

Product Documentation

DBArtisan® XE Pro and DBArtisan® 8.7.5 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 by using old-fashioned hand coding techniques.

ABOUT THIS GUIDE

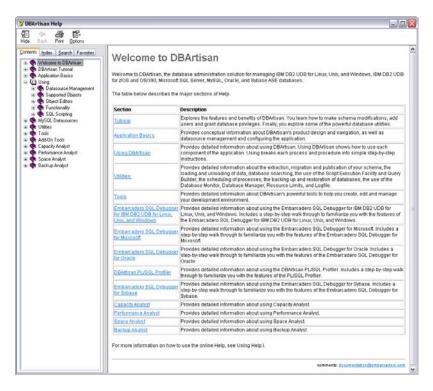
This evaluation guide is intended to help you get started using Embarcadero's DBArtisan, the industry-leading solution for administering enterprise databases from a single point of control. While DBArtisan supports current versions of Oracle, Microsoft SQL Server, Sybase Adaptive Server, IBM DB2 for 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
- 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 <u>http://www.embarcadero.com/downloads</u>.

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

Embarcadero DBArtisan 8.7.0 - [Explorer1] **Application Toolbars** - O 🗙 🗄 🔲 🖬 File 🛛 Utilities Logfile View Tools Bookmarks Analyst Window Help Datasource ₽× AB5QL05_2 (SQL Server <u>09.0</u>0.3042) 💌 📗 🛐 master Main mmand 👻 💈 Refresh Close eate Menu Databas ast Dur ٨ Current Data Source and Server **Explorer Tree** 🗄 🚹 ROM 2 1 (SQL Server) 🔲 [asda]s 6/26/2009 11:51:40 AM Online N/A SOL Server) 🔲 [asdas] 4/4/2008 9:04:46 AM Online N/A **Right Pane context** (SQL Server) 🔲 [gemeni] Online 4/4/2008 8:30:16 AM N/A (SOL Server 8.0.2039 toolbar (SQL Server 8.0.2039 [NewTest] Online N/A TORLABSQL00_3 (SQL Server) Right Pane of Explorer [PetraTest] Online N/A TORLABSQL05_1 (SQL Server 9.0.1399 TORLABSQL05_2 (SQL Server 09.00.30 ÷ NewDXXX Online N/A 🔲 123pac Online 2/12/2008 9:01:53 AM N/A 🛨 📭 Filters 550421 Online 4/24/2009 3:18:55 AM N/A 🗄 🐴 Server 🔲 a.b Online 9/5/2007 7:44:33 AM N/A 🗄 👼 Storage 🔲 aaa Online 4/13/2009 3:35:48 AM N/A ÷ 🥜 Security 🔲 adina Online 5/9/2008 8:17:10 AM N/A + 📊 Databases (98) 🔲 AeoSystem Online 9/17/2008 8:36:46 AM N/A 庄 🔤 Performance. 🔲 AlexTest Online 5/5/2008 10:35:37 AM N/A 160 🚺 aloha@street Online 3/4/2008 8:56:15 AM N/A Tabs for open windows 🐻 Aramescu Offline, Single User 6/16/2009 2:55:01 PM N/A 🔲 balanta Online 4/7/2008 4:28:40 AM N/A E TORLABTBOLT30: CASES Online 3/3/2008 10:57:36 AM N/A ÷ 🛅 MySQL Servers Online 4/17/2009 10:28:17 AM 🔲 cata N/A 🛅 Oracle Servers ¥ ÷ ~ < > < 🔲 Explorer1 🗙 4 ₽ Output Messages × 18:46:38.822 Program OS390 knowledge module loaded ^ 18:46:39.041 Program Oracle knowledge module loaded 18:46:39.260 Program SQL Server knowledge module loaded 18:46:39.791 Program Sybase knowledge module loaded 18:46:40.260 Program MySQL knowledge module loaded 18:46:54.713 Program Connecting to datasource 'TORLABSQL05_2' using login 'sa'. Y 🔱 General 🛛 Build 🛛 🎆 Debug 🖉 🔚 Find in Files 1 🖉 Find in Files 2 Þ Ready Host: TORLABSQL05_2 | TORLABSQL05_2\master\sa

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.

Datasource Registratio	n 🛛 🔀
Information Select the database	rype.
Database Type Connection Informatior Security Parameters Datasource Properties Datasource Group	 IBM DB2 Universal Database Microsoft SQL Server MySQL Oracle Sybase Adaptive Server
	< Back Next > Finish Cancel Help

2. Select **Oracle** as the database type and then click **Next**. DBArtisan opens the next panel of the Datasource Registration Wizard.

