2. To move and dock the target window, click its grab bar and drag it.

   Rapid SQL moves the window to its new location and docks it with surrounding windows.

3. To float the target window, press **Shift**, then click its grab bar and drag it.

   Rapid SQL frames the window in its own floating frame and moves the window to its new location.

DDL Editor Window for Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows

The DDL Editor displays your code in read-only format. When you start debugging, the SQL Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows extracts your code into a DDL Editor. The DDL Editor uses the default Rapid SQL syntax coloring.

For more information, see Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows Interface.

Watch Window for Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows

The Watch window displays the watch variables for the database object you are debugging. The Watch window also lets you specify variables you want to evaluate or modify while debugging your program.

For example, to check what happens when a variable (x) has a value of 100, you can double-click the variable in the DDL Editor, drag it into the Watch Window, and change the value to 100. When you execute the script, the Debugger uses the value x =100. This window is only visible when the T-SQL Debugger is active.

NOTE: Until you step at least once into a script, variables are not defined. Therefore, step at least once before dragging or typing a local variable in the Watch Window.

NOTE: When you exit a debug session and reenter it, the Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows retains any watch variables or breakpoints you have set**.**

Opening and Closing the Watch Window

To open and close the Watch Window, do the following:

1 On the **Debug Menu**, on the **Debug Views** sub-menu, select or clear **Watch**.

OR

Press **ALT+3**.

Setting a Watch Variable

To set a Watch Variable, do the following:

1 In the **DDL Editor,** double-click the target variable and drag it to the **Watch** window.

2 In the **Watch** window**,** change the value of the variable.

3 On the **DDL Editor**, click **Debug**.

The Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows executes the script using the new variable.

Removing a Watch Variable

To remove a Watch variable, do the following:

1 In the **Watch** window, click the target variable and press **DELETE**.

For more information, see Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows Interface.

Variables Window for Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows

The Variables window displays the local variables and their current values during script execution.

NOTE: You cannot edit the variables in the Variables window.

If the DDL Editor displays an external database object, and that object is a dependent of the object you are debugging, then the Variables Window automatically refreshes and displays the variables for that particular object. The Variables Window is only visible when the Debugger is active.

The Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows also lets you monitor your variables while debugging.

Opening and Closing the Variables Window

To open and close the Variables Window, do the following:

1 On the **Debug Menu**, on the **Debug Views** sub-menu, select or clear **Variable**.

OR

Press **ALT+4**.

Monitoring Variables

To monitor the values of your variables while debugging, do the following:

1 In the **SQL Editor**, hold the pointer over the target variable.

Rapid SQL opens a ScreenTip displaying the current value of that variable.

For more information, see Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows Interface.

Call Stack Window for mbarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows

The Call Stack window displays the stack of currently active calls. The Call Stack Window is only visible when the Debugger is active.

Opening and Closing the Call Stack Window

To open and close the Call Stack Window, do the following:

1 On the **Debug Menu**, on the **Debug Views** sub-menu, select or clear **Call Stack**.

OR

Press **ALT+5**.

Using the Call Stack Window

To display a line of code that references the call in the DDL Editor, do the following:

1 In the **Call Stack** window, double-click the target line.

In the DDL Editor, Rapid SQL displays a green arrow on the line of the referenced call.

For more information, see Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows Interface.

Dependency Tree Window for Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows

The Dependency Tree window displays any external database objects the script accesses. Rapid SQL displays these database objects in a hierarchical tree, with the child objects as database objects accessed by the parent objects. You can use this window to display the code for a dependent database object in the DDL Editor window. This window is only visible when the Debugger is active.

Opening and Closing the Dependency Tree Window

To open and close the Dependency Tree Window, do the following:

1 On the **Debug Menu**, on the **Debug Views** sub-menu, select or clear **Dependencies**.

OR

Press **ALT+6**.

Displaying Dependencies

To display the code for a dependent database object in the DDL Editor window, do the following:

1 In the **Dependency Tree** window, double-click the target object.

Rapid SQL displays the SQL of the target object in the DDL Editor window.

For more information, see Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows Interface.

Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows Functionality

The Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows offers the following functionality:

- Input Parameters
- Step Into
- Step Out
- Step Over
- Run to Cursor
- Insert or Remove a Breakpoint
- Toggle Breakpoint
- Go
- Stop
- Restart
- Break
- Close

To use these functionalities, first open a debugging session.

Input Parameters for Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows

Input parameters are set when you first create an object. If the object you want to debug requires input parameters, Rapid SQL opens a Procedure Execution dialog box and prompts you for the input parameters when you open a debugging session.

The Procedure Execution dialog box also lets you:

- Save input parameters as *.prm files to preserve specific input parameter configurations.

>

- Open *.prm files to save the effort of reentering specific input parameters.
- Reset parameters to their default setting.

The table below describes the options and functionality on Procedure Execution dialog box:

The following table describes the options available in this dialog box:

Dialog box component	Description
Owner drop-down list	Displays the current procedure's owner
Procedure drop-down list	Displays the name of the current procedure.
Parameter window	Specify the required input parameters in this window. If input parameters are not required for the execution of the target procedure, a message appears in this window, stating that the procedure "has no input parameters. Press execute to run it."
Open button	Click to open an Open dialog box, from which you can open an existing *.prm file. The saved parameters immediately populate the dialog box upon opening.
Save button	Click to save the values of your input parameters as a *.prm file. You can reopen a saved *.prm file from this dialog box at any time.
Reset button	Click to reset the parameters in the Parameter window to their default values.
Execute button	Click to execute the procedure once you have entered values for all required parameters in the Parameter window.

Option	Description
Owner	Displays the current procedure's owner.
Procedure	Displays the name of the current procedure.
Parameter	Specify the required input parameters in this window. If input parameters are not required for the execution of the target procedure, a message displays in this window, stating that the procedure "has no input parameters. Press execute to run it."
Open	Click to open an existing *.prm file. The saved parameters immediately populate the dialog box upon opening.
Save	Click to save the values of your input parameters as a *.prm file. You can reopen a saved *.prm file from this dialog box at any time.
Reset	Click to reset the parameters in the Parameter window to their default values.
Continue	Click to execute the procedure once you have entered values for all required parameters in the Parameter window.

NOTE: You cannot debug a script that requires input parameters until you provide input parameters.

For more information, see Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows Functionality.

Step Into for Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows

After you open a debugging session, Step Into lets you execute the current instruction. If the current instruction makes a call to a stored SQL object, the Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows steps inside the nested child object.

To use the Step Into facility, do the following:

1 On the **Debug** menu, click **Step Into**.

OR

On the **DDL Editor** toolbar, click **Step Into**.

OR

In the **DDL Editor** window, right-click, and then click **Step Into**.

OR

Press **F11**.

The Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows moves the arrow to execute the current instruction.

For more information, see Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows Functionality.

Step Out for Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows

After you open a debugging session, Step Out lets you execute the remainder of the dependent child object and resumes line-by-line, step-debugging in the parent object.

NOTE: Step Out is only active when the pointer indicates a child dependent instruction.

To use the Step Out facility, do the following:

1 On the **Debug** menu, click **Step Out**.

OR

On the DDL Editor toolbar, click **Step Out**.

OR

In the DDL Editor window, right-click, and then click **Step Out**.

OR

Press **SHIFT+F11**.

The Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows stops stepping through the current object and executes the remainder of the script.

For more information, see Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows Functionality.

Step Over for Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows

After you open a debugging session, Step Over lets you execute the current instruction without stepping into a nested child object if the instruction makes a call to a dependent object.

To use the Step Over, do the following:

1 On the **Debug** menu, click **Step Over**.

OR

On the **DDL Editor** toolbar, click **Step Over**.

OR

In the **DDL Editor** window, right-click, and then click **Step Over**.

OR

Press **F10**.

The Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows executes the current instruction.

For more information, see Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows Functionality.

Run to Cursor for Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows

After you open a debugging session, Run to Cursor lets you execute all instructions between the yellow arrow and the cursor.

To use the Run to Cursor facility, do the following:

1 Scroll down from the yellow arrow to the target line.

2 Click the target line.

Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows places the cursor on the target line.

3 On the **Debug** menu, click **Run to Cursor**.

OR

On the **DDL Editor** toolbar, click **Run to Cursor**.

OR

In the **DDL Editor** window, right-click, and then click **Run to Cursor**.

OR

Press **CTRL+F10**.

The Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows executes all instructions between the pointer and the cursor.

For more information, see Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows Functionality.

Insert or Remove Breakpoint for Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows

A breakpoint is a position in a program where a debugger stops execution. When you start debugging, Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows opens the script in a DDL Editor. A yellow arrow pointer indicates which line the Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows executes next.

The Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows executes all lines of code between the yellow arrow and the first breakpoint. If no breakpoints are present, Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows debugs the entire script.

While debugging you can set one or more breakpoints in the currently executing object or in any object in the program call stack. You can toggle, temporarily disable or enable breakpoints without having to add or remove breakpoints.

Rapid SQL's Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows displays each enabled breakpoint as a red dot in the left margin of the DDL Editor Window, and each disabled breakpoint as a red circle.

Rapid SQL stores all breakpoints you set so that when you debug the same script on separate occasions, you can reuse the same breakpoints. After you open a debugging session, you can insert a breakpoint on the line where your cursor is located, and you can remove a breakpoint on the line where your cursor is located.

NOTE: Script execution stops at the first breakpoint.

To insert and remove breakpoints, do the following:

1. In the **DDL Editor** window, click the target line of SQL.
2. On the **Debug** menu, click **Breakpoint**.

   OR

   On the **DDL Editor** toolbar, click **Breakpoint**.

   OR

   In the **DDL Editor** window, right-click, and then click **Breakpoint**.

   OR

   Press **F9**.

   The Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows inserts a new breakpoint or removes an existing breakpoint on the target line of code.

For more information, see Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows Functionality.

Toggle Breakpoint for Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows

After you open a debugging session and insert a breakpoint, Toggle Breakpoint lets you enable or disable that breakpoint. Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows displays each enabled breakpoint as a red dot in the left margin of the DDL Editor Window, and each disabled breakpoint as a red circle.

You can toggle any breakpoint in the DDL Editor window. When you exit a debugging session and reenter it, the Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows retains any breakpoints you set.

>

To use the Toggle Breakpoint facility, do the following:

1 In the **DDL Editor** window, click the line of the target breakpoint.

2 On the **Debug** menu, click **Enable/Disable Breakpoint**.

OR

On the **DDL Editor** toolbar, click **Enable/Disable Breakpoit**.

OR

In the **DDL Editor** window, right-click, and then click **Enable/Disable Breakpoint**.

OR

Press **CTRL+F9**.

The Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows toggles the breakpoint indicated by the pointer.

For more information, see Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows Functionality.

Go for Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows

After you open a debugging session, Go lets you execute all instructions stopping only when when it encounters a breakpoint or when the program is complete.

To use the Go facility, do the following:

1 On the **Debug** menu, click **Go**.

OR

On the **DDL Editor** toolbar, click **Go**.

OR

In the **DDL Editor** window, right-click, and then click **Go**.

OR

Press **F5**.

The Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows executes all instructions.

For more information, see Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows Functionality.

Stop for Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows

After you open a debugging session, Stop lets you halt the script execution and terminate the session.

To use the Stop facility, do the following:

1 On the **Debug** menu, click **Stop Debugging**.

OR

On the **DDL Editor** toolbar, click **Stop Debugging**.

OR

In the **DDL Editor** window, right-click, and then click **Stop Debugging**.

OR

Press **SHIFT+F5**.

The Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows stops the script execution and terminates the session.

For more information, see Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows Functionality.

Restart for Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows

After you open a debugging session, Restart lets you terminate the current debug session and open a new one. When the new session opens, Rapid SQL prompts you for new input parameters.

To use the Restart facility, do the following:

1 On the **Debug** menu, click **Restart**.

OR

On the **DDL Editor** toolbar, click **Restart**.

OR

In the **DDL Editor** window, right-click, and then click **Restart**.

OR

Press **CTRL+SHIFT+F5**.

The Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows restarts the debug session.

For more information, see Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows Functionality.

Break for Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows

After you open a debugging session, Break lets you pause the debug session.

To use the Break facility, do the following:

1 On the **Debug** menu, click **Break**.

OR

On the **DDL Editor** toolbar, click **Break**.

OR

In the **DDL Editor** window, right-click, and then click **Break**.

The Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows suspends the debug session.

For more information, see Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows Functionality.

Close for Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows

After you open a debugging session, Close lets you close the DDL Editor and the Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows.

To use the Close facility, do the following:

1 On the **DDL Editor** toolbar, click **Close**.

OR

In the upper right corner of the window, click **Close**.

OR

In the **DDL Editor** window, right-click, and then click **Close**.

The Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows closes the debug session.

For more information, see Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows Functionality.

Using the Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows

This section offers a general overview of how to use Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows's full range of debugging functionality. After you open a debugging session for any procedure or trigger, you can begin debugging.

Opening a Debugging Session in IBM DB2 LUW for Linux, Unix, and Windows

When you open a debugging session, Rapid SQL opens the five windows of the Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows interface. If the target script requires input parameters, Rapid SQL opens a Procedure Execution dialog box and prompts you for the necessary input parameters before displaying the target code in the SQL Editor window. When Rapid SQL displays the target script in the SQL Editor window, you can begin debugging.

NOTE: Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows only lets you debug the SQL script of procedures or triggers.

To debug triggers by debugging the procedures that call them, do the following:

1 On the **Explorer Tab**, click the node of the target trigger or procedure. The node expands and displays the **Code** object.

2 Double-click **Code**. The **DDL Editor** opens and displays the code of the target object.

3 On the **Debug** menu, click **Start Debugging**.

OR

On the **SQL Editor** toolbar, click **Debug**.

OR

In the **DDL Editor** window, right-click, and then click **Debug**.

OR

Press **CTRL+F5**.

4 On the toolbar, click **Debug**.

OR

In the **DDL Editor** window, right-click, and then click **Debug**.

If the script requests input parameters, Rapid SQL opens a Procedure Execution dialog box. If the script does not require input parameters, Rapid SQL displays the script in the DDL Editor window for you to begin debugging.

NOTE: You cannot use the Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows until it has fully initialized.

5 In the **Procedure Execution** dialog box, specify the appropriate parameters, and then click **Continue**.

Rapid SQL displays the script in the DDL Editor window for you to begin debugging.

Debugging an SQL Script with Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows

After you open a debugging session and enter any required input parameters, you can begin working with your script in the Embarcadero SQL Debugger for IBM DB2 LUW for Linux, Unix, and Windows.

Debugging an SQL Script

To debug a SQL Script, do the following:

1 On the **Debug** menu, click one of the T-SQL Debugger options (Step Into, Step Over, and so forth) or click **Go**.

OR

On the **DDL Editor** toolbar, click one of the T-SQL Debugger options (Step Into, Step Over, and so on) or click **Go**.

NOTE: You can monitor the progress of your debug session in the Variables window.

2 On the **Debug** menu, click **Breakpoint**.

OR

On the **DDL Editor** toolbar, click **Breakpoint**.

OR

Press **F9**.

NOTE: When you set a breakpoint, the Call Stack window shows what was called before the breakpoint.

NOTE: You can use the Run to Cursor option to test the lines of code between a breakpoint and your cursor (indicated by the yellow arrow in the DDL Editor).

3 To check your variables:

1) In the **DDL Editor**, click a variable in your script and drag it to the **Watch** window.

2) In the **Watch** window, change the value of the watch variable, and then click **Go** to run your script and see the results of the new value.

4 To check a record in stored objects:

1) Drag the record to the **Watch** window.

2) In the **Watch** window, change the value of the record, then click **Go** to run your script and see the results of the new value.

5 To check the dependencies:

1) In the **Dependency Tree** window double-click the target dependent object to extract the code into a new **DDL Editor**.

2) **Step through** the script while monitoring the Dependency Tree window.

6 When you finish debugging the script, click **Close**.

Rapid SQL closes the T-SQL Debugger DDL Editor.

NOTE: When you exit a debug session and reenter it, the Embarcadero SQL Debugger for MSSQL retains any watch variables or breakpoints you have set.

Embarcadero SQL Debugger for Microsoft SQL Server

Embarcadero SQL Debugger for Microsoft is a programming tool that helps you locate and fix bugs in Microsoft SQL Server procedures and triggers for Microsoft SQL Server version 7.0 or later.

NOTE: The Embarcadero SQL Debugger for Microsoft is an optional add-on module**.**

Objects

You can use Embarcadero SQL Debugger for Microsoft to debug the following objects:

- Procedures
- Triggers

You can only debug triggers by debugging the procedures that call them.

TIP: The 'Code Analyst is a tool to identify time-consuming lines of code. Code Analyst lets you perform detailed response time analysis on the execution of Procedures and Functions.

The table below describes the sections of this chapter:

Section	Description
Embarcadero SQL Debugger for Microsoft Features	This section describes how Embarcadero SQL Debugger for Microsoft helps you identify problems within your code.
Embarcadero SQL Debugger for Microsoft Interface	This section describes the Embarcadero SQL Debugger for Microsoft graphical interface that includes an editor window and four debug view windows.
Embarcadero SQL Debugger for Microsoft Functionality	This section describes the way in which Embarcadero SQL Debugger for Microsoft functions.
Using the Embarcadero SQL Debugger for Microsoft	This section describes how to run a debug session.

Embarcadero SQL Debugger for Microsoft Features

The Embarcadero SQL Debugger for Microsoft helps you identify problems within your code. The Embarcadero SQL Debugger for Microsoft lets you:

- Interactively step through the flow of script execution.
- Examine the value of variables.
- Solve logical problems with your script design.

