



Unicenter® SQL-Station® Suite Release 7.0

The Unicenter® SQL-Station® Suite provides a comprehensive integrated development environment (IDE) for creating, editing, testing, debugging, tuning and managing SQL, PL/SQL, Java and XML server-side database code. Its integrated components and Intelligent Workspace increase efficiency and productivity for both new and experienced database application developers and administrators.

Key Features at a Glance

- **Integrated Environment for Developing Database Applications**
- **Supports Multiple Database Systems**
- **Includes Development Productivity Tools**
- **Verifies Code With Integrated Testing Tools**
- **Recommends Tuned SQL Statements**
- **Integrates With Version Control Tools**
- **Tests New Index Strategies Without Impacting Production Tables**
- **Captures and Tunes Poor-Performing SQL Generated by Client Applications**
- **Integrated Oracle PL/SQL Debugging Tool**
- **Translates XML to SQL**

What's New

- **Supports DB2 for z/OS; DB2 UDB for Linux, UNIX and Windows; and New Releases of Oracle and Sybase**
- **Expanded UltraGrid Support**
- **Adds ANSI SQL for Oracle Support**
- **Enhanced XML Support**



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Heterogeneous Database Application Development

Business rules are constantly changing, databases are evolving to accommodate new technologies, and it is up to the developer to create or modify existing database applications to reflect new business requirements. Today's database developers require a development environment that enables them to connect to a variety of different database types to create, edit and test database applications.

An Integrated Development Environment (IDE)

The Unicenter SQL-Station Suite from Computer Associates International, Inc. (CA) is an IDE that helps your programmers quickly develop and maintain high-performance, low-maintenance business applications. Users can easily access server-side objects such as tables, stored procedures and triggers, including deployed Oracle Java objects. Unicenter SQL-Station simplifies the development process through code-generation wizards, report wizards, a catalog browser, an editor and testing facilities.

Distinctive Features and Functionalities

Suite Components. The Unicenter SQL-Station Suite is a development environment that provides access to Relational Database Management Systems (RDBMSs) from multiple database vendors. Integrated components provide features and functionalities for easy development of database applications. These include:

- **Unicenter® SQL-Station® Code Manager.** For version control of database objects.
- **Unicenter® SQL-Station® Detector®.** For capturing problematic, poorly-performing SQL in client applications.
- **SQL Extractor.** To scan client applications for embedded SQL.
- **XML to SQL Translator.** To easily convert between relational and XML formats.
- **Unicenter® Plan Analyzer® for Oracle.** To capture, analyze and fix poor-performing SQL statements. This includes a Turbo Tuner tool that automatically generates optimized, alternative SQL.
- **Unicenter® SQL-Station® Debugger.** For fixing program logic and testing code, which includes a Profiler tool for line-by-line performance analysis of Oracle PL/SQL objects.

Multidatabase Development. The Unicenter SQL-Station Suite provides a heterogeneous environment to develop, test and maintain database objects and server-side application code on Oracle; DB2 for z/OS; DB2 UDB for Linux, UNIX and Windows; SQL Server and Sybase.

- **Integrated Graphical User Interface (GUI).** Supports multiple database environments and increases efficiency of database developers.
- **Intelligent Application Workspace.** Reduces the learning curve by displaying available "tools" in context with your developer's current tasks.
- **Access Database Objects.** Provides tools to reverse engineer, edit and deploy database objects, and view all referential relationships among objects.

