DBArtisan® 8.6 Evaluation Guide

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Introduction to Embarcadero DBArtisan

DBArtisan is an industry-leading database administration solution for managing Oracle, Microsoft SQL Server, Sybase Adaptive Server, IBM DB2 for Windows, Unix, and Linux, IBM DB2 for OS/390 and z/OS databases, and MySQL. Its cross-platform capability allows users to efficiently manage heterogeneous database platforms easily using a single front-end tool. Using DBArtisan, users boost their productivity by using a single tool for all their databases, regardless of vendor.

Product Benefits

DBArtisan provides benefits to the following functions:

Database Administrator	DBArtisan enables database administrators to accomplish more with the time they have available in their workday. It eliminates the tedious tasks associated with researching schema dependencies when making object changes. Also included are a host of utilities, which condense DBA tasks taking hours or days down to minutes.
Developer	DBArtisan provides additional administration functionality to database developers over standard development platforms. Using the powerful schema extraction, schema migration, and publication wizards, developers can quickly extract and move schema from development to other environments, as well as create objects much quicker than using old-fashioned hand coding techniques.

About This Guide

This evaluation guide is intended to help you get started using Embarcadero's DBArtisan, the industry-leading solution for administering enterprise databases from a single point of control. While DBArtisan supports current versions of Oracle, Microsoft SQL Server, Sybase Adaptive Server, IBM DB2 for Unix, Windows, and Linux, IBM DB2 for OS/390 and z/OS, and MySQL, the examples in this guide are Oracle-centric. Unless otherwise noted, all features and functionality highlighted in this guide are applicable to all supported platforms.

After reviewing this evaluation guide, you will have the foundation you need to explore the many features and benefits of DBArtisan. You'll have learned how to competently manage the major database administration disciplines using DBArtisan's standard cross-platform console. In addition, you will have a solid understanding of DBArtisan's more advanced Space, Performance, and Capacity management capabilities.

This guide is divided into 10 sessions:

Session 1: Getting Started with DBArtisan

Session 2: Schema Management

Session 3: Security Management

Session 4: Space Management

Session 5: SQL Management

Session 6: Job Management

Session 7: Data Management

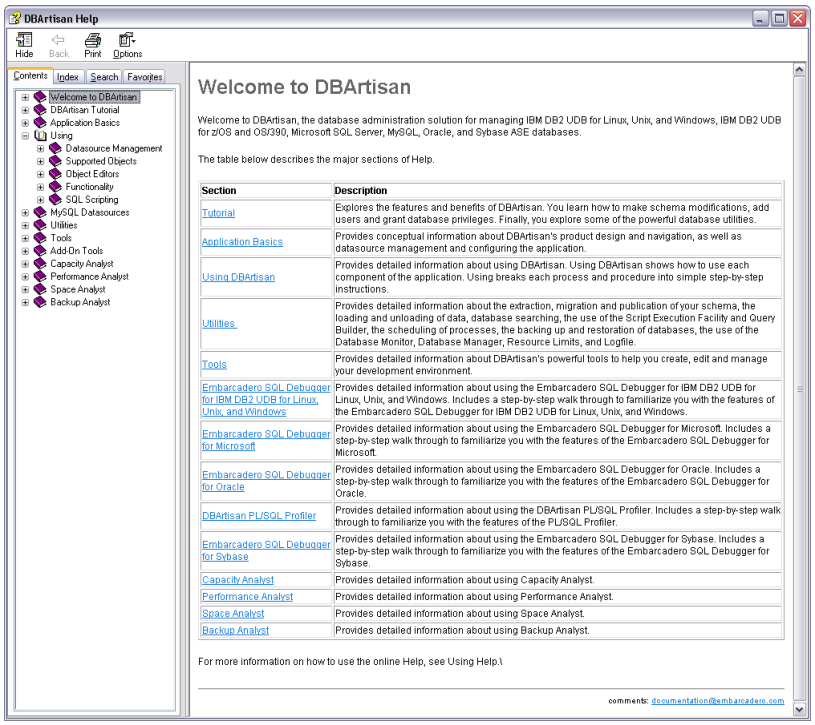
Session 8: Performance Management

Session 9: Capacity Management

Session 10: General Utilities and Tools

You can use this basic tutorial as a roadmap of product highlights, but also to help you find your own path to explore DBArtisan.

Once you've started, you can select Help from the toolbar to find many additional resources that complement and build on many of the activities shown in this brief guide.



Session 1: Getting Started with DBArtisan

Download and Install

You can obtain the latest version of the DBArtisan software from the Embarcadero website at http://www.embarcadero.com/downloads/downloaddbartisan.jsp.

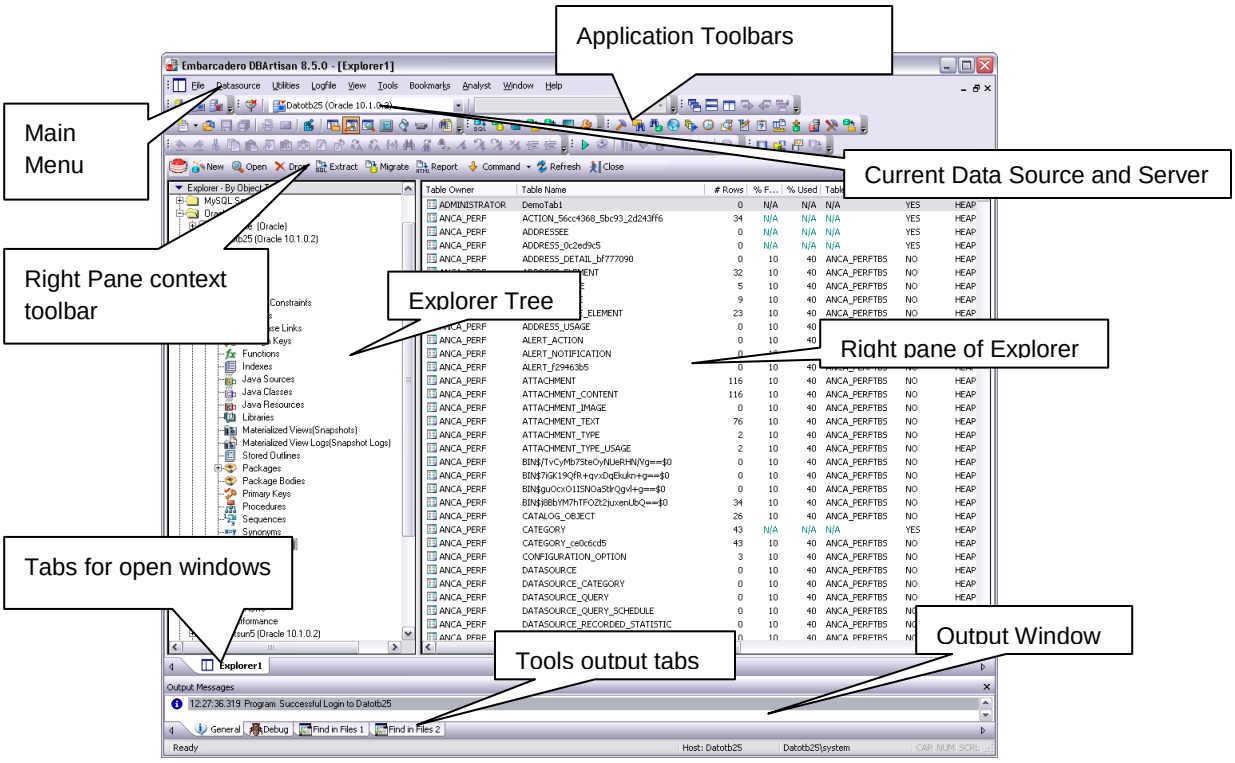
Provide the requested information and follow the steps indicated to download and install the software. When you first install an evaluation copy of DBArtisan, you can use the tool for 14 days. After that time, a permanent license is needed.

Introduction to Embarcadero DBArtisan

DBArtisan is an industry-leading database administration solution for managing Oracle, Microsoft SQL Server, Sybase Adaptive Server, MySQL, IBM DB2 for Windows, Unix, and Linux, and IBM DB2 for OS/390 and z/OS databases. Its cross-platform capability allows users to efficiently manage heterogeneous database platforms easily using a single front-end tool. Using DBArtisan, users boost their productivity by utilizing a single tool for all their databases, regardless of vendor.

Overview

The graphic below illustrates all the elements of the DBArtisan User Interface:



Start DBArtisan

1. On the **Start** menu, point to **Programs**, **Embarcadero DBArtisan**, and then select **DBArtisan 8.6**.

   The first time DBArtisan starts, it displays a message indicating that it can automatically detect and register your data sources. If you have installed and used other Embarcadero tools, DBArtisan can find any active data sources being used by those tools. In addition, DBArtisan provides a Discover Datasources feature that automatically searches the DBMS configuration files on your system for data sources that are not currently registered. The Discover Datasource feature is a dialog box that contains a list that includes the name of the server or instance and the type of DBMS, of all unregistered data sources found on your network or local machine, including the name of the server or instance and the type of DBMS. Once discovered, you have the

option to register data sources for DBArtisan usage.

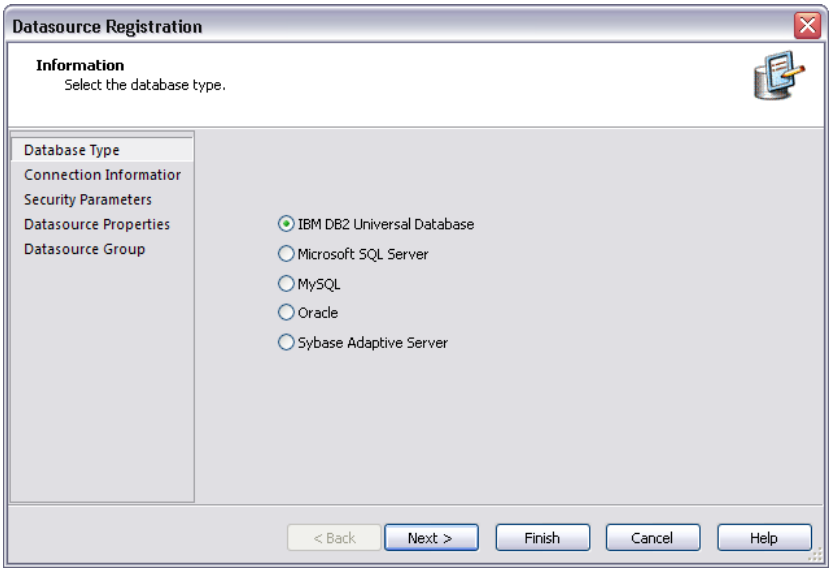
2. For the purpose of this Guide, dismiss the dialog. You will be registering a data source manually.

Registering Cross-Platform Data Sources

The Datasource Registration Wizard walks you through the process of registering a data source for use with DBArtisan..

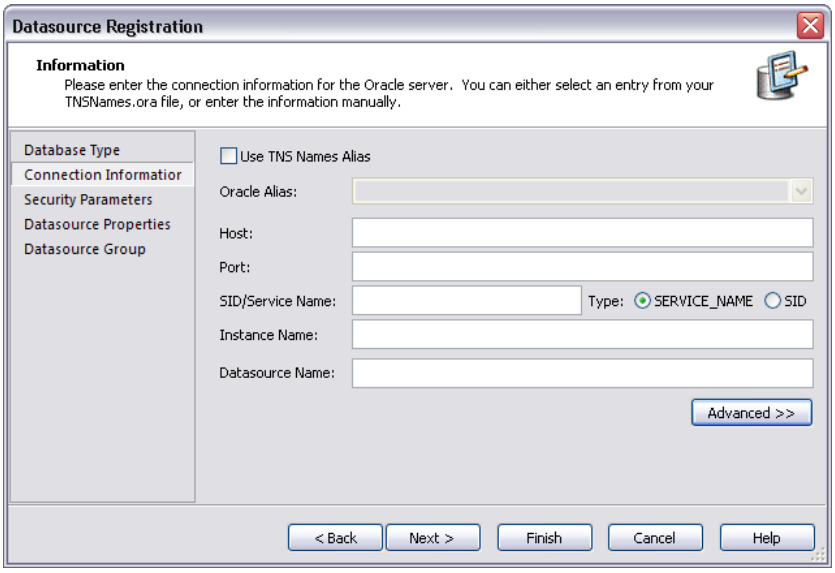
1. On the **Datasource** menu, select **Register Datasource**.

   DBArtisan opens the wizard, initially prompting you for the DBMS type.



2. Select **Oracle** as the database type and then click **Next**.

   DBArtisan opens the next panel of the Datasource Registration Wizard.