Datasource Registration 🛛 🕅 🕅 🕅 🕅							
	nection information for th r enter the information n	ne Oracle server. You can either select an entry from your inanually.					
Database Type Connection Informatior Security Parameters Datasource Properties Datasource Group	Use TNS Names A Oracle Alias: Host: Port: SID/Service Name: Instance Name: Datasource Name:	Alias					
	< Bac	k Next > Finish Cancel Help					

- 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.

Datasource Registration 🛛 🔀						
Information Please enter the sec ensure your informat		I for this connection. You may also attempt a test connection to	ŀ			
Database Type Connection Informatior Security Parameters Datasource Properties Datasource Group	Auto connect? (normal (Saves and encrypts password) Windows Authentication Test Connection	N			
	_<	Back Next > Finish Cancel	Help			

- 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.

Datasource Registratio	Datasource Registration 🛛 🔀								
Information Please select the pro	operties for the current datasource	P							
Database Type Connection Informatior Security Parameters Datasource Properties Datasource Group	#Include Search Directories:								
	< Back Next > Finish Cancel	Help							

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.

Datasource Registration 🛛 🔀							
Information Please select the gro	up folder where the datasource will appear in the explorer tree.	P					
Database Type Connection Informatior Security Parameters	Select the datasource group folder:						
Datasource Properties Datasource Group	Comparison of the sources Comparison of the sources						
	< Back Next > Finish Cancel	Help					

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.

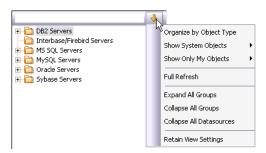
All Embarcadero database administration products share the datasource catalog, which means that when you set up your datasource catalog using one product such as DBArtisan, the same list of datasources is available in other Embarcadero Technologies products. Any changes you make to the datasource catalog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

E ROMLABSY1	7	Connect				
🕀 🏥 ROWAPLAE	÷.					
🗄 💼 Torlabsql	Ċ.	Change Group				
🕀 🛅 TORLABSQL 👔	Ъ	Edit				
🕀 💼 TORLABSQL		Unregister				
🗄 🚹 TORLABSQL -	x	onregiscer				
😑 🎦 TORLABSQL	Ы	Register Like				
🕀 🏆 Filters	~	Monitor				
🕀 🐴 Server 📄						
🕀 👼 Storage <	B	Configure				
🕀 🥜 Security 🚦	31	Extract				
🕀 🚮 Databa: 👩	92	Migrate				
🕀 🔛 Perform	8	~				
🗄 🚹 TORLABSQL		Command 🕨 🕨				
🕀 🚹 TORLABSQL						
🕀 🚹 TORLABSY1		Refresh				
🕀 🚠 TORLABTBO		Filter				
H MySQL Servers						
Oracle Servers		Add bookmark				

DBArtisan opens the Add Friendly Bookmark Name dialog box.

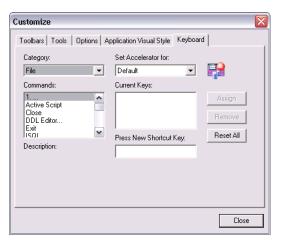
3. Click OK.

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

: 🛄 Eile	Datasource	Utilities	Logfile	⊻iew	Tools	Boo	okmar <u>k</u> s	Analyst	Window	Help	
							Bookma	ark Manage	er		
							DB2		Þ		
							DB2OS	390	Þ		
							MySQL		Þ		
							Oracle		•		MyOracle
							SQLSer	ver	•		45
							Sybase		Þ		
							Generic	:	Þ		

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.

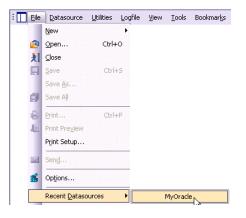


The Keyboard tab can be used to set Keyboard shortcut hot keys for all areas of DBArtisan functionality.

3. Click Close.

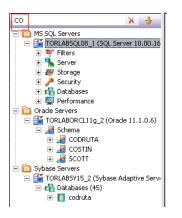
Referencing Most Recently Used Datasources

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.

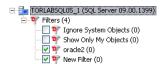


Datasource Explorer tree filtering

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.



