

Rapid SQL[®] XE Product Reviewer Guide

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OVERVIEW

INTRODUCTION

Thank you for your interest in reviewing Rapid SQL® XE, Embarcadero's heterogeneous SQL integrated development environment. This reviewer guide will give you an overview of some of the key benefits developers and project managers enjoy with Rapid SQL XE.

PRODUCT DESCRIPTION

Rapid SQL XE helps developers and DBAs produce high performance SQL code faster. With support for all major database platforms from a single interface, teams can standardize on one powerful heterogeneous SQL IDE tool. A rich development environment simplifies SQL scripting, query building, object management, project management, and version control in live databases or offline source code repositories. Intuitive SQL editing, debugging, and optimization tools help create high performance SQL code. Rapid SQL 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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Rapid SQL XE Reviewer's Guide Hotline is dl-DGReviewer@embarcadero.com (1-Hour turnaround during normal business hours).

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RAPID SQL XE HIGHLIGHTS

NEW AND INTERESTING FEATURES OF RAPID SQL 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** – Rapid SQL XE comes complete with support for all major database platforms including Oracle®, Microsoft® SQL Server, Sybase® Adaptive Server, IBM® DB2®, InterBase/Firebird 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.
- **Cross-platform code generation options** – Rapid SQL XE utilities and tools help Developers build SQL code that is syntactically and functionally correct the first time.

KEY BENEFITS FOR DEVELOPERS

- Rich and consistent feature implementations across platforms make it easy to be productive in heterogeneous environments or unfamiliar databases.
- A full range of built-in object management facilities make it easy to create, edit, and otherwise modify database objects, programmatically or manually.
- Easy-to-use browsing, visual query building and data editing options simplify working with data.
- Diagnosis and correction capabilities increase performance and up-time.

KEY BENEFITS FOR PROJECT MANAGERS

- Seamless, out-of-the-box integration with all major Version Control Systems (VCS).
- Complete database project management capabilities, which allows for the reverse-engineering of live database objects into corresponding off-line SQL source code files, which may be checked into and out of any of the supported VCSs.
- Detailed HTML reports at the database object level that can be viewed immediately within the application or published to a defined web directory.

QUICK LINKS TO PRODUCT INFORMATION

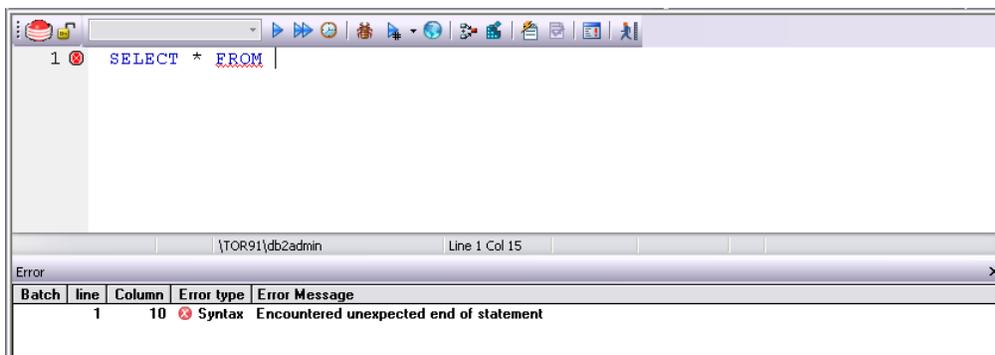
- [Rapid SQL XE Product Page](#)
- [Rapid SQL XE Datasheet](#)

EXPERIENCE MORE OF RAPID SQL XE

Rapid SQL XE's wide range of features helps satisfy most SQL development and team productivity requirements.

SQL DEVELOPMENT ENVIRONMENT

Rapid SQL 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 Rapid SQL XE functions.

- **Time savers** - Code templates are complete code blocks that can be easily added to open windows or scripts with a few keystrokes. When you type CTRL+SPACE, the Code Assist menu opens, letting you select a code template for insertion in the editor window. Auto Replace lets you define shortcuts consisting of a few characters that represent longer character strings. Instances of these Auto Replace expressions are automatically replaced by the replacement string on activation events such as typing SPACE, TAB, or RETURN. This feature is useful for creating shortcuts for one-line commands or SQL statement subsets, or even to detect and fix common typographical errors such as **teh** for **the**.

These time-saving features are configured from the Code Workbench (**Tools > Code Workbench**).

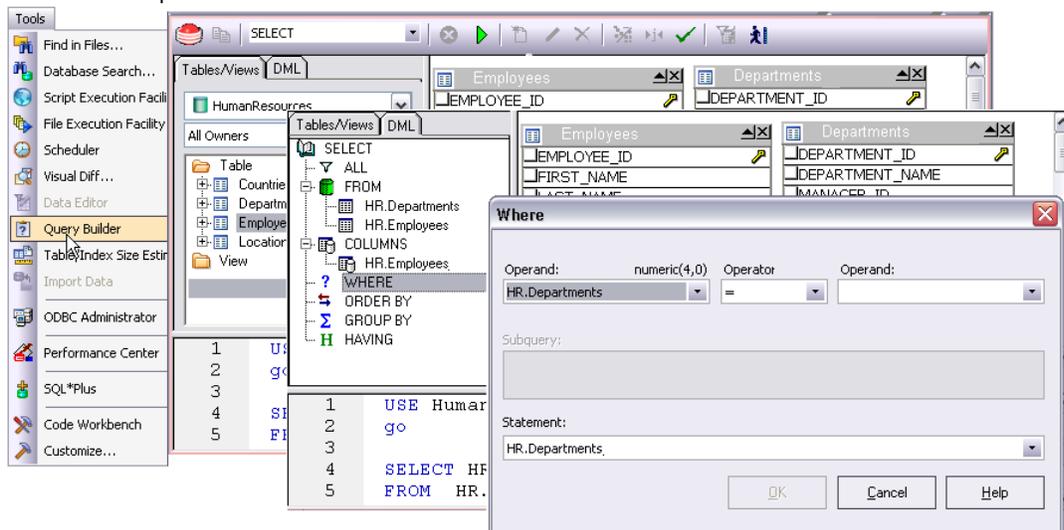
- **Environment control features** - Let you set query options, lock session connections, and execute scripts against multiple datasources.
- **Results editor** – Query results are displayed, spreadsheet-fashion, in a Results editor. It offers a wide-ranging set of options for formatting, navigating, editing, and exporting result data.