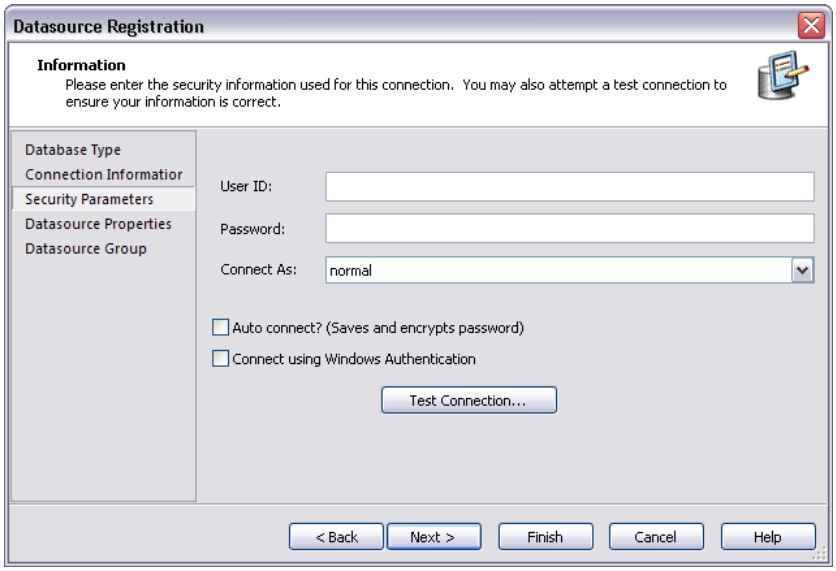


3. Provide the **Host** machine name associated with an Oracle data source.

4. Type a **Port** number. The default is 1521, but you can change it to wherever the Oracle listener is set up.

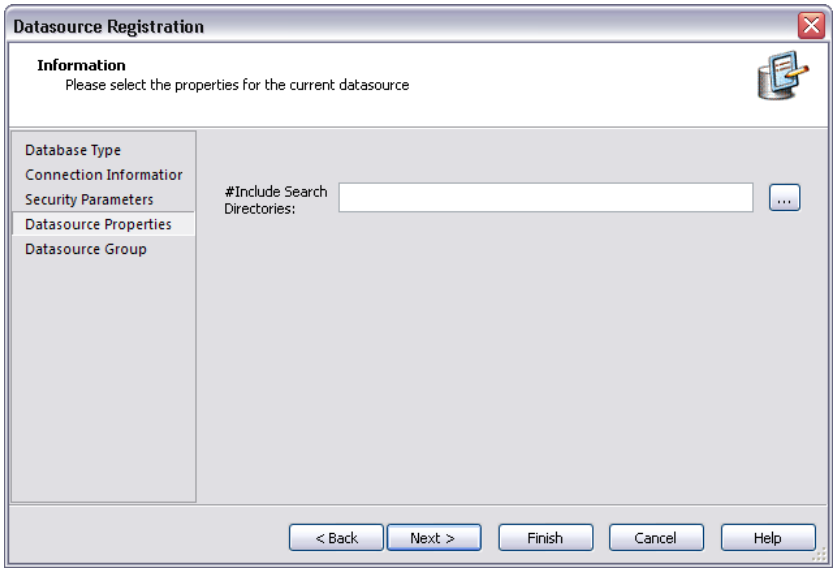
5. Specify a **Type** of SERVICE_NAME or SID and enter the corresponding value in the **SID/Service Name** box.
6. In the **Datasource Name** text box, type **SAMPLE_DATASOURCE** for the purpose of this example.
7. Click **Next**.

   DBArtisan saves your selections and opens the next panel of the Datasource Registration Wizard.



8. In **User Id**, type the user id for the database.
9. In **Password**, type the user's password.
10. To save and encrypt your password, select **Auto-Connect?**
11. Click **Next**.

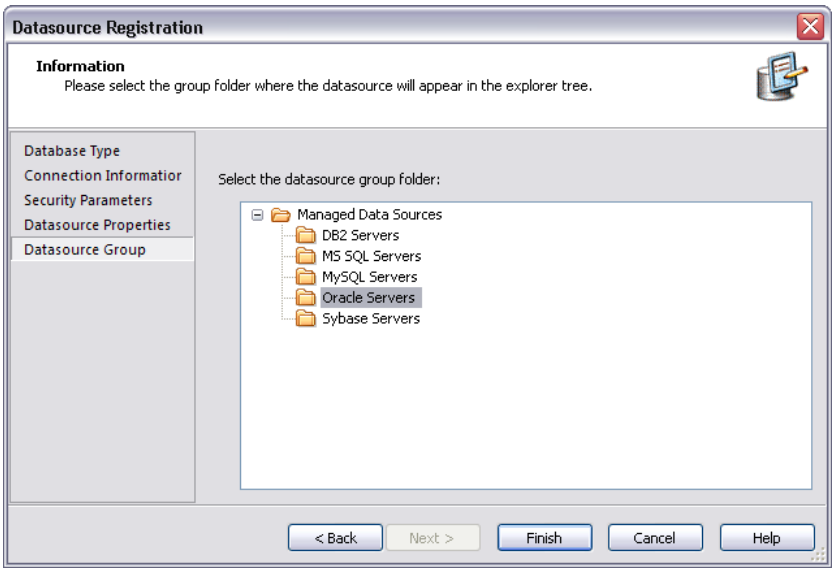
    DBArtisan saves your selections and opens the next panel of the Datasource Registration Wizard.



DBArtisan's SQL Editor supports directives similar to C compiler directives. This panel lets you specify directories that will be searched when a `#include` directive is encountered. You can leave the field blank for now.

12. Click **Next**.

    DBArtisan opens the final panel of the wizard.



13. In the Managed Data Sources tree, place the data source you are registering.
14. Click **Finish**.

    DBArtisan prompts you as to whether you want to connect to the data source.
15. Click **Yes**.

DBArtisan offers the same easy-to-use Datasource Registration Wizard for IBM DB2, Microsoft SQL Server, Oracle, MySQL, and Sybase connections. The connection information only needs to be set up one time for each data source and can be saved locally or in a common data source catalog for use by other Embarcadero products.

You can configure Embarcadero database applications to use a data source catalog stored in the system registry of your machine (local) or to use a data source catalog located in the registry of another computer (remote). This capability makes it easy to share data source catalogs among multiple users so that maintenance can can be administered from one location.

All Embarcadero database administration products share the data source catalog, which means that when you set up your data source catalog using one product such as DBArtisan, the same list of data sources is available in other Embarcadero Technologies products. Any changes you make to the data source catalog are reflected in all Embarcadero database management products.

General Usability Features

DBArtisan provides many “user in mind” features that make the product configurable to meet individual needs and preferences. These features are designed to shave time off the tasks that you perform many times on any given working day.

Retaining Data Source Explorer View Settings

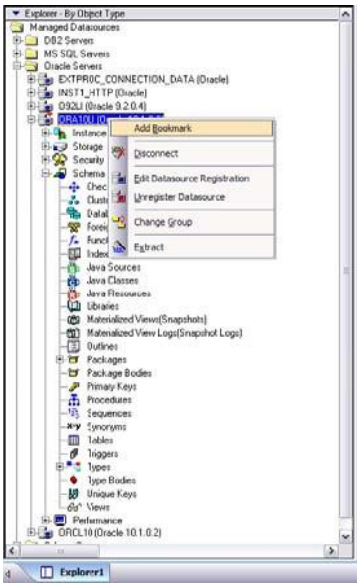
1. At the top of the **Explorer** tree, click to expand the drop-down menu.
2. Select **Retain View Settings**.

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

Data Source Explorer Bookmarks

1. In the **Explorer** tree, right-click any node.

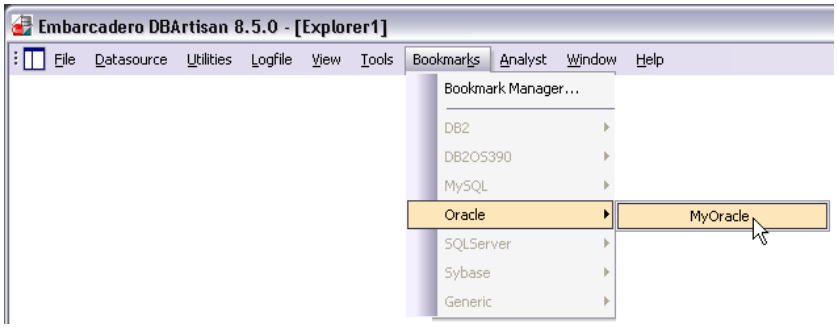
2. Select **Add Bookmark**.



DBArtisan opens the **Add Friendly Bookmark Name** dialog box.

3. Click **OK**.

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

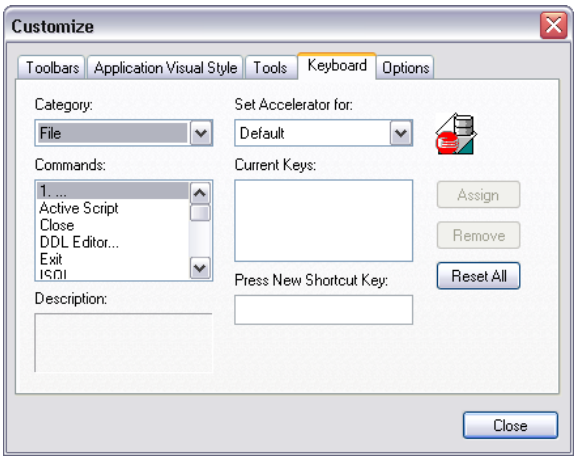


Setting Keyboard Shortcuts and Hotkeys

1. From the **View** menu, select **Customize**.

   The **Customize** dialog box opens.

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



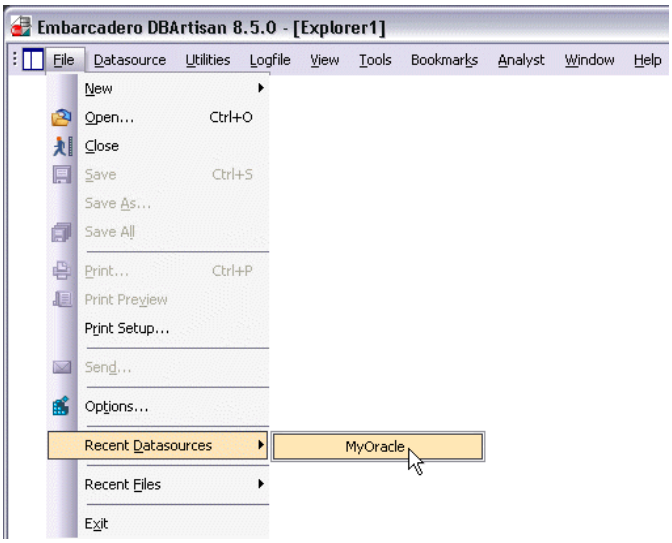
The Keyboard tab can be used to set Keyboard shortcut hot keys for all areas of DBArtisan functionality.

3. Click **Close**.

Referencing Most Recently Used Data Sources

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

   DBArtisan opens the data source in the Data Source Explorer, ready to work with an active connection.


Embarcadero DBArtisan 8.5.0 - [Explorer1]
File
Datasource
Utilities
Logfile
View
Tools
Bookmarks
Analyst
Window
Help
New
Open... Ctrl+O
Close
Save Ctrl+S
Save As...
Save All
Print... Ctrl+P
Print Preview
Print Setup...
Send...
Options...
Recent Datasources
MyOracle
Recent Files
Exit

Session 2: Object and Schema Management

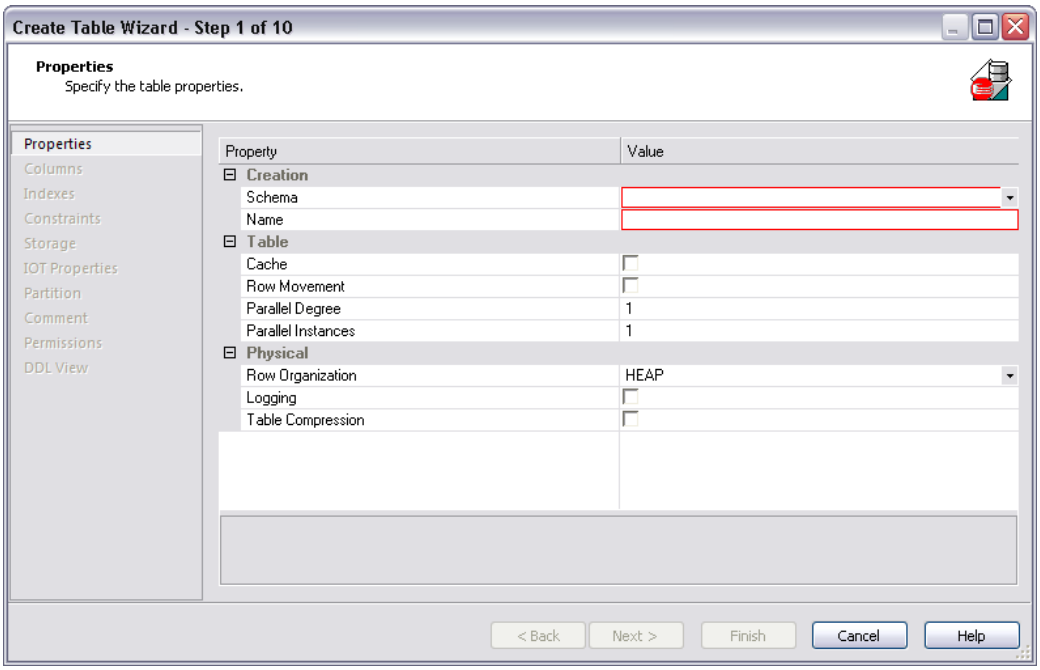
Advanced Object Creation and Management

DBArtisan provides unparalleled database object management capabilities. Its database platform- and version-specific graphical object editors and wizards enable you to easily create, drop or alter any of your accessible database objects. The following example walks you through creating and then altering a standard Oracle table object. This concept carries across all of the supported object types, across all of the supported platforms.

Creating a Table Object

1. On the **Data Source Explorer**, expand the **Schema** node of an Oracle data source.
2. On the Oracle data source, right-click the **Tables** node, and then select **New**.

   DBArtisan opens the Table wizard and leads you through the process of creating a table object.