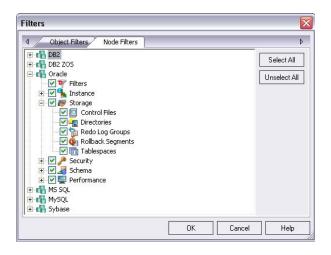
Right-clicking in the tree and selecting **Filter** opens the **Filters** dialog. It lets you filter out object types at the DBMS platform level. It also lets you create object filters.

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.

Object Filt	ers Node Fil	ters		1
DB2	;			New
	gnore System Ob how Only My Ob			Delete
+ A Oracle	lyFilter			Rename
🖻 👬 MS SQL	gnore System Ob			Clone
⊕	how Only My Ob	jects		View O By Datasource O By Filter
1	×			
1 Predicate:		Elements		Þ
Property	Operator		Value	
		Elements	Value	New Delete

Object filters are created at the DBMS or datasource level and can be enabled and disabled for individual datasources.

The **Filters** dialog also lets you hide or display nodes based on object type. Node filtering lets you filter out object types for all datasources of the same DBMS type.



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.

eate Table Wizard Properties Specify the table p			
roperties	Property	Value	
olumns	Creation		
ndexes	Schema		•
onstraints	Name		
torage	Table		
T Properties	Cache		
artition	Row Movement		
omment	Parallel Degree	1	
	Parallel Instances	1	
ermissions	Percent Free		
L View	Physical		
	Row Organization	HEAP	
	Logging		
	Table Compression		
		< <u>B</u> ack <u>N</u> ext > <u>F</u> inish	<u>C</u> ancel Help

- 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:

						⊕ ₩			🝦 Add Column 👻 🗙 Delei
#	Name	Туре	Null	Default	Comment		Property	Value	
1	aaa	number(5	False				Column Attributes	Value	
2	ьрр	float(63)	False				Name	aaa	
3	CCC	float(126)	False				Datatype	000	
4	ddd	char(1)	False				Type	number	
							Width	5	
							Scale	0	
							Unused		
							Allow Nulls		
							Encryption		
							Encrypted		
							Password		
							Salted		
							EncryptionAlgorithm	NONE	
							Default Value		
							Comment		

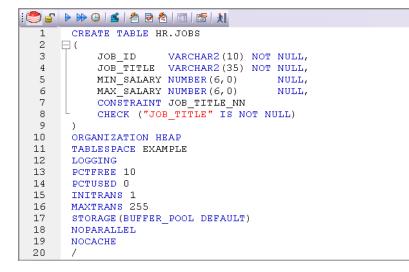
- 3. Select one of the columns you created in this table you want to modify. Details for the column are shown in the Column Attributes area on the right side of the pane.
- 4. In the **Width** or **Scale** text box, type a new value.
- 5. On the **Table Editor** toolbar, select the **Alter** button. 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.



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.

Value	
1	
USERS	•
TEMP	-
DEFAULT	•
REQUIRED_YES	•
	6
-	
	TEMP DEFAULT

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.

perties Roles Quotas	Objects Object Permissio	ons System Permissio	ns DDL View			
<mark>5 G</mark> rant 🕶 🔒 <u>R</u> evoke 👻	Object Type VIEW	•	Owner [All Owners]	•		
NAME Z	OWNER	DELETE	INSERT	SELECT	UPDATE	^
ACTIVE_THRESHOLDS	ΑΑΑΑΑ					=
ACTIVE_THRESHOLDS	REPOANCA					
ACTIVE_THRESHOLDS	PERFCNTR_REPO_0					
ADDRESS_DETAILS	REPOANCA					
ADDRESS_DETAILS	ΑΔΑΔΑ					
ADDRESS_DETAILS	PERFCNTR_REPO_0					
ALARMS	REPOANCA					
ALARMS	ΑΔΔΑ					
ALARMS	PERFCNTR_REPO_0					
ALERT_NOTIF_RECI	REPOANCA					
ALERT_NOTIF_RECI	ΑΔΑΑ					
ALERT_NOTIF_RECI	PERFCNTR_REPO_0					
AQ\$AQ\$_MEM_MC	QS					
AQ\$AQ\$_MEM_MC_S	QS					
AQ\$DMS_QUEUE_TA	ODM					
AQ\$QS_CBADM_ORD	QS_CBADM					
AQ\$QS_CBADM_ORD	QS_CBADM					
AQ\$QS_CBADM_ORD	QS_CBADM					~

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 permissionbased 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 Tablespaces Editor.
- On the Tablespaces Editor, click the Storage tab. The Storage tab displays and lets you edit the tablespace extent limits.