SQL PRODUCTIVITY FEATURES

Rapid SQL offers a number of code generation and execution facilities designed to save time and let you perform disparate development tasks from a single environment.

QUERY BUILDER

The Query Builder provides a visual interface that lets you construct complete, advanced queries.



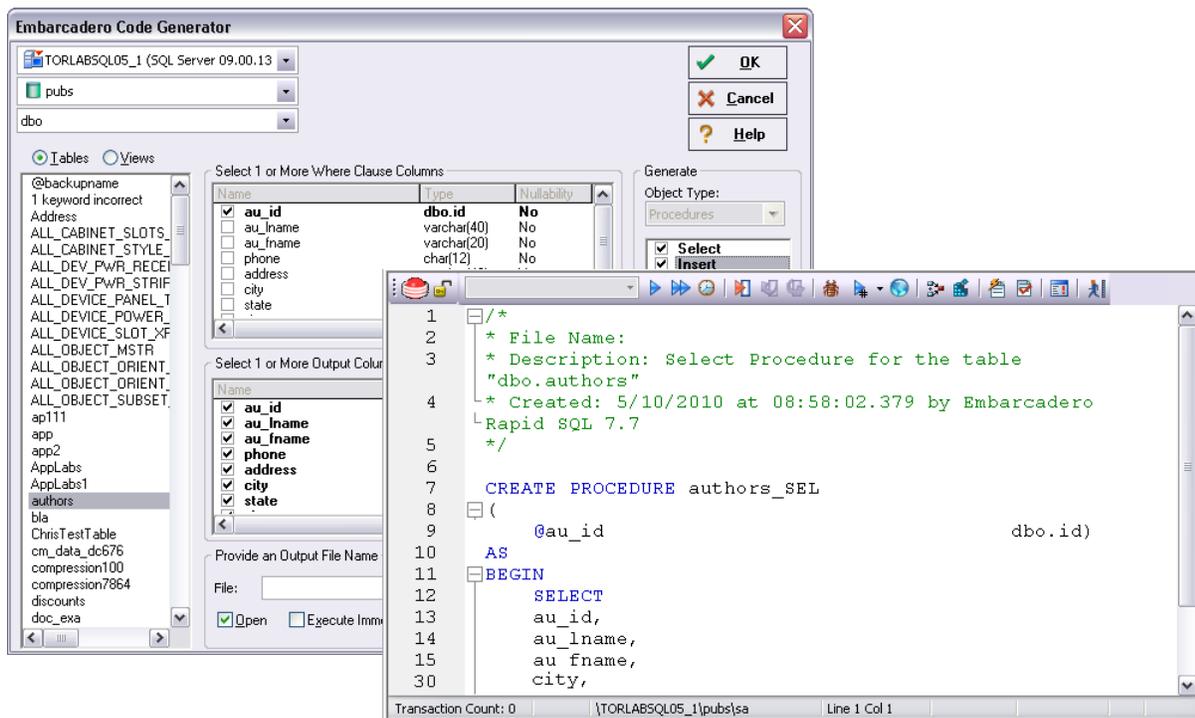
The utility lets you:

- 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.

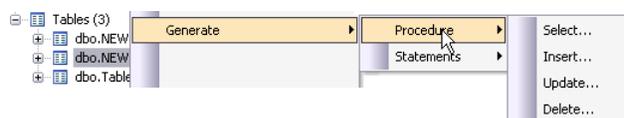
RAPID CODE GENERATION

The **Code Generation Facility** (Tools > Code Generation Facility) can be used to create complete procedures, functions or packages based on views or tables.

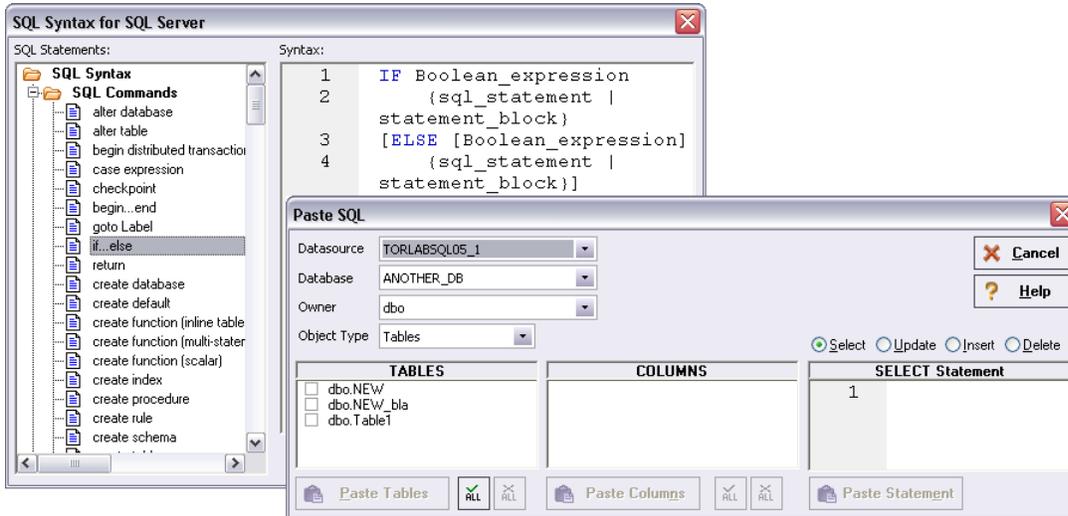


The generated DDL is displayed in a DDL Editor.

Similarly, a set of **Generate** object actions, available against table and views, let you quickly generate simple procedures or individual statements based on column selections.