The Embarcadero SQL Debugger for Microsoft offers fundamental debugging features and several options to help fine tune debugging, as listed in the table below:

Debugging Feature	Description
Step Into	Lets you execute each instruction step-by-step and step inside a stored object.
Step Out	Lets you stop stepping through the current object and execute the remainder of the script. This option is only active when the pointer indicates a child dependent instruction.
Step Over	Lets you execute the current instruction without stepping into any child dependents.
Breakpoints	A position in a program where the debugger stops execution.

To set specific Debugger values on Rapid SQL's Options Editor, see Debugger Options.

Embarcadero SQL Debugger for Microsoft Requirements

To use the Embarcadero SQL Debugger for Microsoft, you must properly configure the server and client. For more information, see:

Server Requirements

Client Requirements

Server Requirements

To use the Embarcadero SQL Debugger for Microsoft you must be running Windows 2000 or Windows NT 4.0 or later, and your Microsoft SQL Server version must be 7.0 or later.

Setting Up the Server

There are three parts to setting up the server:

- Installing the Microsoft SQL Debugger Interface subcomponent.
- Configuring the Service.
- Configuring DCOM on the server

Enabling SQL Debugger for Microsoft on SQL Server SP3

SQL Debugging is disabled by default in SQL Server SP3 and greater. Please refer to Microsoft Support for information regarding enabling the SQL Debugger for Microsoft on SQL Server SP3.

Installing the Microsoft SQL Debugger Interface Subcomponent

The Microsoft server must have the Development Tools, Debugger Interface subcomponent of Microsoft SQL Server 7.0. To determine if the Debugger Interface subcomponent is installed, locate the following files in the \Program Files\Common Files\Microsoft Shared\SQL Debugging directory:

- SQLDBREG.exe
- SQLDBG.dll

If these files are not in the \Program Files\Common Files\Microsoft Shared\SQL Debugging directory, you must install them before running the Embarcadero SQL Debugger for Microsoft.

Installing the Microsoft SQL Debugger Interface on the Server

To install the Debugger Interface subcomponent on the server after the initial installation, do the following:

1. Start **Microsoft Visual Studio, Enterprise Edition Setup**.

   OR

   Start **Microsoft SQL Server 7.0 Setup**.
2. Select **Custom Install**.

   Microsoft SQL Server opens the Select Components dialog box:
3. In the **Components** box, select the **Development Tools** check box.
4. In the **Sub-components** box, select the **Debugger Interface** check box.
5. Click **Next**.

   Microsoft SQL Server proceeds through the Microsoft SQL Server wizard to install the components.

Configuring the Service

Configuring the service is an operating-system-dependent operation. See the instructions below for your server operating system.

- WIndows 2000
- Windows NT 4.0

Windows 2000

1. On the **Windows** taskbar, click the **Start** button, click **Settings**, and then click **Control Panel**.
2. Double-click **Administrative Tools**, and then click **Services**.

   Windows opens the Services explorer.
3. In the right pane of the **Services** explorer, right click **MSSQLServer,** and then click **Properties**.

   Windows opens the Net Logon Properties dialog box.
4. Click the **Logon Tab**.
5. Select the **This Account** option button.
6. In the **This Account** box, type (or browse to locate) the logon user account (including domain name, if necessary) of the person using the Embarcadero SQL Debugger for Microsoft.

   NOTE: This person must have admin permissions on the server.
7. In the **Password** and **Confirm Password** boxes, type the password.
8. Click **Apply**.
9. Click the **General Tab**.
10. Click **Start**.

    Windows starts the server and applies the changes.

Important Notes about Microsoft SQL Server 2000 Service Pack 3 (SP3)

By default, after you install Microsoft SQL Server 2000 Service Pack 3 (SP3), you cannot use the Embarcadero SQL Debugger for Microsoft. You may receive the following error message:

> "Server: Msg 514, Level 16, State 1, Procedure sp_sdidebug, Line 1 [Microsoft][ODBC SQL Server Driver][SQL Server]Unable to communicate with debugger on [SQL Server Name] (Error = 0x80070005). Debugging disabled for connection 53."

Microsoft made this change for security reasons. To enable debugging, a member of the sysadmins server role, such as sa, must explicitly enable debugging by running the following code:

```
Exec sp_sdidebug 'legacy_on'
```

You must repeat this procedure whenever you restart the server.

Windows NT 4.0

1. On the Windows taskbar, click the **Start** button, select **Settings** and then click **Control Panel**.
2. Double-click **Services**.

   Windows opens the Services dialog box.
3. In the **Service** list, select **MSSQLServer** and then click **Startup**.
4. In the **Log On As:** box, select the **This Account** option button.
5. In the **This Account** box, type the logon user account (including domain name, if necessary) of the person using the Embarcadero SQL Debugger for Microsoft.

   NOTE: This person must have admin permissions on the server.
6. In the **Password** and **Confirm Password** boxes, type the password.

7 Click **OK**.

Windows returns to the Services dialog box.

8 Click **Start**.

Windows starts the server and applies the changes.

Configuring DCOM on the Server

To configure DCOM, do the following:

1 After the server restarts, on the Windows taskbar, click the **Start** button, and then click **Run**.

2 In the **Open** box, type **dcomcnfg**.**exe**.

3 Click **OK**.

Windows opens the Distributed COM Configuration Properties dialog box.

4 Click the **Default Security Tab**.

5 In the **Default Access Permissions** box, click **Edit Default.**

Windows opens the Registry Value Permissions dialog box.

6 Click **Add**.

Windows opens the Add Users and Groups dialog box.

7 In the **Names** box, select **SYSTEM**, and then click **Add.**

8 Click the **Type of Access** list and then click **Allow Access**.

9 To let any user use the Embarcadero SQL Debugger for Microsoft, you must grant them remote access on the server. To grant remote access, you must configure their DCOM permissions on the server. In the **Names** box, click the target users and then click **Add**.

NOTE: You can add individual users or groups.

10 Click the **Type of Access** list and then click **Allow Access**.

11 Click **OK**.

12 Restart the server to apply the changes.

Client Requirements

There are three categories of client requirements for the Embarcadero SQL Debugger for Microsoft:

- Operating System
- Microsoft SQL Server 7.0, Client Connectivity Component
- Microsoft SQL Server 7.0, Development Tools - Debugger Interface Subcomponent

Operating System

The client must be running one of the following operating systems:

- Microsoft Windows 95
- Microsoft Windows 98

- Microsoft Windows NT 4.0 or later

Important Notes about Microsoft SQL Server 2000 Service Pack 3 (SP3)

By default, after you install Microsoft SQL Server 2000 Service Pack 3 (SP3), you cannot use the Embarcadero SQL Debugger for Microsoft. You may receive the following error message:

> "Server: Msg 514, Level 16, State 1, Procedure sp_sdidebug, Line 1 [Microsoft][ODBC SQL Server Driver][SQL Server]Unable to communicate with debugger on [SQL Server Name] (Error = 0x80070005). Debugging disabled for connection 53."

Microsoft made this change for security reasons. To enable debugging, a member of the sysadmins server role, such as sa, must explicitly enable debugging by running the following code:

```
Exec sp_sdidebug 'legacy_on'
```

You must repeat this procedure whenever you restart the server.

Client Connectivity

The client must have the Client Connectivity component of Microsoft SQL Server 7.0 or later.

Microsoft Debugger Interface

The client must have the Development Tools, Debugger Interface subcomponent of Microsoft SQL Server 7.0 or later. To determine if the Debugger Interface subcomponent is installed, locate the following files in the \Program Files\Common Files\Microsoft Shared\SQL Debugging directory:

- SQLDBREG.exe
- SQLDBG.dll

If these files are not in the \Program Files\Common Files\Microsoft Shared\SQL Debugging directory, you must install them before running the Embarcadero SQL Debugger for Microsoft.

Installing the Microsoft SQL Debugger Interface on the Client

To install the Debugger Interface subcomponent on the client:

1. Start the Microsoft SQL Server Setup program.
2. Select **Custom Install**.

   Microsoft SQL Server opens the Select Components dialog box.
3. In the **Components** box, select the **Development Tools** check box.
4. In the **Sub-Components** box, select the **Debugger Interface** check box.
5. Click **Next**.

   Microsoft SQL Server proceeds through the Microsoft SQL Server Wizard to install the components.

Embarcadero SQL Debugger for Microsoft Options

You can specify T-SQL Debugger options from the Debug Tab of Rapid SQL's Options editor. The Debug Tab of the Options Editor lets you set the duration of your debug initialization and debug session, enable DBMS output, and refresh dependencies.

Setting Debugger Options

To set debugger options, do the following:

1 On the **File** menu, click **Options**.

OR

On the **Main** toolbar, click **Options**.

Rapid SQL opens the Options Editor.

2 Specify debugger options. The table below describes the options available:

Option	Description	Default
Initialization Timeout (seconds)	Specifies the number of seconds Rapid SQL tries to initialize the debugger. If it cannot initialize the debugger in the specified time, a message displays in the Debug Output window.	60
Debug Session Timeout (seconds)	Specifies, in seconds, the length of your debug session.	7200
Enable DBMS Output	Toggles the print output. Enable this option if you use dbms_output.put_line calls in your procedures and you want these lines displayed.	Selected
Refresh Dependencies for each run	Refreshes dependencies for each run. This potentially time-consuming process is useful if the target procedure has rapidly varying dependencies that can require updating during the debugging process.	Cleared

3 Click **Close**.

Rapid SQL closes the Options Editor.

Embarcadero SQL Debugger for Microsoft Interface

The Embarcadero SQL Debugger for Microsoft has a graphical interface that includes an editor window and four debug view windows. When you open a debug session, Rapid SQL extracts the code for the object into a DDL Editor and opens four debug view windows at the bottom of the screen. The four debug view windows are optional, dockable windows designed to help you debug your script.

> **TIP:** All Embarcadero debuggers display Performance Metrics that let you measure the execution time of each statement in the debug session.

Embarcadero SQL Debugger for Microsoft's five windows are:

1 DDL Editor window

2 Watch window

3 Variables window

4 Call Stack window

5 Dependency Tree window

Working with T-SQL Debugger Windows

Rapid SQL lets you resize, move, dock and float the following T-SQL Debugger windows:

- Watch

- Variables
- Call Stack
- Dependency Tree

To work with the above windows, do the following:

1 To resize the target window, click its frame and drag it

Rapid SQL resizes the window.

2 To move and dock the target window, click its grab bar and drag it.

Rapid SQL moves the window to its new location and docks it with surrounding windows.

3 To float the target window, press **Shift**, then click its grab bar and drag it.

Rapid SQL frames the window in its own floating frame and moves the window to its new location.

DDL Editor Window

The Embarcadero SQL Debugger for Microsoft provides a DDL Editor that displays your code in read-only format. When you start debugging, the SQL Embarcadero SQL Debugger for Microsoft extracts your code into a DDL Editor. The DDL Editor uses the default Rapid SQL syntax coloring.

Watch Window

The Rapid SQL Embarcadero SQL Debugger for Microsoft provides a watch window that displays the watch variables for the database object you are debugging and lets you specify variables you want to evaluate or modify while debugging your program. For example, to check what happens when a variable (x) has a value of 100, you can double-click the variable in the DDL Editor, drag it into the Watch Window, and change the value to 100. When you execute the script, the Debugger uses the value x =100. This window is only visible when the T-SQL Debugger is active.

NOTE: Until you step at least once into a script, variables are not defined. Therefore, you must step at least once before dragging or typing a local variable in the Watch Window.

NOTE: When you exit a debug session and reenter it, the Embarcadero SQL Debugger for Microsoft retains any watch variables or breakpoints you have set**.**

Opening and Closing the Watch Window

To open and close the Watch Window, do the following:

1 On the **Debug Menu**, on the **Debug Views** sub-menu, select or clear **Watch**.

OR

Press **ALT+3**.

Setting a Watch Variable

To set a Watch Variable, do the following:

1 In the **DDL Editor,** double-click the target variable and drag it to the **Watch** window.

NOTE: Microsoft SQL Server requires that local variables begin with @. You must drag the @ to the Watch Window.

2 In the **Watch** window**,** change the value of the variable.

3 On the **DDL Editor**, click **Go**.

The Embarcadero SQL Debugger for Microsoft executes the script using the new variable.

Removing a Watch Variable

To remove a Watch Variable, do the following:

1 In the **Watch** window, click the target variable and press **DELETE**.

Variables Window

The Embarcadero SQL Debugger for Microsoft provides a variables window that displays the local variables and their current values during script execution. You cannot edit the variables in the Variables window. If the DDL Editor displays an external database object, and that object is a dependent of the object you are debugging, then the Variables Window automatically refreshes and displays the variables for that particular object. The Variables Window is only visible when the Debugger is active.

The Embarcadero SQL Debugger for Microsoft also lets you monitor your variables while debugging.

Opening and Closing the Variables Window

To open and close the Variables Window, do the following:

1 On the **Debug Menu**, on the **Debug Views** sub-menu, select or clear **Variable**.

OR

Press **ALT+4**.

Monitoring Variables

To monitor the values of your variables while debugging, do the following:

1 In the **SQL Editor**, hold the pointer over the target variable.

Rapid SQL opens a ScreenTip displaying the current value of that variable.

Call Stack Window

The Embarcadero SQL Debugger for Microsoft provides a call stack window that displays the stack of currently active calls. The Call Stack Window is only visible when the Debugger is active.

Opening and Closing the Call Stack Window

To open and close the Call Stack Window, do the following:

1 On the **Debug Menu**, on the **Debug Views** sub-menu, select or clear **Call Stack**.

OR

Press **ALT+5**.

Using the Call Stack Window

To display a line of code that references the call in the DDL Editor, do the following:

1 In the **Call Stack** window, double-click the target line.

In the DDL Editor, Rapid SQL displays a green arrow on the line of the referenced call.

Dependency Tree Window

The Embarcadero SQL Debugger for Microsoft provides a dependency tree window that displays any external database objects the script accesses. Rapid SQL displays these database objects in a hierarchical tree, with the child objects as database objects accessed by the parent objects. You can use this window to display the code for a dependent database object in the DDL Editor window. This window is only visible when the Debugger is active.

Opening and Closing the Dependency Tree Window

To open and close the Dependency Tree Window, do the following:

1 On the **Debug Menu**, on the **Debug Views** sub-menu, select or clear **Dependencies**.

OR

Press **ALT+6**.

Displaying Dependencies

To display the code for a dependent database object in the DDL Editor window, do the following:

1 In the **Dependency Tree** window, double-click the target object.

Rapid SQL displays the SQL of the target object in the DDL Editor window.

Embarcadero SQL Debugger for Microsoft Functionality

The Embarcadero SQL Debugger for Microsoft offers the following functionality:

- Input Parameters
- Step Into
- Step Out
- Step Over
- Run to Cursor
- Insert or Remove a Breakpoint
- Toggle Breakpoint
- Go
- Stop
- Restart
- Break
- Close

To make use of the above functionality, you must first open a debugging session.

Input Parameters

Input parameters are set when you first create an object. If the object you want to debug requires input parameters, Rapid SQL opens a Procedure or Trigger Execution dialog box and prompts you for the input parameters when you open a debugging session.

This dialog box also lets you:

- Save input parameters as *.prm files to preserve specific input parameter configurations.
- Open *.prm files to save the effort of reentering specific input parameters.
- Reset parameters to their default setting.

The table below describes the options and functionality on Procedure Execution dialog box:

The following table describes the options available in this dialog box:

Dialog box component	Description
Owner drop-down list	Displays the current procedure's owner
Procedure drop-down list	Displays the name of the current procedure.
Parameter window	Specify the required input parameters in this window. If input parameters are not required for the execution of the target procedure, a message appears in this window, stating that the procedure "has no input parameters. Press execute to run it."
Open button	Click to open an Open dialog box, from which you can open an existing *.prm file. The saved parameters immediately populate the dialog box upon opening.
Save button	Click to save the values of your input parameters as a *.prm file. You can reopen a saved *.prm file from this dialog box at any time.
Reset button	Click to reset the parameters in the Parameter window to their default values.
Execute button	Click to execute the procedure once you have entered values for all required parameters in the Parameter window.

Option	Description
Owner	Displays the current procedure's owner.
Procedure	Displays the name of the current procedure.
Parameter	Specify the required input parameters in this window. If input parameters are not required for the execution of the target procedure, a message displays in this window, stating that the procedure "has no input parameters. Press execute to run it."
Open	Click to open an existing *.prm file. The saved parameters immediately populate the dialog box upon opening.
Save	Click to save the values of your input parameters as a *.prm file. You can reopen a saved *.prm file from this dialog box at any time.
Reset	Click to reset the parameters in the Parameter window to their default values.
Continue	Click to execute the procedure once you have entered values for all required parameters in the Parameter window.

NOTE: You cannot debug a script that requires input parameters until you provide input parameters.

Step Into

After you open a debugging session, Step Into lets you execute the current instruction. If the current instruction makes a call to a stored SQL object, the Embarcadero SQL Debugger for Microsoft steps inside the nested child object.

Step Into

To use the Step Into facility, do the following:

1 On the **Debug** menu, click **Step Into**.

OR

On the **DDL Editor** toolbar, click **Step Into**.

OR

In the **DDL Editor** window, right-click and then click **Step Into**.

OR

Press **F11**.

The Embarcadero SQL Debugger for Microsoft moves the arrow to execute the current instruction.

Step Out

After you open a debugging session, Step Out lets you execute the remainder of the dependent child object and resumes line-by-line, step-debugging in the parent object.

