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Product Documentation

Embarcadero® DBArtisan™

New Features Guide

Version 9.7.5/XE6

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July, 2015

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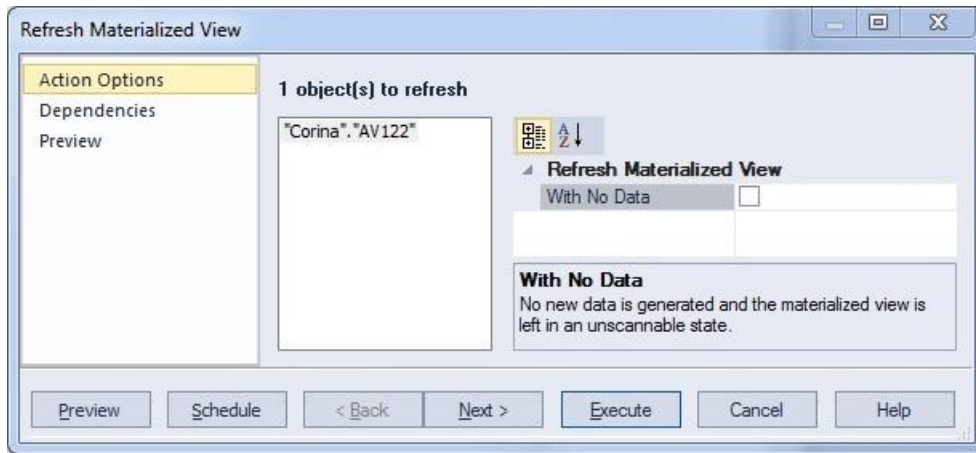
PostgreSQL Object Management

The following topics describe PostgreSQL object management updates for this release.

Object Wizards/Editors

You can now create and edit objects of the following types: check constraints, domains, exclusion constraints, foreign keys, functions, indexes, primary keys, roles, rules, schemas, tables, tablespaces, triggers, unique keys, and views.

Refresh Materialized View Object Action
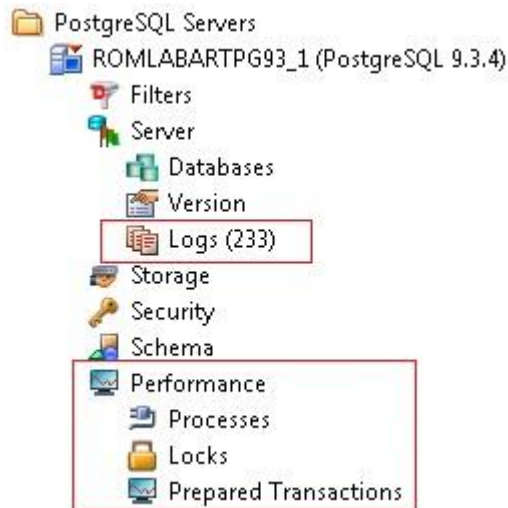
A new **Refresh Materialized View** action is available against views created using the CREATE MATERIALIZED VIEW statement. It lets you build and submit a REFRESH MATERIALIZED VIEW statement. Simple default behavior replaces the contents of a materialized view. If **With No Data** is selected, no new data is generated and the materialized view will be in an unscannable state.

Datasource Explorer Performance Node

A **Performance** node is now available in the Datasource Explorer. As with other DBMS platforms, the PostgreSQL **Performance** node has **Locks** and **Processes** subnodes. A **Prepared Transactions** subnode provides details on transactions that have been prepared for two-phase commit.

The new **Server > Logs** node provides access to logfiles. A **Rotate Log** action signals the log-file manager to immediately switch to use of a new output file.