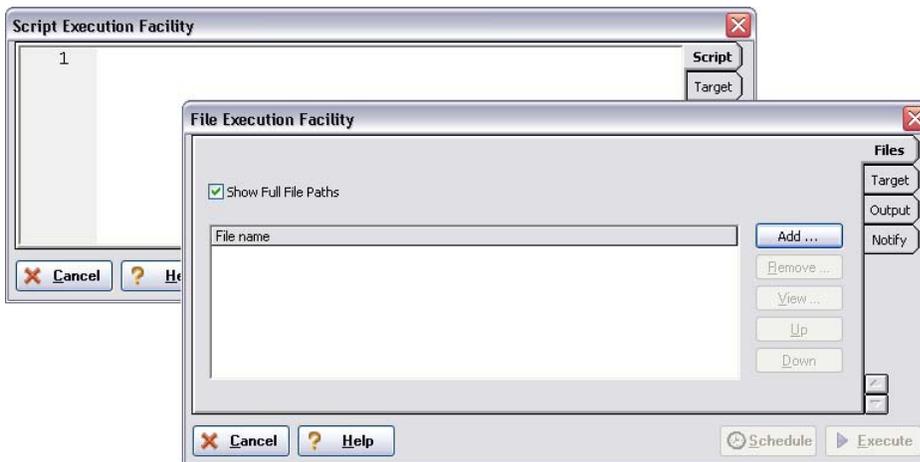


When working in the SQL editor, the **Paste SQL Statement** and **Paste SQL Syntax** options let you quickly add templates for individual statements or more complex and syntactically-correct code blocks to your script.



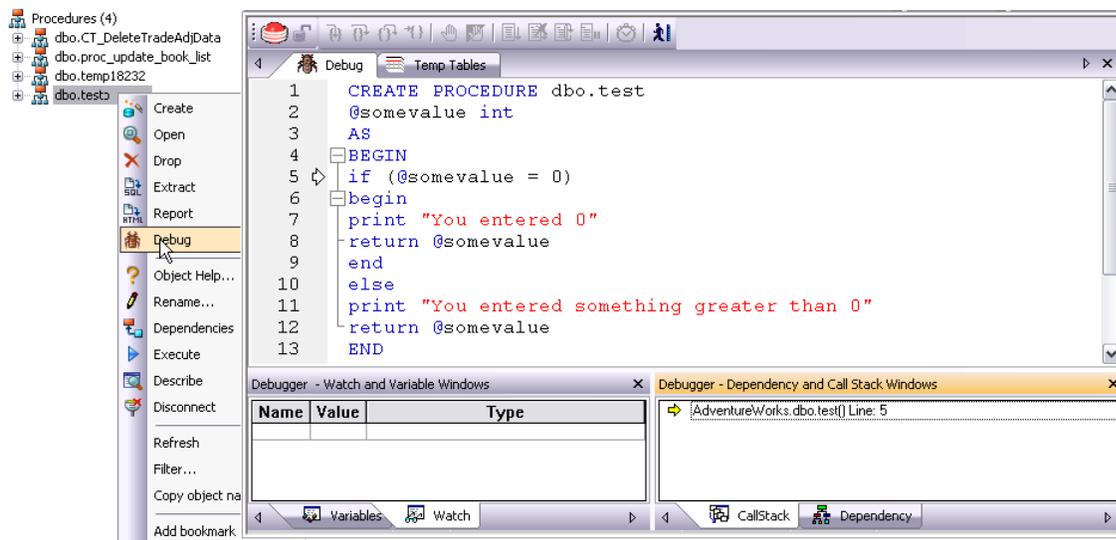
SIMPLE SCRIPT AND FILE EXECUTION FROM THE RAPID SQL ENVIRONMENT

Rapid SQL extends the auto-generation of SQL code by allowing you to run your scripts across multiple databases at the same time. The **Script Execution Facility** and **File Execution Facility** are standalone utilities that establish multiple threads and database connections letting you simultaneously execute SQL statements or ANSI SQL files against multiple datasources.



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:

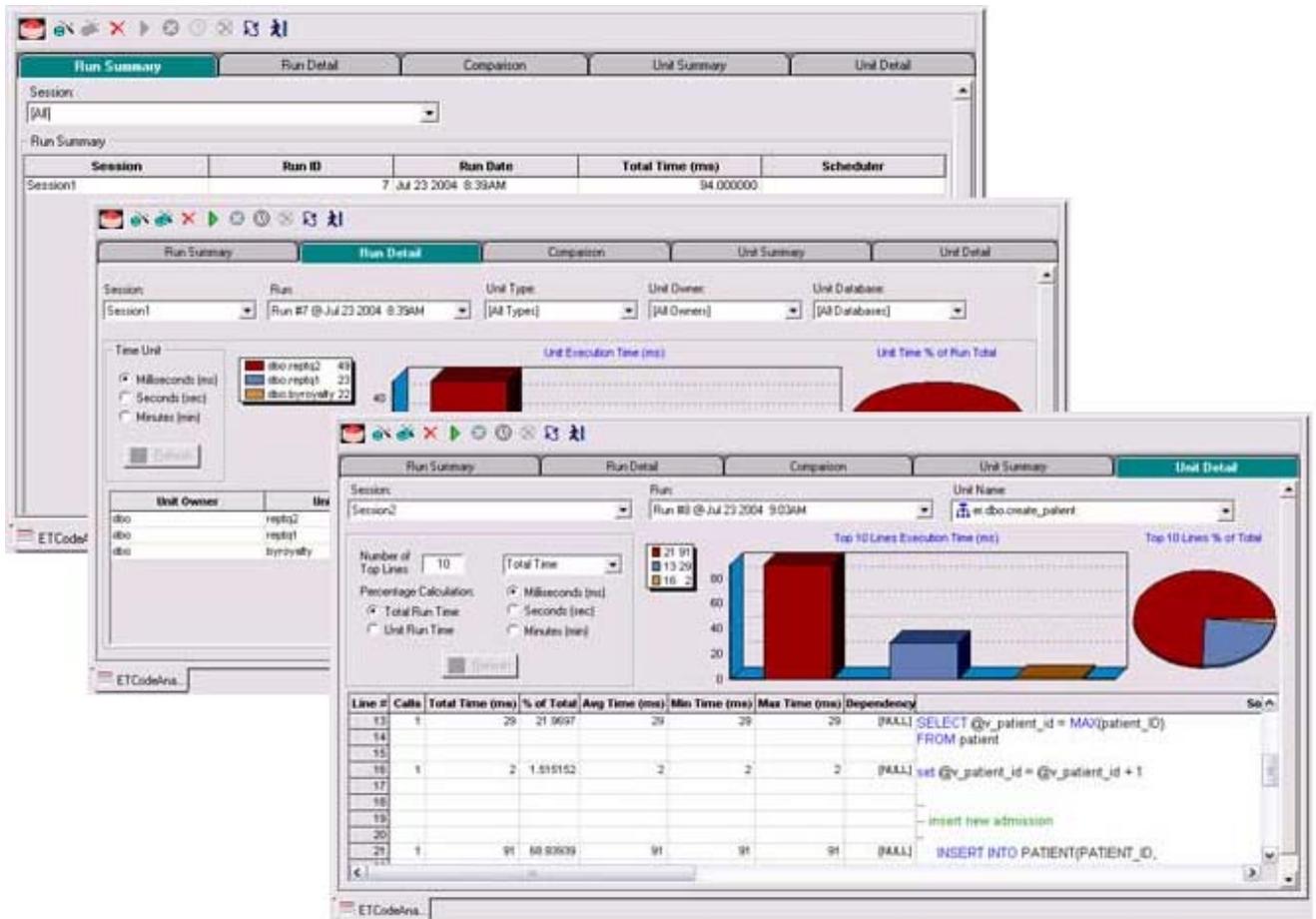
- Providing input parameter values
- Step execution options (Step Into, Step Over, and Step Out) complement standard start, stop, and restart options
- Setting and toggling breakpoints