3. Complete the wizard panels, and ensure that you create two or more columns in the table.
4. Click **Finish**.

   DBArtisan lets you preview any and all generated scripts before you submit them to the database. This is standard for all object related scripts.

Making changes to an existing table object

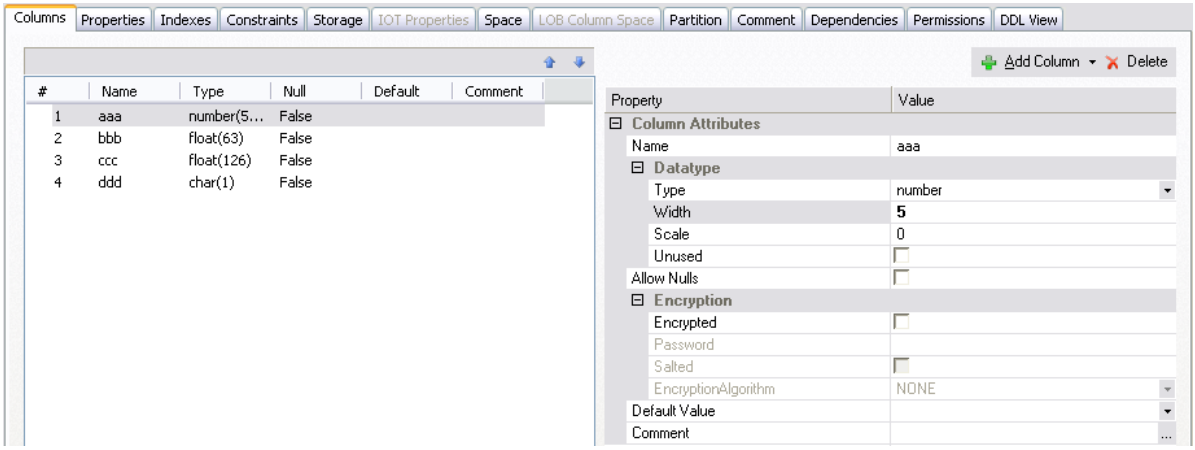
Changes to database tables, such as modifying column lengths, inserting new columns, or deleting unneeded ones, can require dropping of a table. This requires knowledge of the underlying object dependencies so that these dependent objects are rebuilt after the table has been re-created. DBArtisan provides the ability to perform “extended” table alterations by constructing a SQL script with the steps necessary to save off the original data, create the new table, and populate it with the original data. Once these steps are complete, all dependent objects are then rebuilt and permissions re-applied. Following is a sample table change:

1. From the **Explorer**, **Tables** node, select the table you created in the previous example.
2. Double-click the table.

OR

3. From the Command menu, click **Open**.

   DBArtisan opens the Table Editor. The Table Editor provides access to basic table properties, the list of table columns as well as any constraints, storage parameters, space allocation, partitioning, table dependencies, object privileges, table DDL and other attributes of the table. For example:



4. Select one of the columns you created in this table you want to modify.

   Details for the column are shown in the Column Attributes area on the right side of the pane.

5. In the **Width** or **Scale** text box, type a new value.
6. On the **Tables Editor** toolbar, select the **Alter** button.

   DBArtisan lets you preview the SQL script before you submit it to the database.

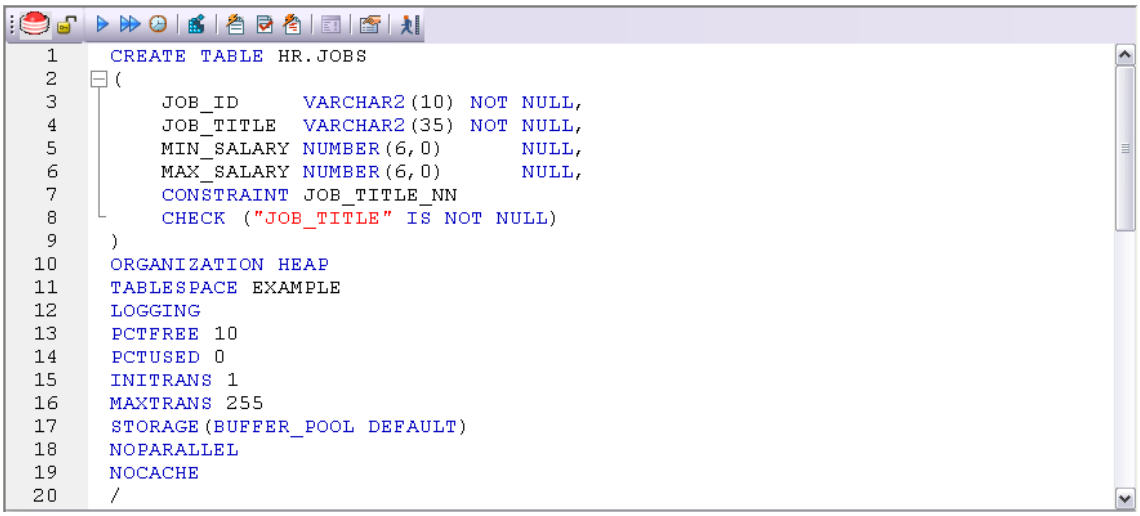
7. Close the **Tables Editor** pane.

Working with Object DDL

DBArtisan allows you to easily extract DDL for single or multiple objects using several methods. The most straight-forward is described here:

1. On the **Explorer**, expand an Oracle data source.
2. On the Oracle data source, click the **Tables** node.
3. In the right pane of the **Explorer window**, right-click any table or group of tables (SHIFT+CLICK), and then select **Extract**.

   The DDL for all highlighted objects is extracted directly in a DDL Editor where it can be altered, executed and saved to the database, with no intermediary steps required.



```
 1  CREATE TABLE HR.JOBS
 2  (
 3      JOB_ID      VARCHAR2(10) NOT NULL,
 4      JOB_TITLE   VARCHAR2(35) NOT NULL,
 5      MIN_SALARY NUMBER(6,0)       NULL,
 6      MAX_SALARY NUMBER(6,0)       NULL,
 7      CONSTRAINT JOB_TITLE_NN
 8      CHECK ("JOB_TITLE" IS NOT NULL)
 9  )
10  ORGANIZATION HEAP
11  TABLESPACE EXAMPLE
12  LOGGING
13  PCTFREE 10
14  PCTUSED 0
15  INITRANS 1
16  MAXTRANS 255
17  STORAGE(BUFFER_POOL DEFAULT)
18  NOPARALLEL
19  NOCACHE
20  /
```

4. Close the PL/SQL Editor pane.

Advanced Schema Management

In addition to standardized object support, DBArtisan provides you with advanced Schema management features. These features include full or object-level schema extraction, migration (with or without data) and publication. This example walks you through a simple cross-platform migration between Oracle and SQL Server data sources. Because DBArtisan automatically resolves differences between these disparate DBMS platforms, you can concentrate on what you want to do, rather than how to actually do it. The Schema Migration Wizard sequences the creation of objects in the proper order to eliminate dependency errors. It also has the intelligence to use the fastest method available for copying table data.

Schema Level Migration

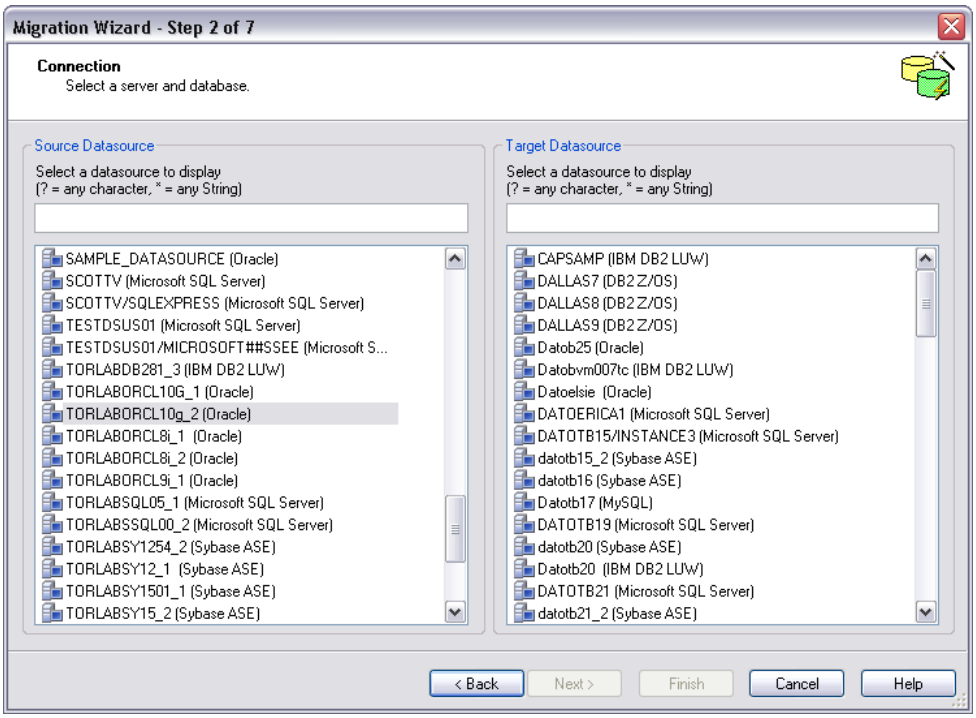
While this example focuses on schema migration, the same wizard principle applies to schema extract and publication.

1. On the **Utilities** menu, select **Schema Migration**.

   DBArtisan opens the Migration Wizard.

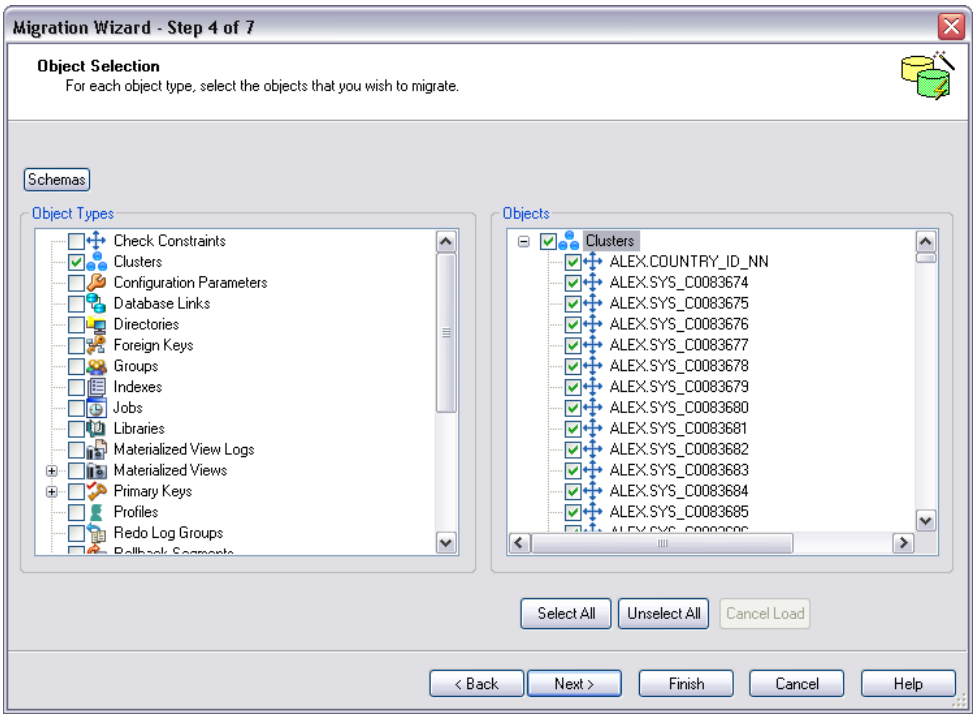
2. Select **Perform New Migration** and **Normal mode** and then click **Next**.

   DBArtisan opens the next panel of the Migration Wizard.



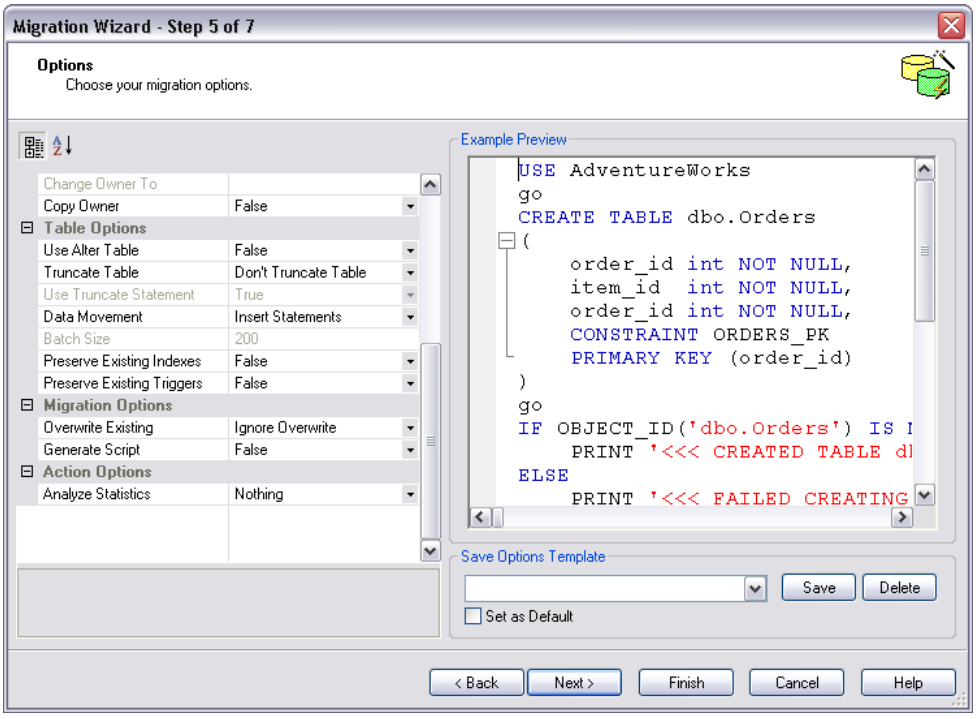
5. Under **Source Datasource**, select an Oracle data source.
6. Under **Target Datasource**, select a SQL Server data source.
7. Click **Next**.

