Embarcadero Technologies, Inc. is a leading provider of award-winning tools for application developers and database professionals so they can design systems right, build them faster and run them better, regardless of their platform or programming language. Ninety of the Fortune 100 and an active community of more than three million users worldwide rely on Embarcadero products to increase productivity, reduce costs, simplify change management and compliance and accelerate innovation. The company’s flagship tools include: Embarcadero® Change Manager™, CodeGear™ RAD Studio, DBArtisan®, Delphi®, ER/Studio®, JBuilder® and Rapid SQL®. Founded in 1993, Embarcadero is headquartered in San Francisco, with offices located around the world. Embarcadero is online at www.embarcadero.com.
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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 by 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

DOWNLOAD AND INSTALL

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

NOTE: Trial versions of Embarcadero products can be either fully installed versions or InstantOn versions. InstantOn is an application virtualization technology that lets you
run an application using a single file, without running a full installation. When downloading an InstantOn trial version, always use the **Save** option (as opposed to the **Run** option), since the downloaded file is used to start the application during the course of the trial period.

Provide the requested information and follow the steps indicated to download the software and register the trial license. 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**

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

---

**START DBARTISAN**

How you start DBArtisan depends on the type of application you are evaluating:
- **InstantOn version** – start the application by double-clicking the file you downloaded.
• **Fully-installed version** - The Start menu sequence for DBArtisan is always in the form `Programs > Embarcadero DBArtisan version identifier > Embarcadero DBArtisan version identifier`, where `version identifier` reflects the version you are running.

To get started:
1. Run DBArtisan. The first time DBArtisan starts, it displays a message indicating that it can automatically detect and register your datasources. If you have installed and used other Embarcadero tools, DBArtisan can find any active datasources being used by those tools. In addition, DBArtisan provides a Discover Datasources feature that automatically searches the DBMS configuration files on your system for datasources that are not currently registered. The Discover Datasources 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 datasources found on your network or local machine. Once discovered, you have the option to register datasources for DBArtisan usage.
2. For the purpose of this Guide, dismiss the dialog. You will be registering a datasource manually.

**REGISTERING CROSS-PLATFORM DATASOURCES**

The Datasource Registration Wizard walks you through the process of registering a datasource 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. Ensure that **Use TNS Names Alias** is deselected and provide the **Host** machine name associated with an Oracle datasource.

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** 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](image)

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.

![Final Panel](image)

13. In the **Managed Datasources** tree, place the datasource you are registering.
14. Click **Finish**.
DBArtisan prompts you as to whether you want to connect to the datasource.
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 datasource and can be saved locally or in a common datasource catalog for use by other Embarcadero products. You can configure Embarcadero database applications to use a datasource catalog stored in the system registry of your machine (local) or to use a datasource catalog located in the registry of another computer (remote). This capability makes it easy to share datasource catalogs among multiple users so that maintenance can be administered from one location.

All Embarcadero database administration products share the datasource catalog, which means that when you set up your datasource catalog using one product such as DBArtisan, 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.

**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 Datasource 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.

**Datasource Explorer Bookmarks**

1. In the Explorer tree, right-click the datasource you registered.
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 datasource resources via the main menu Bookmarks item.

---

**Setting Keyboard Shortcuts and Hotkeys**

1. From the **Tools** menu, select **Customize**. The **Customize** dialog box opens.
2. In the **Customize** dialog box, open the **Keyboard** tab.

   ![Customize dialog box](image)

   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 Datasources

4. From the File menu, select Recent Datasources, and then choose a datasource. DBArtisan opens the datasource in the Datasource Explorer, ready to work with an active connection.

Datasource Explorer tree filtering
DBArtisan provides a number of ways to filter the Datasource Explorer tree, easing navigation. During a DBArtisan session, you can use the Filter box at the top of the Datasource Explorer to display only those objects whose name contains characters typed in the Filter box.

If you are interested in a more permanent filtering method, you can create filters at the DBMS or datasource level. Filters are available under the Filters node for each datasource.
Right-clicking in the tree and selecting Filter opens the Filters dialog. It lets you filter out object types at the DBMS platform level. It also lets you create object filters.

Object filters can be object name-based, schema-based, or some combination thereof. A named-based or schema-based filter consists of one or more ANDed conditions. You also specify the object types to which the filter is to apply.