REPORTING AND ANALYTICS

Rapid SQL provides reporting and analytics in areas ranging from code performance, to object details, to size and space statistics.

CODE ANALYST

The Code Analyst (**Tools > Code Analyst**) allows you to capture run-time statistics on executable database objects, included stored procedures and functions. Not only can you capture runs for single objects, but you can group more than one object.



When initiated (**Tools > Code Analyst**) a Wizard walks you through defining a session, selecting the objects to be executed, and providing other details. On completion, tabs in resulting window provide details such as:

- Total time for the run.
- A breakdown of the different objects that make up the session.
- Specific time measurements for individual SQL statements.

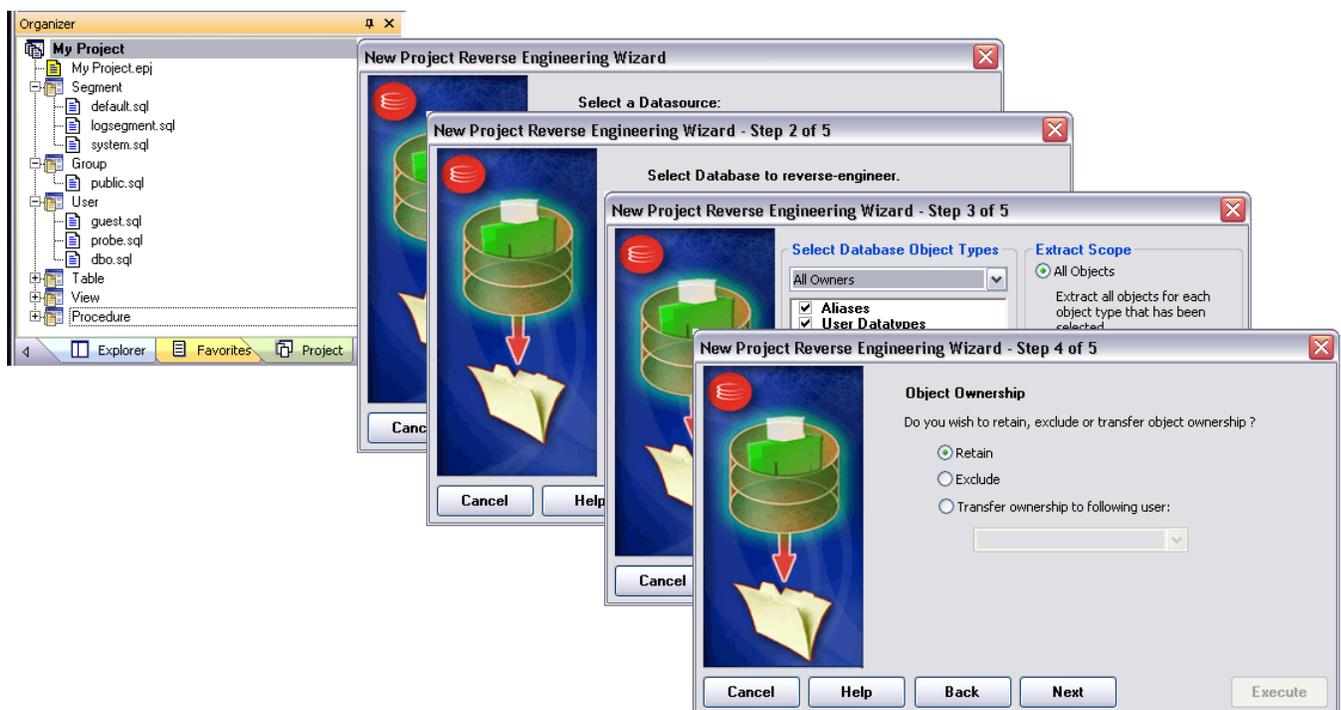
OBJECT DOCUMENTATION AND REPORTING

Rapid SQL provides rich, detailed HTML reporting for all database objects. Right-clicking an object in the explorer and selecting **Report** from the context menu, lets you display and save a detailed HTML report on that object.

dbo.authors					
Object Type	Table				
Datasource	EBT (SQL Server 08.00.0760)				
Login	sa				
Database	pubs				
Report Date	4/14/2003 16:54:45.847				
Columns					
Name	Datatype	Null	Default	Default Binding	Rule Binding
au_id	id	No			
au_lname	varchar(40)	No			
au_fname	varchar(20)	No			
phone	char(12)	No	'UNKNOWN'		

TEAM COLLABORATION

Rapid SQL provides an excellent team development environment by allowing you to Reverse Engineer live database objects into off-line SQL source code files that can then be easily added to a Version Control System (VCS).