PostgreSQL Utilities

Data and Schema Utilities
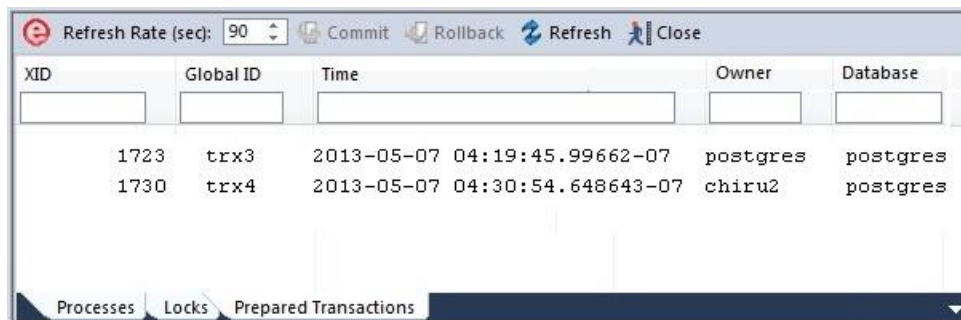
The following **Utilities** menu features are now available against PostgreSQL datasources:

- o **Database Monitor** provides details on locks, processes, and prepared transactions.

- o **Data Load** lets you load data from a file.

- o **Data Unload** lets you generate a pgadmin export data call, dumping database data to a file.

- o **Database Backup** generates a pg_dump script, backing up one or more tables or views of a database.

- o **Database Restore** generates a pg_restore operation, restoring tables or view data from a previous backup.

- o **Schema Extraction** walks you through the process of building an extraction script, executing it for storage of the database or object schema in a file.

- o **Schema Migration** migrates schema and table data from one DBMS platform to another.

- o **Schema Publication** lets you generate HTML reports documenting the details of your schema, databases, and database objects.

- o **Reverse Engineering** lets you analyze, control, and document existing database objects.

Database Monitor

DBArtisan now offers the Database Monitor against PostgreSQL datasources. Similar to Database Monitor for other DBMS platforms, **Locks** and **Processes** tabs are available in the Data base Monitor. A new **Prepared Transactions** tab is also available against PostgreSQL datasources. It displays identification details for transactions that have been prepared for two-phase commit. The following **pg_prepared_xacts** table columns are displayed for each transaction: transaction ID, global ID, date and time that the PREPARE TRANSACTION statement was executed, and the owner and database associated with the transaction. When this tab is active, the toolbar lets you **Commit** and **Rollback** a selected transaction.

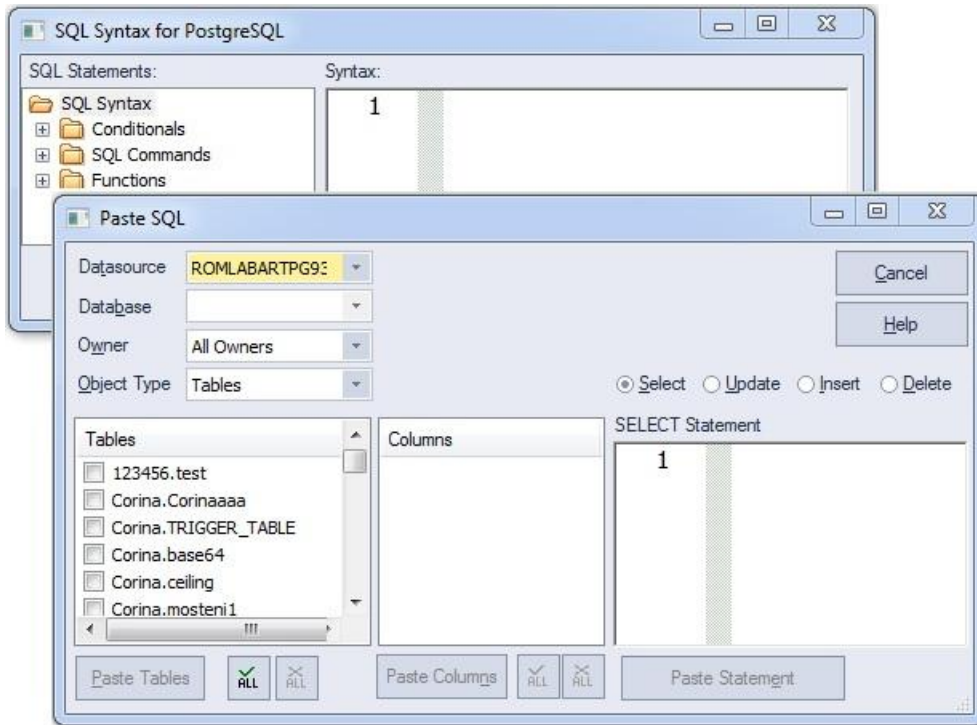# PostgreSQL Tools Menu Updates

The following Tools menu features are now available against PostgreSQL datasources:

- o **Database Search** lets you search for objects whose DDL contains a specified character string, across multiple databases.