NOTE: Step Out is only active when the pointer indicates a child dependent instruction.

Step Out

To use the Step Out facility, do the following:

1 On the **Debug** menu, click **Step Out**.

OR

On the **DDL Editor** toolbar, click **Step Out**.

OR

In the **DDL Editor** window, right-click and then click **Step Out**.

OR

Press **SHIFT+F11**.

The Embarcadero SQL Debugger for Microsoft stops stepping through the current object and executes the remainder of the script.

Step Over

After you open a debugging session, Step Over lets you execute the current instruction without stepping into a nested child object if the instruction makes a call to a dependent object.

Step Over

To use the Step Over facility, do the following:

1 On the **Debug** menu, click **Step Over**.

OR

On the **DDL Editor** toolbar, click **Step Over**.

OR

In the **DDL Editor** window, right-click and then click **Step Over**.

OR

Press **F10**.

The Embarcadero SQL Debugger for Microsoft executes the current instruction.

Run to Cursor

After you open a debugging session, Run to Cursor lets you execute all instructions between the yellow arrow and the cursor.

Run to Cursor

To use the Run to Cursor facility, do the following:

1 Scroll down from the yellow arrow to the target line.

2 Click the target line.

Embarcadero SQL Debugger for Microsoft places the cursor on the target line.

3 On the **Debug** menu, click **Run to Cursor**.

OR

On the **DDL Editor** toolbar, click **Run to Cursor**.

OR

In the **DDL Editor** window, right-click and then click **Run to Cursor**.

OR

Press **CTRL+F10**.

The Embarcadero SQL Debugger for Microsoft executes all instructions between the pointer and the cursor.

Insert or Remove Breakpoint

A breakpoint is a position in a program where a debugger stops execution. When you start debugging, Embarcadero SQL Debugger for Microsoft opens the script in a DDL Editor. A yellow arrow pointer indicates which line the Embarcadero SQL Debugger for Microsoft executes next. The Embarcadero SQL Debugger for Microsoft executes all lines of code between the yellow arrow and the first breakpoint. If no breakpoints are present, Embarcadero SQL Debugger for Microsoft debugs the entire script.

While debugging you can set one or more breakpoints in the currently executing object or in any object in the program call stack. Breakpoints can be toggled, temporarily disabled, or enabled, without having to add or remove them. Rapid SQL Embarcadero SQL Debugger for Microsoft displays each enabled breakpoint as a red dot in the left margin of the DDL Editor Window, and each disabled breakpoint as a red circle.

Rapid SQL stores all breakpoints you set so that when you debug the same script on separate occasions, you can reuse the same breakpoints. After you open a debugging session, Insert Break lets you insert a breakpoint on the line where your cursor it located, and Remove Break lets you remove a breakpoint on the line where your cursor is located.

NOTE: Script execution stops at the first breakpoint.

Inserting or Removing a Breakpoint

To insert of remove a breakpoint, do the following:

1 In the **DDL Editor** window, click the target line of SQL.

2 On the **Debug** menu, click **Breakpoint**.

OR

On the **DDL Editor** toolbar, click **Breakpoint**.

OR

In the **DDL Editor** window, right-click and then click **Breakpoint**.

OR

Press **F9**.

The Embarcadero SQL Debugger for Microsoft inserts a new breakpoint or removes an existing breakpoint on the target line of code.

Toggle Breakpoint

After you open a debugging session and insert a breakpoint, Toggle Breakpoint lets you enable or disable that breakpoint. Embarcadero SQL Debugger for Microsoft displays each enabled breakpoint as a red dot in the left margin of the DDL Editor Window, and each disabled breakpoint as a red circle. You can toggle any breakpoint in the DDL Editor window. When you exit a debugging session and reenter it, the Embarcadero SQL Debugger for Microsoft retains any breakpoints you set.

Toggling a Breakpoint

To toggle a breakpoint, do the following:

1. In the **DDL Editor** window, click the line of the target breakpoint.
2. On the **Debug** menu, click **Enable/Disable Breakpoint**.

   OR

   On the **DDL Editor** toolbar, click **Enable/Disable Breakpoint**.

   OR

   In the **DDL Editor** window, right-click and then click **Enable/Disable Breakpoint**.

   OR

   Press **CTRL+F9**.

   The Embarcadero SQL Debugger for Microsoft toggles the breakpoint indicated by the pointer.

Go

After you open a debugging session, Go lets you execute all instructions stopping only when when it encounters a breakpoint or when the program is complete.

Go

To use the Go facility, do the following:

1. On the **Debug** menu, click **Go**.

   OR

   On the **DDL Editor** toolbar, click **Go**.

   OR

   In the **DDL Editor** window, right-click and then click **Go**.

   OR

   Press **F5**.

   The Embarcadero SQL Debugger for Microsoft executes all instructions.

Stop

After you open a debugging session, Stop lets you halt the script execution and terminate the session.

Stop

To stop the debugger, do the following:

1 On the **Debug** menu, click **Stop Debugging**.

OR

On the **DDL Editor** toolbar, click **Stop Debugging**.

OR

In the **DDL Editor** window, right-click and then click **Stop Debugging**.

OR

Press **SHIFT+F5**.

The Embarcadero SQL Debugger for Microsoft stops the script execution and terminates the session.

Restart

After you open a debugging session, Restart lets you terminate the current debug session and open a new one. When the new session opens, Rapid SQL prompts you for new input parameters.

Restart

To restart the debugger, do the following:

1 On the **Debug** menu, click **Restart**.

OR

On the **DDL Editor** toolbar, click **Restart**.

OR

In the **DDL Editor** window, right-click and then click **Restart**.

OR

Press **CTRL+SHIFT+F5**.

The Embarcadero SQL Debugger for Microsoft restarts the debug session.

Break

After you open a debugging session, Break lets you pause the debug session.

Break

To pause the debugger, do the following:

1 On the **Debug** menu, click **Break**.

OR

On the **DDL Editor** toolbar, click **Break**.

OR

In the **DDL Editor** window, right-click and then click **Break**.

The Embarcadero SQL Debugger for Microsoft suspends the debug session.

Close

After you open a debugging session, Close lets you close the DDL Editor and the Embarcadero SQL Debugger for Microsoft.

Close

1 On the **DDL Editor** toolbar, click **Close**.

OR

In the upper right corner of the window, click **Close**.

OR

In the **DDL Editor** window, right-click and then click **Close**.

The Embarcadero SQL Debugger for Microsoft closes the debug session.

Using the Embarcadero SQL Debugger for Microsoft

This section offers a general overview of how to use Embarcadero SQL Debugger for Microsoft's full range of debugging functionality. After you open a debugging session for any procedure or trigger, you can begin debugging.

For more detailed information, see Debugging a Sample Script.

Opening a Debugging Session

When you open a debugging session, Rapid SQL opens the five windows of the Embarcadero SQL Debugger for Microsoft interface. If the target script requires input parameters, Rapid SQL opens a Procedure Execution dialog box and prompts you for the necessary input parameters before displaying the target code in the SQL Editor window. When Rapid SQL displays the target script in the SQL Editor window, you can begin debugging.

NOTE: Rapid SQL Embarcadero SQL Debugger for Microsoft only lets you debug the SQL script of procedures or triggers.

Opening a Debugging Session

To debug a trigger or procedure, do the following:

1 On the **Explorer Tab**, click the node of the target procedure.

Rapid SQL opens the node and displays two items: Code and Privileges.

2 Under the target object node, double-click **Code**.

Rapid SQL opens a DDL Editor *displaying the code of the target object*.

3 On the **Debug** menu, click **Start Debugging**.

OR

On the **SQL Editor** toolbar, click **Debug**.

OR

In the **DDL Editor** window, right-click and then click **Debug**.

OR

Press **CTRL+F5**.

If the script requests input parameters, Rapid SQL opens a Procedure Execution dialog box. If the script does not require input parameters, Rapid SQL displays the script in the DDL Editor window for you to begin debugging.

NOTE: You cannot use the Embarcadero SQL Debugger for Microsoft until it has fully initialized.

4 In the **Procedure Execution** dialog box, specify the appropriate parameters, and then click **Continue**.

Rapid SQL displays the script in the DDL Editor window for you to begin debugging.

Debugging an SQL Script

After you open a debugging session and enter any required input parameters, you can begin working with your script in the Embarcadero SQL Debugger for Microsoft.

Debugging an SQL Script

To debug a SQL script, do the following:

1 On the **Debug** menu, click one of the Embarcadero SQL Debugger for MSSQL Server options (Step Into, Step Over, and so forth) or click **Go**.

OR

On the **DDL Editor** toolbar, click one of the Embarcadero SQL Debugger for MSSQL Server options (Step Into, Step Over, and so on) or click **Go**.

NOTE: You can monitor the progress of your debug session in the Variables window.

2 On the **Debug** menu, click **Breakpoint**.

OR

On the **DDL Editor** toolbar, click **Breakpoint**.

OR

Press **F9**.

NOTE: When you set a breakpoint, the Call Stack window shows what was called before the breakpoint.

NOTE: You can use the Run to Cursor option to test the lines of code between a breakpoint and your cursor (indicated by the yellow arrow in the DDL Editor).

3 To check your variables, do the following:

   1) In the **DDL Editor**, click a variable in your script and drag it to the **Watch** window.

   2) In the **Watch** window, change the value of the watch variable and then click **Go** to run your script and see the results of the new value.

4 To check a record in stored objects, do the following:

   1) Drag the record to the **Watch** window.

   2) In the **Watch** window, change the value of the record, then click **Go** to run your script and see the results of the new value.

5 To check the dependencies, do the following:

   1) In the **Dependency Tree** window double-click the target dependent object to extract the code into a new **DDL Editor**.

   2) **Step through** the script while monitoring the Dependency Tree window.

6 When you finish debugging the script, click **Close**.

   Rapid SQL closes the T-SQL Debugger DDL Editor.

   NOTE: When you exit a debug session and reenter it, the Embarcadero SQL Debugger for MSSQL retains any watch variables or breakpoints you have set.

Debugging a Sample Script

This walk-through demonstrates basic debugging functionality. During the course of this walk-through you debug two procedures using the Embarcadero SQL Debugger for Microsoft.

This section is divided into the following seven sections, each designed to familiarize you with basic debugging features and functionality:

- Getting Started
- Testing a Procedure
- Starting the Debugging Session
- Breakpoints
- Step Into
- Step Out
- Correcting the Script

Getting Started

This part of Debugging the Sample Script explains how to create the following two procedures to be used for debugging:

- check_modulo
- calculate_sum_with_overflow_bug

  NOTE: The procedure calculate_sum_with_overflow_bug intentionally includes a bug which prevents it from executing successfully. You use the Embarcadero SQL Debugger for Microsoft to identify this bug.

Overview

The Getting Started section guides you through:

- Creating procedure 1.
- Creating procedure 2.
- Confirming the creation of the procedures.

Creating Procedure 1

Procedure 1, check_modulo, calculates the modulo of any two user-specified numbers. The user passes the numbers into the procedure as input parameters. The procedure returns the result as an output parameter. If the modulo equals zero, procedure execution returns the output “YES”. If the modulo is not zero, procedure execution returns the output “NO”. This procedure is nested in the second procedure, calculate_sum_with_overflow_bug.

To create this procedure, you must open Rapid SQL, connect to a MSSQL datasource, open a new SQL editor and, in the SQL editor, type or copy and paste the following code:

```
CREATE PROCEDURE username.check_modulo
@p_dividend_in  INT,
@p_divisor_in  INT,
@result VARCHAR(3)OUTPUT
AS
IF @p_dividend_in % @p_divisor_in = 0
    SELECT @result = 'YES'
ELSE
SELECT @result = 'NO'
go
```

NOTE: For the purposes of this walk-through, this procedure was created under the user name Spence. Before executing the DDL above, substitute your user name for the word “username”.

Creating Procedure 1

To create Procedure 1, do the following:

1. Start **Rapid SQL**.
2. Connect to a Microsoft SQL Server 7.0 datasource.
3. On the **Datasource** menu, click the database node and then click the target database.

   NOTE: For this walk-through, we recommend that you select a non-production database.

4. On the **Main** toolbar, click **New**.

   OR

   On the **File** menu, click **New**, and then click **SQL**.

   OR

   Press **CTRL+N**.

   Rapid SQL opens an SQL Editor in the current workspace.

5. In the **SQL Editor**, type the DDL for procedure **check_modulo**.

   NOTE: You must substitute your user name once in the DDL for this procedure.

6 On the **SQL Editor** toolbar, click **Execute**.

Rapid SQL executes the script and creates Procedure 1, then opens the SQL Editor Results Tab with the results of the script execution. If you were not able to create the procedure, check the error messages to determine the problem.

Creating Procedure 2

Procedure 2, calculate_sum_with_overflow_bug, requires two user-specified numbers as input parameters. Upon execution, the procedure calculates the sum of the all numbers divisible by five between the two user-specified numbers. This procedure calls sample procedure 1 (check_modulo) to calculate the modulo of the user-specified numbers.

NOTE: The procedure calculate_sum_with_overflow_bug intentionally includes a bug which prevents it from executing successfully. You use the Embarcadero SQL Debugger for Microsoft to identify this bug.

CAUTION: When inputting parameters, you must enter the smaller number in the @p_num1_in int box.

To create this procedure, you must open Rapid SQL, connect to a MSSQL datasource, open a new SQL editor and, in the SQL editor, type or copy and paste the following code:

```
CREATE PROCEDURE username.calculate_sum_with_overflow_bug
@p_num1_in  INT,
@p_num2_in  INT,
@result TINYINT OUTPUT
/*INT-Integer (whole number) data from -2^31 (-2,147,483,648)
  through 2^31 - 1 (2,147,483,647).
  TINYINT-Integer data from 0 through 255.*/
AS
DECLARE @temp INT
DECLARE @temp_1 INT
DECLARE @v_divisor INT
DECLARE @v_condition VARCHAR(3)

SET @temp = @p_num1_in
SET @temp_1 = 0
SET @v_divisor = 5
SET @v_condition = 'NO'

WHILE 1=1
BEGIN

     SELECT @temp = @temp + 1 /*Increase temp starting from p_num1*/

    IF @temp = @p_num2_in /*Check if we reached p_num2*/
        /*If yes, leave the LOOP*/
        BREAK

/*Call Procedure 2 to check if number is divisable by 5*/
EXEC username.check_modulo @temp,@v_divisor,@result=@v_condition output

   IF @v_condition = 'YES'
        SELECT @temp_1 = @temp_1 + @temp

END /*WHILE LOOP*/

SELECT @result = @temp_1

RETURN
go
```

NOTE: For the purposes of this walk-through, this procedure was created under the user name Spence. Before executing the DDL above, substitute your user name for the word “username”.

Creating Procedure 2

To create Procedure 2, do the following:

1 Start **Rapid SQL**.

2 Connect to a Microsoft SQL Server 7.0 datasource.

3 On the **Datasource** menu, click the database node and then click the target database.

NOTE: For this walk-through, we recommend that you select a non-production database.

4 On the **Main** toolbar, click **New**.

OR

On the **File** menu, click **New**, and then click **SQL**.

OR

Press **CTRL+N**.

Rapid SQL opens an SQL Editor in the current workspace.

5 In the **SQL Editor**, type the DDL for procedure **calculate_sum_with_overflow_bug**.

NOTE: You must substitute your user name twice in the DDL for this procedure.

6 On the **SQL Editor** toolbar, click **Execute**.

Rapid SQL executes the script and creates Procedure 2, then opens the SQL Editor Results Tab with the results of the script execution. If you were not able to create the procedure, check the error messages to determine the problem.

Confirming the Creation of the Procedures

After you create Procedure 1 and Procedure 2, you can confirm their creation in Rapid SQL's Database Explorer.

Confirming the Creation of the Procedures

To confirm creation of the procedures, do the following:

1 On the **Explorer Tab**, click the **Explorer** list, and then click **Organize By Owner**.

The Explorer Tab refreshes with the new display configuration.

2 On the **Explorer Tab**, double-click the **Databases** node, and then double-click the target database node.

Rapid SQL displays the list of object owners.

3 Double-click your user name to display a list of your objects.

4 Double-click **Procedures** to display a list of procedures and confirm the creation of **check_modulo** and **calculate_sum_with_overflow_bug**.

You are now ready to begin testing a procedure.

Testing a Procedure

After you confirm the creation of the procedures, you must execute the procedure calculate_sum_with_overflow_bug (which includes a bug) to view its error message. This procedure requires two integer input parameters: @p_num1_in int and @p_num2_in int. For all integers between these two integers, this procedure identifies those divisible by 5, and then returns their sum.

CAUTION: When inputting parameters, you must enter the smaller number in the @p_num1_in int box.

Testing a Procedure

To test a procedure, do the following:

1. On the **Explorer Tab**, right-click **calculate_sum_with_overflow_bug**, and then click **Execute**.

   Rapid SQL opens the Procedure Execution window.

2. In the **Value** column of the **@p_num1_in** row, type **1**.
3. In the **Value** column of the **@p_num2_in** row, type **11**.
4. Click **Execute**.

   Rapid SQL compiles the procedure and opens a Results Tab, displaying the sum 15. There are two numbers between 1 and 11 that are divisible by 5: 5, and 10. The sum of these two numbers is 15.

5. On the **Explorer Tab**, right-click **calculate_sum_with_overflow_bug**, and then click **Execute**.

   Rapid SQL again opens the Procedure Execution window.

6. In the **Value** column of the **@p_num1_in** row, type **100**.
7. In the **Value** column of the **@p_num2_in** row, type **121**.
8. On the **Procedure Execution** window toolbar, click **Execute**.