   DBArtisan opens the next panel of the Migration Wizard. Note that a single SQL Server data source can support multiple databases.
8. Under **Target Database**, select a SQL Server database and then click **Next**.
9. DBArtisan opens the next panel of the Migration Wizard.



10. Under **Object Types**, use the check boxes to select one or more object types to migrate to the target data source.
11. Under **Objects**, expand the object types and then use the check boxes to select the specific objects you want to migrate to the target data source.
12. Click **Next**.

    DBArtisan opens the next panel of the Migration Wizard.



It lets you specify a set of options that will be used for this migration job. A comprehensive list of dependency, script, ownership, table, and action options is provided. For now, you can leave the default values.

13. Click **Next**.

    DBArtisan opens the next panel of the Migration Wizard. It offers the option to save this set of migration job options to a file, letting you repeat the migration at a later time.

At this point you can either click **Finish** to view the progress of the migration or click **Cancel** to quit.

Session 3: Database Security Management

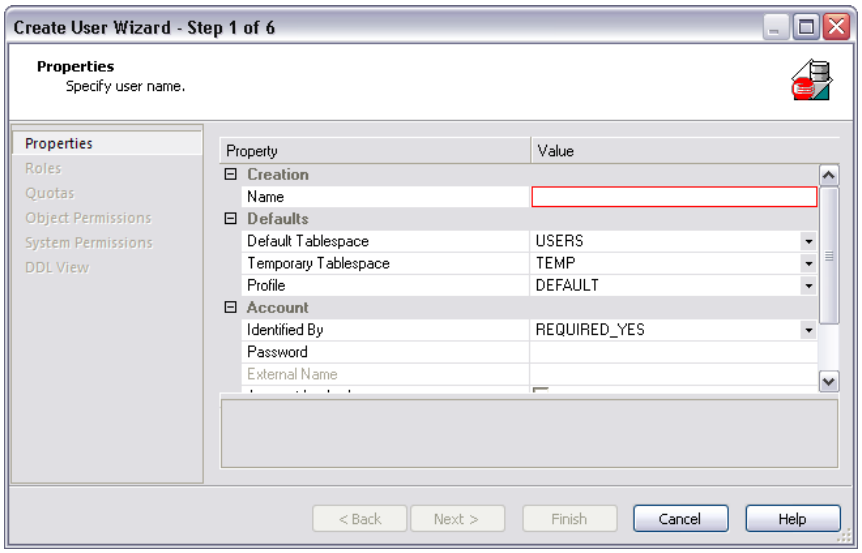
DBArtisan can help you efficiently establish and maintain database security and related objects. Whether you are managing an existing production database or setting up a new environment, you'll find consistent support across all of the supported platforms.

Adding a new database user

While this example focuses on creating a new Oracle user, the same wizard-driven principle applies to all security objects (groups, roles, etc).

1. On the **Data Source Explorer**, expand an Oracle data source, and then the **Security** node.
2. On the **Security** node, right-click **Users**, and then click **New**.

   DBArtisan opens the User Wizard and leads you through the process of adding a user.



3. Provide the information on each panel of the User Wizard until you reach the **DDL View** panel.

   DBArtisan allows you to preview any and all generated scripts before they are submitted to the database. This is standard for all object related scripts.

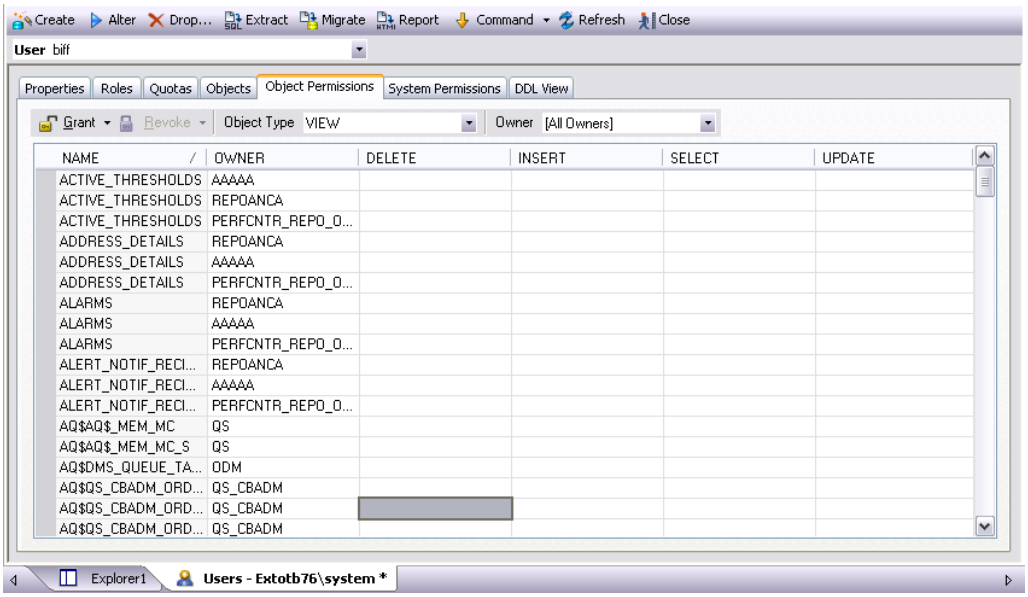
5. Click **Execute** to create the new user.

   DBArtisan opens the User Editor for the new user. The standard User Editor can be used to manage existing database users as shown below.

Granting and Editing User Privileges

Privileges can be easily granted, revoked, or viewed from within either of two editors within DBArtisan; the User Editor, or the individual object editor (Table, procedure, etc.) The User editor provides a tabbed interface, which can be used to view and modify individual attributes of the user.

1. In the User Editor, open the **Object Permissions** tab.
2. Use the **Object Type** dropdown to select a set of objects such as tables or views.



3. Select a cell (corresponding to a specific object type and a specific permission, such as DELETE), and then click **Grant**.

   A distinctive icon is shown in the cell, indicating that this permission is granted. You use a similar process to revoke privileges and perform other permissions-based activities.

4. On the Object Editor toolbar, click **Alter** to implement the changes.

Session 4: Space Management

Managing space is vital to ensuring the availability and performance of your databases. DBArtisan incorporates many built-in space features that enable you to smartly manage and exploit all aspects of your database's storage. The following example walks you through a review of DBArtisan's built-in support for reporting Oracle tablespace storage and space data.

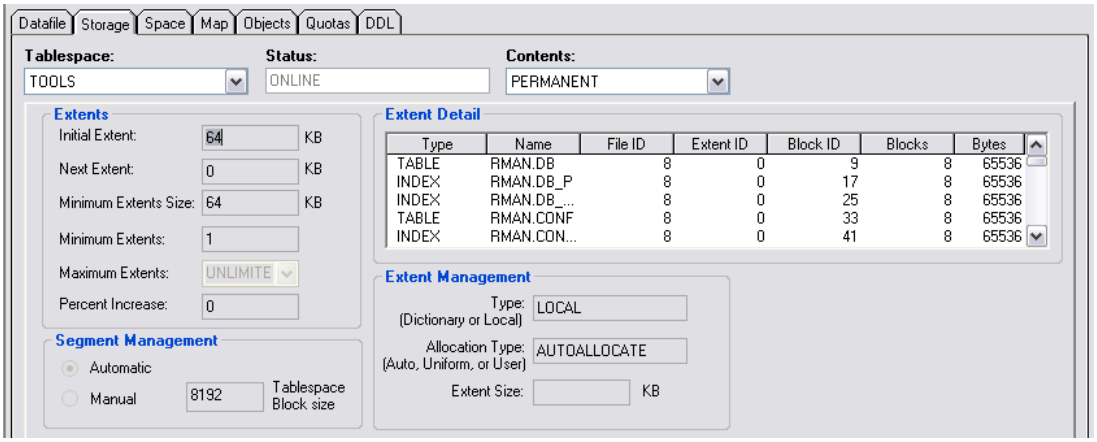
Built-in Space Management

While this example is specific to Oracle tablespaces the same concept applies to all of the supported platforms.

1. On the **Data Source Explorer**, expand any Oracle data source.
2. On the Oracle data source, expand the **Storage** node, and then select **Tablespaces**.
3. Right-click any tablespace listed in the right pane of the Explorer window, and then click **Open**.

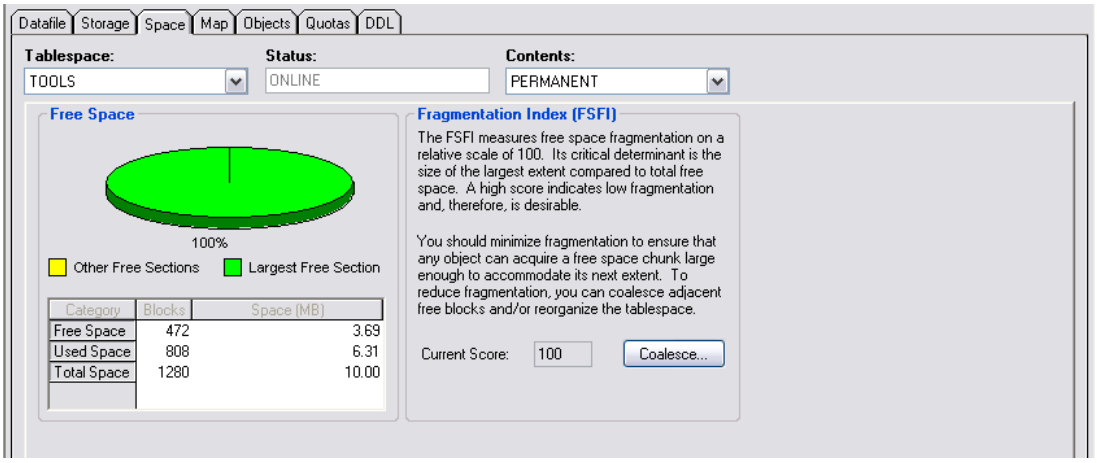
   Embarcadero DBArtisan opens the Tablespaces Editor.
4. On the **Tablespaces Editor**, click the **Storage** tab.

   The Storage tab displays and lets you edit the tablespace extent limits.



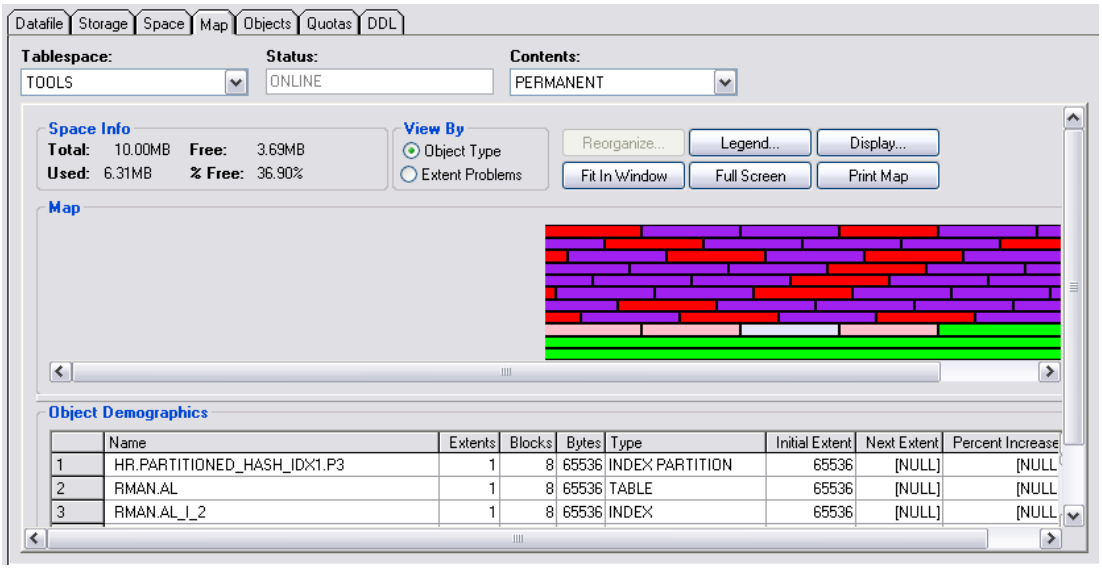
   Changes to this tab enable the **Alter** function on the Tablespace Editor toolbar.
5. On the **Tablespace Editor**, click the **Space** tab.

   The Space tab displays a graphical view of the Free space and Fragmentation Index for the target tablespace.



6. Finally, on the **Tablespace Editor**, click the **Map** tab.

   The Map tab displays a color-coded map of the objects contained on the tablespace.



   The map segments are proportional to the actual size of the objects on the tablespace.