iblespace: DOLS	Stal	tus: Line		Contents: PERMANE	IT	~			
Extents				il —					
Initial Extent:	64	KB	Туре	Name	File ID	Extent ID	Block ID	Blocks	Bytes 🔥
Next Extent:	0	KB	TABLE	RMAN.DB RMAN.DB P	8	0	9	8	65536
Minimum Extents Size:	64	КВ	INDEX	RMAN.DB RMAN.CONF	8	0	25 33	8	65536 65536
Minimum Extents:	1]	INDEX	RMAN.CON	8	0	41	8	65536 🖌
Maximum Extents:			Extent Man	agement					
Percent Increase:	0		(Dictionary	Type: LOCAL or Local)					
 Segment Manageme Automatic 	ent		Allocat (Auto, Uniform	ion Type: AUTOA , or User)	LLOCATE				
O Manual 8		blespace ck size	Ex	ent Size:	KB				

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.

Datafile Storage Space	Map Objects Quotas DDL)
Tablespace:	Status:	Contents:
TOOLS	ONLINE	PERMANENT
← Free Space		Fragmentation Index (FSFI)
	100%	The FSFI measures free space fragmentation on a relative scale of 100. Its critical determinant is the size of the largest extent compared to total free space. A high score indicates low fragmentation and, therefore, is desirable. You should minimize fragmentation to ensure that
Other Free Section	s Largest Free Section	any object can acquire a free space chunk large enough to accommodate its next extent. To reduce fragmentation, you can coalesce adjacent free blocks and/or reorganize the tablespace.
Free Space 472 Used Space 808 Total Space 1280	6.31	Current Score: 100 Coalesce
	10.00	

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.

<mark>blespac</mark>)OLS	ce: Status:		Content PERMA		~		
Space Total: Used: Map	10.00MB Free: 3.69MB (View By Object Type Extent Proble		Reorganize Fit In Window	Legend Full Screen	Display Print Map	
			_				
< Direct	Demographics						
	t Demographics	Extents		Bytes	Initial Ex	tent Next Extent	
			Blocks	Bytes Type 65536 INDEX PAR		tent Next Extent 536 [NULL]	Percent Increas
	Name		Blocks 8 (TITION 65		Percent Increas [NULI

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.

Database Overview Data Files Tablespace Map Tables	Indexes			
tabase Overview	Tablespace Fragmentation (Overview		
ablespaces: 23 Data Files: 21 Temp Files: 3	Fra	gmentation Index		
INDEX (KB) 124,228 orage Percent (User Obje LOBSEGMENT (KB) 33,024 TABLE (KB) 252,160 TABLE PARTITION (KB) 73,024 Other 23,744	80			1
	<u>قْ 20</u>			
		Tablespace(s)		
blespace Space Overview		13 1000		
blespace Space Overview Total Space Allocation		13 1000	Index (MB)	CI.
	Tablespace Objects Overvie	w	Index (MB)	CL 🔨
	Tablespace Objects Overvie	w Table (MB)	and the second se	
Total Space Allocation	Tablespace Objects Overvie	W Table (MB)	15.50	
Total Space Allocation	Tablespace Objects Overvie	w Table (MB) 5.56 0.50	15.50 0	
Total Space Allocation	Tablespace Objects Overvie Tablespace Name AAAAATBS AppLabs CWMLITE	W Table (MB) 5.56 0.50 4.38	15.50 0 6.56	
Total Space Allocation	Tablespace Objects Overvie Tablespace Name AAAAATBS AppLabs CWMLITE DB0	W Table (MB) 5.56 0.50 4.38 2	15.50 0 6.56 1.69	
Total Space Allocation	Tablespace Objects Overvie Tablespace Name AAAAATBS AppLabs CWMLITE DB0 DB0_TEMP	Table (MB) 5.56 0.50 4.38 2 0	15.50 0 6.56 1.69 0	
Total Space Allocation	Tablespace Objects Overvie Tablespace Name AAAAATBS AppLabs CWMLITE DB0 DB0_TEMP DRSYS	w Table (MB) 5.56 0.50 4.38 2 0 0 3.56	15.50 0 6.56 1.69 0 6.19	
Total Space Allocation	Tablespace Objects Overvie Tablespace Name AAAAATBS AppLabs CWMLITE DB0 DB0_TEMP DR5YS EXXMPLE	Table (MB) 5.56 0.50 4.38 2 0 3.56 211.50	15.50 0 6.56 1.69 0 6.19 11.56	
Total Space Allocation	Tablespace Objects Overvie Tablespace Name AAAAATBS AppLabs CWMLITE DB0 DB0_TEMP DR5YS EXAMPLE EXTOTB76	Table (MB) 5.56 0.50 4.38 2 0 3.56 211.50 0.13	15.50 0 6.56 1.69 0 6.19 11.56 0.13	