   Rapid SQL returns an error stating “Arithmetic overflow occurred”. You are now ready to Start the Debugging Session.

Starting the Debugging Session

After you test the procedure, you must open the procedure in Embarcadero SQL Debugger for Microsoft and enter input parameters before debugging. To start a session, do the following:

1. On the **Explorer Tab**, right-click the procedure, **calculate_sum_with_overflow_bug**, and then click **Debug** to start the debug session.

   Rapid SQL extracts the DDL for the procedure into a DDL Editor and opens the Procedure Execution dialog box.

2. In the **Value** column of the **@p_num1_in** row, type **100**.
3. In the **Value** column of the **@p_num2_in** row, type **121**.
4. Click **Continue**.

   Rapid SQL closes the dialog box and opens the Embarcadero SQL Debugger interface, which includes the following five windows:

- DDL Editor
- Watch Window
- Variables Window

>

- Call Stack Window
- Dependency Tree Window

You are now ready to insert breakpoints.

Breakpoints

After you start the debugging session, you must insert a breakpoint into the code of the procedure calculate_sum_with_overflow_bug. Then you must run to the breakpoint. After you run to the breakpoint, Embarcadero SQL Debugger displays a yellow arrow on the red breakpoint icon and populates the Variables Window with values for the following variables:

Variable	Value
@temp	Current number
@p_num2_in	Second input parameter
@p_num1_in	First input parameter
@temp_1	Sum of the numbers, between the input parameters, divisible by 5
@result	Condition of the output parameter
@v_condition	Output parameter
@v_divisor	Divisor

Breakpoints

To insert a breakpoint, do the following:

1 In the **DDL Editor**, scroll to and click the following line:

```
EXEC username.check_modulo @temp,@v_divisor,@result=@v_condition output
```

NOTE: This line is located near the end of the procedure's code.

2 On the **Debug** menu, click **Breakpoint**.

OR

On the **DDL Editor** toolbar, click **Breakpoint**.

OR

In the **DDL Editor** window, right-click and then click **Breakpoint**.

OR

Press **F9**.

Rapid SQL inserts a breakpoint (indicated by dot) next to the number of the target line.

3 On the **Debug** menu, click **Go**.

OR

On the **DDL Editor** toolbar, click **Go**.

OR

In the **DDL Editor** window, right-click and then click **Go**.

OR

Press **F5**.

Rapid SQL Embarcadero SQL Debugger for Microsoft displays the value of the variables before the breakpoint in the Variables Window.

You are now ready to Step Into the code.

Step Into

After setting the breakpoint, you must step into the dependent procedure, check_modulo.To step into the dependent procedure, do the following:

1 On the **Debug** menu, click **Step Into**.

OR

On the **DDL Editor** toolbar, click **Step Into**.

OR

In the **DDL Editor** window, right-click and then click **Step Into**.

OR

Press **F11**.

Rapid SQL extracts the DDL for the dependent, nested procedure into the DDL Editor.

2 Step Into again.

Rapid SQL executes the next part of the code and displays the values for the variables in the Variables Window.

The Call Stack Window displays calls to the procedures.

You are now ready to Step Out of the code.

Step Out

After you Step Into the modulo_check (nested procedure) code, you must step back out and return to the calculate_sum_with_overflow_bug (outside procedure) code. To step back out and return, do the following:

1 On the **Debug** menu, click **Step Out**.

OR

On the **DDL Editor** toolbar, click **Step Out**.

OR

In the **DDL Editor** window, right-click and then click **Step Out**.

OR

Press **SHIFT+F11**.

Rapid SQL opens the DDL Editor containing the code for calculate_sum_with_overflow_bug.

2 On the **Debug** menu, click **Go**.

OR

On the **DDL Editor** toolbar, click **Go**.

OR

In the **DDL Editor** window, right-click and then click **Go**.

OR

Press **F5**.

When the value of the variable, @temp is equal to the value of the variable, @p_num2_in, the WHILE LOOP is complete and the Embarcadero SQL Debugger for Microsoft continues to the next executable statement in the code.

3 While monitoring the value of the variables in the **Variables Window**, continue to click **Go** to cycle through the WHILE LOOP.

After executing the SELECT and RETURN statements, Rapid SQL closes the Debugger and opens a DDL Editor to the Results Tab.

Now you are ready to correct the script.

Correcting the Script

When you finished Stepping Out of the nested code and encounter the error, you must do the following to fully fix the bug:

- Locate the source of the error
- Scroll to the line in the script displaying the error
- Analyze the code
- Correct the error
- Compile the corrected script

When you first executed the procedure, Rapid SQL displayed the error message “Arithmetic overflow error for data type tinyint, value = 450”. According to *Microsoft SQL Server Books Online:* “This error occurs when an attempt is made to convert a float or real data type value into a data type that cannot store the result. This error prevents the operation from being completed.”

The data type used in this procedure (TINYINT) stores values from 0 to 255. The sum of the four numbers between 100 and 121 that are divisible by 5 (105, 110, 115, and 120) is 450. But because the TINYINT variable @result can only accept a maximum value of 255, Rapid SQL returns the error message and the procedure fails.

Correcting the Script

To correct the script, do the following:

1. On the **Explorer Tab**, right-click **calculate_sum_with_overflow_bug**, and then click **Extract**.

   Rapid SQL extracts the DDL for the procedure into a DDL Editor.

2. On the **Edit** toolbar, click **Find**.

   Rapid SQL opens the Find dialog box.

3. In the **Find What** box, type **TINYINT**.

4. Click **Find Next**.

   Rapid SQL selects the first occurrence of TINYINT.

5. Change the data type for @result from **TINYINT** to **INT**.

6. On the **DDL Editor** toolbar, click **Execute** to execute the modified script.

   Rapid SQL executes the script and opens the Results Tab.

7. On the **Explorer Tab**, right-click **calculate_sum_with_overflow_bug**, and then click **Execute**.

   Rapid SQL opens the Procedure Execution dialog box.

8. In the **Value** column of the **@p_num1_in** row, type **100**.

9. In the **Value** column of the **@p_num2_in** row, type **121**.

10. Click **Execute**.

    Rapid SQL executes the procedure with the new data type and opens the Results Tab, returning the value 450. You successfully corrected the script and debugged the procedure.

Embarcadero SQL Debugger for Oracle

Embarcadero SQL Debugger for Oracle is a programming tool that lets you debug functions, procedures and triggers for Oracle versions 7.3.3 or later.

Objects

Using Embarcadero SQL Debugger for Oracle, you can debug the following objects:

- Functions
- Procedures
- Triggers

>

You can only debug triggers by debugging the functions or procedures that call them. You cannot debug packages, but you can debug the functions and procedures within packages.

NOTE: You cannot debug any objects contained in the Exclusion List.

TIP: The Code Analyst is a tool to identify time-consuming lines of code. Code Analyst lets you perform detailed response time analysis on the execution of Procedures and Functions.

The table below describes the sections of this chapter:

Section	Description
Features	This section describes how the Embarcadero SQL Debugger for Oracle helps you identify problems within your code.
Interface	This section describes the Embarcadero SQL Debugger for Oracle graphical interface that includes an editor window and four debug view windows.
Functionality	This section describes the functions of the Embarcadero SQL Debugger for Oracle.
Using Embarcadero Debugger for Oracle	This section describes how to run a debug session.

Debugging Features

Embarcadero SQL Debugger for Oracle is designed to help identify problems within your code. Embarcadero SQL Debugger for Oracle lets you:

- Interactively step through the flow of script execution.
- Examine the value of variables.
- Solve logical problems with your script design.

Embarcadero SQL Debugger for Oracle offers fundamental debugging features, an Oracle Exclusion List and several options to help fine tune debugging, as listed in the table below:

Debugging Feature	Description
Step Into	Lets you execute each instruction step-by-step and step inside a stored object if the object is not on the Exclusion List.
Step Out	Lets you stop stepping through the current object and execute the remainder of the script. This option is only active when the pointer indicates a child-dependent instruction.
Step Over	Lets you execute the current instruction without stepping into any child dependents.
Breakpoints	A position in a program where the debugger stops execution.

To set specific Debugger values on the Options Editor, see Debugger Options.

Exclusion List

Upon installation, Rapid SQL sets up an Exclusion List on your computer which includes packages that the application cannot debug. The Exclusion List is located in the Rapid SQL directory, at the default installation location C:\Program Files\Embarcadero\Nov2001Shared\deborcex.etd. You can add or remove packages from this file by editing the Exclusion List.

Editing the Exclusion List

To Edit the Exclusion List, do the following:

1. Open the Exclusion List, **deborcex.etd,** in a text editor, such as Notepad or WordPad.
2. To add a package, enter the name of the package at the end of the list. Use the following format: OWNER.OBJECT_NAME.

   NOTE: There must be a carriage return after each item on the list.

3. To remove a package from the Exclusion List, delete the package from the list.

   NOTE: Embarcadero SQL Debugger for Oracle does debug a package procedure listed on the Exclusion List.

4. Save the changes to **deborcex.etd**.

Embarcadero SQL Debugger for Oracle Options

You can specify PL/SQL Debugger options from the Debug Tab of Rapid SQL's Options editor. The Debug Tab of the Options Editor lets you set the duration of your debug initialization and debug session, enable DBMS output, and refresh dependencies.

Setting Debugger Options

To set debugger options, do the following:

1. On the **File** menu, click **Options**.

   OR

   On the **Main** toolbar, click **Options**.

   Rapid SQL opens the Options Editor.

2. On the **Debug Tab**, specify debugger options. The table below describes the options available:

Option	Description	Default
Initialization Timeout (seconds)	Specifies the number of seconds Rapid SQL tries to initialize the debugger. If it cannot initialize the debugger in the specified time, a message displays in the Debug Output window.	60
Debug Session Timeout (seconds)	Specifies, in seconds, the length of your debug session.	7200
Enable DBMS Output	Toggles the print output. Enable this option if you use dbms_output.put_line calls in your procedures and you want these lines displayed.	Selected
Refresh Dependencies for each run	Refreshes dependencies for each run. This potentially time-consuming process is useful if the target procedure has rapidly varying dependencies that can require updating during the debugging process.	Cleared

3 Click **Close**.

Rapid SQL closes the Options Editor.

Embarcadero SQL Debugger for Oracle Interface

Embarcadero SQL Debugger for Oracle has a graphical interface that includes an editor window and four debug view windows. When you open a debug session, Rapid SQL extracts the code for the object into an SQL Editor and opens four debug view windows at the bottom of the screen.

> **TIP:** All Embarcadero debuggers display Performance Metrics that let you measure the execution time of each statement in the debug session.

The four debug view windows are optional, dockable, floatable windows designed to help debug your script. Embarcadero SQL Debugger for Oracle's five windows are:

- SQL Editor window
- Watch window
- Variables window
- Call Stack window
- Dependency Tree window

Working with Embarcadero SQL Debugger Windows

Rapid SQL lets you resize, move, dock and float the following Debugger windows:

- Watch
- Variables
- Call Stack
- Dependency Tree

To work with the above windows, do the following:

1 To resize the target window, click its frame and drag it

Rapid SQL resizes the window.

2 To move and dock the target window, click its grab bar and drag it.

Rapid SQL moves the window to its new location and docks it with surrounding windows.

3 To float the target window, press **Shift**, then click its grab bar and drag it.

Rapid SQL frames the window in its own floating frame and moves the window to its new location.

SQL Editor Window

Embarcadero SQL Debugger for Oracle provides an SQL Editor window that displays your code in Read-Only format. When you start debugging, Embarcadero SQL Debugger for Oracle extracts your code into an SQL Editor window, making it editable. The SQL Editor uses the default Rapid SQL syntax coloring.

> **NOTE:** Rapid SQL displays LOB datatypes, and REF CURSOR variables, in the Results Tab.

Watch Window

Embarcadero SQL Debugger for Oracle provides a Watch window that displays the watch variables for the database object you are debugging and lets you specify variables you want to evaluate or modify while debugging your program. For example, to check what happens when a variable (x) has a value of 100, you can double-click that variable in the SQL Editor, drag it into the Watch window, and change the value to 100. When you execute the script, the debugger uses the value x=100. This window is only visible when the PL/SQL Debugger is active.

NOTE: You can type a fully qualified record variable into the Watch window.

NOTE: When you exit a debug session and reenter it, the Embarcadero SQL Debugger for Oracle retains any watch variables or breakpoints you have set.

Opening and Closing the Watch Window

To open and close the Watch Window, do the following:

1 On the **Debug Menu**, on the **Debug Views** sub-menu, select or clear **Watch**.

OR

Press **ALT+3**.

Setting a Watch Variable

To set a Watch Variable, do the following:

1 In the **SQL Editor,** double-click the target variable and drag it to the **Watch** window**.**

2 In the **Watch** window**,** change the value of the variable.

3 On the **SQL Editor** toolbar, click **Go**.

Rapid SQL executes the script using the new value of the variable.

Removing a Watch Variable

1 In the **Watch** window, click the target variable and press **DELETE**.

Variables Window

Embarcadero SQL Debugger for Oracle provides a Variables window that displays the local variables and their current values during script execution. You cannot edit variables in the Variables window. This window is only visible when the Debugger is active. If the SQL Editor displays an external database object, and that object is a dependent of the object you are debugging, then the Variables window automatically refreshes and displays the variables for that particular object.

The Embarcadero SQL Debugger for Oracle also lets you monitor the value of your variables while debugging.

Opening and Closing the Variables Window

To open and close the Variables Window, do the following:

1 On the **Debug Menu**, on the **Debug Views** sub-menu, select or clear **Variable**.

OR

Press **ALT+4**.

Monitoring Variables

To monitor the values of your variables while debugging, do the following:

1 In the **SQL Editor**, hold the pointer over the target variable.

Rapid SQL opens a ScreenTip displaying the current value of that variable.

Call Stack Window

Embarcadero SQL Debugger for Oracle provides a Call Stack window that displays the stack of currently active function calls. The Call Stack window is only visible when the PL/SQL Debugger is active.

Opening and Closing the Call Stack Window

To open and close the Call Stack Window, do the following:

1 On the **Debug Menu**, on the **Debug Views** sub-menu, select or clear **Call Stack**.

OR

Press **ALT+5**.

Using the Call Stack Window

To display a line of code that references the call in the SQL Editor, do the following:

1 In the **Call Stack** window, double-click the target line.

In the SQL Editor, Rapid SQL displays a green arrow on the line of the referenced call.

Dependency Tree Window

Embarcadero SQL Debugger for Oracle provides a Dependency Tree window that displays any external database objects the script accesses. Rapid SQL displays these database objects in a hierarchical tree, with the child objects as database objects accessed by the parent objects. You can use this window to display the code for a dependent database object in the SQL Editor window. This window is only visible when the Debugger is active.

Opening and Closing the Dependency Tree Window

To open and close the Dependency Tree Window, do the following:

1 On the **Debug Menu**, on the **Debug Views** sub-menu, select or clear **Dependencies**.

OR

Press **ALT+6**.

Displaying Dependencies

To display the code for a dependent database object in the SQL Editor window, do the following:

1 In the **Dependency Tree** window, double-click the target object.

Rapid SQL displays the SQL of the target object in the SQL Editor window.

Embarcadero SQL Debugger for Oracle Functionality

Embarcadero SQL Debugger for Oracle offers you the following functionality:

- Input Parameters
- Step Into
- Step Out
- Step Over
- Run to Cursor
- Insert or Remove Breakpoint
- Toggle Breakpoint
- Go
- Stop
- Restart
- Break.
- Close

To make use of the above functionality, you must first open a debugging session.

Input Parameters

Input parameters are set when you first create an object. If the object you want to debug requires input parameters, Rapid SQL opens a Function, Procedure, or Trigger Execution dialog box and prompts you for the input parameters when you open a debugging session.

This dialog box also lets you:

- Save input parameters as *.prm files to preserve specific input parameter configurations.
- Open *.prm files to save the effort of reentering specific input parameters.
- Reset parameters to their default setting.

The table below describes the options and functionality on Procedure Execution dialog box:

The following table describes the options available in this dialog box:

Dialog box component	Description
Owner drop-down list	Displays the current procedure's owner
Procedure drop-down list	Displays the name of the current procedure.
Parameter window	Specify the required input parameters in this window. If input parameters are not required for the execution of the target procedure, a message appears in this window, stating that the procedure "has no input parameters. Press execute to run it."
Open button	Click to open an Open dialog box, from which you can open an existing *.prm file. The saved parameters immediately populate the dialog box upon opening.
Save button	Click to save the values of your input parameters as a *.prm file. You can reopen a saved *.prm file from this dialog box at any time.
Reset button	Click to reset the parameters in the Parameter window to their default values.

Dialog box component	Description
Execute button	Click to execute the procedure once you have entered values for all required parameters in the Parameter window.

Option	Description
Owner	Displays the current procedure's owner.
Procedure	Displays the name of the current procedure.
Parameter	Specify the required input parameters in this window. If input parameters are not required for the execution of the target procedure, a message displays in this window, stating that the procedure "has no input parameters. Press execute to run it."
Open	Click to open an existing *.prm file. The saved parameters immediately populate the dialog box upon opening.
Save	Click to save the values of your input parameters as a *.prm file. You can reopen a saved *.prm file from this dialog box at any time.
Reset	Click to reset the parameters in the Parameter window to their default values.
Continue	Click to execute the procedure once you have entered values for all required parameters in the Parameter window.

NOTE: You cannot debug a script that requires input parameters until you provide input parameters.