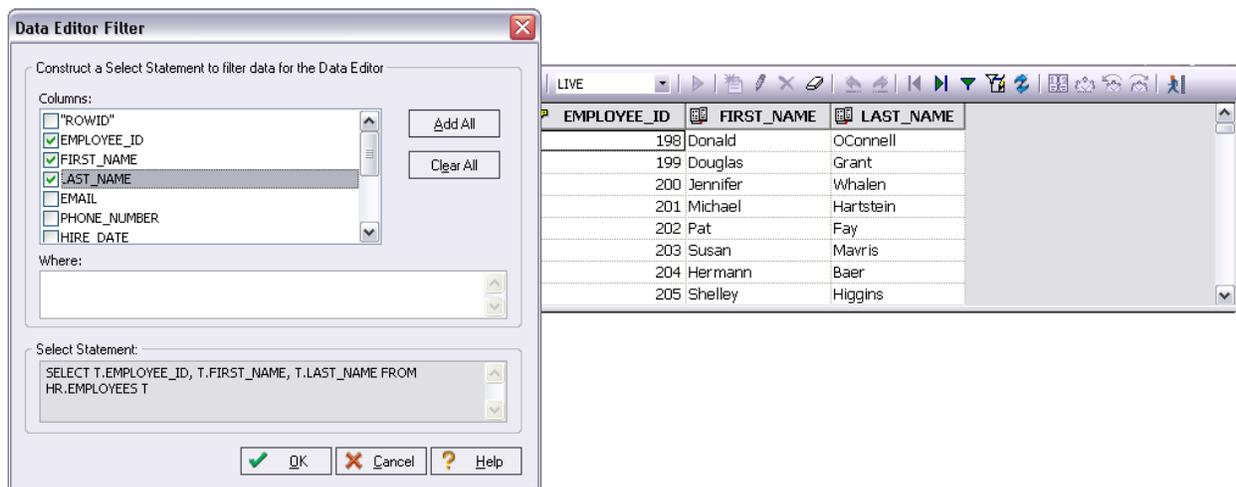
Rapid SQL's seamless VCS integration offers all version control operations, such as get, check-out, check-in, history and diff.

DATA MANAGEMENT

Rapid SQL 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.

VISUAL DATA EDITOR

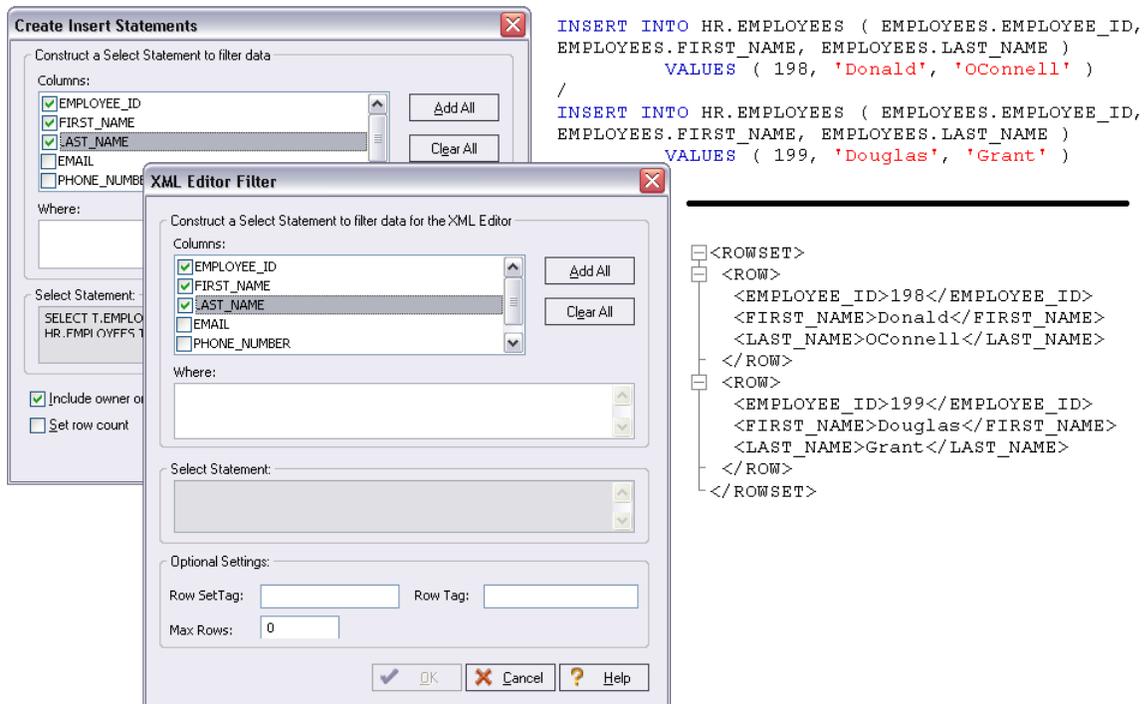
Rapid SQL XE's visual data editor helps you add, change, and delete data from your tables with all referential integrity enforced. When you invoke the data editor against a table, you are prompted to create a SELECT statement. You choose the columns to include and optionally, provide a WHERE clause. 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.