7. Close the Tablespaces Editor pane.

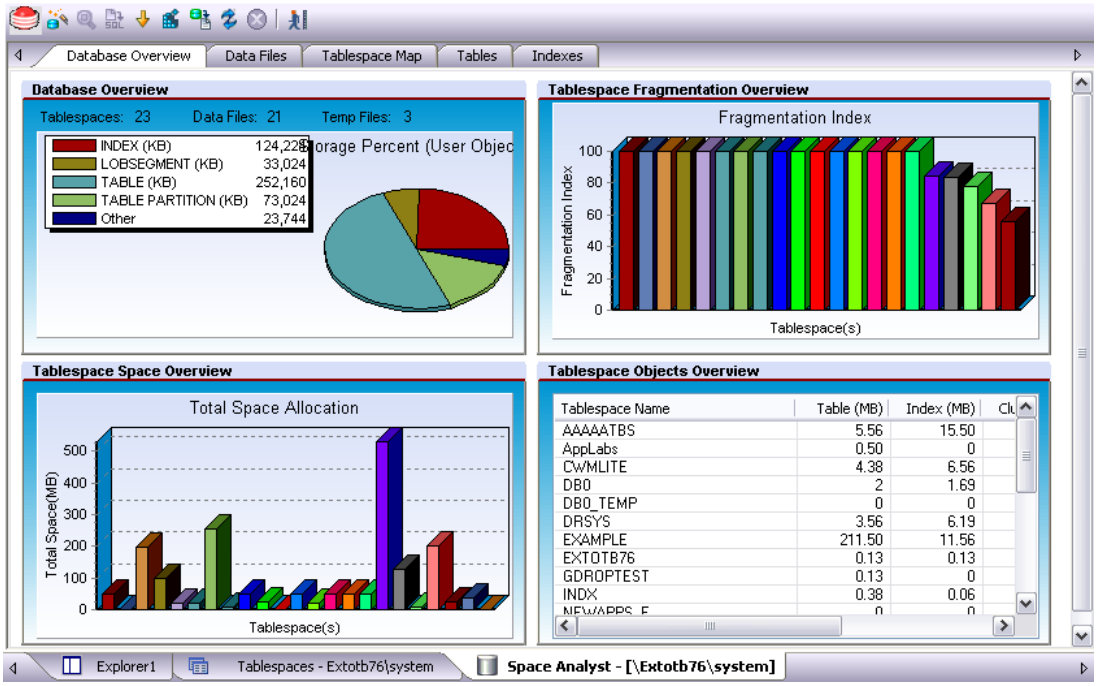
Advanced Space Management (Oracle and SQL Server only)

For advanced space analysis and management, DBArtisan's optional Space Analyst component contains sophisticated diagnostics to help you pinpoint all space-related problems in your database, as well as an intelligent reorganization wizard that can reorganize all or selected parts of your database.

Embarcadero Space Analyst

1. On the **Analyst** menu, select **Space Analyst**.

   The Space Analyst launches in the DBArtisan workspace.



Embarcadero's Space Analyst provides sophisticated diagnostic capabilities to troubleshoot bottlenecks and performance inefficiencies that result in poor space management.

Please see the DBArtisan online help for a detailed walkthrough of all available features and functionality.

2. Close the Space Analyst pane.

Session 5: SQL Management

DBArtisan provides powerful visual tools for creating and analyzing complex SQL statements and server-side code objects. The following examples walk you through DBArtisan's Visual Query Builder, feature-rich ISQL facility and some of the advanced analysis and debugging capabilities provided by the Embarcadero SQL Debugger and SQL Profiler.

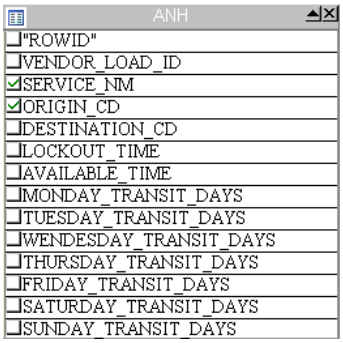
Visual Query Builder

1. From the **Tools** menu, select **Query Builder**.

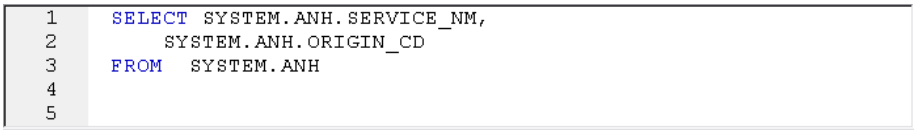
   DBArtisan opens the Query Builder.

2. In the **Tables/Views** tab, right-click a table or view and select **Add**.

3. In the window that opens, select the columns to return in the result. For example:



   Query Builder generates the query text in the lower SQL window.



   You can build advanced queries using the options supplied in the DML tab. You choose the type of query (SELECT, INSERT, and so on) using the dropdown on the Query Builder toolbar.

4. After the query is built, click the **Execute** button (green arrow) on the Query Builder toolbar.

   Query Builder displays results in the lower SQL window.

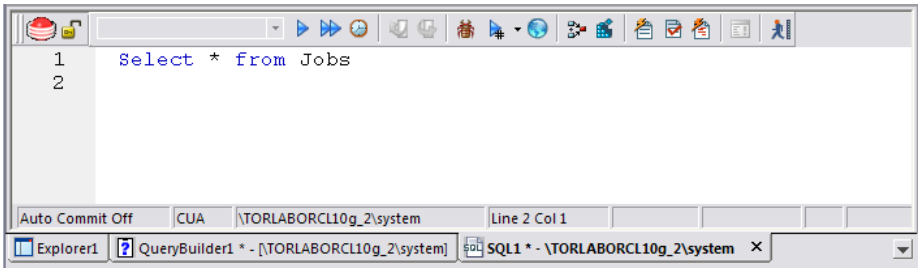
5. Close the QueryBuilder pane.

ISQL Window

1. On the **File** menu, click **New**, and then **ISQL**.

   DBArtisan opens the ISQL Editor window.

2. Add SQL code via your method of choice (free-form typing, retrieve from a file, paste copied code, etc.).

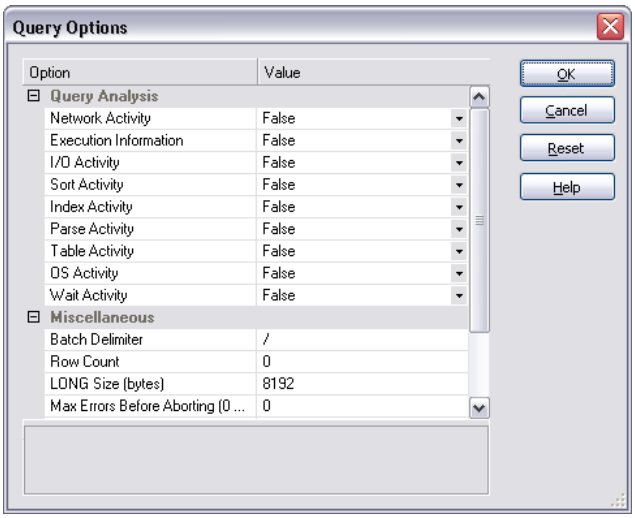


The ISQL Editor window includes the following features and options:

- The ISQL window highlights all platform and general keywords and provides the options for SQL code formatting, syntax checking and analysis.
- Once code is executed you have control over whether your transaction is committed or rolled back from the database.
- For all open ISQL windows, there are also options for connection locking, scheduling, executing your code across multiple data sources, explain plan generation, and SQL Tuning.

3. Press **F8** prior to SQL execution.

   DBArtisan opens the Query Option dialog box that lets you set platform specific Query Options to immediately determine if your code is optimized.



4. Either close the Query options dialog and then the SQL Editor window or continue to work to execute your query. When complete, ensure that only the Data Source Explorer window is open.

SQL Debugging, Analysis and Tuning

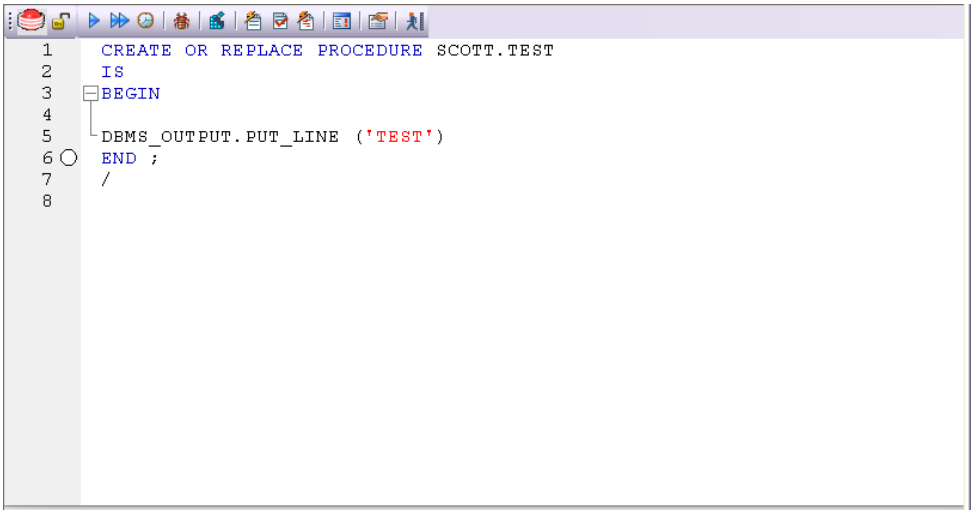
To analyze and debug your SQL code, DBArtisan provides cross-platform SQL code debuggers, and for your Oracle databases, a robust PL/SQL code profiler that helps you to pinpoint and eliminate “hot spots” within poorly running server-side code. To ensure code efficiency, the ISQL window provides tight integration with Embarcadero’s SQL Tuner, so you can perform multiple “test then tune” iterations without having to leave an open ISQL window.

SQL Debugging

While this example is specific to Oracle PL/SQL Debugging the same interface and functionality applies to all of the supported platforms.

1. On the **Data Source Explorer**, expand any Oracle data source node.

2. On the Oracle data source, expand the **Procedures** node.
3. In the right pane of the **Explorer**, right-click any stored procedure, and then select **Debug**.



4. If applicable, enter any input parameters the Procedure Execution input window and then click **Continue**.

After the SQL Debugger interface is displayed you can step through code, step into dependencies, set and watch variables, and even perform basic code profiling for each line of executed code.

Please see the DBArtisan online help for a detailed listing of all available SQL features.

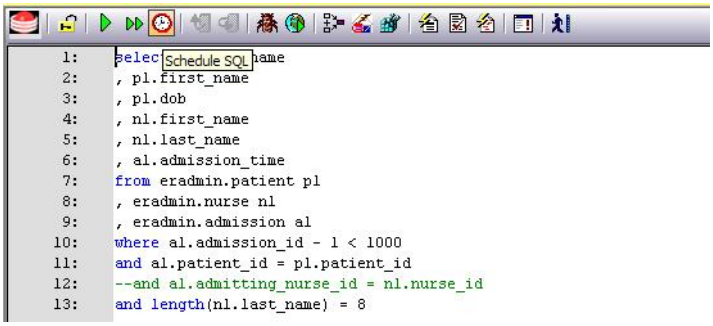
Session 6: Job Management

DBArtisan freely integrates with the Microsoft Windows Task Scheduler, which allows you to schedule virtually any task to run on your own computer whenever and how often you'd like. While this example is specific to an Oracle table redefinition, the same concept applies to any job or script that can be scheduled.

Advanced Job Management

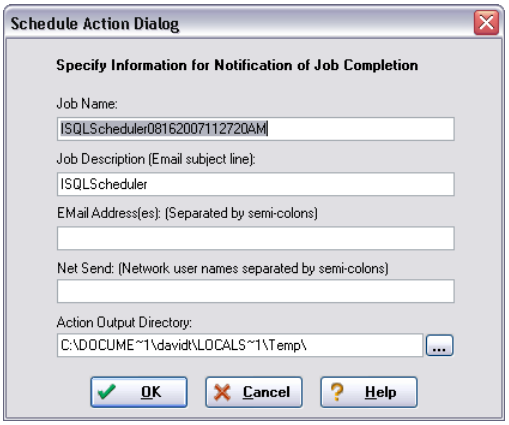
To schedule a job, do the following:

1. On the **Explorer**, expand any Oracle data source.
2. On the Oracle data source, expand the **Tables** node, and then right-click any table.
3. Select **Extract**.



4. From the ISQL window toolbar, click **Schedule**.

The Scheduler Action dialog box opens where you can provide a name, set notifications, and specify an output directory for the new job.



5. After you have completed the dialog box, click **OK**.
6. To monitor and administer your new job, on the Oracle data source, right-click the **Instance** node, and then select **Job Scheduler**.

This opens the Windows Job Scheduler dialog. For the purposes of this exercise, you can either finish scheduling the task and inspect the results when it completes, or you can click **Cancel** to proceed to the next session.

Session 7: Data Management

DBArtisan provides comprehensive facilities to help you manage the data in all of your databases. A visual data editor helps you add, change, and delete data from your tables with all referential integrity enforced. You can create insert statements for tables using current data and also extract data as XML documents for certain databases. Rounding out its rich Schema Management capabilities, DBArtisan also allows you to migrate schema objects and associated table data from one database server to another, across the same or different platforms.

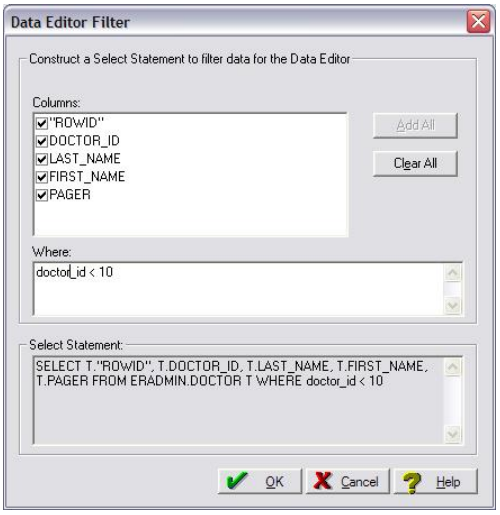
Visual Data Editing

To start the Visual Data Editor, do the following:

1. In the **Data Source Explorer**, right-click any table or tables, and select **Edit Data**.

   DBArtisan opens the Data Editor Filter.

