# Reviewer Guide

**embarcadero**®

# DBArtisan® XE
## Product Review Guide

May 2010

# CONTENTS

# OVERVIEW

## INTRODUCTION

Thank you for your interest in reviewing DBArtisan® XE, Embarcadero's heterogeneous database administration tool. This reviewer guide will give you an overview of some of the key benefits DBAs enjoy with DBArtisan XE.

## PRODUCT DESCRIPTION

DBArtisan XE helps DBAs maximize availability, performance and security across multiple DBMS's—all from a single interface. DBArtisan XE boosts productivity, streamlines routine tasks, and reduces errors, especially when managing complex environments. DBArtisan XE supports all major databases, allowing organizations to standardize on one powerful, cost-effective solution. DBArtisan XE is ToolCloud-enabled for centralized license management and streamlined tool delivery.

## CONTACT INFORMATION

We're here to support you throughout your evaluation period — and beyond. Please don't hesitate to contact us at anytime at the numbers and emails below.

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# DBArtisan XE Highlights

## New and Interesting Features of DBArtisan XE

- **ToolCloud Built-in** – The ToolCloud enables companies to simplify licensing, reduce costs, and control access. DBA's have on-demand access to tools, including the ability to move back and forth amongst multiple DBMS versions. No installations required.
- **Out-of-the-box heterogeneous database support** – DBArtisan XE comes complete with support for all major database platforms including Oracle®, Microsoft® SQL Server, Sybase® Adaptive Server, IBM® DB2® and MySQL®.
- **Rich SQL development IDE** – ISQL window to create, save, and execute all SQL code with built-in explain plans and performance execution analysis, as well as SQL Debuggers and Profilers to ensure code quality.
- **Robust Analyst Pack Add-on** – Advanced performance diagnostics and analytics (Performance Analyst), capacity planning and trend analysis (Capacity Analyst), and storage analysis and management (Space Analyst).

## Key Benefits for DBAs

- Rich and consistent feature implementations across platforms make it easy to be productive in heterogeneous environments or unfamiliar databases

- Simplified approach to security whereby the management of users, roles, privileges, and permissions take place from a single interface, regardless of the DBMS platform

- Automation of common tasks such as object and schema migration, SQL editing and job scheduling

- Diagnosis and correction capabilities increase performance and up-time

# Quick Links to Product Information

- [DBArtisan XE Product Page](#)
- [DBArtisan XE Datasheet](#)
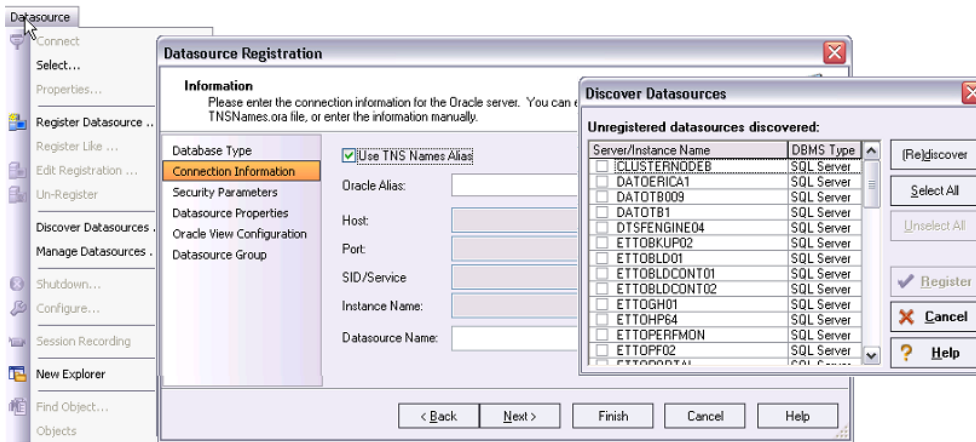
# EXPERIENCE MORE OF DBARTISAN XE

DBArtisan XE's wide range of features helps satisfy most database administration, development, maintenance, and operations requirements.