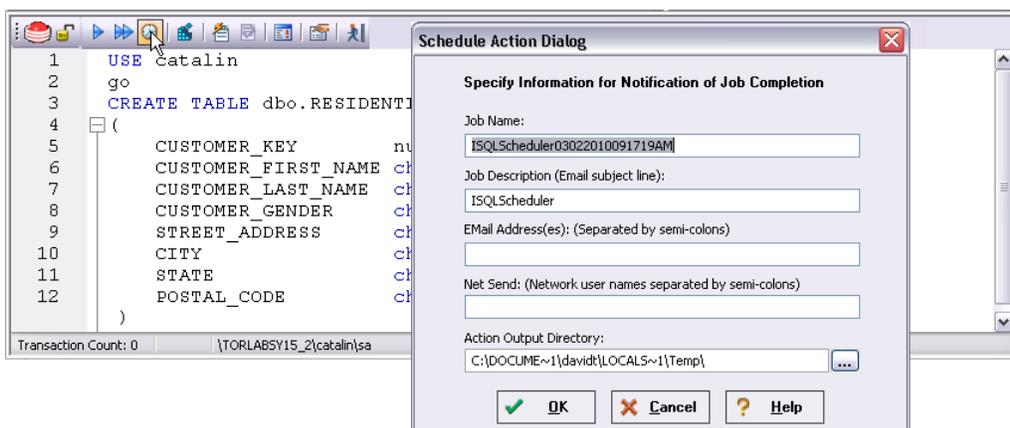


The **Extract Data As XML** feature provides a comparable function. It lets you make table data available in XML format. After qualifying records and columns, the resulting data is opened in an XML editor.

JOB MANAGEMENT

Rapid SQL 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 Rapid SQL 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.



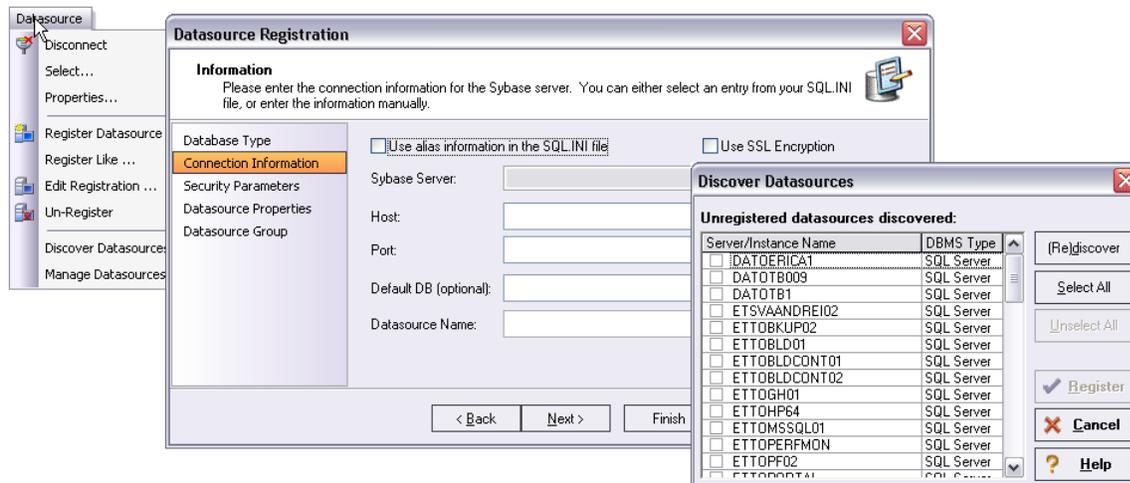
The **Scheduler Action** dialog lets you provide a name, set notifications, and specify an output directory for the new job. Clicking **OK** opens the Windows Job Scheduler where you finish scheduling the task and inspect the results when it completes.

Datasource Management

After installing Rapid SQL XE, you must set up datasources to establish reusable connections to your database servers. Rapid SQL 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 Rapid SQL XE with the datasources on your network, you must first register them. There are two primary methods of registering datasources. Rapid SQL 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.



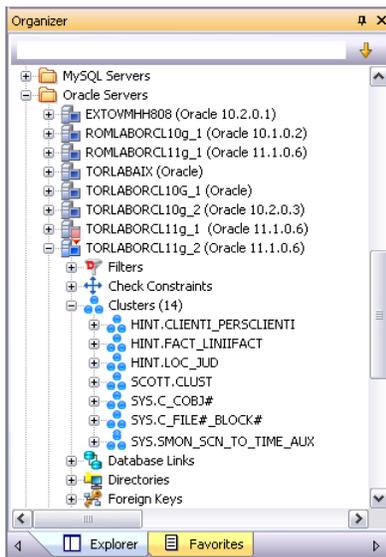
Related options include import and export of datasource definitions and the ability to share datasources across Embarcadero applications.

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. Rapid SQL XE can be connected to multiple datasources simultaneously.