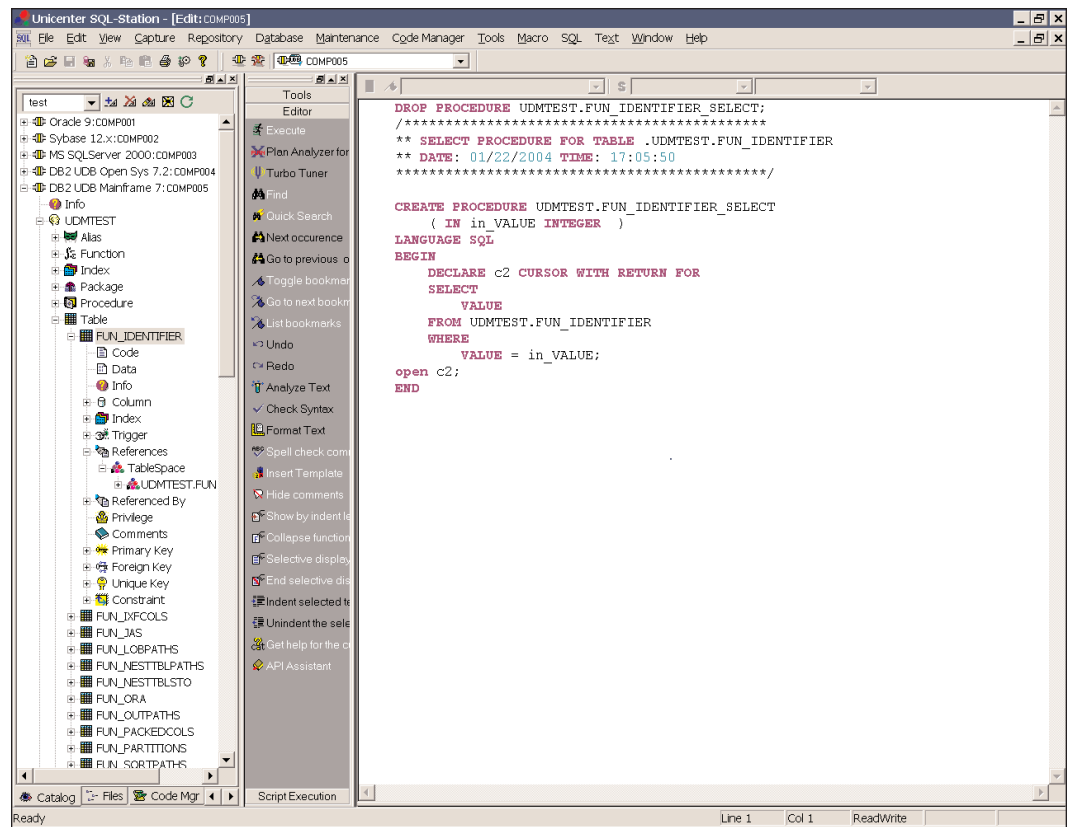


Figure 1. The Catalog Browser provides a window to database objects and help topics on multiple database types.

- **Concurrent Access to Multiple Database Catalogs.** Uses a catalog browser to maintain concurrent connections to client/server RDBMSs on different platforms (see Figure 1).

Development Productivity Tools.

The development environment includes numerous tools and features that assist with creating and editing database objects.

- **Automatic Code Generation.** Generate stored procedures and packages automatically from deployed table objects.
- **Accelerated Editing.** Make code changes quickly and accurately with automatic syntax expansion, search and replace, drag-and-drop, bracket matching, spell checking, syntax highlighting, API assistance and code templates.
- **Query Wizard.** Build queries quickly by clicking on tables and column names.
- **Integrate With Version Control Tools.** Integrate the development environment

with AllFusion® Harvest Change Manager or any SCC-compliant version control tool to maintain source code integrity.

Testing Tools. After database objects have been created, compiled and deployed to the database, they need to be executed and tested to ensure accurate results.

- **Stored Procedure Execution.** Execute stored procedures and view the results. The tool automatically prompts for any required input variable parameters.
- **Table Editor.** Update and edit table data for testing. Provides expanded text editing to easily modify data within a cell.
- **Database Scripting.** Combine objects into scripts using the scripting tool. Automates dependency analysis and orders the script accordingly.
- **Manage Scripts.** Code, execute and troubleshoot SQL queries and complex database scripts.



Database-Aware Version Control.

Unicenter® SQL-Station® Code Manager provides development teams with a configuration management tool for Sybase, SQL Server and Oracle database objects.

- **Check-In/Check-Out.** Lock the database object to prevent other users from making changes.
- **View History and Compare Objects.** View and merge changes made to objects and compare production database objects with original release objects.
- **Import Database Scripts.** Reverse engineer and import database scripts into individual database objects.

Advanced Oracle-Specific Features.

This solution suite's development environment provides additional features specific to Oracle database applications:

- **XML/SQL Translator Wizard.** Extract data in XML format or modify the database data based on the content of an XML document.
- **SQL Extractor.** Scan the entire file system for SQL statements embedded

in client-side applications. You can optimize the statements using the tuning features of Unicenter SQL-Station Plan Analyzer for Oracle.