# DATASOURCE MANAGEMENT

After installing DBArtisan XE, you must set up datasources to establish reusable connections to your database servers.  DBArtisan XE stores information about the datasource specification in the system registry and provides a visual interface for maintaining it.

## REGISTERING AND MAINTAINING DATASOURCES

In order to use DBArtisan XE with the datasources on your network, you must first register them.  There are two primary methods of registering datasources.  DBArtisan XE offers a **Datasource Registration Wizard** that lets you register datasources manually, providing credentials and connection information, yourself.  Alternatively, you can use the **Discover Datasources** feature to semi-automatically find and register all datasources on our network.
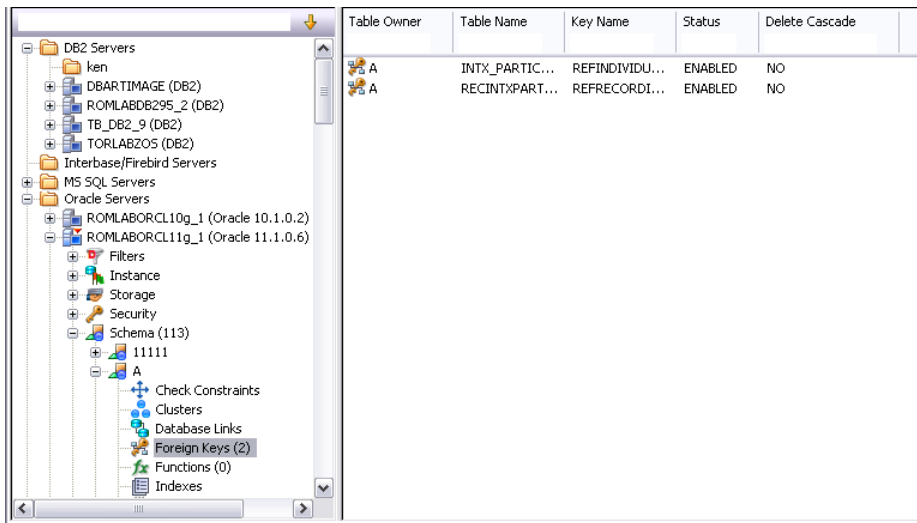


Related options include import and export of datasource definitions and the ability to share datasources across Embarcadero applications.  Similarly, DBArtisan XE offers post-definition datasource maintenance and management features.  Varying by DBMS platform, these include functions such as configuring server parameters and startup/shutdown operations.