2. In **Columns**, select the columns to include in the Edit.



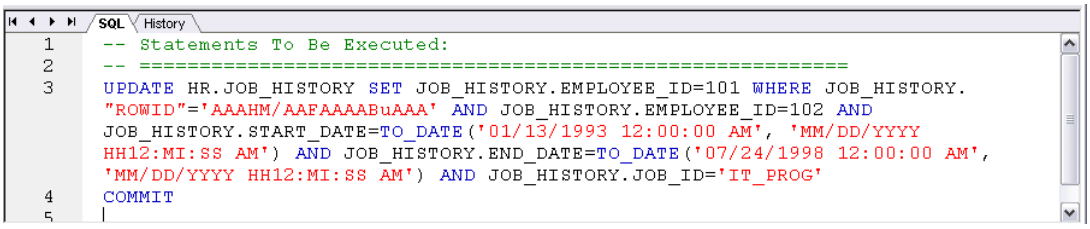
3. You can also filter the editable rows by including your own Select statement.
4. Click **OK**.

   In Live mode all changes are applied to the database when you move off of an updated or inserted row. Deleted rows are immediately removed from the database.

   Batch mode allows you to make changes and then save all when all are complete. Mode is controlled by a dropdown in the Data Editor toolbar.

5. Experiment with editing your data, and when complete, on the Data Editor toolbar, click the Execute (blue arrow) button.

   DBArtisan commits your changes. Regardless of mode, all of the generated DML statements are viewable in the lower SQL window.

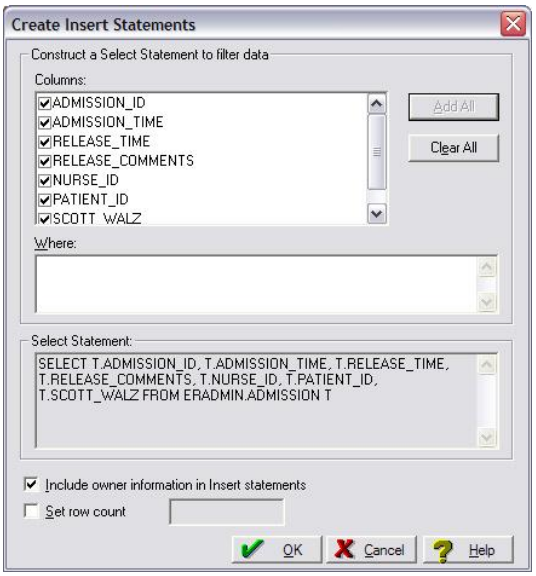


6. Close the Data Editor pane.

Working with Table Data – Create Insert Statements

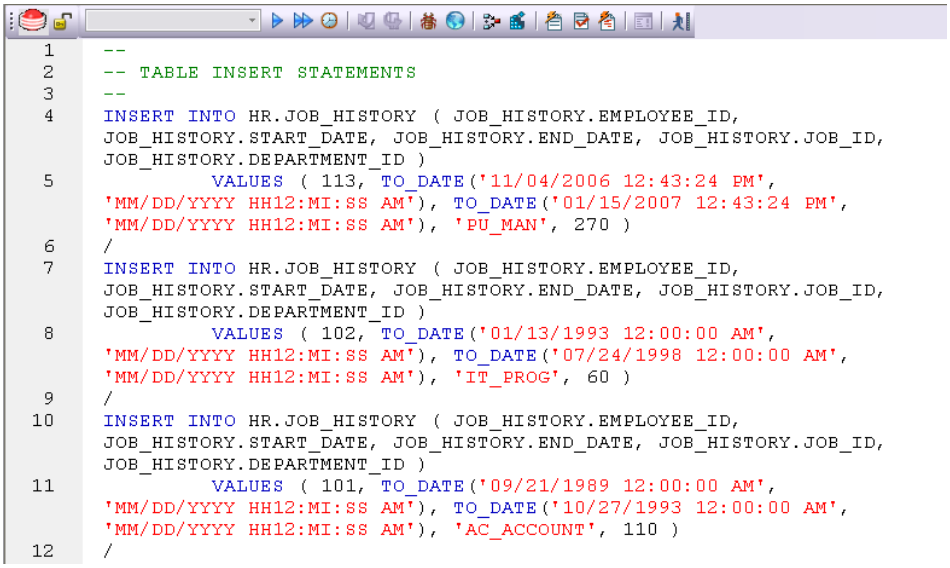
1. On the **Data Source Explorer**, select any Oracle data source.
2. On the Oracle data source, expand the **Tables** node.
3. In the right pane of the Explorer window, right-click any table, and then select **Create Insert Statements**.

   DBArtisan opens the Create Insert Statements dialog box.



5. In **Columns**, select the columns you want to include in the Insert statement.
6. You can also filter what rows are included by adding your own WHERE clause.
7. **OPTIONAL** Select Owner information and row limit
8. Click **OK**.

   The resulting insert statements are created and presented in an active ISQL window. At this point they can be executed immediately, scheduled to later or saved. Note that all extracted insert statements can be run against the same or different databases containing a similar schema.



```
1   --
2   -- TABLE INSERT STATEMENTS
3   --
4   INSERT INTO HR.JOB_HISTORY ( JOB_HISTORY.EMPLOYEE_ID,
    JOB_HISTORY.START_DATE, JOB_HISTORY.END_DATE, JOB_HISTORY.JOB_ID,
    JOB_HISTORY.DEPARTMENT_ID )
5             VALUES ( 113, TO_DATE('11/04/2006 12:43:24 PM',
    'MM/DD/YYYY HH12:MI:SS AM'), TO_DATE('01/15/2007 12:43:24 PM',
    'MM/DD/YYYY HH12:MI:SS AM'), 'PU_MAN', 270 )
6   /
7   INSERT INTO HR.JOB_HISTORY ( JOB_HISTORY.EMPLOYEE_ID,
    JOB_HISTORY.START_DATE, JOB_HISTORY.END_DATE, JOB_HISTORY.JOB_ID,
    JOB_HISTORY.DEPARTMENT_ID )
8             VALUES ( 102, TO_DATE('01/13/1993 12:00:00 AM',
    'MM/DD/YYYY HH12:MI:SS AM'), TO_DATE('07/24/1998 12:00:00 AM',
    'MM/DD/YYYY HH12:MI:SS AM'), 'IT_PROG', 60 )
9   /
10  INSERT INTO HR.JOB_HISTORY ( JOB_HISTORY.EMPLOYEE_ID,
    JOB_HISTORY.START_DATE, JOB_HISTORY.END_DATE, JOB_HISTORY.JOB_ID,
    JOB_HISTORY.DEPARTMENT_ID )
11            VALUES ( 101, TO_DATE('09/21/1989 12:00:00 AM',
    'MM/DD/YYYY HH12:MI:SS AM'), TO_DATE('10/27/1993 12:00:00 AM',
    'MM/DD/YYYY HH12:MI:SS AM'), 'AC_ACCOUNT', 110 )
12  /
```

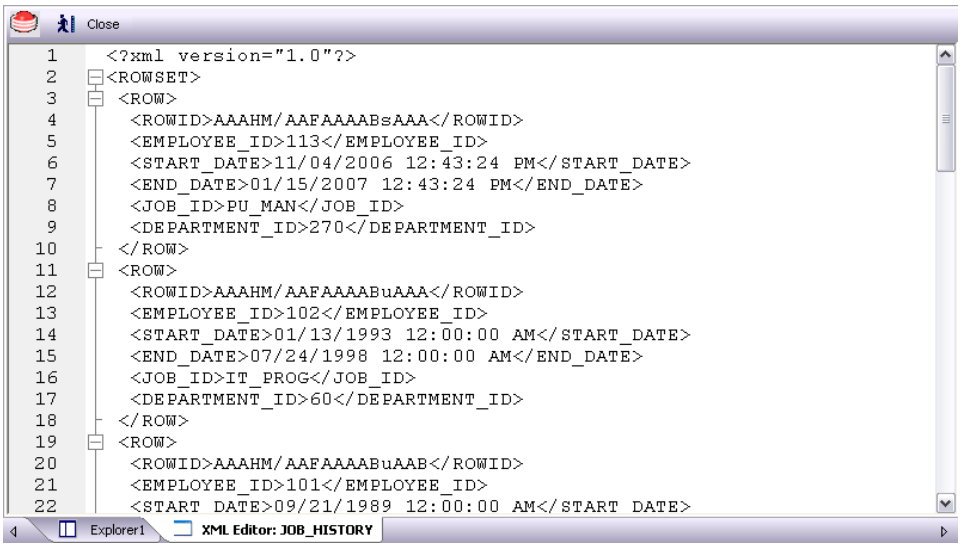
9. Close the editor pane.

Working with Table Data – Extract Data as XML

This feature is available for Oracle 9i and SQL Server 8.1. The following example is specific to Oracle 9i, but the concept applies to SQL Server 8.1 as well.

1. On the **Data Source Explorer**, expand any Oracle data source.
2. On the Oracle data source, 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.



7. Close the editor pane.

Advanced Data Management – Schema and Data Migration

DBArtisan provides advanced data management tools that help you to move schema and corresponding table data across the same or different platforms. You can copy a single database object, all objects owned by a specific user, or an entire database all guided by a wizard-driven process.

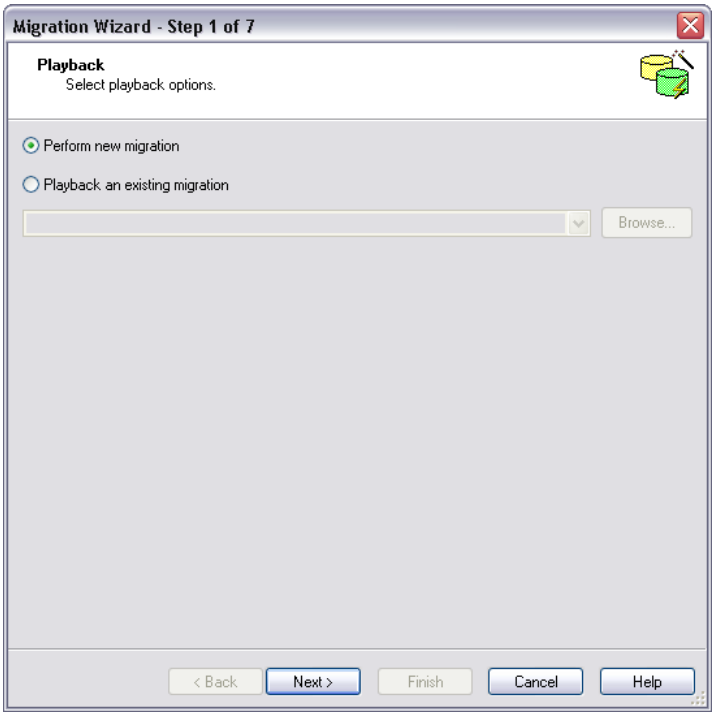
Schema and Data Migration

While this example is specific to an Oracle to SQL Server schema and data migration the same concept applies to any migration involving any combination of the supported platforms.

To open the Schema Migration Wizard:

1. On the **Utilities** menu, select **Schema Migration** button.

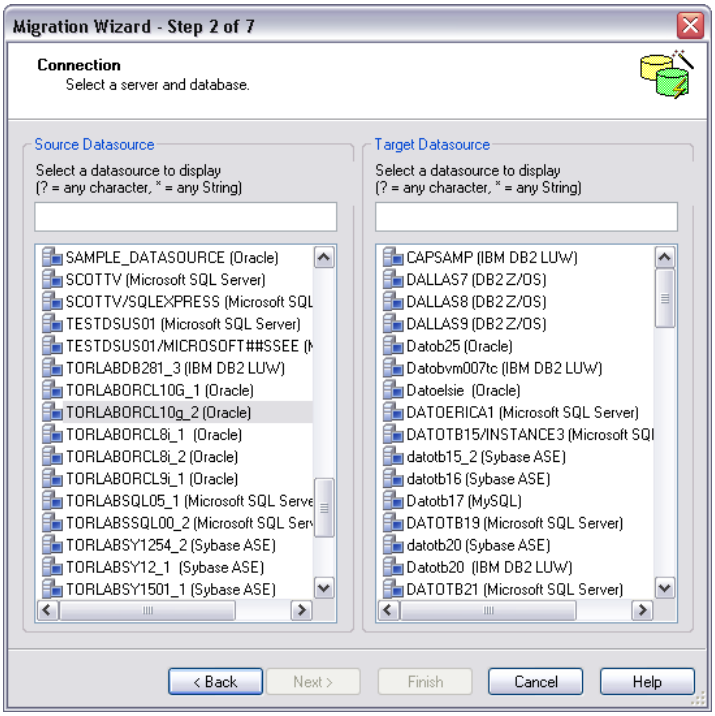
   DBArtisan opens the Migration Wizard.