DATABASE EXPLORER

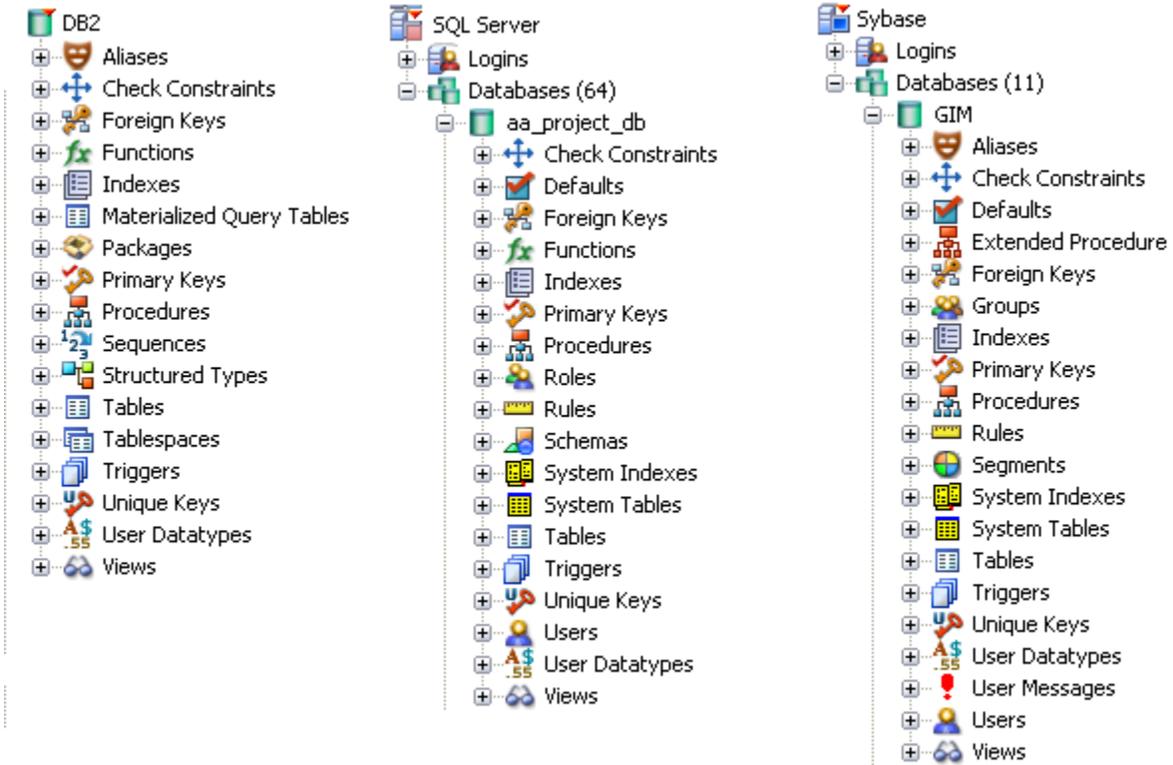
Rapid SQL XE provides a Database Explorer that lets you navigate your datasources and view details on individual objects. The explorer provides a hierarchical view, letting you drill down from the database level all the way to the level of individual database objects.



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.

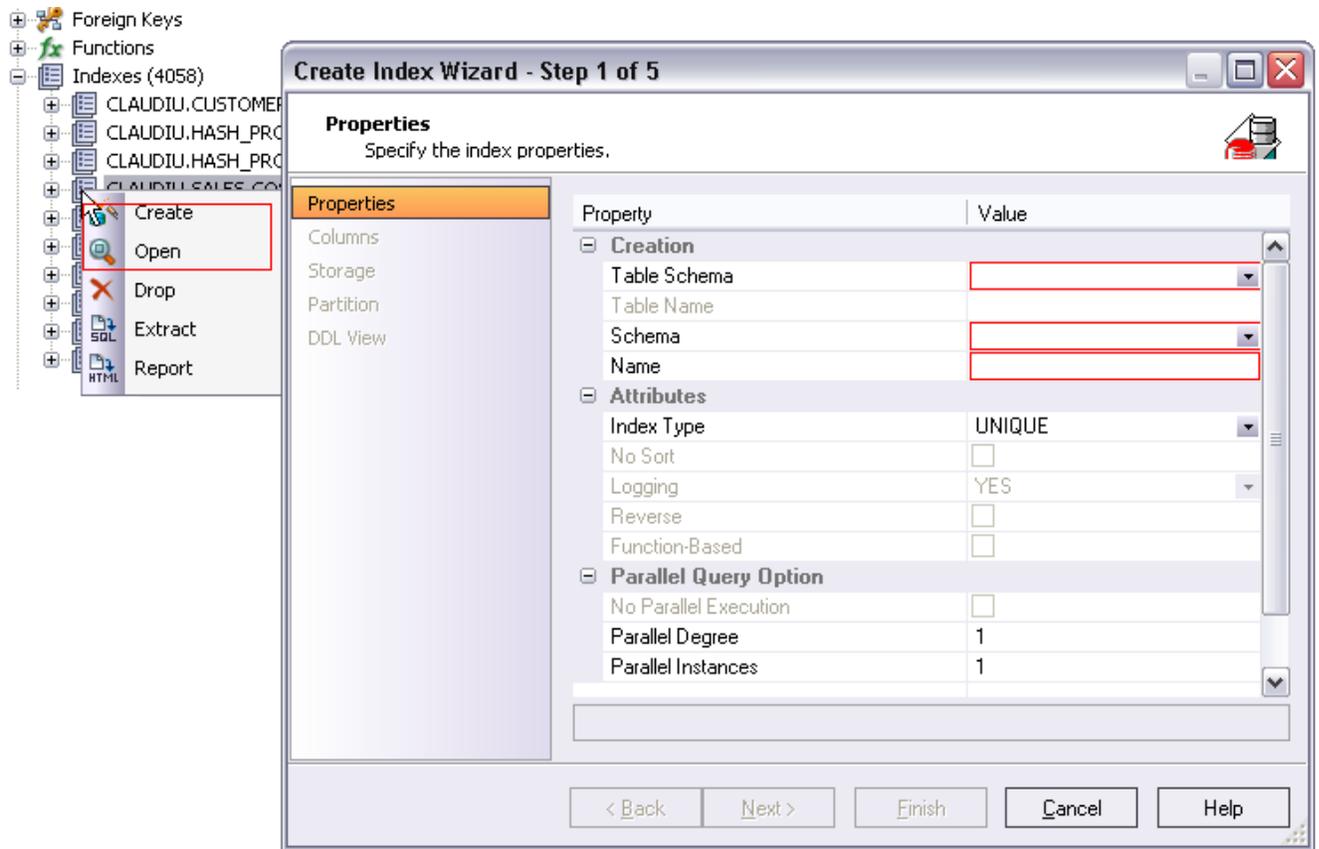
OBJECT MANAGEMENT

Rapid SQL 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

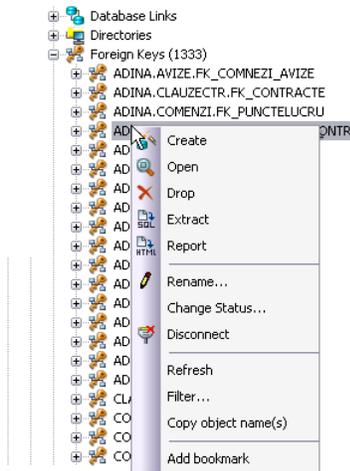
Wizards and Editors are available for creating and modifying most supported object types.