## CONNECTING TO DATASOURCES

Manually connecting to a datasource is a simple right-click operation, with an intermediate step that prompts for user credentials.  Alternatively, you can configure the datasource registration with credentials, eliminating the intermediate step in connecting.  DBArtisan XE can be connected to multiple datasources simultaneously.
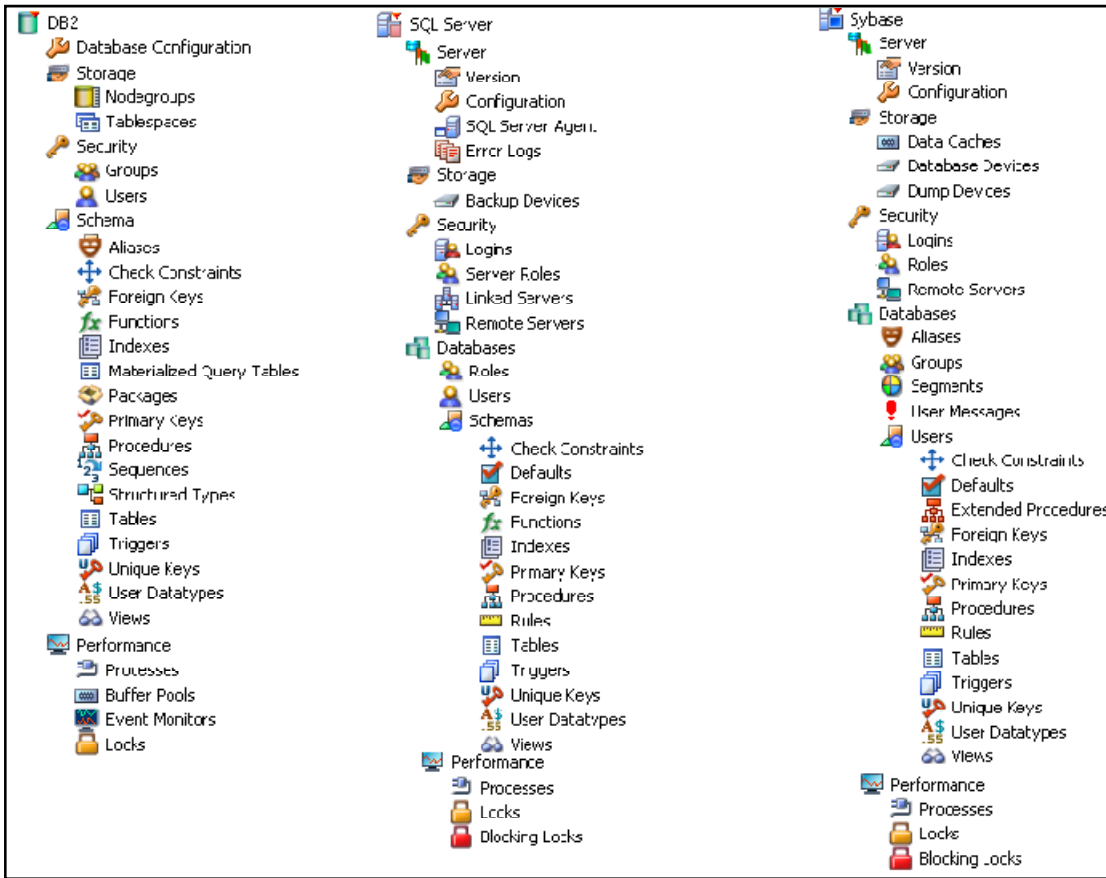
## DATASOURCE EXPLORER

DBArtisan XE provides a Datasource Explorer that lets you navigate your datasources and view details on individual objects.  The explorer provides a hierarchical view, letting you drill down from the database level all the way to the level of individual database objects.



From a purely visual perspective, you can color-code individual datasources according to customizable schemes, for example to easily discriminate among, production,  testing, and development servers.  The explorer display can be filtered by object name or type, helpful for ad hoc visual searches or for sites with large numbers of datasources.
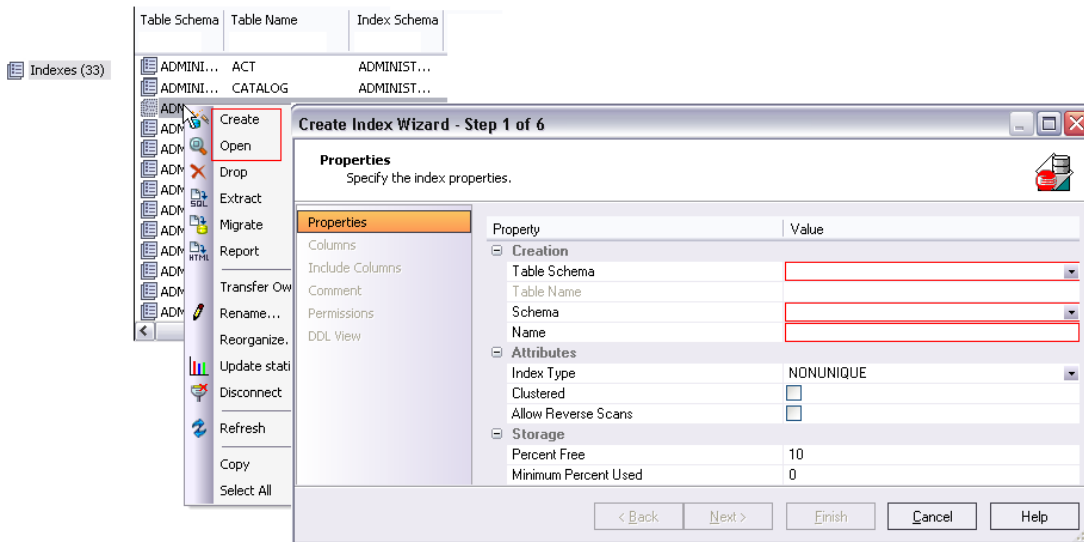
# OBJECT MANAGEMENT