SQL Tuning for Oracle. The Unicenter SQL-Station Plan Analyzer for Oracle component provides the tools to identify, capture and fix poor-performing SQL statements. Developers can extract SQL from deployed database objects and use automated SQL rewrite utilities to tune Oracle applications. Users can monitor and capture poor-performing SQL and view detailed Explain Plans to identify how the SQL is accessing the database (see Figure 2).

- **Tune SQL From Database Objects.** Extract SQL from database objects and tune the SQL statements.
- **Fix Common SQL Coding Errors.** Identify and fix common coding errors found in SQL statements with Outer Joins, Cartesian Joins or Referential Constraint errors with the Check-SQL feature.

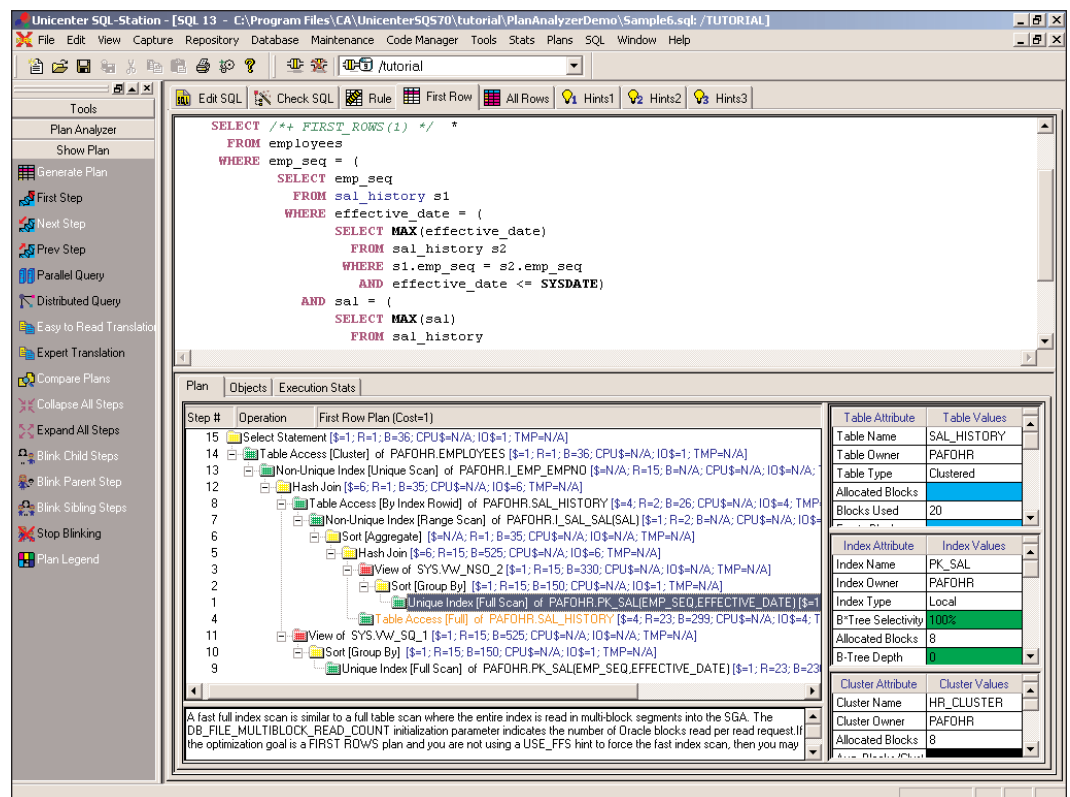


Figure 2. Unicenter SQL-Station Plan Analyzer for Oracle—SQL tuning component.