- o **Query Builder** lets you construct, structure, and manipulate queries using a graphical interface.

- o **Data Editor** lets you edit table data in real time.

PostgreSQL Updates to the SQL Editor

The Paste SQL Syntax and Paste SQL Statement features are now available against PostgreSQL datasources.

Welcome Window

The **Welcome Window** helps customers to get information about product features, news and upcoming events. This window also includes direct links to useful DBArtisan features like **New Project**, **Open Project** or links to **Recent Datasources**.
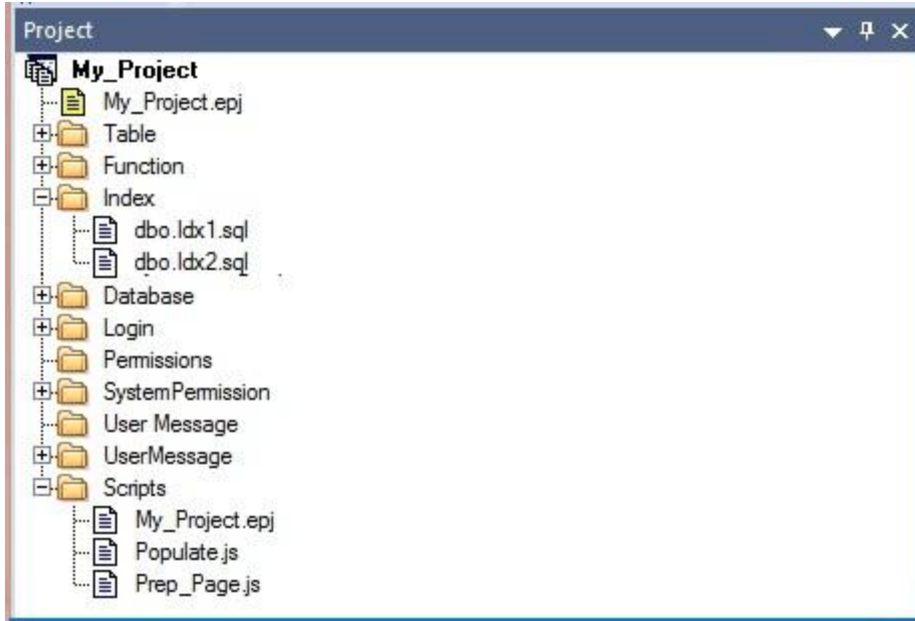
Project Management, Version Control, and Script Library

DBArtisan Project Management Support

DBArtisan project management facilities act as a repository to maintain all source code for a database project. When you create a new project (File > New > Project), you can initialize the project using one of four methods:

- o From an existing database

- o From one or more files (SQL/query scripts, DDL files, ER/Studio files, procedures, Java, Javascript or VB Script files, or text or HTML files)

- o From a version control project

- o Uninitialized.