DBArtisan XE supports all major object types on supported DBMS platforms.  For example, the following shows object type support for the DB2 for Linux, Unix, and Windows, Microsoft SQL Server, and Sybase Adaptive Server platforms.

## WIZARDS AND EDITORS

Wizards and Editors are available for creating and modifying most supported object types.
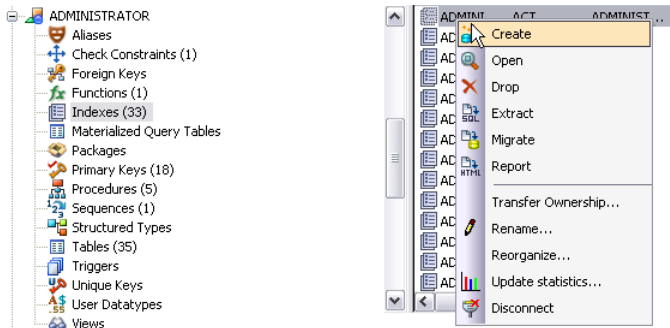


DBArtisan XE object properties correspond to CREATE *object_type* and ALTER *object_type* clauses, options, and keywords, appropriate to the object type and DBMS platform.  In addition to basic properties, the wizards and editors offer object-specific options such as

column definitions for tables, and let you work with common characteristics such as permissions/privileges and dependencies.  Lastly, you can inspect the DDL generated to create or edit an object before submitting it to the server.

## OBJECT ACTIONS

DBArtisan XE also offers a number of simple or common object type-specific actions that can be applied to individual objects.

While object action availability differs by DBMS platform, they are most commonly implementations of:

- ALTER *OBJECT TYPE* clauses/options/keywords not typically available from object editors, such as REBUILD INDEX and RENAME

- SQL commands such as TRUNCATE, REORG, and LOCK

- System procedures and other available utilities

Most object actions are implemented as multi-panel wizards that guide you through the action.
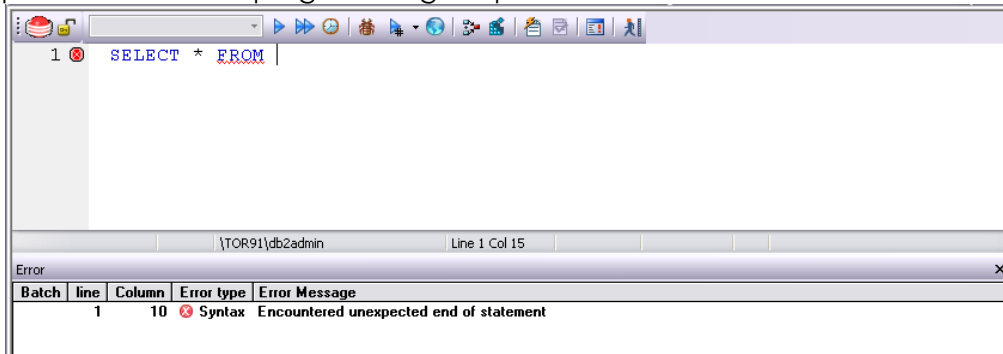
# SQL DEVELOPMENT AIDS

Provides powerful visual tools, including an editor and visual query builder, help you create and analyze complex SQL statements and server-side code objects.

DBARTISAN XE ALSO OFFERS AN OPTIONAL, ADVANCED DEBUGGING FACILITY.  FOR MORE INFORMATION, SEE "

The SQL Debugger" on page - 9 -.

# THE ISQL EDITOR

DBArtisan XE offers a fully-featured SQL editor.  The ISQL editor eases and speeds up the process of developing working scripts.