2. Select the **Perform new migration** option.

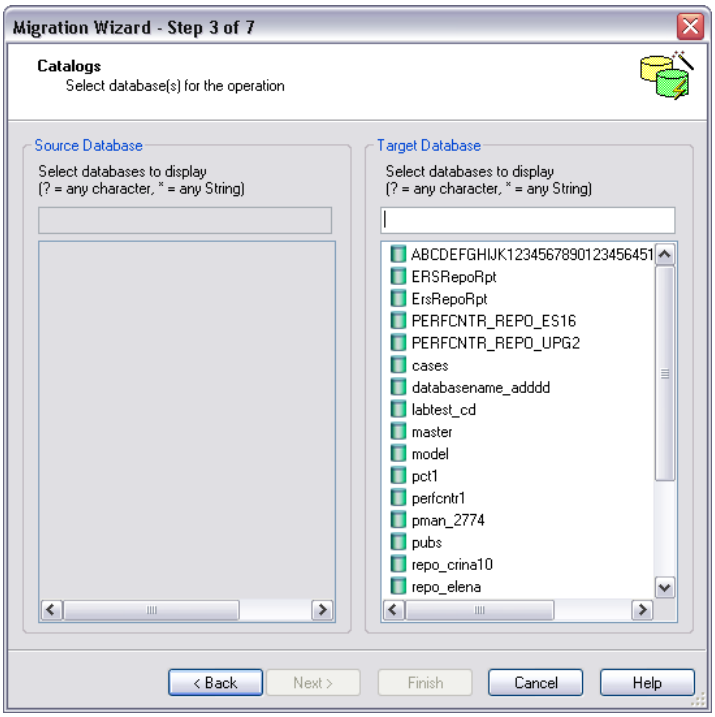
3. Click **Next**.

   DBArtisan opens the next panel of the Migration Wizard.



4. Select an Oracle data source from the **Source Datasource** list and a Microsoft SQL Server data source from the **Target Datasource** list.

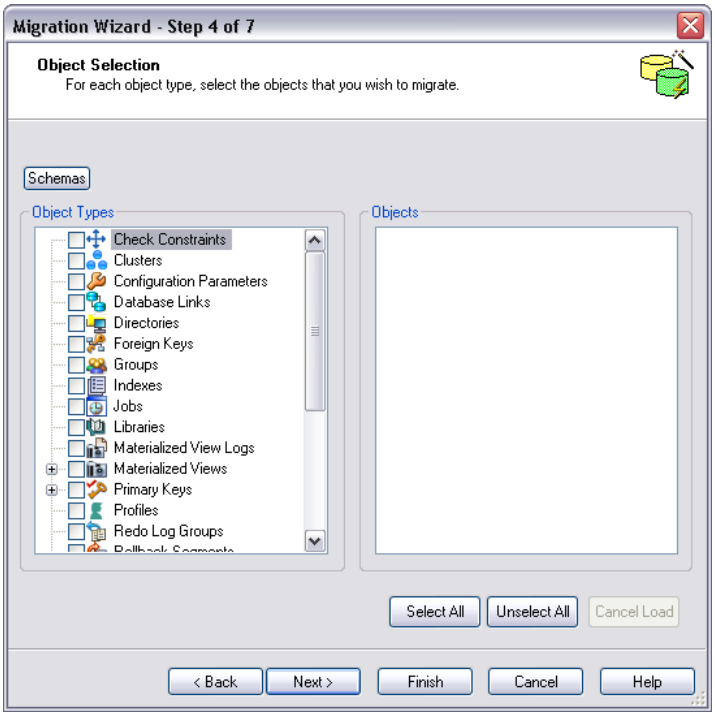
5. Click **Next** and provide login credentials if prompted.
6. DBArtisan opens the next panel of the Migration Wizard.



Since Microsoft SQL Server supports multiple databases per data source, you must choose a database.

7. Select an entry from the **Target Database** list and then click **Next**.

   DBArtisan opens the next panel of the Migration Wizard.



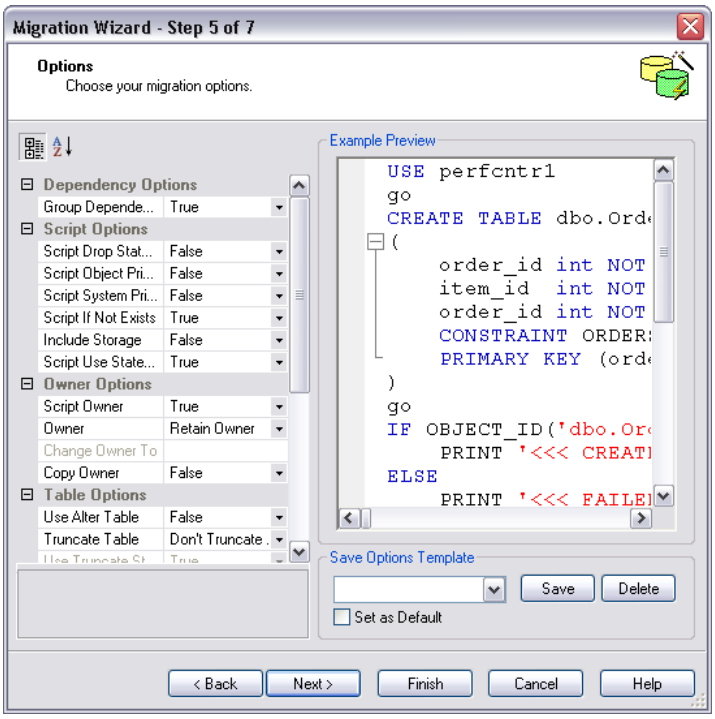
8. In the Object Types list, select the object types to be migrated to the target data source.

   As you select object types, the **Objects** list is updated to let you select specific objects to migrate. The Expand/Collapse icons let you drill down through dependencies/containment.

9. Use the **Objects** list to select the specific objects to migrate.

10. Click **Next**.

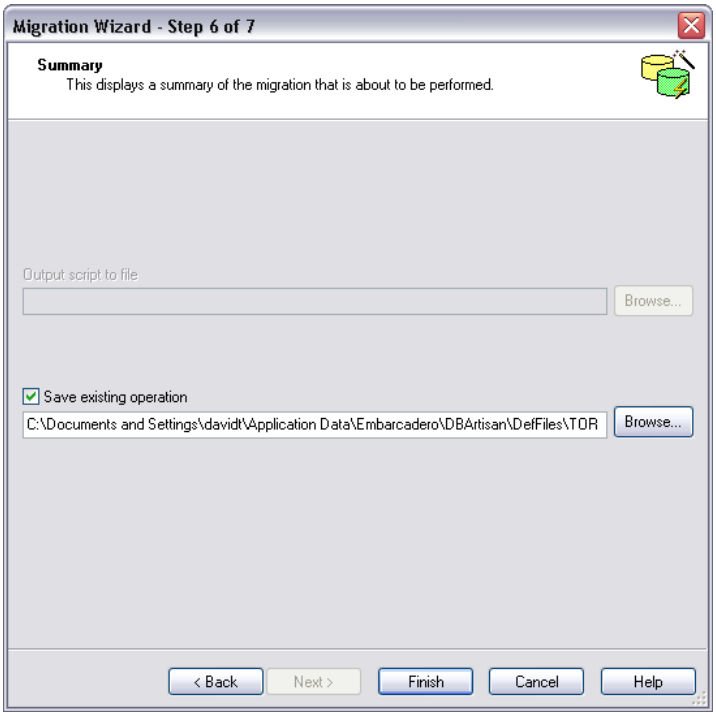
    DBArtisan opens the next panel of the Migration Wizard.



11. Examine the migration options offered but leave the defaults settings for now.

12. Click **Next**.

    DBArtisan opens the next panel of the Migration Wizard.



Clicking **Finish** executes the migration and lets you view the progress of the job.

Session 8: Performance Management

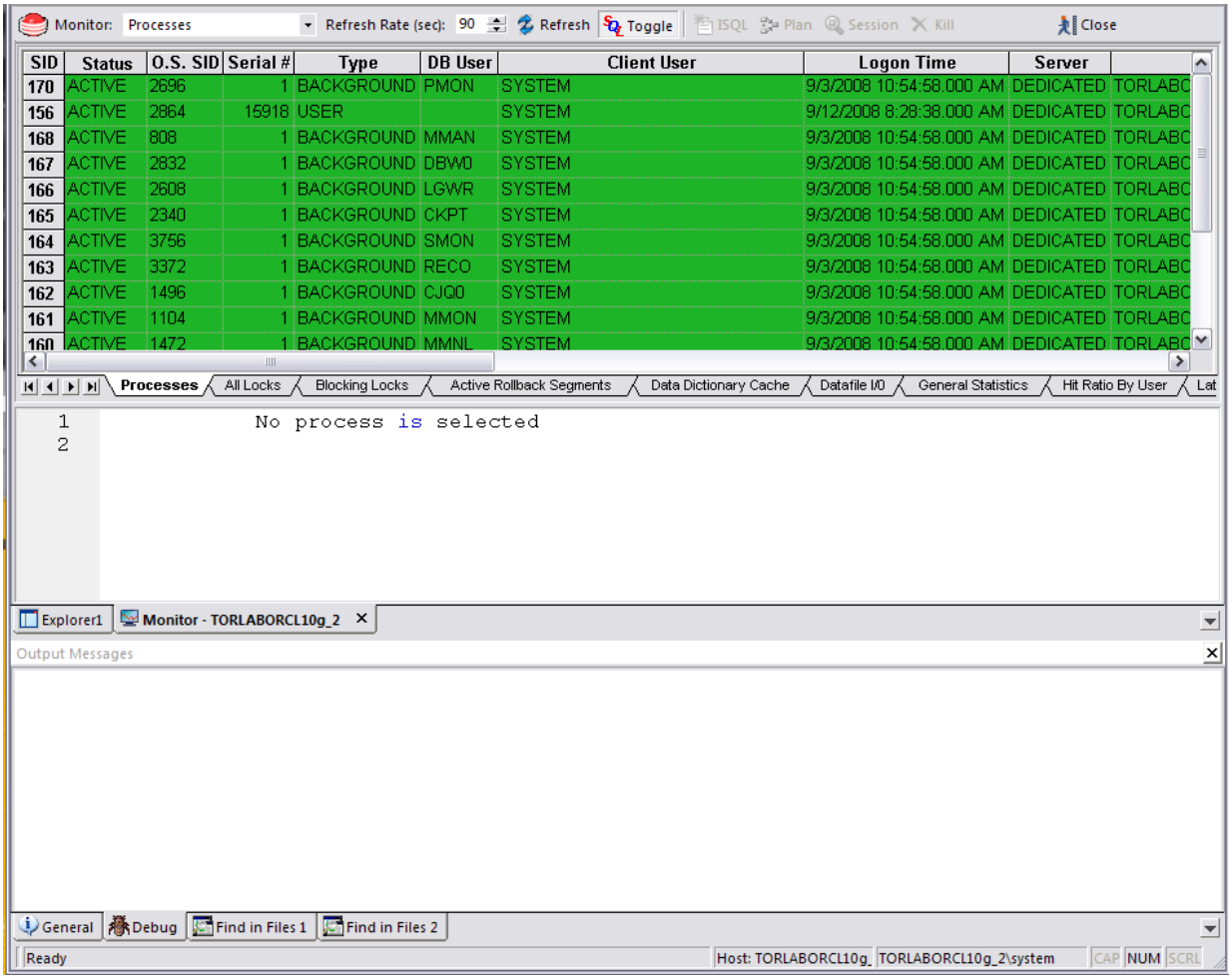
DBArtisan offers a number of different options to help you manage the performance of your databases. First, DBArtisan ships with a built-in process monitor that helps you understand who is connected to your database along with each user's current activity and session-related data. For more robust performance details DBArtisan's Performance Analyst add-on is a powerful client-side database monitor that runs fully contained in the DBArtisan console.

Monitoring Sessions

While this example is specific to Oracle the Process Monitor is available for all of the supported platforms.

To start the DBArtisan Process Monitor:

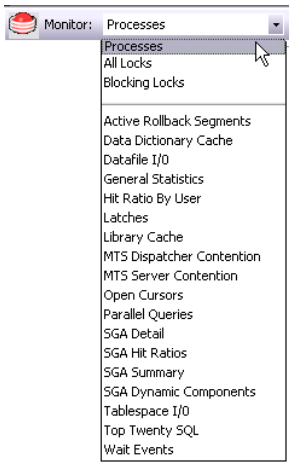
1. On the **Data Source Explorer**, select any Oracle data source.
2. From the **Utilities** menu, select **Database Monitor**.



The Database Monitor includes the following options and features:

- Highlight any session and any currently running SQL is displayed in the lower pane.
- You can drill-down into a specific session to display session-level statistical details, historical and current wait events along with a working copy of the currently running SQL that can be copied to an ISQL for explain plan generation.

- By using the Monitor drop down options you can display more advanced database-level monitoring data such as locks, blocking locks, hit ratio by user, Top 20 SQL etc.