Rapid SQL 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

Rapid SQL 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.

DATABASE SECURITY

Rapid SQL 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

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

MySQL	Oracle	SQL Server	Sybase
Users	Profiles Roles Users	Logins Roles Schema Users	Logins 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

Rapid SQL 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.

NAME	OWNER	CONTROL	DELETE	INSERT	SELECT	UPDATE	REFERENCES
ALERT_NOTIFICATION	DB2ADMIN						
ALL_DATA_TYP...	TEST123	Granted	Granted/Grant	Granted/Grant	Granted/Grant	Granted/Grant	Granted/Grant
ALL_DATA_TYP...	TEST123	Granted	Granted/Grant	Granted/Grant	Granted/Grant	Granted/Grant	Granted/Grant

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.

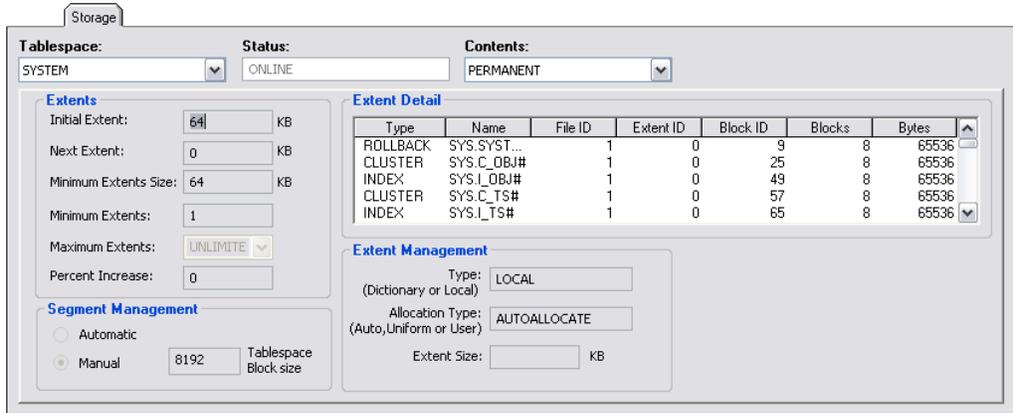
NAME	TYPE	CONTROL	DELETE	INSERT	SELECT	UPDATE	REFERENCES
ADMINISTRATOR	L user						
DB2ADMIN	L user	Granted	Granted/Grant	Granted/Grant	Granted/Grant	Granted/Grant	Granted/Grant
DB2INST1	L user						

SPACE MANAGEMENT

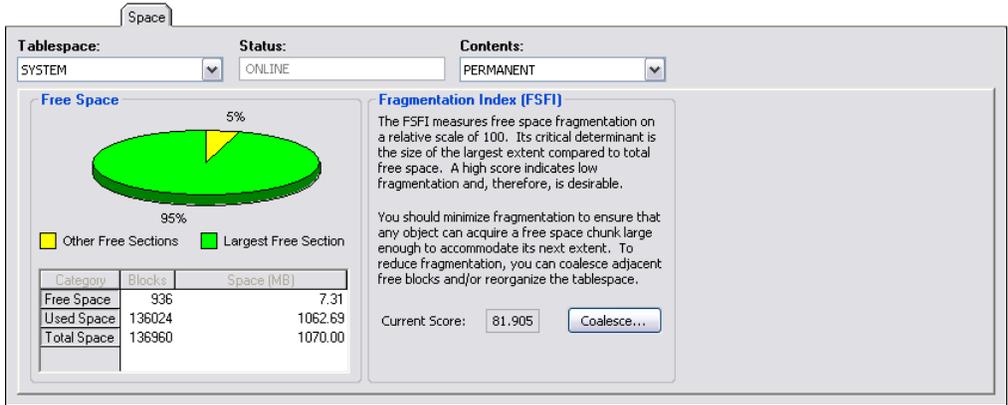
Managing space is vital to ensuring the availability and performance of your databases. Rapid SQL XE incorporates many built-in space features that let you smartly manage and exploit all aspects of your database's storage.

BUILT-IN SPACE MANAGEMENT

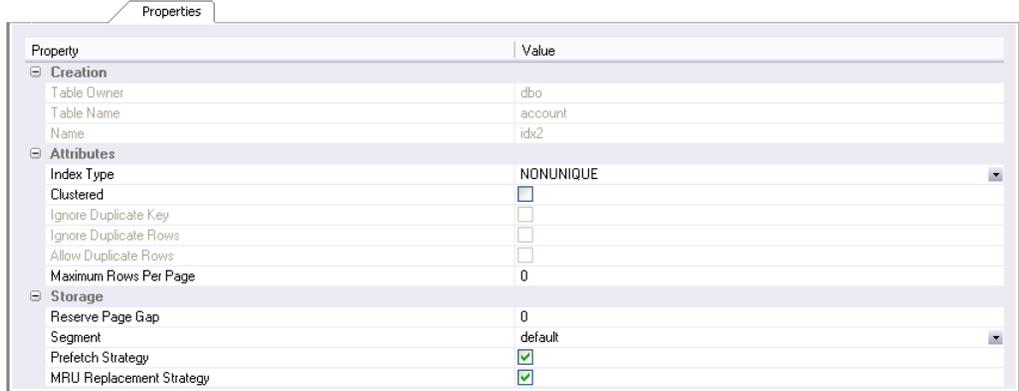
The tablespace editor for Oracle datasources provides a good example of the storage and space data that Rapid SQL XE makes available. The **Storage** tab lets you view and modify tablespace extent limits



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



In addition to simple viewing of space and storage details, Rapid SQL 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.



Embarcadero Technologies, Inc. is the leading provider of software tools that empower application developers and data management professionals to design, build, and run applications and databases more efficiently in heterogeneous IT environments. Over 90 of the Fortune 100 and an active community of more than three million users worldwide rely on Embarcadero's award-winning products to optimize costs, streamline compliance, and accelerate development and innovation. Founded in 1993, Embarcadero is headquartered in San Francisco with offices located around the world. Embarcadero is online at www.embarcadero.com.