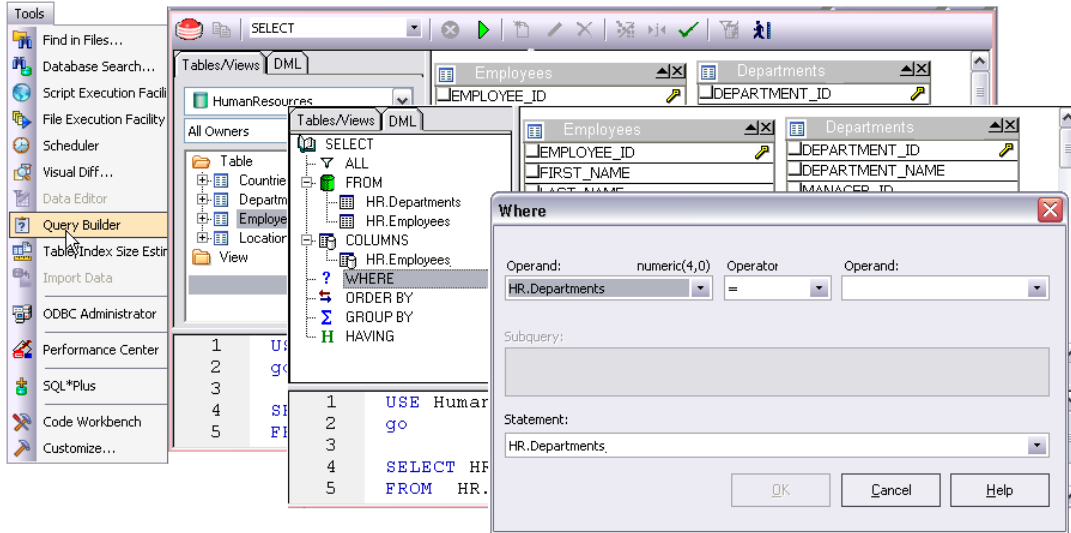In addition to basic text-processing functionality, the SQL editor has the following general features:

- **Execution options** – Basic script execution, step execution, rollback and transaction control, and a query plan facility.

- **Automatic error detection and coding assistance** – Continuous syntax checking minimizes coding errors.  Semantic validation ensures that object name references are valid.  The Code Complete feature offers intelligent suggestions at those points in SQL statements where objects names are specified.

> Error detection and coding assistance features are available when the Indexing and Parsing features are enabled.  Those features are controlled using the **ISQL** tab of the **Options** dialog (**File > Options**).  The **Options** dialog lets you set preferences for most DBArtisan XE functions.

- **Environment control features**  - Let you set query options, lock session connections, and execute scripts against multiple datasources.

- **Results editor** – Query results are displayed, spreadsheet-fashion, in a Results editor. It offers a wide-ranging set of options for formatting, navigating, editing, and exporting result data.