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

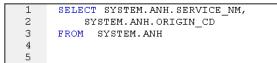
DBArtisan provides powerful visual tools for creating and analyzing complex SQL statements and server-side code objects. The following examples walk you through DBArtisan's Visual Query Builder, feature-rich ISQL facility and some of the advanced analysis and debugging capabilities provided by the Embarcadero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

VISUAL QUERY BUILDER

- 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:

II AN	H 🔺
□"ROWID"	
VENDOR_LOAD_ID)
⊴SERVICE_NM	
⊿ORIGIN_CD	
DESTINATION_CD	
LOCKOUT_TIME	
_AVAILABLE_TIME	
☐MONDAY_TRANSI	T_DAYS
TUESDAY_TRANSI	T_DAYS
WENDESDAY_TRA	NSIT_DAYS
THURSDAY_TRANS	SIT_DAYS
<pre>_FRIDAY_TRANSIT_</pre>	DAYS
SATURDAY_TRANS	SIT_DAYS
SUNDAY_TRANSIT	DAYS

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



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.

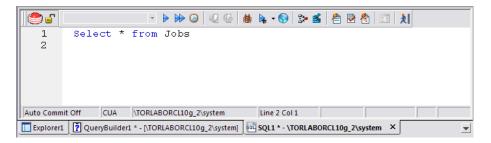
5. Close the Query Builder pane.

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.
 - 1 🕘 SELECT * <u>FROM</u>

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.
- 3. Press **F8**.

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.

Option	Value		<u>o</u> k
Query Analysis		-	·
Show Plan			<u>C</u> ancel
No Count			
No Exec			<u>R</u> eset
Force Plan			Caura
Statistics I/O			<u>S</u> ave
Statistics Time			Load
Parse Only			2000
Arithmetic			Help
Ignore Overflow			
Abort On Overflow		-	

- 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.

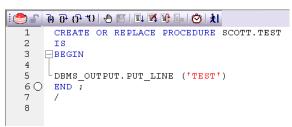
SQL DEBUGGING, ANALYSIS AND TUNING

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

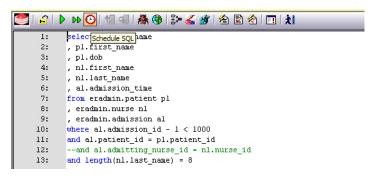
DBArtisan freely integrates with the Microsoft Windows Task Scheduler, which allows you to virtually schedule any task to run on your own computer whenever and how often you'd like. While this example is specific to an Oracle table redefinition, the same concept applies to any job or script that can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



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	X
Specify Information for Notification of Job Completion	
Job Name:	
ISQLScheduler08162007112720AM	
Job Description (Email subject line):	
ISQLScheduler	
EMail Address(es): (Separated by semi-colons)	
Net Send: (Network user names separated by semi-colons)	
Action Output Directory:	
C:\DOCUME~1\davidt\LOCALS~1\Temp\	
V OK X Cancel ? Help	

- 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	$\overline{\mathbf{X}}$
Construct a Select Statement to filter data for the Data Editor-	
Columns: I''BOWID'' DOCTOR_ID ILAST_NAME IFIRST_NAME IPAGER	Add All
W/here: doctol_id < 10	
Select Statement: SELECT 1 "ROWID", T.DOCTOR, ID, T.LAST, NAME, T.FII T.PAGER FROM ERADMIN.DOCTOR T WHERE doctor_id	RST_NAME,
<u>QK</u>	icel Help

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.