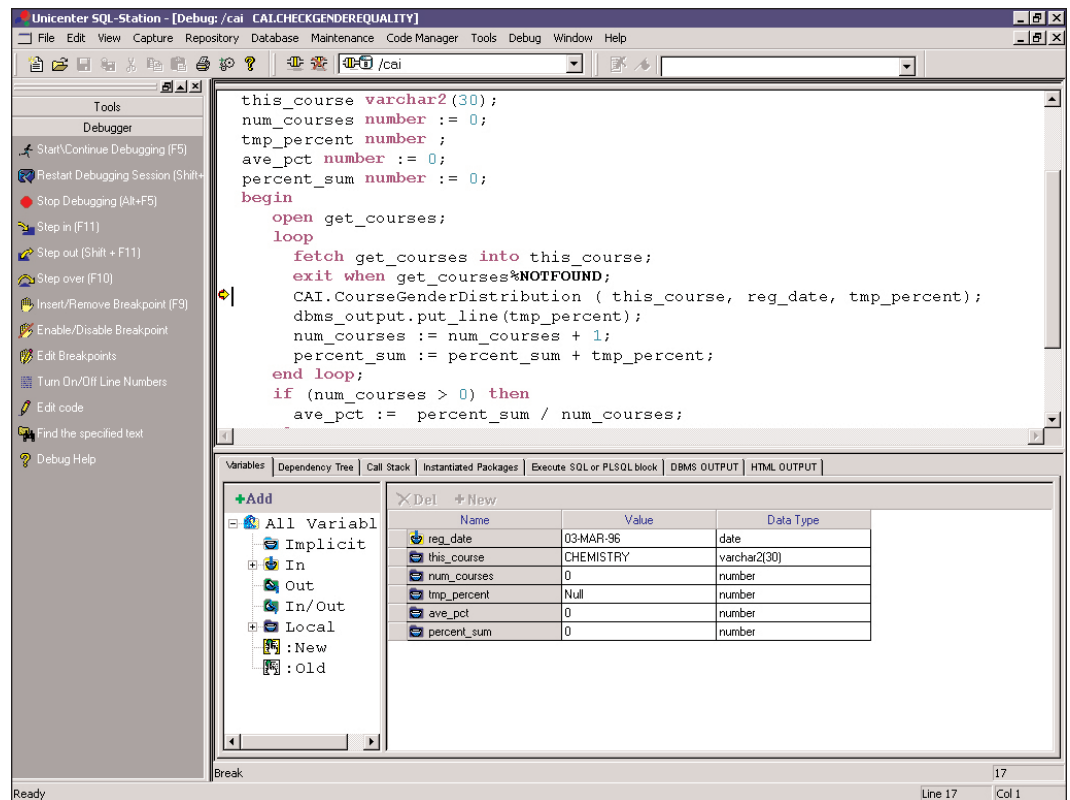


Figure 3. Use the Unicenter SQL-Station Debugger for Oracle to step through code, view variable values and find mistakes.

- Capture and Tune SQL From the Oracle SGA.** Simplify the process of determining which SQL statements captured from a “snapshot” or “monitor” session are actually problem SQL.
- Automated, Optimized SQL Generator.** The Turbo Tuner feature automatically generates alternative SQL statements. Users can compare results between the original and alternative statements to validate performance improvements and results.
- View Graphical Explain Plans.** Generate and compare up to six different Oracle Explain Plans. Detailed statistics for each plan can be compared on screen or stored in a repository for later analysis and benchmarking purposes.
- Test Index Strategies.** Test hypothetical new indexes and verify that the Oracle Optimizer will actually use an index if created.
- Detailed SQL Reports.** Generate reports on SQL stored in the repository. Identify any unused or dropped indexes.
- Debug Oracle Objects.** The Unicenter SQL-Station Debugger for Oracle component reduces the time spent debugging. You can debug any block of PL/SQL code, including triggers, procedures, packages, functions and User Defined Types (UDTs).
- Just-in-Time Debugging.** Launches a debug session when database objects are invoked by client-side applications. Developers can view variables passed from the application to the database (see Figure 3).
- Conditional Break Points.** Enables users to set a condition on a breakpoint. Program execution will pause only when the condition exists.
- Modify Variable Values.** Change the value of program variables during a debug session to test alternative code paths and conditions.
- PL/SQL Profiler for Oracle.** Presents line-by-line execution statistics of database objects to identify the statement causing a performance problem.



What's New in Release 7.0

- **Expanded Database Support.** Includes DB2 for z/OS; DB2 UDB for Linux, UNIX and Windows; and new releases of Oracle and Sybase.
- **Integration With the Unicenter® Database Performance Management Console.** The Unicenter Database Performance Management Console can access Unicenter SQL-Station features such as Top SQL Resource Consumers, SQL Snapshot, Active SQL Problems and SQL Tuning using command line parameters.
- **Oracle Operating System Authentication.** Simplifies the login process by automatically authenticating users by the operating system and bypassing database authentication.
- **Expanded UltraGrid Support.** Provides additional functionality for copying and editing data in the database.
- **Expanded XML Support.** XPath Explorer Wizard lets users create valid XPath query expressions to query specific XML documents stored in Oracle databases.
- **ANSI SQL Support for Oracle.** The SQL re-write and error-checking functionality supports SQL containing ANSI SQL.

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