# QUERY BUILDER

The Query Builder provides a visual interface that lets you construct complete, advanced queries.
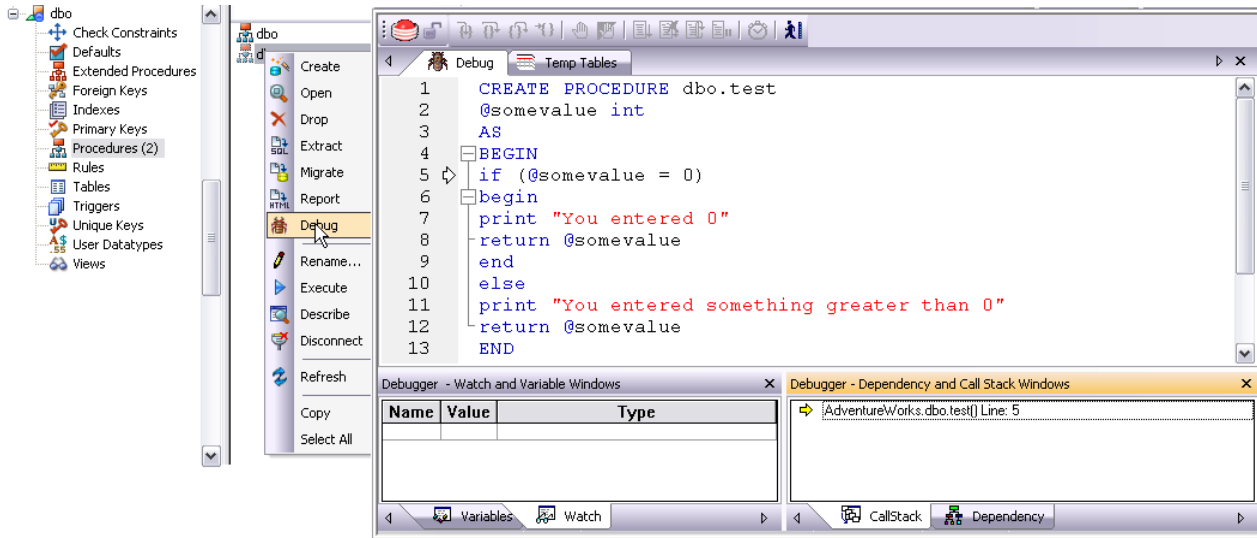
The utility lets you:
- Specify a statement type (SELECT, INSERT, DELETE, UPDATE, CREATE VIEW)

- Specify the tables and columns used in the query

- Build complex clauses

You can view the graphical structure of your query as you work, review using functionality such as syntax checking, as well as save and reopen queries.

# THE SQL DEBUGGER

The Embarcadero SQL Debugger lets you locate and fix bugs and perform general testing. Depending on the DBMS platform, you can debug functions, procedures, and triggers. In addition to a typical execution window, the SQL Debugger offers supplemental windows that let you set and watch variables, and view dependencies and the call stack.

The following debugging/interpreted mode features are included:
- Providing input parameter values

- Step execution options (Step Into, Step Over, and Step Out ) complement standard start, stop, and restart options

- Setting and toggling breakpoints

For the Oracle platform, DBArtisan XE also offers a robust PL/SQL code profiler that helps you to pinpoint and eliminate "hot spots" within poorly running server-side code.

# DATABASE SECURITY

DBArtisan XE can help you efficiently establish and maintain database security.  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.

## DBMS-SPECIFIC, SECURITY-RELATED DATABASE OBJECTS

DBArtisan XE provides support for the following security-related database objects:

| DB2 LUW | DB2 z/OS | MySQL | Oracle | SQL Server | Sybase |
|---------|----------|-------|--------|------------|--------|
| Groups Schema Users | Schema Users | Users | Groups Profiles Roles Schema Users | Linked Servers Logins Roles Schema Server Roles Users | Logins Roles Remote Servers Users |

Wizards and editors are available for the purpose of creating and editing these objects. Similarly, relevant object actions such as password changes, are available against these object types.

## PRIVILEGES/PERMISSIONS SUPPORT

DBArtisan XE lets you view, grant, and revoke permissions or privileges. When you open a security-related object, such as user or role, the **Permissions** (or **Object Permissions** or **System Permissions**) tab lets you assign permissions on an object-by-object basis.



Similarly, when you open an editor on an object that requires permissions for use or execution, such as a table or procedure, a **Permissions** tab lets you assign permissions to individual recipients.



# SPACE MANAGEMENT

Managing space is vital to ensuring the availability and performance of your databases. DBArtisan XE incorporates many built-in space features that let you smartly manage and exploit all aspects of your database's storage.

In addition to built-in tools, DBArtisan XE also offers advanced space management with the optional Space Analyst. For more information, see "Analyst Series Tools" on page - 17 -.

## BUILT-IN SPACE MANAGEMENT

The tablespace editor for Oracle datasources provides a good example of the storage and space data that DBArtisan XE makes available. The **Storage** tab lets you view and modify tablespace extent limits

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



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



In addition to simple viewing of space and storage details, DBArtisan XE lets you make use of automated, DBMS-specific space management features. Object editors include space or storage management settings. The Sybase Tables editor, for example, offers support for

**max_rows_per_page** and **reservepagegap** keywords, space-management properties that dictate how physical pages are filled with data.