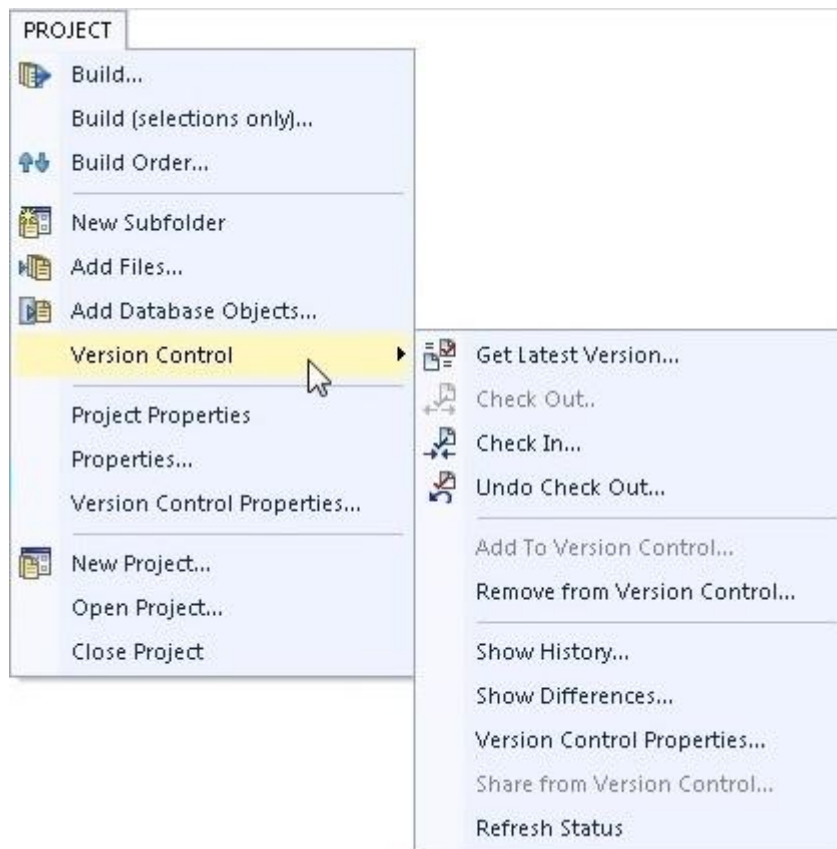A project opens in a dedicated **Project** window.

In addition to basic project operations (**New**, **Open**, **Close**), **Project** menu and right-click options provide basic file and folder options. Other key options let you

o   Specify a build order for your project scripts

o   Execute the build.

DBArtisan Version Control Support

The **Project** menu also provides access to version control support, also new for this release of DBArtisan. Basic version control functions are provided: **Get Latest Version**, **Check In**, **Check Out**, **Undo Check Out**, **Add to/Remove From Version Control**, **Show History**, **Show Differences**, **Version Control Properties**, **Share From Version Control**, and **Refresh Status**.

Support is provided for any source control product that uses the MSSCCI plug-in interface.

> **Note:** For the 64-bit version of DBArtisan, a 32-bir version of the MSSCCI provider can be used for version control access. The feature is controlled for the Options Editor's **Version Control** tab (File > Options > General > Version Control).

Script Library

The Script Library (View > Script Library) provides a drag-and-drop library interface of all supported DBMS syntax, SQL syntax, built-in functions, optimizer hits, and SQL-conditional syntax. Additionally, it provides the ability to create custom folders to store commonly-used code for quick and efficient access or execution, as needed.
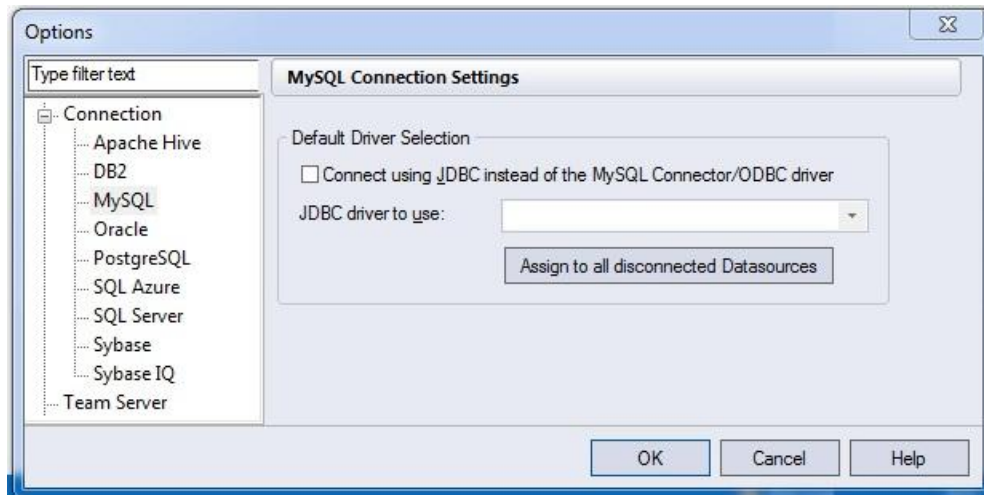
Datasource Registration Updates