H 4 P P	SQL History	
1	Statements To Be Executed:	<u>~</u>
2		
3	UPDATE HR.JOB_HISTORY SET JOB_HISTORY.EMPLOYEE_ID=101 WHERE JOB_HISTORY. "ROWID"='AAAHM/AAFAAAABUAAA' AND JOB_HISTORY.EMPLOYEE_ID=102 AND JOB_HISTORY.START_DATE=TO_DATE('01/13/1993 12:00:00 AM', 'MM/DD/YYYY HH12:MI:SS AM') AND JOB_HISTORY.END_DATE=TO_DATE('07/24/1998 12:00:00 AM', 'MM/DD/YYYY HH12:MI:SS AM') AND JOB_HISTORY.JOB_ID='IT_PROG'	11
4	COMMIT	~

5. Close the **Data Editor** pane.

WORKING WITH TABLE DATA – CREATE INSERT STATEMENTS

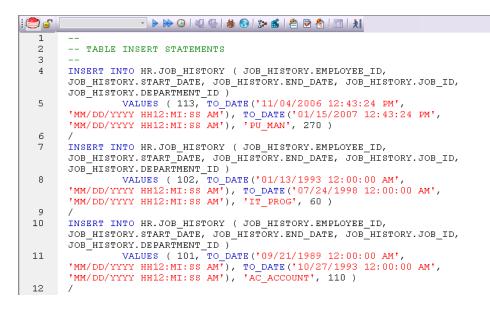
- 1. On the **Datasource Explorer**, select any Oracle datasource.
- 2. On the Oracle datasource, expand the **Tables** node.
- 3. In the right pane of the Explorer window, right-click any table, and then select **Create Insert Statements**.

DBArtisan opens the Create Insert Statements dialog box.

Create Insert Statements
Construct a Select Statement to filter data
Columns:
ADMISSION_ID Add Ali
▼NURSE_ID
PATIENT_ID SCOTT WALZ
Where:
Select Statement:
SELECT T.ADMISSION_ID, T.ADMISSION_TIME, T.RELEASE_TIME, A T.RELEASE_COMMENTS, T.NURSE_ID, T.PATIENT_ID,
T.SCOTT_WALZ FROM ERADMIN.ADMISSION T
Include owner information in Insert statements
Set row count
V QK X Cancel 🥊 Help

- 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.



7. 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 **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.



7. Close the editor pane.

Advanced Data Management – Schema and Data Migration

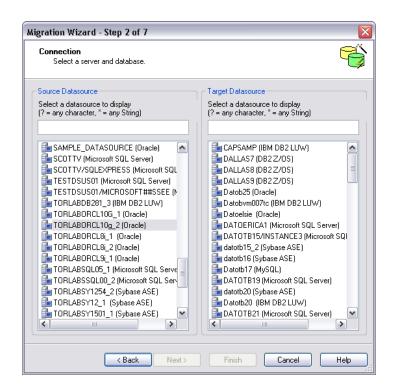
DBArtisan provides advanced data management tools that help you to move schema and corresponding table data across the same or different platforms. You can copy a single database object, all objects owned by a specific user, or an entire database all guided by a wizard-driven process.

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.
- Click Next. DBArtisan opens the next panel of the Migration Wizard.



- 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.

Migration Wizard - Step 3 of 7	X
Catalogs Select database(s) for the operation	
Source Database Select databases to display (? = any character, * = any String)	Target Database Select databases to display [? = any character, * = any String]
	ABCDEFGHUK1234567890123456451 ERSRepoRpt ErsRepoRpt PERFCNTR_REPO_ES16 PERFCNTR_REPO_UPG2 cases databasename_adddd labtest_cd master model pct1 peffcntr1 pman_2774 pubs repo_crima10 repo_elena
K Back Next >	Finish Cancel Help

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.

Migration Wizard - Step 4 of 7	
Object Selection For each object type, select the objects t	hat you wish to migrate.
	© Dijects
Profiles Pedo Log Groups Pollback Sogmante	Select All Unselect All Cancel Load
< Back Net	

- 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.

Mig	gration Wizard -	Step 5 of 7			×
	Options Choose your mig	gration options.			
	Ź↓				Example Preview
⊡	Dependency Op Group Depende	tions True	•	^	USE perfcntr1 🔦
Ξ	Script Options Script Drop Stat	False			CREATE TABLE dbo.Ord
	Script Object Pri Script System Pri	False False	•		order_id int NOT item id int NOT
	Script If Not Exists Include Storage	True False	-	-	order_id int NOT CONSTRAINT ORDER:
F	Script Use State Owner Options	True	•		PRIMARY KEY (ord:
	Script Owner Owner	True Retain Owner	-		go IF OBJECT ID('dbo.Or(
	Change Owner To Copy Owner	False	•		PRINT ' <<< CREAT
Ξ	Table Options Use Alter Table	False	Ŧ		PRINT '<<< FAILEI
_	Truncate Table	Don't Truncate	•		Save Options Template
					Save Delete
		< Back		Next	> Finish Cancel Help

- 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.