Support for explicit actions is also provided.  For example, you can initiate shrinking of Oracle rollback segments, for example.

# DATA MANAGEMENT

DBArtisan XE 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 XE 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 EDITOR

DBArtisan XE's visual data editor helps you add, change, and delete data from your tables with all referential integrity enforced.  When you invoke the data editor against a table, you are prompted to create a SELECT statement.  You choose the columns to include and optionally, provide a WHERE clause.  The qualified data is displayed in a spreadsheet-style editor.

Data is edited manually, cell-by-cell.  If you are using LIVE mode, your changes are made every time you move off of an updated or inserted row and deleted rows are immediately removed from the database.  Batch mode allows you to make changes and then save all changes in a single operation.

# XML/DML UTILITIES

The **Create Insert Statements** utility lets you generate INSERT statements corresponding to all the data or a subset of the data in a table.  An initial step lets you qualify the data by selecting columns and providing a WHERE clause.  The resulting statements are opened in an active ISQL editor window.

The **Extract Data As XML** feature provides a comparable function. It lets you make table data available in XML format. After qualifying records and columns, the resulting data is opened in an XML editor.

## ADVANCED DATA MANAGEMENT – SCHEMA AND DATA MIGRATION

DBArtisan XE 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.

The **Migration Wizard** is available from the **Utilities** menu. Migration is a multi-step process that lets you select source and target datasources (and depending on the DBMS type, specific databases), select object types and specific objects to be migrated, specify a flexible set of migration options, and view progress of the operation.

## IMPORT/EXPORT, LOAD/UNLOAD, AND BACKUP/RESTORE

Availability of these utilities varies by DBMS platform. DBArtisan XE offers a range of functionality in the general area of copying data out of and into databases. These utilities are built on top of DBMS-specific facilities such as the Oracle SQL * Loader.
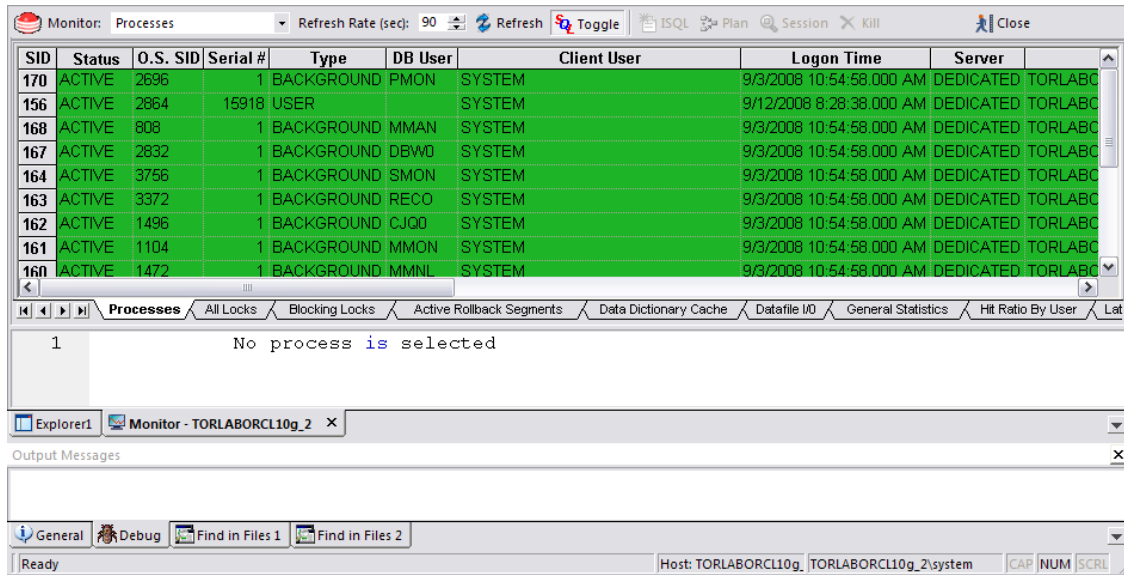
# PERFORMANCE MANAGEMENT

DBArtisan XE can help you manage the performance of your databases. First, DBArtisan XE 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 XE's Performance Analyst add-on is a powerful client-side database monitor that runs fully contained in the DBArtisan XE console. For more information, see "Analyst Series Tools" on page - 17 -.