Step Into

After you open a debugging session, Step Into lets you execute the current instruction. If the current instruction makes a call to a stored Oracle object, Embarcadero SQL Debugger for Oracle steps inside the nested child object.

NOTE: Oracle 7.3 has problems running the debugger on an object with cursors.

Step Into

To use the Step Into facility, do the following:

1 On the **Debug** menu, click **Step Into**.

OR

On the **SQL Editor** toolbar, click **Step Into**.

OR

In the **SQL Editor** window, right-click and then click **Step Into**.

OR

Press **F11**.

Embarcadero SQL Debugger for Oracle moves the arrow to execute the current instruction.

Step Out

After you open a debugging session, Step Out lets you execute the remainder of the dependent child object and resumes line-by-line, step-debugging in the parent object.

NOTE: Step Out is only active when the pointer indicates a child-dependent instruction.

NOTE: Oracle 7.3 has problems running the debugger on an object with cursors.

Step Out

To use the Step Out facility, do the following:

1 On the **Debug** menu, click **Step Out**.

OR

On the **SQL Editor** toolbar, click **Step Out**.

OR

In the **SQL Editor** window, right-click and then click **Step Out**.

OR

Press **SHIFT+F11**.

Embarcadero SQL Debugger for Oracle stops stepping through the current object and executes the remainder of the script.

Step Over

After you open a debugging session, Step Over lets you execute the current instruction without stepping into a nested child object if the instruction makes a call to a dependent object.

NOTE: Oracle 7.3 has problems running the debugger on an object with cursors.

Step Over

To use the Step Over facility, do the following:

1 On the **Debug** menu, click **Step Over**.

OR

On the **SQL Editor** toolbar, click **Step Over**.

OR

In the **SQL Editor** window, right-click and then click **Step Over**.

OR

Press **F10**.

Embarcadero SQL Debugger for Oracle executes the current instruction.

Run to Cursor

After you open a debugging session, Run to Cursor lets you execute all instructions between the yellow arrow and your cursor.

Run to Cursor

To use the Run to Cursor facility, do the following:

1 Scroll down from the yellow arrow to the target line.

2 Click the target line.

Embarcadero SQL Debugger for Oracle places the cursor on the target line.

3 On the **Debug** menu, click **Run to Cursor**.

OR

On the **SQL Editor** toolbar, click **Run to Cursor**.

OR

In the **SQL Editor** window, right-click and then click **Run to Cursor**.

OR

Press **CTRL+F10**.

Embarcadero SQL Debugger for Oracle executes all instructions between the pointer and your cursor.

Insert or Remove a Breakpoint

A breakpoint is a position in a program where a debugger stops execution. When you start debugging, Embarcadero SQL Debugger for Oracle opens the script in an SQL Editor window. A yellow pointer indicates which line the Debugger executes next. Embarcadero SQL Debugger for Oracle executes all lines of code between the pointer and the first breakpoint. If no breakpoints are present, Embarcadero SQL Debugger for Oracle debugs the entire script.

While debugging, you can set one or more breakpoints in the currently executing object or in any object in the program call stack. Breakpoints can be toggled, temporarily disabled, or enabled, without having to add or remove them. Embarcadero SQL Debugger for Oracle displays each enabled breakpoint as a red dot in the left margin of the SQL Editor Window, and each disabled breakpoint as a red circle.

Rapid SQL stores all breakpoints you set, so that when you debug the same script on separate occasions, you can reuse the same breakpoints.

After you open a debugging session, you can insert a breakpoint on the line where your cursor is located, and you can remove a breakpoint on the line where your cursor is located.

NOTE: Script execution stops at the first breakpoint.

>

Inserting or Removing a Breakpoint

To insert and remove a breakpoint, do the following:

1. In the **SQL Editor** window, click the target line of SQL.
2. On the **Debug** menu, click **Breakpoint**.

   OR

   On the **SQL Editor** toolbar, click **Breakpoint**.

   OR

   In the **SQL Editor** window, right-click and then click **Breakpoint**.

   OR

   Press **F9**.

   Embarcadero SQL Debugger for Oracle inserts a new breakpoint or removes an existing breakpoint on the target line of code.

Toggle Breakpoint

After you open a debugging session and insert a breakpoint, Toggle Breakpoint lets you enable or disable that breakpoint. Embarcadero SQL Debugger for Oracle displays each enabled breakpoint as a red dot in the left margin of the SQL Editor Window, and each disabled breakpoint as a red circle. You can toggle any breakpoint in the SQL Editor window. When you exit a debugging session and reenter it, the Embarcadero SQL Debugger for Oracle retains any breakpoints you set.

Toggling a Breakpoint

To toggle a breakpoint, do the following:

1. In the **SQL Editor** window, click the line of the target breakpoint.
2. On the **Debug** menu, click **Enable/Disable Breakpoint**.

   OR

   On the **SQL Editor** toolbar, click **Enable/Disable Breakpoint**.

   OR

   In the **SQL Editor** window, right-click and then click **Enable/Disable Breakpoint**.

   OR

   Press **CTRL+F9**.

   Embarcadero SQL Debugger for Oracle toggles the breakpoint indicated by the pointer.

Go

After you open a debugging session, Go lets you execute all instructions, stopping only when it encounters a breakpoint or when the program is complete.

>

Go

Go use the Go facility, do the following:

1 On the **Debug** menu, click **Go**.

OR

On the **SQL Editor** toolbar, click **Go**.

OR

In the **SQL Editor** window, right-click and then click **Go**.

OR

Press **F5**.

Embarcadero SQL Debugger for Oracle executes all instructions.

Stop

After you open a debugging session, Stop lets you halt the script execution and terminate the session.

Stop

To stop the debugger, do the following:

1 On the **Debug** menu, click **Stop Debugging**.

OR

On the **SQL Editor** toolbar, click **Stop Debugging**.

OR

In the **SQL Editor** window, right-click and then click **Stop Debugging**.

OR

Press **SHIFT+F5**.

Embarcadero SQL Debugger for Oracle stops the script execution and terminates the session.

Restart

After you open a debugging session, Restart lets you terminate the current debug session and open a new one. When the new session opens, Rapid SQL prompts you for new input parameters.

Restart

To restart the debugger, do the following:

1 On the **Debug** menu, click **Restart**.

OR

On the **SQL Editor** toolbar, click **Restart**.

OR

In the **SQL Editor** window, right-click and then click **Restart**.

OR

Press **CTRL+SHIFT+F5**.

Embarcadero SQL Debugger for Oracle restarts the debug session.

Break

After you open a debugging session, Break lets you pause the debug session.

Break

To pause the session, do the following:

1 On the **Debug** menu, click **Break**.

OR

On the **SQL Editor** toolbar, click **Break**.

OR

In the **SQL Editor** window, right-click and then click **Break**.

Embarcadero SQL Debugger for Oracle suspends the debug session.

Close

After you open a debugging session, Close lets you close the SQL Editor and the Embarcadero SQL Debugger for Oracle.

Close

To close the SQL Editor and the debugger, do the following:

1 On the **SQL Editor** toolbar, click **Close**.

OR

In the upper right corner of the window, click **Close**.

OR

In the **SQL Editor** window, right-click and then click **Close**.

Embarcadero SQL Debugger for Oracle closes the debug session.

Using the Embarcadero SQL Debugger for Oracle

This section offers a general overview of how to use Embarcadero SQL Debugger for Oracle's full range of debugging functionality. After you open a debugging session for any Oracle procedure or function, you can begin debugging.

For more detailed information, see Debugging a Sample Script.

Opening a Debugging Session

When you open a debugging session, Rapid SQL opens the five windows of the Embarcadero SQL Debugger for Oracle interface. If the target script requires input parameters, Rapid SQL opens a Procedure or Function Execution dialog box and prompts you for the necessary input parameters before displaying the target code in the SQL Editor window. When Rapid SQL displays the target script in the SQL Editor window, you can begin debugging.

NOTE: Embarcadero SQL Debugger for Oracle only lets you debug the SQL script of functions, triggers and procedures.

Opening a Debugging Session

To debug a function, trigger or procedure, do the following:

1. On the **Explorer Tab**, click the node of the target function, trigger, or procedure.

   Rapid SQL opens the node and displays two items: Code and Privileges.

2. Under the target object node, double-click **Code**.

   Rapid SQL opens an SQL editor displaying the code of the target object.

3. On the **Debug** menu, click **Start Debugging**.

   OR

   On the **SQL Editor** toolbar, click **Debug**.

   OR

   In the **SQL Editor** window, right-click and then click **Debug**.

   OR

   Press **CTRL+F5**.

   If the script requests input parameters, Rapid SQL opens the Procedure or Function Execution dialog box. If the script does not require input parameters, Rapid SQL displays the script in the SQL Editor window for you to begin debugging.

   NOTE: You cannot use the Embarcadero SQL Debugger for Oracle until it has fully initialized.

4. In the **Procedure or Function Execution** dialog box, specify the appropriate parameters, and then click **Continue**.

   Rapid SQL displays the script in the SQL Editor window for you to begin debugging.

   NOTE: If the script requires Oracle types (tables, records, or Booleans) as input parameters, the PL/SQL Debugger generates an anonymous block.

Debugging an SQL Script

After you open a debugging session and enter any required input parameters, you can begin working with your script in the Debugger.

Debugging an SQL Script

To debug an SQL script, do the following:

1 On the **Debug** menu, click one of the PL/SQL Debugger options (Step Into, Step Over, and so forth) or click **Go**.

OR

On the **SQL Editor** toolbar, click one of the PL/SQL Debugger options (Step Into, Step Over, and so on) or click **Go**.

NOTE: You can monitor the progress of your debug session in the Variables window.

2 On the **Debug** menu, click **Breakpoint**.

OR

On the **SQL Editor** toolbar, click **Breakpoint**.

OR

Press **F9**.

NOTE: When you set a breakpoint, the Call Stack window shows what was called before the breakpoint.

NOTE: You can use the Run to Cursor option to test the lines of code between a breakpoint and your cursor (indicated by the yellow arrow in the SQL Editor).

3 To check your variables, do the following:

1) In the **SQL Editor**, click a variable in your script and drag it to the **Watch** window.

2) In the **Watch** window, change the value of the watch variable and then click **Go** to run your script and see the results of the new value.

4 To check record in stored objects, do the following:

1) Drag the record to the **Watch** window.

2) In the **Watch** window, change the value of the record, then click **Go** to run your script and see the results of the new value.

5 To check the dependencies, do the following:

1) In the **Dependency Tree** window double-click the target dependent object to extract the code into a new **SQL Editor**.

2) **Step through** the script while monitoring the Dependency Tree window.

6 When you finish debugging the script, click **Close**.

Rapid SQL closes the PL/SQL Debugger SQL Editor.

NOTE: When you exit a debug session and reenter it, the Embarcadero SQL Debugger for Oracle retains any watch variables or breakpoints you have set.

Debugging a Sample Script

The Rapid SQL installation includes a sample script intended to walk you through basic debugging functionality. The sample script creates a package that includes functions and procedures that you debug.

NOTE: To create the sample package, you must have CREATE privileges.

Overview

Debugging a Sample Script is divided into three sections that will familiarize you with basic debugging features and functionality. These sections are:

- **Getting Started**, which guides you through creating the package you will use in Debugging Sample Script 1 and Debugging Sample Script 2.
- **Debugging Sample Script 1**, which guides you through debugging functionality and demonstrates the Embarcadero SQL Debugger for Oracle interface features.
- **Debugging Sample Script 2**, which guides you through debugging functionality and error correction.

NOTE: For the purposes of this walk-through we have created this package under the user name DEMO_SPENCE.

Getting Started

The Rapid SQL installation includes a sample script that you execute to create a package containing functions and procedures. These functions and procedures demonstrate basic debugging features available in the Embarcadero SQL Debugger for Oracle

NOTE: To create the sample package, you must have CREATE privileges.

The Rapid SQL installation places the script in the C:\Program Files\Embarcadero\RSQL600\UsrScrpt directory.

NOTE: The default for the Rapid SQL directory is C:\Program Files\Embarcadero. If you changed the default, the sample script will still be located in the RSQL600\UsrScrpt directory.

If you create the package included with the Rapid SQL installation, you can delete it and its objects from your system when you finish working with them. The objects to delete are as follows:

- The package COUNT_TIME_INTERVAL
- The package function WEEKEND_DAYS_( )
- The package function WORKING_DAYS_( )
- The package function YEARS_ELAPSED_BETWEEN_( )
- The procedure YEARS_ELAPSED
- The procedure YEARS_ELAPSED_Y2K

Overview

The Getting Started section guides you through:

- Opening the sample debug script.
- Executing the sample debug script.
- Changing the Explorer Tab display.
- Confirming the creation of the package, including its functions and procedures.

Getting Started

1 Start **Rapid SQL**.

2 On the **File** menu, click **Open**.

Rapid SQL opens the Open File(s) dialog box.

3 In the **Open File(s)** dialog box, go to **RSQL600\UsrScrpt\DEBUGGER_DEMO.sql**, and then click **Open**.

NOTE: During the installation Rapid SQL places DEBUGGER_DEMO.sql in the following directory: C:\Program Files\Embarcadero\RSQL600\UsrScrpt.

Rapid SQL opens the What type of file dialog box.

4 On the **What type of file** dialog box, click **The file includes the DDL to create a database object**, and then click **OK**.

Rapid SQL opens the target script in an SQL Editor.

5 On the **SQL Editor** toolbar, click **Execute** to execute the script and create the package.

Rapid SQL executes the target script and opens the SQL Editor Results Tab, displaying the results of the script execution. If you were not able to create the package, check the error messages to determine the problem.

6 On the **Explorer Tab** list, click **Organize by Owner**.

Rapid SQL displays a list of owners in the Database Explorer.

7 On the **Explorer Tab**, double-click your owner name.

Rapid SQL displays a list of your schema objects.

8 Under your owner node, double-click the **Packages** node.

Rapid SQL displays COUNT_TIME_INTERVAL, confirming the package's creation. You are now ready to begin debugging Sample Script 1 and Sample Script 2.

Debugging Sample Script 1

Sample Script 1 demonstrates Embarcadero SQL Debugger for Oracle's basic features and functionality with the function WORKING_DAYS( ), which counts the number of business days between two dates.

Overview

Debugging Sample Script 1 is divided into five parts:

- Starting the Debug Session
- Entering Input Parameters
- Inserting Breakpoints
- Stepping Into
- Viewing Debug Session Results

Sample Script 1 - Starting the Debug Session

After you open and execute DEBUGGER_DEMO.sql, you can begin debugging Sample Script 1. To begin debugging the function WORKING_DAYS( ), you must start a debug session.

>

Starting the Debug Session

To start the debug session, do the following:

1 On the **Explorer Tab**, under the **Packages** node, double-click the **COUNT_TIME_INTERVAL** node.

Rapid SQL opens the COUNT_TIME_INTERVAL node and displays the following items:

2 Under the **COUNT_TIME_INTERVAL** node, double-click **Functions**.

Rapid SQL opens the Functions node and displays the following items:

3 Under the **Functions** node, right-click **WORKING_DAYS ( )**, and then click **Debug** to start the debug session.

Rapid SQL opens the Function Execution dialog box with the current date in the boxes. You are now ready to begin working with input parameters.

Sample Script 1 - Entering Input Parameters

After you start a debugging session, you can enter input parameters. You cannot debug a script that requires input parameters until you input those parameters in the Function Execution dialog box.

Input Parameters

To input parameters, do the following:

4 At the end of the **P_START_DATE DATE** row, click the drop-down arrow.

Rapid SQL opens a calendar.

5 On the calendar, click left arrow to set the month to **November 1999**.

6 Click **1**.

Rapid SQL displays 11/01/1999 in the Value column of P_START_DATE.

7 Click the **P_END_DATE DATE** box, and then click the drop-down arrow.

Rapid SQL opens a new calendar.

8 On the calendar, click left arrow to set the month to **November 1999**.

9 Click **8**.

Rapid SQL displays 11/08/1999 in the Value column of P_END_DATE.

10 Click **Continue**.

Rapid SQL closes the Function Execution dialog box, and then opens the following five Embarcadero SQL Debugger for Oracle interface windows:

- SQL Editor, which displays the SQL code for the function.
- Watch window.
- Variables window.
- Call Stack window.
- Dependency Tree window, which displays the dependent objects.

You are now ready to begin inserting breakpoints.

>

Sample Script 1- Inserting Breakpoints

After you input parameters in the Input Parameters dialog box, you can begin inserting breakpoints. In this example, the breakpoints must be inserted in the extracted dependent object code. After you extract this code, you must locate the target breakpoint lines by searching for the text DBMS_OUTPUT.

Breakpoints

To insert breakpoints, do the following:

1. In the **Dependency Tree** window, double-click the **COUNT_TIME_INTERVAL** package body.

   Rapid SQL displays the SQL code for the package body in the SQL Editor window.

2. On the **Edit** toolbar, click **Find**.

   Rapid SQL opens the Find dialog box.

3. On the **Find** dialog box, in the **Find What** box, type **DBMS_OUTPUT**.

4. Click **Find Next**.

   In the SQL Editor, Rapid SQL highlights the first occurrence of DBMS_OUTPUT, on line 22.

5. On the **SQL Editor** toolbar, click **Breakpoint**.

   Rapid SQL inserts a breakpoint next to the target line number.

6. On the **Find** dialog box, click **Find Next**.

   Rapid SQL highlights the next occurrence of DBMS_OUTPUT.

7. Click **Find Next** a third time.

   Rapid SQL highlights the next occurrence of DBMS_OUTPUT, on line 35.

8. On the **Find** dialog box, click **Cancel**.

   Rapid SQL closes the Find dialog box.