Migration Wizard - Step 6 of 7	
Summary This displays a summary of the migration that is about to be performed.	Ö
Output script to file	Browse
✓ Save existing operation C:\Documents and Settings\davidt\Application Data\Embarcadero\DBArtisan\DefFiles\TOR	Browse
< Back Next > Finish Cancel	Help

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**.

🥮 м	onitor: Pro	ocesses		✓ Refresh Rate (:	ec): 90 📑	🗄 💈 Refresh 💊 Toggle 🎽	🗄 ISQL 🐉 Pla	n 🔍 Session 🗙	Kill	🚶 Clos	e	
SID	Status	O.S. SID	Serial #	Туре	DB User	Client User		Logon Ti	ne	Server		~
170	ACTIVE	2696	1	BACKGROUND	PMON	SYSTEM		9/3/2008 10:54:5	3.000 AM	DEDICATED	TORLABO	
156	ACTIVE	2864	15918	USER		SYSTEM		9/12/2008 8:28:3	3.000 AM	DEDICATED	TORLABO	<u>i</u>
168	ACTIVE	808	1	BACKGROUND	MMAN	SYSTEM		9/3/2008 10:54:5	8.000 AM	DEDICATED	TORLABO	
167	ACTIVE	2832	1	BACKGROUND	DBW0	SYSTEM		9/3/2008 10:54:5	3.000 AM	DEDICATED	TORLABO	
164	ACTIVE	3756	1	BACKGROUND	SMON	SYSTEM		9/3/2008 10:54:5	3.000 AM	DEDICATED	TORLABO	
163	ACTIVE	3372	1	BACKGROUND	RECO	SYSTEM		9/3/2008 10:54:5	8.000 AM	DEDICATED	TORLABO	
162	ACTIVE	1496	1	BACKGROUND	CJQD	SYSTEM		9/3/2008 10:54:5	8.000 AM	DEDICATED	TORLABO	
161	ACTIVE	1104	1	BACKGROUND	MMON	SYSTEM		9/3/2008 10:54:5	3.000 AM	DEDICATED	TORLABO	
	ACTIVE	1472	1	BACKGROUND	MMNL	SYSTEM		9/3/2008 10:54:5	3.000 AM	DEDICATED	TORLABO	
<				,	,	,		,,		,	>	ļ
	Pro	cesses	All Locks	Blocking Locks	Active F	Rollback Segments 🔶 Data Dict	tionary Cache _	Datafile I/0 / Ge	neral Statis	tics_/_Hit Rati	b By User	Lat
1			No	process is	selec	ted						
Expl	orert 🕅	Monitor - T(L10g 2 ×								
<u> </u>		Womton - N	ORLADORC	<u>109_2</u>								-
Output	Messages											×
(1) Gen	eral 👫 D	ebug 📴 F	Find in Files	1 🔚 Find in File	s 2							-
Ready							Host: TORIAR	ORCLI0g TORLAB	DRCI10a 2	system		RI
Jiteauy							I TORE TOREAL	TORCETON TORCHO	Shieldog_2	jo-	a j uo m joo	1

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.

🥮 Monitor: -	Processes	1
	Processes	X
	All Locks	
	Blocking Locks	
	Active Rollback Segments	
	Data Dictionary Cache	
	Datafile I/0	
	General Statistics	
	Hit Ratio By User	
	Latches	
	Library Cache	
	MTS Dispatcher Contention	
	MTS Server Contention	
	Open Cursors	
	Parallel Queries	
	SGA Detail	
	SGA Hit Ratios	¥

3. Close the **Database Monitor** pane.

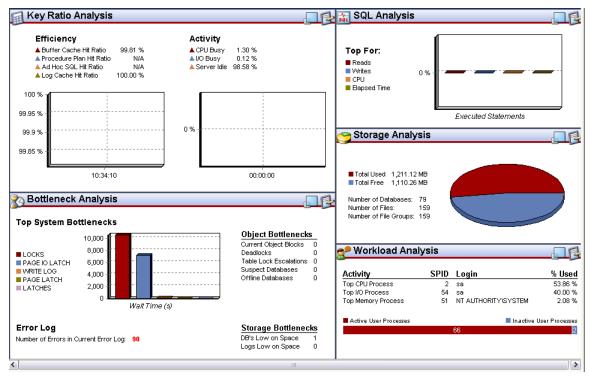
Advanced Client-Side Performance Monitoring

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

- 1. On the **Datasource Explorer**, select any Oracle datasource.
- 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.