In addition to any custom object filters you create, the Filters node also provides access to two default filters: Ignore System Objects and Show Only My Objects. They can be applied at the datasource level and cannot be deleted or modified.
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 Datasource Explorer, expand the Schema node of an Oracle datasource.
2. Expand an individual schema, right-click the Tables node, and then select Create.
   DBArtisan opens the Table wizard and leads you through the process of creating a table object.

   ![Create Table Wizard](image)

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 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:

<table>
<thead>
<tr>
<th>#</th>
<th>Name</th>
<th>Type</th>
<th>Null</th>
<th>Default</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>aaa</td>
<td>number(5)</td>
<td></td>
<td>True</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>bbb</td>
<td>float(64)</td>
<td></td>
<td>False</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>ccc</td>
<td>float(126)</td>
<td></td>
<td>False</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>ddd</td>
<td>char(1)</td>
<td></td>
<td>False</td>
<td></td>
</tr>
</tbody>
</table>

3. 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.

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

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

6. Close the **Table 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, right-click the table you created earlier, 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.

```
CREATE TABLE HR.JOBS
(
  JOB_ID VARCHAR2(10) NOT NULL,
  JOB_TITLE VARCHAR2(35) NOT NULL,
  MIN_SALARY NUMBER(6,0) NULL,
  MAX_SALARY NUMBER(6,0) NULL,
  CONSTRAINT JOB_TITLE NN CHECK("JOB_TITLE" IS NOT NULL)
)
TABLESPACE EXMPLE
LOGGING
PCTFREE 10
PCTUSED 0
INITRANS 1
MAXTRANS 255
STORAGE (BUFFER_POOL DEFAULT)
NOPARALLEL
NOCACHE
/
```

2. Close the PL/SQL Editor pane.

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 Datasource Explorer, expand an Oracle datasource, and then the Security node.
2. On the Security node, right-click Users, and then click Create.
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.

4. 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 permission-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 let you 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 **Datasource Explorer**, expand any Oracle datasource.
2. On the Oracle datasource, 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 Tablespace 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.

```
1  SELECT SYSTEM.ANH_SERVICE_NK,
2       SYSTEM.ANH.ORIGIN_CD
3  FROM SYSTEM.ANH
4
5
```

You can build advanced queries using the options supplied on 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 **Query Builder** pane.

**ISQL WINDOW**

DBArtisan offers a fully-featured SQL editor. In addition to basic text processing features, the editor environment offers testing/debugging and execution facilities. In combination with supporting features, the ISQL editor eases and speeds up the process of developing working scripts.

1. On the **File** menu, click **New**, and then **ISQL**.
   DBArtisan opens the ISQL Editor window. You can add SQL code via your method of choice (free-form typing, retrieve from a file, paste copied code, etc.).

2. Experiment with the automated error detection and coding assistance as follows:
   - Type **SELECT * FROM** and stop typing. Note the error condition.
By default, DBArtisan runs a syntax check any time there is an interval of 1.5 seconds between keystrokes. You can also disable automatic syntax checking and only run a check when you manually initiate it. Syntax error annotation persists until you correct the problem.

- This time type a fragment that includes the name of a nonexistent object, `SELECT * FROM NON.OBJECT`, for example. For now, ignore any popups. The warning condition is a result of on-the-fly semantic validation. DBArtisan notifies you when a script contains a reference to an object that DBArtisan cannot resolve.
- Type `SELECT * FROM` followed by a space and then stop typing. If no popup appears, press CTRL+SPACE. The Code Complete suggestion box lets you select from objects or object name components such as databases or schema. This feature saves keystrokes and minimizes typing errors. See the online Help for full descriptions of these features.

The ISQL Editor window includes the following features and options:

- The ISQL window highlights all platform-specific and general keywords, and provides options for SQL code formatting 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 datasources, explain plan generation, and SQL Tuning.

   DBArtisan opens the Query Option dialog box that lets you set platform-specific query options to immediately determine if your code is optimized. For example, when connected to a SQL Server datasource, the Query Options dialog offers the following options.

![Query Options dialog](image)

4. Either close the Query Options dialog and then the SQL Editor window or enter a valid query in the ISQL editor and then execute your query by clicking the Execute button.