9. On the **SQL Editor** toolbar, click **Breakpoint** to insert a second breakpoint.

   You should now have breakpoints set at lines 22 and 35. You are now ready to begin stepping into the code.

Sample Script 1- Stepping Into

After you insert breakpoints, you can step into the function code.

Step Into

To Step Into the code, do the following:

1. On the **SQL Editor** toolbar, click **Go**.

   Embarcadero SQL Debugger for Oracle begins debugging and runs to the first breakpoint, placing the yellow arrow on line 22.

2. On the **SQL Editor** toolbar, click **Step Into** .

   Embarcadero SQL Debugger for Oracle moves the yellow arrow to the next line of the code.

3. Click **Step Into** again to enter the LOOP block.

   Embarcadero SQL Debugger for Oracle displays the value of the variables in the Variables window.

4 Click **Step Into** again to start moving through the LOOP block.

In the Variables window, Embarcadero SQL Debugger for Oracle updates the value of variable v_currdate from 01-NOV-1999 to 02-NOV-1999.

5 Click **Step Into** two more times.

In the Variables window, Embarcadero SQL Debugger for Oracle updates the value of v_theday from NULL to Tuesday.

NOTE: If you continued stepping through the LOOP block, the Embarcadero SQL Debugger for Oracle would continue to update v_currdate and v_theday until v_currdate is greater than p_end_date.

6 On the **SQL Editor** toolbar, click **Go**.

Embarcadero SQL Debugger for Oracle runs to the next breakpoint.

7 On the **SQL Editor** toolbar, click **Go** once more.

Rapid SQL PL/SQL concludes the debug session and displays the Debug Session Results box.

Sample Script 1 - Viewing Debug Session Results

After Stepping Into and running to the end of the code, Embarcadero SQL Debugger for Oracle displays a Debug Session Results box containing the following information:

- Variable output
- DBMS_OUTPUT

NOTE: In this example, the Embarcadero SQL Debugger for Oracle displays a Debug Session Results box because the sample program includes DBMS_OUTPUT.

Debug Session Results

1 Click **OK**.

Rapid SQL closes the Debug Session Results box and terminates your debug session.

Debugging Sample Script 2

Sample Script 2 demonstrates Embarcadero SQL Debugger for Oracle's functionality when used on a function containing a bug which prevents it from executing successfully. The buggy function, WEEKEND_DAYS( ), requires input parameters and counts the number of weekend days between two dates. In this section you must use Embarcadero SQL Debugger for Oracle to identify the bug, and then correct the script so that it can execute successfully.

Overview

Debugging Sample Script 2 is divided into six parts:

- Executing the Function
- Starting the Debug Session
- Entering Input Parameters
- Inserting Breakpoints
- Stepping Into

- Correcting the Function

Sample Script 2 - Executing the Function

After you open and execute DEBUGGER_DEMO.sql, you can begin debugging Sample Script 2. To begin debugging the function WEEKEND_DAYS ( ), you must first execute the function to discover the type of error it returns when it fails to execute.

Executing the Function

To execute the function, do the following:

1. On the **Explorer Tab**, under the **Packages** node, double-click the **COUNT_TIME_INTERVAL** node.

   Rapid SQL opens the COUNT_TIME_INTERVAL node and displays the following items:

2. Double-click the **Functions** node.

   Rapid SQL opens the Functions node and displays the following items:

3. Click **WEEKEND_DAYS ( )**, then right-click it and click **Execute**.

   Rapid SQL opens the Function Execution dialog box.

4. In the **Value** column of the **P_START_DATE** row, type **11/01/1999**.

5. In the **Value** column of the **P_END_DATE** row, type **11/30/1999**.

6. Click **Execute**.

   Rapid SQL attempts to execute the function but returns an error indicating that the character string buffer is too small.

   You are now ready to start the debug session.

Sample Script 2 - Starting the Debug Session

After you unsuccessfully execute the function WEEKEND_DAYS( ) and Rapid SQL displays the nature of its execution error, you can start a debugging session to determine the actual cause of the error.

Starting the Debugging Session

To start the debugging session, do the following:

1. On the **Explorer Tab**, under the **COUNT_TIME_INTERVAL** node, under the **Functions** node, right-click **WEEKEND_DAYS ( )**, and then click **Debug** to start the debug session.

   Rapid SQL opens the Function Execution dialog box.

   You are now ready to begin entering input parameters.

Sample Script 2 - Entering Input Parameters

After you start the debug session, you can enter input parameters in the Function Execution dialog box.

Entering Input Parameters

To enter the input parameters, do the following:

1. At the end of the **P_START_DATE** row, click the drop-down arrow.

   Rapid SQL opens a calendar.

2. On the calendar, click left arrow to set the month to **November 1999**.

3. Click **1**.

   Rapid SQL displays 11/01/1999 in the Value column of the P_START_DATE row.

4. At the end of the **P_END_DATE** row, click the drop-down arrow.

   Rapid SQL opens a new calendar.

5. On the calendar, click left arrow to set the month to **November 1999**.

6. Click **30**.

   Rapid SQL displays 11/08/1999 in the Value column of the P_END_DATE row.

7. Click **Continue**.

   Rapid SQL closes the Function Execution dialog box, and then opens the following five Embarcadero SQL Debugger for Oracle interface windows:

   - SQL Editor, which displays the SQL code for the function.
   - Watch window.
   - Variables window.
   - Call Stack window.
   - Dependency Tree window, which displays the dependent objects.

   You are now ready to begin inserting breakpoints.

Sample Script 2- Inserting Breakpoints

After you enter input parameters, you can begin inserting breakpoints. In this example, the breakpoints must be inserted in the extracted dependent object code. After you extract this code, you must locate the target breakpoint lines by searching for a particular line of code.

Breakpoints

To insert breakpoints, do the following:

1. In the **Dependency Tree** window, double-click the **COUNT_TIME_INTERVAL** package body.

   Rapid SQL displays the SQL code for the package body in the SQL Editor window.

2. On the **Edit** toolbar, click **Find**.

   Rapid SQL opens the Find dialog box.

3. On the **Find** dialog box, in the **Find What** box, type **Function weekend_days**, and then click **Find Next**.

   Embarcadero SQL Debugger for Oracle highlights the first occurrence of Function weekend_days.

4. On the **Find** dialog box, click **Cancel**.

   Rapid SQL closes the Find dialog box.

5 Click line 60, the first line of executable code:

6 On the **SQL Editor** toolbar, click **Breakpoint**.

Rapid SQL inserts a breakpoint next to the line number.

7 Click **Go** to start debugging and run to the breakpoint.

Embarcadero SQL Debugger for Oracle places the yellow arrow on line 60 and populates the Variables window with the first set of variables in the function code.

Embarcadero SQL Debugger for Oracle also populates the Call Stack window with everything called before the breakpoint.

You are now ready to begin stepping into the function.

Sample Script 2- Stepping Into

After you set and run to the breakpoint, you can step into the function to locate the cause of the error. To locate the cause of the error, you must monitor the Variables window. As you step through the code, the Variables window updates with the value of the variables.

Step Into

To step into the function, do the following:

1 On the **SQL Editor** toolbar, click **Step Into**.

Rapid SQL moves the yellow arrow to the next line of the code, line 64.

2 On the **SQL Editor** toolbar, click **Step Into**.

Embarcadero SQL Debugger for Oracle's Variables window updates the value of v_currdate to 02-NOV-1999.

3 On the **SQL Editor** toolbar, click **Step Into**.

Rapid SQL moves the yellow arrow to the next line of the code, line 66.

4 On the **SQL Editor** toolbar, click **Step Into**.

Rapid SQL moves the yellow arrow to the next line of the code, line 67, and, in the Variables window, updates the value of v_theday to Tuesday.

5 On the **SQL Editor** toolbar, click **Step Into**.

Rapid SQL moves the yellow arrow back to line 64 to repeat the loop.

6 On the **SQL Editor** toolbar, click **Step Into**.

Embarcadero SQL Debugger for Oracle's Variables window updates the value of v_currdate to 03-NOV-1999.

7 On the **SQL Editor** toolbar, click **Step Into**.

Rapid SQL moves the yellow arrow to the next line of the code, line 66.

8 On the **SQL Editor** toolbar, click **Step Into**.

The Embarcadero SQL Debugger for Oracle locates the error. The application terminates the debug session, returns an error indicating that the numeric or value character string buffer is too small, extracts the COUNT_TIME_INTERVAL package code into an SQL Editor, and returns an error indicating the line on which the code failed. You are now ready to correct the script.

Sample Script 2 - Correcting the Script

After you step through the SQL code and locate the error, you can correct the bug in Sample Script 2. When Embarcadero SQL Debugger for Oracle locates an error, it extracts the target package body into an SQL Editor. To correct this script, you must do the following:

- Scroll to the incorrect line in the script
- Analyze the code
- Correct the error
- Execute the corrected SQL script
- Execute the WEEKEND_DAYS ( ) function

The code in Sample Script 2 fails on line 66, returning an error when the variable v_theday increments from the value Tuesday to the value Wednesday. The cause of this error is found in the declarations section of the function script, where the width of the VARCHAR2 variable v_theday is set to 8. Because “Wednesday” includes nine characters, the value of the variable v_theday fails when it attempts to place a nine-character value in an eight-character variable. To correct this error, you must increase the width of the variable v_theday to accommodate nine characters.

Correcting the Script

To correct the script, do the following:

1. On the **Explorer Tab**, under the **Packages** node, under the **COUNT_TIME_INTERVAL**. node, right-click **Package Body**, and then click **Extract**.

   Rapid SQL extracts the package body into an SQL Editor.

2. In the **SQL Editor**, scroll to line 57, the line defining the variable **v_theday**.
3. On line 57, change the value of the width from **8** to **9**.
4. On the **SQL Editor** toolbar, click **Execute** to execute the script.

   Rapid SQL successfully executes the script.

5. On the **Explorer Tab**, under the **COUNT_TIME_INTERVAL package** node, under the **Functions** node, click **WEEKEND_DAYS ( )**.
6. Right-click **WEEKEND_DAYS ( )**, and then click **Execute**.

   Rapid SQL opens the Function Execution dialog box.

7. In the **Value** column of the **P_START_DATE** row, type **11/01/1999**.
8. In the **Value** column of the **P_END_DATE** row, type **11/30/1999**.
9. Click **Execute**.

   Rapid SQL successfully executes the corrected function.

Embarcadero SQL Debugger for Sybase ASE

Embarcadero SQL Debugger for Sybase is a programming tool that lets you debug Sybase objects in the following Sybase versions:

- 12

- 12.0 (special version)
- 12.5

Objects

Using Embarcadero SQL Debugger for Sybase, you can debug the following objects:

- Procedures
- Triggers

You can only debug triggers by debugging the procedures that call them.

> **TIP:** The Code Analyst is a tool to identify time-consuming lines of code. Code Analyst lets you perform detailed response time analysis on the execution of Procedures and Functions.

The table below describes the sections of this chapter:

Section	Description
Features	This section describes how Embarcadero SQL Debugger for Sybase helps you identify problems within your code.
Interface	This section describes Embarcadero SQL Debugger for Sybase's graphical interface, which includes an editor window and four debug view windows.
Functionality	This section describes the way in which Embarcadero SQL Debugger for Sybase functions.
Using Embarcadero SQL Debugger for Sybase	This section describes how to run a debug session.

Embarcadero SQL Debugger for Sybase Features

Embarcadero SQL Debugger for Sybase is designed to help identify problems within your code. Embarcadero SQL Debugger for Sybase lets you:

- Interactively step through the flow of script execution.
- Examine the value of variables.
- Solve logical problems with your script design.

Embarcadero SQL Debugger for Sybase offers fundamental debugging features and several options to help fine tune debugging, as listed in the table below:

Debugging Feature	Description
Step Into	Lets you execute each instruction step-by-step and step inside a stored object.
Step Out	Lets you stop stepping through the current object and execute the remainder of the script. This option is only active when the pointer indicates a child-dependent instruction.
Step Over	Lets you execute the current instruction without stepping into any child dependents.
Breakpoints	A position in a program where the debugger stops execution.

To set specific Debugger values on Rapid SQL's Options Editor, see Debugger Options.

Embarcadero SQL Debugger for Sybase Options

You can specify Debugger options from the Debug Tab of Rapid SQL's Options editor. The Debug Tab of the Options Editor lets you set the duration of your debug initialization and debug session, enable DBMS output, and refresh dependencies.

Setting Debugger Options

To set debugger options, do the following:

1 On the **File** menu, click **Options**.

OR

On the **Main** toolbar, click **Options**.

Rapid SQL opens the Options Editor.

2 On the **Debug Tab**, specify debugger options. The table below describes the options available:

Option	Description	Default
Initialization Timeout (seconds)	Specifies the number of seconds Rapid SQL tries to initialize the debugger. If it cannot initialize the debugger in the specified time, a message displays in the Debug Output window.	60
Debug Session Timeout (seconds)	Specifies, in seconds, the length of your debug session.	7200
Enable DBMS Output	Toggles the print output. Enable this option if you use dbms_output.put_line calls in your procedures and you want these lines displayed.	Selected
Refresh Dependencies for each run	Refreshes dependencies for each run. This potentially time-consuming process is useful if the target procedure has rapidly varying dependencies that can require updating during the debugging process.	Cleared

3 Click **Close**.

Rapid SQL closes the Options Editor.

Embarcadero SQL Debugger for Sybase Interface

Embarcadero SQL Debugger for Sybase has a graphical interface that includes an editor window and four debug view windows. When you open a debug session, Rapid SQL extracts the code for the object into a DDL Editor and opens four debug view windows at the bottom of the screen.

> **TIP:** All Embarcadero debuggers display Performance Metrics that let you measure the execution time of each statement in the debug session.

The four debug view windows are optional, dockable windows designed to help debug your script. Embarcadero SQL Debugger for Sybase's five windows are:

- DDL Editor window
- Watch window

- Variables window
- Call Stack window
- Dependency Tree window

Working with Debugger Windows

Rapid SQL lets you resize, move, dock and float the following Debugger windows:

- Watch
- Variables
- Call Stack
- Dependency Tree

To work with the above windows, do the following:

1. To resize the target window, click its frame and drag it.

   Rapid SQL resizes the window.

2. To move and dock the target window, click its grab bar and drag it.

   Rapid SQL moves the window to its new location and docks it with surrounding windows.

3. To float the target window, press **Shift**, then click its grab bar and drag it.

   Rapid SQL frames the window in its own floating frame and moves the window to its new location.

DDL Editor Window

Embarcadero SQL Debugger for Sybase provides a DDL Editor window that displays your code in read-only format. When you start debugging, Embarcadero SQL Debugger for Sybase extracts your code into a DDL Editor window, making it editable. The DDL Editor uses the default Rapid SQL syntax coloring.

Watch Window

Embarcadero SQL Debugger for Sybase provides a Watch window that displays the watch variables for the database object you are debugging and lets you specify variables you want to evaluate or modify while debugging your program. For example, to check what happens when a variable (x) has a value of 100, you can double-click that variable in the DDL Editor and drag it into the Watch window. In the Watch window, change the value to 100. When you execute the script, the debugger uses the value x=100. This window is only visible when Embarcadero SQL Debugger for Sybase is active.

NOTE: You can type a fully qualified record variable into the Watch window.

NOTE: When you exit a debug session and reenter it, Embarcadero SQL Debugger for Sybase retains any watch variables or breakpoints you have set.

Opening and Closing the Watch Window

To open and close the Watch Window, do the following:

1. On the **Debug Menu**, on the **Debug Views** sub-menu, select or clear **Watch**.

   OR

   Press **ALT+3**.

Setting a Watch Variable

To set a Watch Variable, do the following:

1 In the **DDL Editor,** double-click the target variable and drag it to the **Watch** window**.**

2 In the **Watch** window, in the **Value** column, change the value of the variable.

3 On the **DDL Editor** toolbar, click **Go** to execute the script using the new value of the variable.

Rapid SQL executes the script using the new value of the variable.

Removing a Watch Variable

To remove a Watch Variable, do the following:

1 In the **Watch** window, delete the variable.

Variables Window

Embarcadero SQL Debugger for Sybase provides a Variables window that displays the local variables and their current values during script execution. You cannot edit variables in the Variables window. This window is only visible when the Debugger is active. If the DDL Editor displays an external database object, and that object is a dependent of the object you are debugging, then the Variables window automatically refreshes and displays the variables for that external object.

Embarcadero SQL Debugger for Sybase also lets you monitor the value of your variables while debugging.

Opening and Closing the Variables Window

To open and close the Variables Window, do the following:

1 On the **Debug Menu**, on the **Debug Views** sub-menu, select or clear **Variable**.

OR

Press **ALT+4**.

Monitoring Variables

To monitor the values of your variables while debugging, do the following:

1 In the **DDL Editor**, hold the pointer over the target variable.

Rapid SQL opens a ScreenTip displaying the current value of that variable.

Call Stack Window

Embarcadero SQL Debugger for Sybase provides a Call Stack window that displays the stack of currently active calls. The Call Stack window is only visible when the Debugger is active.

Opening and Closing the Call Stack Window

To open and close the Call Stack Window, do the following:

1 On the **Debug Menu**, on the **Debug Views** sub-menu, select or clear **Call Stack**.

OR

Press **ALT+5**.

Using the Call Stack Window

To display a line of code that references the call in the DDL Editor, do the following:

1 In the **Call Stack** window, double-click the target line.

In the DDL Editor, Rapid SQL displays a green arrow on the line of the the referenced call.