## MONITORING SESSIONS

The Database Monitor, available from the **Utilities** menu, displays all processes connected to the server. It lets you scan databases for potential performance problems. Individual tabs provide a wealth of information about your servers. Color-codes reflect process state and let you identify problems quickly.
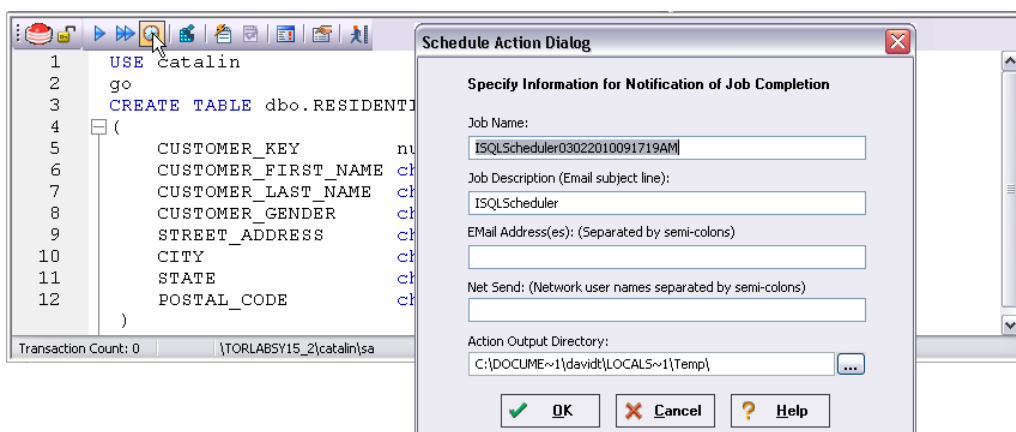
Options and features include:
- Highlighting any session to display any currently running SQL in the lower pane
- Drilling down into a specific session to display session-level statistical details, historical and current wait events along with a working copy of the currently running SQL that can be copied to an ISQL for explain plan generation
- Using the Monitor drop down options to display more advanced database-level monitoring data, such as locks, blocking locks, hit ratio by user, Top 20 SQL etc.

# JOB MANAGEMENT

DBArtisan XE freely integrates with the Microsoft Windows Task Scheduler, which allows you to schedule virtually any task to run on your own computer whenever and how often you'd like.  The scheduler is available while performing many DBArtisan XE tasks.
For example, a useful object management/DDL integration feature is invoked by right-clicking a table in the Datasource Explorer and selecting **Extract** from the context menu.  When the extracted DDL for the table opens in an ISQL editor, the scheduler can be invoked from the toolbar.

The **Scheduler Action** dialog lets you provide a name, set notifications, and specify an output directory for the new job. Clicking **OK** opens the Windows Job Scheduler where you finish scheduling the task and inspect the results when it completes.

# ANALYST SERIES TOOLS

## SPACE ANALYST

For advanced space analysis and management, DBArtisan XE'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's Space Analyst provides sophisticated diagnostic capabilities to troubleshoot bottlenecks and performance inefficiencies that result in poor space management.

## CAPACITY ANALYST

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 XE so you have access to smart, built-in forecasting mechanisms that allow you to predict when your databases will run out of space and the ability to proactively manage your storage assets, all from the same console.

## PERFORMANCE ANALYST

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 XE so you can fix any performance problems with a few clicks of the mouse.

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For enterprise performance monitoring, DBArtisan XE integrates with the Embarcadero Performance Center Web Client. While integration requires a licensed Performance Center server, there are no upgrade requirements for the DBArtisan XE console.

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