For connectivity purposes, DBArtisan is packaged with a native driver as well as a set of one or more JDBC drivers for each DBMS platform. In previous releases, the native driver for each platform was the default connection option when registering a datasource.

This release introduces two enhancements:

o   You can now designate one of the JDBC drivers as the default connectivity option for a DBMS platform.

o   You can universally change the definition for all existing, currently unconnected datasources for a platform to use either the native driver or a JDBC driver as the connection option.
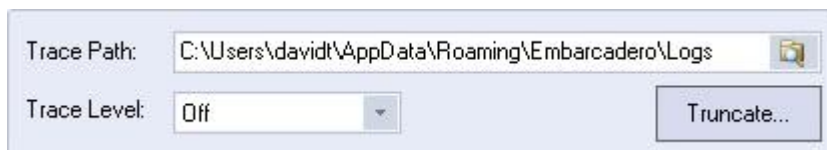
In the Options Editor, the **Connections** page now has a tab corresponding to each supported DBMS platform. The **Default Driver Selection** group of settings provides the new functions.

For DBMS platforms with a native driver and one or more JDBC drivers packaged, the **Connect using...** and **JDBC driver to use** controls enable selection of a JDBC driver as the default connection option and let you select a JDBC driver. The **Assign to all disconnected Datasources** control assigns the selected JDBC driver as the connection option for all disconnected datasources for the current platform, if the **Connect using...** control is selected. Otherwise it assigns the native driver as the connection option for all disconnected datasources for the current DBMS platform

Trace File Logging Options

As a new diagnostic tool, you can now generate a trace file consisting of the sequence of application event messages. The Options Editor's **Logging** page now lets you activate and deactivate, specify a location for, and select a severity level of messages logged.

In descending order of severity (and ascending order of total messages logged), **Trace Level** options are **Fatal Errors**, **Errors**, **Warning**, **Info**, **Debug**, **Trace**, and **Max**.

DBMS Platform Updates

The following topics describe DBMS platform and version updates for this release.

o **Sybase IQ 16 -** Functionality available for previous Sybase IQ releases is now available against Sybase IQ 16 datasources.

o **Apache Hive -** This release presents a technical preview of Apache Hive support. As with other technical previews, minimal functionality is provided. Features include datasource registration and connection, a minimal Navigator/Explorer tree, and a minimal set of object management features.

Explorer and Database Monitor Updates

Improved numeric column filtering in **Explorer** and **Database Monitor**. Users can now filter numeric columns by using operators (>,=,<,<=,>=). When no operator is used, >= is assumed.

ISQL Windows Backup

For Windows Vista and higher, the auto save feature of DBArtisan is now connected to the Restart Manager. Also, unlike the previous version (o Windows XP) all modified ISQL windows will have a backup saved at a regular interval, even those ISQL windows that do not have a file name associated with them. In the event of a crash, those ISQL windows will automatically open up on the next restart. If the Restart Manager is able to detect the crash, it will attempt to automatically restart the application for you. On Windows XP, this feature will function as it did in past versions.

Connectivity Improvement

Connectivity has been improved to have a central location in the options page to set the driver for all datasources of a certain type to use. An individual datasource can override this setting, but by default all datasources will obey the global setting. No longer will customers have to change each individual datasource if they want to use a particular driver for their system.

Performance Analyst for SQL Server Improvements

Performance Analyst improves the space usage functionalities adding information about the database and object that are taking up the most space on the system.

Java Update

DBArtisan has updated to Java 1.7.

Improved Multi-Monitor Support

Users can now detach any MDI tab from the main application window. They can group these detached tabs togetther or keep them separate.