Dependency Tree Window

Embarcadero SQL Debugger for Sybase provides a Dependency Tree window that displays any external database objects accessed by the script. Rapid SQL displays these database objects in a hierarchical tree, with the child objects as database objects accessed by the parent objects. You can use this window to display the code for a dependent database object in the DDL Editor window. This window is only visible when the Debugger is active.

Opening and Closing the Dependency Tree Window

To open and close the Dependency Tree Window, do the following:

1 On the **Debug Menu**, on the **Debug Views** sub-menu, select or clear **Dependencies**.

OR

Press **ALT+6**.

Displaying Dependencies

To display the code for a dependent database object in the DDL Editor window, do the following:

1 In the **Dependency Tree** window, double-click the target object.

Rapid SQL displays the SQL of the target object in the DDL Editor window.

Embarcadero SQL Debugger for Sybase Functionality

Embarcadero SQL Debugger for Sybase offers you the following functionality:

- Input parameters
- Step Into
- Step Out
- Step Over
- Run to Cursor
- Insert or Remove Breakpoint
- Toggle Breakpoint
- Go
- Stop
- Restart
- Break
- Close

To make use of the above functionality, you must first open a debugging session.

Input Parameters

Input parameters are set when you first create an object. If the object you want to debug requires input parameters, Rapid SQL opens a Procedure Execution dialog box and prompts you for the input parameters when you open a debugging session.

This dialog box also lets you:

- Save input parameters as *.prm files to preserve specific input parameter configurations.
- Open *.prm files to save the effort of reentering specific input parameters.
- Reset parameters to their default setting.

The table below describes the options and functionality on Procedure Execution dialog box:

The following table describes the options available in this dialog box:

Dialog box component	Description
Owner drop-down list	Displays the current procedure's owner
Procedure drop-down list	Displays the name of the current procedure.
Parameter window	Specify the required input parameters in this window. If input parameters are not required for the execution of the target procedure, a message appears in this window, stating that the procedure "has no input parameters. Press execute to run it."
Open button	Click to open an Open dialog box, from which you can open an existing *.prm file. The saved parameters immediately populate the dialog box upon opening.
Save button	Click to save the values of your input parameters as a *.prm file. You can reopen a saved *.prm file from this dialog box at any time.
Reset button	Click to reset the parameters in the Parameter window to their default values.
Execute button	Click to execute the procedure once you have entered values for all required parameters in the Parameter window.

Option	Description
Owner	Displays the current procedure's owner.
Procedure	Displays the name of the current procedure.
Parameter	Specify the required input parameters in this window. If input parameters are not required for the execution of the target procedure, a message displays in this window, stating that the procedure "has no input parameters. Press execute to run it."
Open	Click to open an existing *.prm file. The saved parameters immediately populate the dialog box upon opening.
Save	Click to save the values of your input parameters as a *.prm file. You can reopen a saved *.prm file from this dialog box at any time.
Reset	Click to reset the parameters in the Parameter window to their default values.
Continue	Click to execute the procedure once you have entered values for all required parameters in the Parameter window.

NOTE: You cannot debug a script that requires input parameters until you provide input parameters.

Step Into

After you open a debugging session, Step Into lets you execute the current instruction. If the current instruction makes a call to a stored Sybase object, Embarcadero SQL Debugger for Sybase steps inside the nested child object.

Step Into

To use the Step Into facility, do the following:

1 On the **Debug** menu, click **Step Into**.

OR

On the **DDL Editor** toolbar, click **Step Into**.

OR

In the **DDL Editor** window, right-click and then click **Step Into**.

OR

Press **F11**.

Embarcadero SQL Debugger for Sybase moves the arrow to execute the current instruction.

Step Out

After you open a debugging session, Step Out lets you execute the remainder of the dependent child object and resumes line-by-line, step-debugging in the parent object.

NOTE: Step Out is only active when the pointer indicates a child-dependent instruction.

Step Out

To use the Step Out facility, do the following:

1 On the **Debug** menu, click **Step Out**.

OR

On the **DDL Editor** toolbar, click **Step Out**.

OR

In the **DDL Editor** window, right-click and then click **Step Out**.

OR

Press **SHIFT+F11**.

Embarcadero SQL Debugger for Sybase stops stepping through the current object and executes the remainder of the script.

Step Over

After you open a debugging session, Step Over lets you execute the current instruction without stepping into a nested child object if the instruction makes a call to a dependent object.

Step Over

To use the Step Over facility, do the following:

1 On the **Debug** menu, click **Step Over**.

OR

On the **DDL Editor** toolbar, click **Step Over**.

OR

In the **DDL Editor** window, right-click and then click **Step Over**.

OR

Press **F10**.

Embarcadero SQL Debugger for Sybase executes the current instruction.

Run to Cursor

After you open a debugging session, Run to Cursor lets you execute all instructions between the yellow arrow and your cursor.

Run to Cursor

To use the Run to Cursor facility, do the following:

1 Scroll down from the yellow arrow to the target line.

2 Click the target line.

Embarcadero SQL Debugger for Sybase places the cursor on the target line.

3 On the **Debug** menu, click **Run to Cursor**.

OR

On the **DDL Editor** toolbar, click **Run to Cursor**.

OR

In the **DDL Editor** window, right-click and then click **Run to Cursor**.

OR

Press **CTRL+F10**.

Embarcadero SQL Debugger for Sybase executes all instructions between the yellow arrow and your cursor.

Insert or Remove a Breakpoint

A breakpoint is a position in a program where a debugger stops execution. When you start debugging, Embarcadero SQL Debugger for Sybase opens the script in a DDL Editor window. A yellow pointer indicates which line the Debugger executes next. Embarcadero SQL Debugger for Sybase executes all lines of code between the pointer and the first breakpoint. If no breakpoints are present, Embarcadero SQL Debugger for Sybase debugs the entire script.

While debugging, you can set one or more breakpoints in the currently executing object or in any object in the program call stack. Breakpoints can be toggled (temporarily disabled or enabled) without having to remove or reinsert them. Embarcadero SQL Debugger for Sybase displays each enabled breakpoint as a red dot in the left margin of the DDL Editor Window, and each disabled breakpoint as a red circle.

Rapid SQL stores all breakpoints you set so that when you debug the same script on separate occasions, you can reuse the same breakpoints each time.

After you open a debugging session, you can insert a breakpoint on the line where your cursor it located, and you can remove a breakpoint on the line where your cursor is located.

NOTE: Script execution stops at the first breakpoint.

Inserting or Removing a Breakpoint

To insert or remove a breakpoint, do the following:

1 In the **DDL Editor** window, click the target line of SQL.

2 On the **Debug** menu, click **Breakpoint**.

OR

On the **DDL Editor** toolbar, click **Breakpoint**.

OR

In the **DDL Editor** window, right-click and then click **Breakpoint**.

OR

Press **F9**.

Embarcadero SQL Debugger for Sybase inserts a new breakpoint or removes an existing breakpoint on the target line of code.

Toggle Breakpoint

After you open a debugging session and insert a breakpoint, Toggle Breakpoint lets you enable or disable that breakpoint. Embarcadero SQL Debugger for Sybase displays each enabled breakpoint as a red dot in the left margin of the DDL Editor Window, and each disabled breakpoint as a red circle. You can toggle any breakpoint in the DDL Editor window. When you exit a debugging session and reenter it, the Embarcadero SQL Debugger for Sybase retains any breakpoints you set.

Toggling a Breakpoint

To toggle a breakpoint, do the following:

1. In the **DDL Editor** window, click the line of the target breakpoint.
2. On the **Debug** menu, click **Enable/Disable Breakpoint**.

   OR

   On the **DDL Editor** toolbar, click **Enable/Disable Breakpoint**.

   OR

   In the **DDL Editor** window, right-click and then click **Enable/Disable Breakpoint**.

   OR

   Press **CTRL+F9**.

   Embarcadero SQL Debugger for Sybase toggles the breakpoint indicated by the pointer.

Go

After you open a debugging session, Go lets you execute all instructions, stopping only when it encounters a breakpoint or when the program is complete.

Go

To use the Go facility, do the following:

1. On the **Debug** menu, click **Go**.

   OR

   On the **DDL Editor** toolbar, click **Go**.

   OR

   In the **DDL Editor** window, right-click and then click **Go**.

   OR

   Press **F5**.

   Embarcadero SQL Debugger for Sybase executes all instructions.

Stop

After you open a debugging session, Stop lets you halt the script execution and terminate the session.

Stop

To stop the debugger, do the following:

1 On the **Debug** menu, click **Stop Debugging**.

OR

On the **DDL Editor** toolbar, click **Stop Debugging**.

OR

In the **DDL Editor** window, right-click and then click **Stop Debugging**.

OR

Press **SHIFT+F5**.

Embarcadero SQL Debugger for Sybase stops the script execution and terminates the session.

Restart

After you open a debugging session, Restart lets you terminate the current debug session and open a new one. When the new session opens, Rapid SQL prompts you for new input parameters.

Restart

To restart the debugger, do the following:

1 On the **Debug** menu, click **Restart**.

OR

On the **DDL Editor** toolbar, click **Restart**.

OR

In the **DDL Editor** window, right-click and then click **Restart**.

OR

Press **CTRL+SHIFT+F5**.

Embarcadero SQL Debugger for Sybase restarts the debug session.

Break

After you open a debugging session, Break lets you pause the debug session.

Break

To pause the debugger, do the following:

1 On the **Debug** menu, click **Break**.

OR

On the **DDL Editor** toolbar, click **Break**.

OR

In the **DDL Editor** window, right-click and then click **Break**.

Embarcadero SQL Debugger for Sybase suspends the debug session.

Close

After you open a debugging session, Close lets you close the DDL Editor and Embarcadero SQL Debugger for Sybase.

Close

To close the DDL Editor and debugger, do the following:

1 On the **DDL Editor** toolbar, click **Close**.

OR

In the upper right corner of the window, click **Close**.

OR

In the **DDL Editor** window, right-click and then click **Close**.

Embarcadero SQL Debugger for Sybase closes the debug session.

Using Embarcadero SQL Debugger for Sybase

This section offers a general overview of how to use Embarcadero SQL Debugger for Sybase's full range of debugging functionality. After you open a debugging session for any Sybase procedure or trigger, you can begin debugging.

Opening a Debugging Session

When you open a debugging session, Rapid SQL opens the five windows of the Embarcadero SQL Debugger for Sybase interface. If the target script requires input parameters, Rapid SQL opens a Procedure Execution dialog box and prompts you for the necessary input parameters before displaying the target code in the DDL Editor window. When Rapid SQL displays the target script in the DDL Editor window, you can begin debugging.

NOTE: Embarcadero SQL Debugger for Sybase only lets you debug the SQL script of triggers and procedures.

Opening a Debugging Session

To debug a trigger or procedure, do the following:

1 On the **Explorer Tab**, click the node of the target procedure.

Rapid SQL opens the node and displays two items: Code and Privileges.

2 Under the target object node, double-click **Code**.

Rapid SQL opens an DDL Editor displaying the code of the target object.

3 On the **Debug** menu, click **Start Debugging**.

OR

On the **DDL Editor** toolbar, click **Debug**.

OR

In the **DDL Editor** window, right-click and then click **Debug**.

OR

Press **CTRL+F5**.

If the script requests input parameters, Rapid SQL opens a Procedure Execution dialog box. If the script does not require input parameters, Rapid SQL displays the script in the DDL Editor window for you to begin debugging.

NOTE: You cannot use Embarcadero SQL Debugger for Sybase until it has fully initialized.

4 In the **Procedure Execution** dialog box, type the parameters, and then click **OK**.

Rapid SQL displays the script in the DDL Editor window for you to begin debugging.

NOTE: If the script requires Sybase types (tables, records, or Booleans) as input parameters, Embarcadero SQL Debugger for Sybase generates an anonymous block.

Debugging an SQL Script

After you open a debugging session and enter any required input parameters, you can begin working with your script in Embarcadero SQL Debugger for Sybase.

Debugging an SQL Script

To debug a SQL script, do the following:

1 On the **Debug** menu, click an Embarcadero SQL Debugger for Sybase option (Step Into, Step Over, and so forth) or click **Go**.

OR

On the **DDL Editor** toolbar, click an Embarcadero SQL Debugger for Sybase option (Step Into, Step Over, and so on) or click **Go**.

NOTE: You can monitor the progress of your debug session in the Variables window.

2 On the **Debug** menu, click **Breakpoint**.

OR

On the **DDL Editor** toolbar, click **Breakpoint**.

NOTE: When you set a breakpoint, the Call Stack window shows what was called before the breakpoint.

NOTE: You can use the Run to Cursor option to test the lines of code between a breakpoint and your cursor (indicated by the yellow arrow in the DDL Editor).

3 To check your variables, do the following:

   1) In the **DDL Editor**, click a variable in your script and drag it to the **Watch** window.

   2) In the **Watch** window, change the value of the watch variable and then click **Go** to run your script and see the results of the new value.

4 To check record in stored objects, do the following:

   1) Drag the record to the **Watch** window.

   2) In the **Watch** window, change the value of the record, then click **Go** to run your script and see the results of the new value.

5 To check the dependencies, do the following:

   1) In the **Dependency Tree** window double-click the target dependent object to extract the code into a new **DDL Editor**.

   2) **Step through** the script while monitoring the **Dependency Tree** window.

6 When you finish debugging the script, click **Close**.

   Rapid SQL closes an Embarcadero SQL Debugger for Sybase's DDL Editor.

   NOTE: When you exit a debug session and reenter it, Embarcadero SQL Debugger for Sybase retains any watch variables or breakpoints you have set.

Rapid SQL PL/SQL Profiler

The Rapid SQL PL/SQL Profiler module lets you capture metrics of various PL/SQL programmable objects as they are executed in the database. Developers can use data collected in profile sessions to improve performance of PL/SQL code execution. Rapid SQL PL/SQL Profiler collects and stores data in database tables and helps identify and isolate performance problems, and provide code coverage information. The Rapid SQL PL/SQL Profiler lets you:

- Graphically browse PL/SQL profiling data within the Explorer Tab
- View profiling data in the right pane of the application, which is populated as you navigate the Explorer Tab
- Start and stop PL/SQL profiling sessions with a single click
- Graphically analyze time spent in each programmable object (unit)
- Graphically analyze time spent in each source code line of a unit

The table below describes the sections of this chapter:

Section	Description
Setting Up the Profiler	This section describes the process of setting up Rapid SQL PL/SQL Profiler.
Profiler Functionality	This section describes the functionary of Rapid SQL PL/SQL Profiler.
Using the Profiler	This section describes how to run a profile session.

NOTE: The Rapid SQL PL/SQL Profiler is an optional add-on module.

For more information, see:

Setting Up Rapid SQL PL/SQL Profiler

>

Rapid SQL PL/SQL Profiler Explorer

Rapid SQL PL/SQL Profiler Functionality

Using Rapid SQL PL/SQL Profiler

Setting Up Rapid SQL PL/SQL Profiler

The profiling tables must be on the server before using the Rapid SQL PL/SQL Profiler. The first time you open the PL/SQL Profiler, Rapid SQL checks the server for the profiling tables. If the profiling tables are not on the server, Rapid SQL automatically installs profiling tables on the server.

Rapid SQL PL/SQL Profiler Explorer

The Rapid SQL PL/SQL Profiler displays profiling data in the right pane of the application, which is populated as you navigate the Explorer Tab.

The table below describes the nodes of the Rapid SQL PL/SQL Profiler Explorer and the corresponding information in the right pane of the application:

Node	Right pane information
PL/SQL Code Profiling	Contain all Comment, Run ID and Run Date\time data that is current stored in the Profiling tables.
Label\Comment level	Contains all Run ID and Run Date\time data for the specific Label\Comment.
Run level	Contains all Unit, Unit Name, Unit Type, Run Date\time data for the specific Run ID.

Rapid SQL PL/SQL Profiler Functionality

Rapid SQL PL/SQL Profiler offers you the following functionality:

- Start
- Flush
- Run Summary
- Run Detail
- Unit Summary
- Unit Detail
- Clear Profile Table
- Stop

Start

Rapid SQL PL/SQL Profiler lets you begin a new profiling session or open a previous profiling session with the Start command.

Starting a New Profile Session

To start a new Profiler session, do the following:

1 On the **Tools** menu, click **PL/SQL Profiler** and then click **Start**.

OR

On the **PL/SQL Profiler** toolbar, click **Execute**.

OR

On the **Explorer Tab,** right-click the **PL/SQL Code Profiling** node, and then click **Start**.

Rapid SQL opens the PL/SQL Profiler - Start dialog box.

2 In the **Profile Label** box, type the name of the new profile.

NOTE: Each user can own one or more Profiles.

3 Click **OK** to begin profiling.

Starting an Existing Profile Session

To start an existing Profiler session, do the following:

1 On the **Explorer Tab**, expand the **PL/SQL Code Profiling** node.

Rapid SQL displays the list of existing Profiles.

2 On the **Tools** menu, click **PL/SQL Profiler**, and then click **Start**.

OR

On the **PL/SQL Profiler** toolbar, click **Execute**.

OR

On the **Explorer Tab**, right-click the **PL/SQL Profiler** node, and then click **Start**.

OR

On the **Explorer Tab**, right-click the target **Profile,** and then click **Start**.

Rapid SQL opens the PL/SQL Profiler - Start dialog box.

3 Click the **Profile Label** list and then click the existing profile.

4 Click **OK** to begin profiling.

Flush

Rapid SQL PL/SQL Profiler lets you move the data from the dynamic tables into Analysis tables with the Flush command.