Type filter text	Perf Center
Datasource General Connection JDBC Logging Licensing SMTP Mail Perf Center Reports Explorer 15QL Dobug DDL Extract Editor Results Grid Properties Auto Format Warnings Data Transfer Oracle Utilities MySQL Utilities Directories Migration Options Data Editor	Supply the connectivity information for the Embarcadero Performance Center Server that you wish to use. Connectivity Computer Name or IP Address: Extotb76 Port Number: 80 (Use 80 if you are not sure) Test Connect to the sever using: Web Client PerfCntr.exe

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.

	the second se			
Explore - By Object Type A	T Home			
S depo		etech 🗚 Fool 🎯 Print ≵ Close		
S ante	Selectorics reaction and a	(local) - Home	1 anterna 🗿 an meret ate	America
8-g model				
8-8 net	1 20 40 40 10 100	NEALTH HOLE STATES CONTIN		
E B Inc.	and the second se			
8 Retimace		Instance Up Nova: 3al 23 2004 1-84:54:1079	H LastUpdated: July 23, 2004 15	45.34
Ca Dade Server	MENORY VITAL SIGNS	CONTENTION VITAL SIGNS	UD VITAL SIGHS	an.
B (ExtPROC_CONNECTION_DATA (Oracle)	Buffer Cache Hit Ratio 97	.25 Blocked Users 0	Total Server Reads	No data
B WST1_HTTP (Discle)			o data / Total Server Writes	No data
+ 2 032U (Drack 92.0.4)			o data/s Log flushes	No data/s
Brigger OnAntitut (Under 101102)		00 Latch Waits	o data/s 1/0 Errors	No data
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8 🔗 Security	120%-0	4	4	
0.0 Schene	85%			
	81% 2%	-		
Database Links	60%			
- Promon Keyn	375		8/4	
- f. Functions	4% 3%			
- D Indexet	38%	-		
- ave Sources	11%		_	
Jave Classes				
Libraies				
- 2 Materialized Views Cinapolicity	USERS VITAL SIGHS	SPACE VITAL SIGNE	NETWORK VITAL SIGNS	and the second sec
- 2 Materialized View LogolSnapohot Logol	Total Connections 15	Databases Low On Space 3	Packets Received	No data
- C Outres	Active Connections 1	Logs Low On Space 0		No data
H B Packaper - B Packape Ender	Transactions 0		Logins	No data
Price	Carrent Locks 1		Logouts	No data
- A Procedures				
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E Feformance				
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8-1 E012K05 0 (Sybare Adaptive Server Enlegtme/12.0/P/NT (2006)/0/				
B The EB12006 G-base Adaptive Server Entenane/12.50 3/EBF 10095 (R.M.				
2	1			A

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

- 1. On the **Datasource Explorer**, select any Oracle datasource.
- 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.

Utili	tjes
at sat	Schema Extraction
-	Schema Migration
	Schema Publication
•	Data Unload
•	Data Load
S	Database Monitor
8 ≩	Database Export
•	Database Import
	Archive Activity
	Backup Control File
	Chained Row Analysis
	Free Space Deficit
	Instance Configuration
	Maximum Extent Limits
	Pinned Code
	Resource Cost
	Session Information
	Top Sessions

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.

Ιoq	la l
N	∕⊈jnd in Files
М,	Database Search
٩	Script Execution Facility
۰	File Execution Facility
Θ	Sched <u>u</u> ler
R	<u>V</u> isual Diff
M	Data <u>E</u> ditor
?	Query Builder
	SQL Profiler
	Table/Index Size Estimator
•	Import Data
	DB2 z/OS Server Component Installation
7	ODBC Administrator
7	Performance Center
古	SQL*Plus
>>	Code <u>W</u> orkbench
>	Customize

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 <u>sales@embarcadero.com</u>, or <u>uk.sales@embarcadero.com</u> for sales in the EMEA region.

EMBARCADERO TECHNOLOGIES PRODUCT SUPPORT

The Embarcadero Technologies Web site is an excellent source for additional product information, including white papers, articles, FAQs, and the developer network. Click any of the links below, to find:

- <u>Documentation</u>
- Product Demos
- <u>Technical Papers</u>
- Developer Network

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If you have a valid maintenance contract with Embarcadero Technologies, the Embarcadero Technical Support team is available to assist you with any problems you have with our applications. Our maintenance contract also entitles registered users of Embarcadero Technologies products to download free software upgrades during the active contract period. Evaluators receive free technical support for the term of their evaluation (14 days).

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