3. Close the Database Monitor pane.

Advanced Client-Side Performance Monitoring

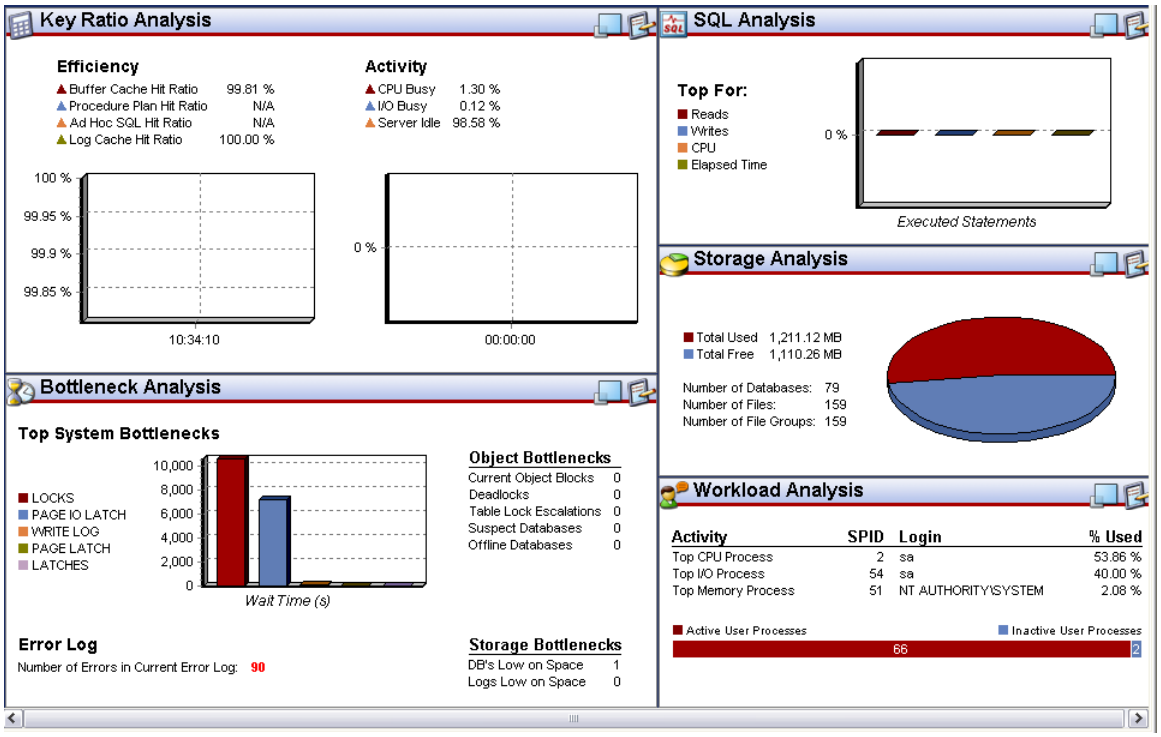
For advanced performance monitoring and management, DBArtisan's optional Performance Analyst provides intelligent diagnostic information and strong drilldown details to help you get to the heart of any episode of performance degradation. Performance Analyst integrates completely with DBArtisan so you can fix any performance problems with a few clicks of the mouse.

As of DBArtisan 8.6, Performance Analyst is available for Oracle, SQL Server, Sybase and DB2 for Unix, Windows, and Linux on Open Systems.

Embarcadero Performance Analyst

1. On the **Data Source Explorer**, select any Oracle data source.
2. On the **Analyst** menu, select **Performance Analyst**.

   The Performance Analyst opens in the DBArtisan workspace for the target data source.



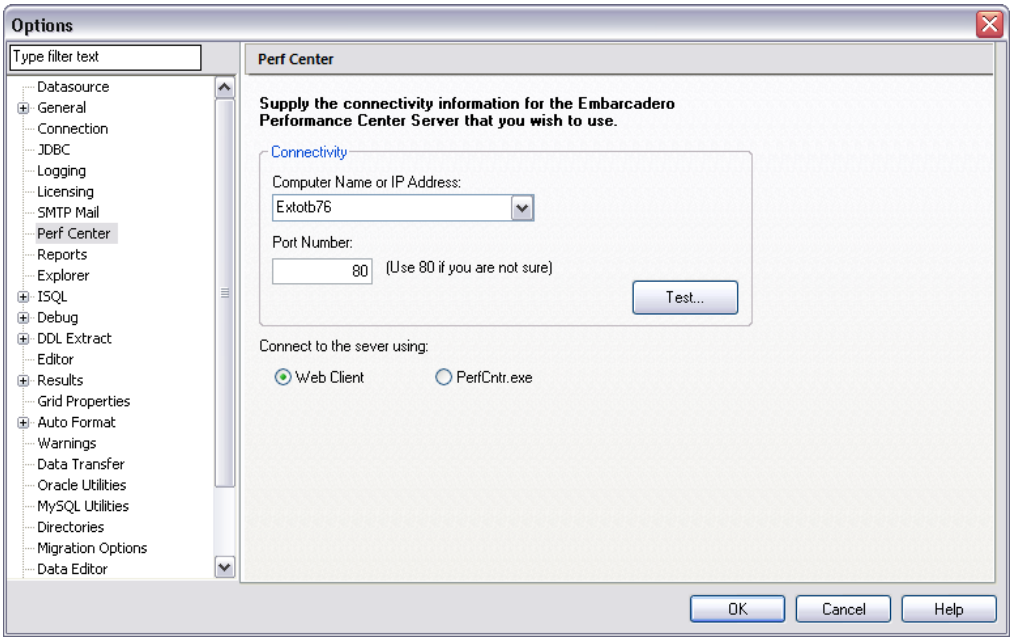
Please see the DBArtisan online help for a detailed walkthrough of all available features and functionality.

For enterprise performance monitoring, DBArtisan integrates with the Embarcadero Performance Center Web Client. While integration requires a licensed Performance Center server, there are not upgrade requirements for the DBArtisan console.

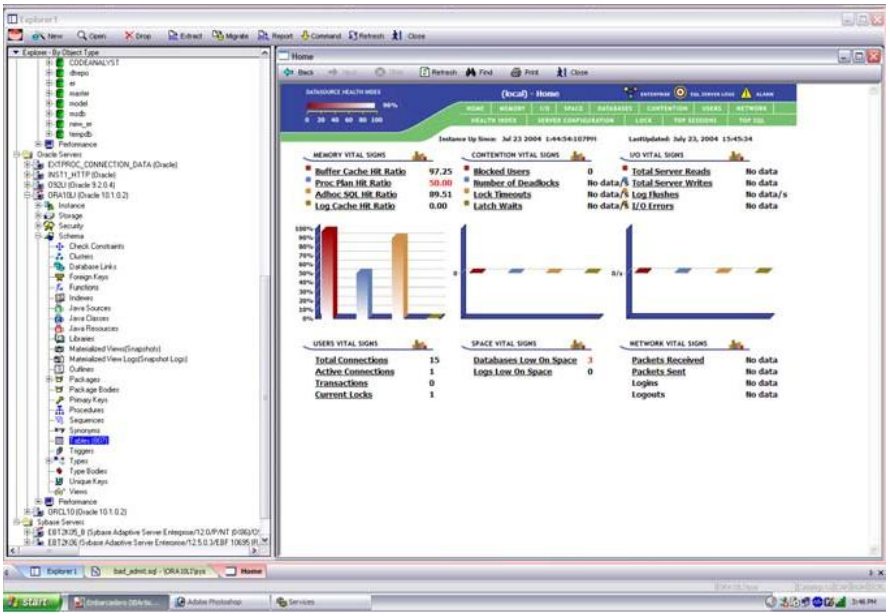
NOTE: You should only work through the following exercise if you are a current Performance Center user. If you are not a Performance Center customer, please read the following for information purposes only.

Use the following to establish a quick connection to your Performance Center server:

1. On the **File** menu select **Options**.
2. On the **Options Editor**, select the **Perf Center** tab.



3. Select the Web Client radio button and enter the Performance Center server info as indicated. Perform a test to ensure the configuration is correct. After a connection is established you can use the Tools > Performance Center option to launch the Web Client within the DBArtisan console. If you are using the full Performance Center client you can use this same Options editor tab to switch back.



Note the Performance Center web client provides read only access to the monitored data sources. To perform edits or maintenance you must switch to the full Performance Center client.

Please see the DBArtisan online help for a detailed walkthrough of all available features and functionality.

Session 9: Capacity Management

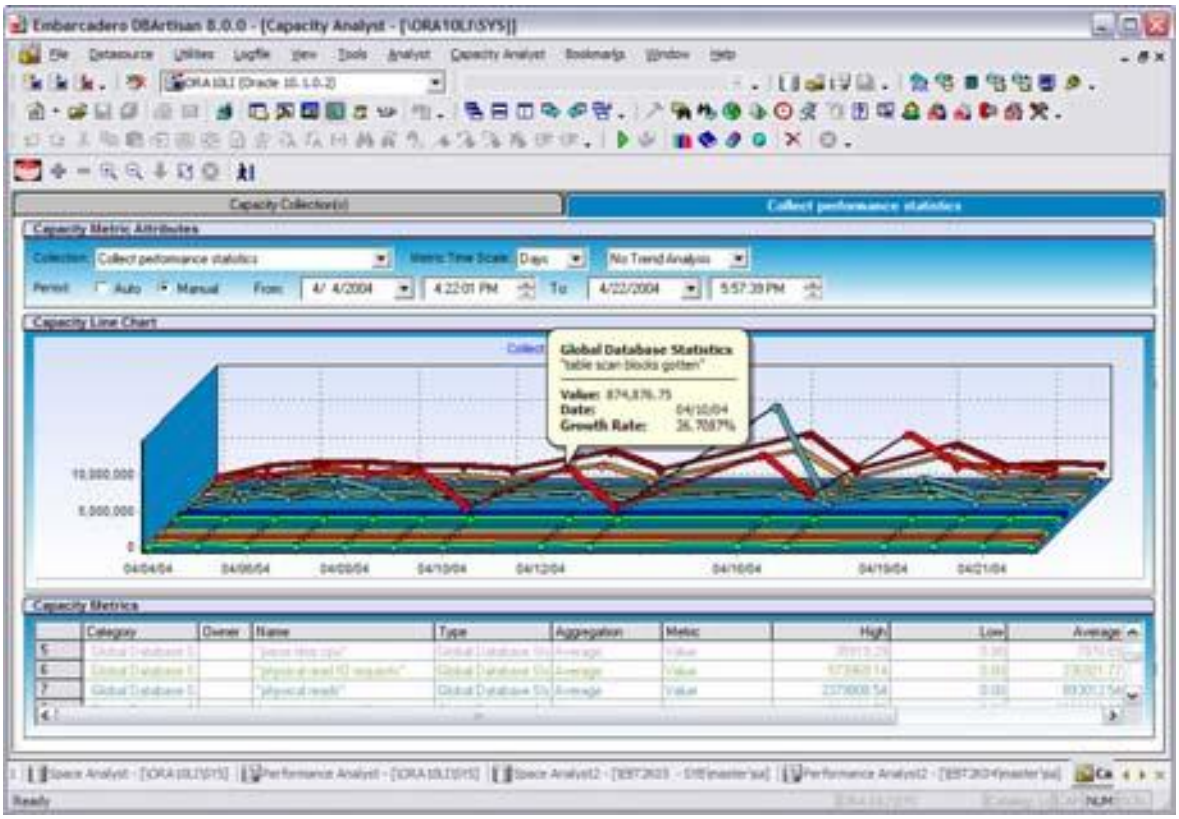
Planning for the future of your critical databases used to be a difficult task. However, DBArtisan's optional Capacity Analyst tool makes it easy to understand where your databases are today and where they are headed in the future. Capacity Analyst lets you track key database metadata and performance metrics over time so you can perform trend analysis on key are like growth, object fragmentation, I/O and session load. Like all of the Analyst Series products, Capacity Analyst runs fully contained within DBArtisan so you have access to smart, built-in forecasting mechanisms that allow you to predict when your databases will run out of space and the ability to proactively manage your storage assets, all from the same console.

As of DBArtisan 8.6, Performance Analyst is available for DB2 for Unix, Windows, and Linux, Sybase, Oracle, and SQL Server.

Advanced Capacity Planning – Embarcadero Capacity Analyst

1. On the **Data Source Explorer**, select any Oracle data source.
2. From the **Analyst** menu select **Capacity Analyst**.

   The Capacity Analyst opens in the DBArtisan workspace for the target Oracle data source.



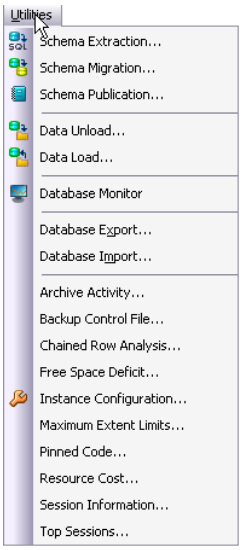
Please see the DBArtisan online Help for a detailed walkthrough of all available features and functionality.

Session 10: General Utilities and Tools

No evaluation of DBArtisan would be complete without a mention of the general Utilities and Tools that are available across all of the supported platforms.

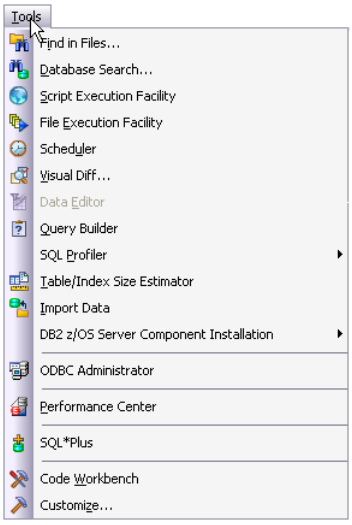
Utilities Menu

The main toolbar Utilities menu contains the more advanced DBArtisan features. The available menu items are context-sensitive and version specific for the selected data source DBMS platform. This example shows Utilities menu features that are available for Oracle.



Tools Menu

The main toolbar Tools menu contains those features that are common across all dbms platforms. This example shows the Tools menu features that are available for all supported dbms platforms. Note that if any other Embarcadero products are installed on your client they will be available in the Tools menu.



All DBArtisan utilities and tools provide a common interface that walks you through all input and execution requirements. All results are consistently presented so you can easily move between features without effort or confusion.

Additional Resources

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