Flushing a Profile

To flush a Profile, do the following:

1 On the **Tools** menu, click **PL/SQL Profiler** and then click **Flush**.

OR

On the **PL/SQL Profiler** toolbar click **Flush**.

OR

On the **Explorer Tab**, right-click the **PL/SQL Code Profiling** node, and then click **Flush**.

Rapid SQL opens the PL/SQL Profiler - Flush dialog box.

2 In the **PL/SQL Profiler - Flush** dialog box:

- Click **Flush** to delete the data in a running profile.
- Click **Flush & Analyze** to open the **PL/SQL Profiler Run Detail** window.
- Click **Cancel** to abort the flush and continue the profiling session.

NOTE: You can only Flush a running Profile.

Run Summary

The Rapid SQL PL/SQL Profiler Run Summary window lets you view the following information for each of your profiles:

- Run ID
- Run Date
- Total Time

Opening the Run Summary Window

To open the Run Summary Window, do the following:

1 On the **Explorer Tab**, expand the **PL/SQL Code Profiling** node.

Rapid SQL displays the list of existing Profiles.

2 On the **Tools** menu, click **PL/SQL Profiler**, and then click **Run Summary**.

On the **PL/SQL Profiler** toolbar click **Run Summary**.

On the **Explorer Tab**, right-click the **PL/SQL Profiler** node, and then click **Run Summary**.

On the **Explorer Tab**, right-click the target **Profile,** and then click **Run Summary**.

3

Rapid SQL opens the PL/SQL Profiler - Run Summary window.

4 Click the **Profile Label** list, and then click the target profile.

Run Detail

The Rapid SQL PL/SQL Profiler Run Detail window lets you view the following information for each of your profiles:

- Run Number
- Run Date

- Run Time

The Rapid SQL PL/SQL Profiler lets you view the information for all runs or you can view profile information based on the unit type or unit owner.

The Rapid SQL PL/SQL Profiler Run Detail window lets you view results in milliseconds, seconds and minutes. The Run Detail window also contains graphical displays of the profiling data that you can go to the specific unit within the summary portion of the window.

Opening the Run Detail Window

To open the Run Detail Window, do the following:

1 On the **Explorer Tab**, expand the **PL/SQL Code Profiling** node.

Rapid SQL displays the list of existing Profiles.

2 On the **Tools** menu, click **PL/SQL Profiler** and then click **Run Detail**.

OR

On the **PL/SQL Profiler** toolbar click **Run Detail**.

OR

On the **Explorer Tab,** right-click the **PL/SQL Code Profiling** node and then click **Run Detail**.

OR

Right-click the target run and then click **Run Detail**.

OR

In a **PL/SQL Profiler - Run Summary** window right-click and then click **Detail**.

OR

In a **PL/SQL Profiler - Unit Summary** window right-click and then click **Detail**.

Rapid SQL opens the PL/SQL Profiler - Run Detail window.

3 In the **PL/SQL Profiler - Run Detail** window:

- Click the **Label** list box and then click the target profile.
- Click the **Run** list and then click the target run.
- Click the **Unit Type** list and then click the target unit type(s).
- Click the **Unit Owner** list and then click the target unit owner(s) to populate the table.

Unit Summary

The Rapid SQL PL/SQL Profiler Unit Summary window lets you view the following information for each of your profiles:

- Run ID
- Run Date
- Run Time
- Unit Time
- Percentage of Run Time

The Rapid SQL PL/SQL Profiler Unit Summary window lets you view results in milliseconds, seconds and minutes. The Unit Summary window also displays graphs of execution statistics for the top N runs and associated units. You can use the graphical displays to go to the specific run within summary portion of the window.

Opening the Unit Summary Window

To open the Unit Summary Window, do the following:

1 On the **Tools** menu, click **PL/SQL Profiler,** and then click **Unit Summary**.

OR

On the **PL/SQL Profiler** toolbar click **Unit Summary**.

OR

On the **Explorer Tab**, right-click the **PL/SQL Code Profiling** node, and then click **Unit Summary**.

Rapid SQL opens the PL/SQL Profiler - Unit Summary window.

2 In the **PL/SQL Profiler - Unit Summary** window:

- Click the **Unit Owner** list and then click the target unit owner.
- Click the **Unit Name** list and then click the target unit name to populate the table.

Clear Profile Table

Rapid SQL PL/SQL Profiler lets you delete data from the user's profile tables with the command Clear Profile Table.

Clearing a Profile Table

To clear a profile table, do the following:

1 On the **Tools** menu, click **PL/SQL Profiler**, and then click **Clear Profile Table**.

OR

On the **PL/SQL Profiler** toolbar, click **Clear Profile Table**.

OR

On the **Explorer Tab,** right-click the **PL/SQL Code Profiling** node, and then click **Clear Profile Table**.

Rapid SQL clears the profile table.

2 In the dialog box, if you are sure that you want to clear out the profiler tables, click **Yes**.

Unit Detail

The Rapid SQL PL/SQL Profiler Unit Detail window lets you view the following information for each of your profiles:

- Average Time
- Source
- PL/SQL Script

The Rapid SQL PL/SQL Profiler Unit Detail window lets you view results in milliseconds, seconds and minutes. The Unit Detail window also provides two calculation options for viewing unit execution time as a percentage of total execution time (total run vs unit run). The Rapid SQL PL/SQL Profiler Unit Detail window also displays graphs of execution statistics for the top N run. You can use the graphical displays to go to the specific line within source code portion of the window.The graphical display portion of the window contains options for viewing advanced statistics.

The Advanced View of the Rapid SQL PL/SQL Profiler Unit Detail window, lets you view the following information for each of your profiles:

- Hit Lines
- Missed Lines
- Line Number
- Calls
- Total Time
- Percentage of the Total Time
- Average Time
- Minimum Time
- Maximum Time

Opening the Unit Detail Window

To open the Unit Detail Window, do the following:

1. On the **Explorer Tab**, expand the **PL/SQL Code Profiling** node.

   Rapid SQL displays the list of existing Profiles.

2. On the **Tools** menu, click **PL/SQL Profiler** and then click **Unit Detail**.

   OR

   On the **PL/SQL Profiler** toolbar click **Unit Detail**.

   OR

   On the **Explorer Tab,** right-click the **PL/SQL Code Profiling** node and then click **Unit Detail**.

   OR

   Right-click the target run and then click **Unit Detail**.

   OR

   In a **PL/SQL Profiler - Run Summary** window right-click and then click **Unit Detail**.

   OR

   In a **PL/SQL Profiler - Unit Summary** window right-click and then click **Unit Detail**.

   Rapid SQL opens the PL/SQL Profiler - Unit Detail window.

3 In the **PL/SQL Profiler - Unit Detail** window, do any of the following:

- Click the **Label** list and then click the target profile.
- Click the **Run** list and then click the target run.
- Click the **Unit** list and then click the target unit to populate the table.
- Right-click and then click **Show Only Hit Lines** to populate the table with the **Average Time** and **Source** for hit lines.
- Right-click and then click **Show Only Missed Lines** to populate the table with the **Average Time** and **Source** for missed lines.

Opening the Unit Detail Window Advanced View

To open the Unit Detail Window Advanced View, do the following:

1 In the **Unit Detail** table, right-click and then click **Advanced View** to populate the table with advanced view information.

Stop

Rapid SQL PL/SQL Profiler command Stop pauses the data gathering operation. Stop & Analyze populates the summary tables so you can view the Unit Detail and Run Summary windows

Stopping a Profiling Session

To stop a Profiling session, do the following:

1 On the **Tools** menu, click **PL/SQL Profiler** and then click **Stop**.

OR

On the **PL/SQL Profiler** toolbar click **Stop**.

OR

On the **Explorer Tab,** right-click the **PL/SQL Code Profiling** node, and then click **Stop**.

Rapid SQL opens the PL/SQL Profiler - Stop dialog box.

2 In the **PL/SQL Profiler - Stop** dialog box:

- Click **Stop** to stop the profiling session.
- Click **Stop & Analyze** to open the **PL/SQL Profiler Run Detail** window.
- Click **Cancel** to continue the profiling session.

Using Rapid SQL PL/SQL Profiler

The steps below provide a high level overview of running a profiling session:

- Starting the Session
- Executing the Sample Script
- Stopping and Analyzing the Session

For more information, see Sample Profiling Session.

Using the Rapid SQL PL/SQL Profiler

NOTE: The first execution of a PL/SQL unit can take more time to execute because the code is loading into memory; subsequent runs take less time.

To use the Profiler, do the following:

1. On the **Tools** menu, click **PL/SQL Profiler** and then click **Start**.

   OR

   On the **PL/SQL Profiler** toolbar, click **Start**.

   Rapid SQL opens the PL/SQL Profiler - Start dialog box.

2. In the **Profile Label** box, enter the name of the new profile.

   NOTE: Each user can own one or more Profiles.

3. Click **OK**.

   Rapid SQL begins profiling.

4. In the **Explorer Tab**, execute one of the following PL/SQL database objects:

   - Procedure
   - Function
   - Package Procedure
   - Package Function

   Profiler displays profiling data in the right pane of the application.

5. On the **Tools** menu, click **PL/SQL Profiler** and then click **Stop**.

   Rapid SQL opens the PL/SQL Profiler - Stop dialog box.

6. In the **PL/SQL Profiler - Stop** dialog box, do any of the following:

   - Click **Stop** to stop the profiling session.
   - Click **Stop & Analyze** to open the **PL/SQL Profiler Run Detail** window.
   - Click **Cancel** to continue the profiling session.

7. If you clicked **Stop & Analyze** do the following:

   - Click the **Label** list and then click the target profile.
   - Click the **Run** list and then click the target run.
   - Click the **Unit Type** list and then click the target unit type(s).
   - Click the **Unit Owner** list and then click the target unit owner(s) to populate the table.

8. Use the **Tools** menu to open any of the following PL/SQL Profiler windows:

   - PL/SQL Profiler Run Summary
   - PL/SQL Profiler Unit Summary
   - PL/SQL Profiler Unit Detail

Sample Profiling Session

The Rapid SQL installation includes two scripts for the sample profiling session:

- PROFILER_BUILD_DEMO.SQL
- PROFILER_DEMO.SQL

The PROFILER_BUILD_DEMO.SQL creates the objects that you will profile in the walk-through, and the PROFILER_DEMO.SQL is what you will profile during the walk-through.

NOTE: To create the objects in the PROFILER_BUILD_DEMO.SQL script, you must have CREATE privileges.

The sample script demonstrates the following features of the Rapid SQL PL/SQL Profiler:

- Unit Detail
- Run Detail
- Show Only Hit Lines
- Advanced View

During the installation, Rapid SQL places the scripts in the C:\Program Files\Embarcadero\RSQL600\UsrScrpt directory.

NOTE: The default for the Rapid SQL directory is C:\Program Files\Embarcadero. If you changed the default, the sample scripts will still be located in the RSQL600\UsrScrpt directory.

Overview

Sample Profiling Session is divided into six parts:

- Getting Started
- Starting the Session
- Executing the Sample Script
- Stopping the Session
- Rerunning & Reexecuting the Session
- Stopping & Analyzing

Sample Profiling Session - Getting Started

In this step of Sample Profiling Session, you create the objects that you will profile in the walk-through.

Overview

The Getting Started section guides you through:

- Opening PROFILER_BUILD_DEMO.SQL
- Changing the Explorer tab Display
- Confirming the Creation of the Package

Getting Started

1 Start **Rapid SQL**.

2 On the **File** menu, click **Open**.

Rapid SQL opens the Open Files dialog box.

NOTE: The default for the Rapid SQL directory is C:\Program Files\Embarcadero. If you changed the default, the sample scripts will still be located in the RSQL600\UsrScrpt directory.

3 In the **Open Files** dialog box, type the path to the UsrScrpt directory, press ENTER and then double-click **PROFILER_BUILD_DEMO.SQL** to open the script in an SQL Editor window.

Rapid SQL opens the PROFILER_BUILD_DEMO.SQL script in an SQL Editor window

4 On the **SQL Editor** window, click **Execute**.

Rapid SQL executes the script and creates the package.

5 On the **Explorer Tab** list, click **Organize by Owner**.

6 On the **Explorer Tab**, click the node of your owner name.

Rapid SQL displays your schema objects.

7 Double-click the **Packages** node to display **PF_COUNT_TIME_INTERVAL** and confirm its creation.

NOTE: If you were not able to create the package, check the error messages to determine the problem.

Sample Profiling Session - Starting the Session

In this step of Sample Profiling Session, you start the profiling session.

Sample Profiling Session - Starting the Session

To start the session, do the following:

1 On the **File** Menu, click **Open** to open the **Open Files** dialog box.

2 In the **Open Files** dialog box, type the path to the UsrScrpt directory, press **ENTER** and then double-click **PROFILER_DEMO.SQL** to open the script in an SQL Editor.

Rapid SQL opens the PROFILER_DEMO.SQL script in an SQL Editor.

3 On the **Tools** menu, click **PL/SQL Profiler** and then click **Start**.

Rapid SQL opens the PL/SQL Profiler - Start dialog box.

4 In the **Profile Label** list, type **DemoProfile**.

5 Click **OK** to begin the profiling session.

Rapid SQL begins the profiling session.

If this is the first time you start the Rapid SQL PL/SQL Profiler, Rapid SQL displays a message that user profiling tables need to be installed.

6 Click **Yes**.

Rapid SQL opens SQL*Plus to create the tables. You will need to start the profiling session again (see Step 3).

Sample Profiling Session - Executing the Sample Script

In this step of Sample Profiling Session, you execute the DEMO script.

Sample Profiling Session - Executing the Sample Script

To execute the sample script, do the following:

1. On the **SQL Editor** window toolbar, click **Execute**.

   Rapid SQL executes the script and opens a Results Tab.

Sample Profiling Session - Stopping the Session

In this step of Sample Profiling Session, you stop the profiling run.

Sample Profiling Session - Stopping the Session

To stop the session, do the following:

1. On the **Tools** menu, click **PL/SQL Profiler** and then click **Stop**.

   Rapid SQL opens the PL/SQL Profiler - Stop dialog box.

2. Click **Stop**.

Sample Profiling Session - Rerunning & Reexecuting the Session

In this step of Sample Profiling Session, you run the same profile session and execute the DEMO script again.

Sample Profiling Session - Rerunning & Reexecuting the Session

To rerun and reexecute the session, do the following:

1. In the **SQL Editor**, click the **Query Tab**.
2. On the **Tools** menu, click **PL/SQL Profiler** and then click **Start**.

   Rapid SQL opens the PL/SQL Profiler - Start dialog box again.

3. Click the down arrow on the **Profile Comment** list and then click **DemoProfile**.
4. Click **OK** to begin the profiling session.
5. On the **SQL Editor** toolbar, click **Execute**.

   Rapid SQL executes the script again and opens the Results Tab.

Sample Profiling Session - Stopping & Analyzing

In this step of Sample Profiling Session, you stop profiling and analyze the runs.

Sample Profiling Session - Stopping & Analyzing

To stop and analyze, do the following:

1. On the **Tools** menu, click **PL/SQL Profiler** and then click **Stop**.

   Rapid SQL opens the PL/SQL Profiler - Stop dialog box again.

2 Click **Stop & Analyze**.

Rapid SQL opens the PL/SQL Profiler - Run Detail window.

3 Click the **Run** list and then click **Run#x**.

NOTE: Rapid SQL assigns a number to each profiling session. These numbers increase incrementally each time you run a profiling session. x= the number that was assigned to your first run.

Rapid SQL PL/SQL Profiler populates the grid with information on the procedure, package body, and package specification.

NOTE: For the purposes of this walk-though we have created this package under the account SCOTT.

4 Click the **Run** list again and then click the **Run#** for your second run.

Notice this time there is no information on the package specification. It was created in the first run.

5 Right-click and then click **Detail**.

Rapid SQL PL/SQL Profiler opens the PL/SQL Profiler - Unit Detail window and populates the grid with the average time to execute each unit and the source code. Notice the time to execute SELECT object_name, in the example is 126 ms.

6 In the **PL/SQL Profiler - Unit Detail** window, click the **Run** list and then click **Run#x** for your first run.

7 Click the **Unit** list and then click **user name.PF_COUNT_SYSTEM_OBJECTS**.

Notice the time to execute SELECT object_name is considerably greater: in the example it is 24476 ms.

8 Right-click and then click **Show Only Hit Lines**.

THE RAPID SQL PL/SQL PROFILER SHOWS ONLY THE LINES OF CODE THAT EXECUTED.

9 Right-click and then click **Advanced View**.

The Rapid SQL PL/SQL Profiler opens the Advanced View window.

10 Continue clicking the **Run** and **Unit** lists to compare the performance of each run and each session.

This concludes the Sample Profiling Session. You can now delete the objects created during the Sample Profiling Session. They are:

- Check Constraints, PLSQL_PROFILER_UNITS, PLSQL_PROFILER_DATA
- Foreign Keys, PLSQL_PROFILER_UNITS, PLSQL_PROFILER_DATA
- Package, PF_COUNT_TIME_INTERVAL
- Package functions, WEEKEND_DAYS_( ), WORKING_DAYS_( ), YEAR
- S_ELAPSED_BETWEEN_ ()
- PL/SQL code Profiles, DemoProfile
- Primary Keys, PLSQL_PROFILER_RUNS, PLSQL_PROFILER_UNITS, PLSQL_PROFILER_DATA
- Procedure, PF_COUNT_SYSTEM_OBJECTS
- Sequence, PLSQL_PROFILER_RUNNUMBER
- Tables, PLSQL_PROFILER_RUNS, PLSQL_PROFILER_UNITS, PLSQL_PROFILER_DATA

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