5. When complete, ensure that only the Datasource 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 Datasource Explorer, expand any Oracle datasource node.
2. On the Oracle datasource, expand the Procedures node.
3. In the right pane of the Explorer, right-click any stored procedure, and then select Debug.
4. If prompted, enter any input parameters in 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 virtually schedule 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 datasource.
2. On the Oracle datasource, expand the **Tables** node, and then right-click any table.
3. Select **Extract**.

![Image of SQL code]

```sql
1: SELECT * FROM patient
2: WHERE admission_id = 1
3: AND admission_date = '2023-01-01'
```

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

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

![Schedule Action Dialog]

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

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 **Datasource Explorer**, right-click any table or tables, and select **Edit Data**.
   DBArtisan opens the Data Editor Filter.
2. In **Columns**, select the columns that are to be included in the editable data.

   ![Data Editor Filter](image)

   You can also filter the editable rows by including your own SELECT statement.

3. 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.

4. 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.
5. Close the Data Editor pane.

**WORKING WITH TABLE DATA – CREATE INSERT STATEMENTS**

2. On the Oracle datasource, 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.

![Create Insert Statements dialog box](image)

4. In Columns, select the columns you want to include in the INSERT statement.
5. You can also filter what rows are included by adding your own WHERE clause.
6. 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.
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 **Datasource Explorer**, expand any Oracle datasource.
2. On the Oracle datasource, 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 SELECT 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.

```
-- TABLE INSERT STATEMENTS

7. Close the editor pane.
```
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**. DBArtisan opens the Migration Wizard.

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

3. Click **Next**. DBArtisan opens the next panel of the Migration Wizard.

```xml
<?xml version="1.0"?>
<ROW>
  <ROWID>AAAAAH/AAFAAAAABAAAA</ROWID>
  <EMPLOYEE_ID>113</EMPLOYEE_ID>
  <START_DATE>11/04/2006 12:43:24 PM</START_DATE>
  <END_DATE>01/15/2007 12:43:24 PM</END_DATE>
  <DEPARTMENT_ID>20</DEPARTMENT_ID>
</ROW>
<ROW>
  <ROWID>AAAAAH/AAFAAAAABAAAA</ROWID>
  <EMPLOYEE_ID>102</EMPLOYEE_ID>
  <START_DATE>01/13/1993 12:00:00 AM</START_DATE>
  <END_DATE>07/24/1998 12:00:00 AM</END_DATE>
  <DEPARTMENT_ID>60</DEPARTMENT_ID>
</ROW>
<ROW>
  <ROWID>AAAAAH/AAFAAAAABAAAA</ROWID>
  <EMPLOYEE_ID>101</EMPLOYEE_ID>
  <START_DATE>09/21/1969 12:00:00 AM</START_DATE>
</ROW>
```
4. Select an Oracle datasource from the **Source Datasource** list and a Microsoft SQL Server datasource from the **Target Datasource** list.

5. Click **Next** and provide login credentials if prompted. DBArtisan opens the next panel of the Migration Wizard.
Since Microsoft SQL Server supports multiple databases per datasource, you must choose a database.

6. Select an entry from the Target Database list and then click Next. DBArtisan opens the next panel of the Migration Wizard.

7. In the Object Types list, select the object types to be migrated to the target datasource.

8. 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 **Datasource Explorer**, select any Oracle datasource.
2. From the **Utilities** menu, select **Database Monitor**.

![Database Monitor screenshot](image)

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 dropdown 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.

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

Embarcadero Performance Analyst

2. On the Analyst menu, select Performance Analyst.
   The Performance Analyst opens in the DBArtisan workspace for the target datasource.
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.
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 datasources. 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 areas 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 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
2. From the Analyst menu select Capacity Analyst.
   The Capacity Analyst opens in the DBArtisan workspace for the target Oracle datasource.

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 datasource 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**

**LICENSING YOUR EMBARCADERO TECHNOLOGIES PRODUCT**

All Embarcadero Technologies products include a 14-day trial period. To continue using the product without interruption, we recommend that you license it as soon as possible. To license your product, use the License Request Wizard found in the Help menu of your respective product. If you have not yet purchased your Embarcadero Technologies product, contact sales@embarcadero.com, or uk.sales@embarcadero.com for sales in the EMEA region.

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- [Product Demos](#)
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- [Developer Network](#)
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We encourage you to open technical support cases via the Technical Support request form at the Embarcadero Technologies Web site. For additional information about Embarcadero Technologies Technical Support, go to the Support page on our Web site.

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