

# Schema Manager™

CREATE, COMPARE, TRACK AND DEPLOY SCHEMA CHANGES THROUGHOUT THE APPLICATION LIFECYCLE

- **Make complex schema changes quickly and accurately**
- **Generate “apply” and “rollback” scripts automatically**
- **Compare, version and synchronize the schemas and PL/SQL**
- **Quickly validate, audit and report on the differences for any application upgrade**
- **Analyze the impact code changes will have on your database before implementation**
- **Instantly set up storage and privileges**
- **Automatically document all changes**
- **Pre- and post-audits identify potential and actual problems before and after implementing changes**
- **Data management and flexible scheduler features**
- **View table relationships through an Entity Relationship diagram**

For many sites, schema administration, either manually or through a source code control system, is no longer adequate. For these sites, Schema Manager™ provides a professional schema management solution to improve productivity and control and ease administration. You no longer have to force-fit database definitions into repositories designed for program source code. Schema Manager's Oracle-based repository allows recording and querying on all aspects of database schema contents, versions and status.

When creating and migrating schema changes, developers and DBAs make changes directly to the development database. During development through the production lifecycle, schema changes must be carefully orchestrated. Many pending changes must be found and packaged into a coordinated release. These changes must be consolidated and manipulated for storage, privileges and other environmental changes to be successfully applied. Any errors during the deployment process may mean prolonged application downtime.

Obviously, deploying schema changes can be one of the most daunting tasks of a developer or DBA. Schema Manager meets this challenge by identifying the “delta,” or difference between the production database and the development version in the repository. Schema Manager then captures all the changes that were made in development and automatically generates the corresponding database upgrade script. Once a release is ready, the release can be customized to suit the storage and privilege requirements of the target environment. At implementation time, Schema Manager performs a pre-audit to guarantee that the deployment will be successful. After deployment, a post-audit compares the final schema state with the expected result. If the deployment was unsuccessful, a rollback script is provided to automatically undo all changes without losing user data. In the end, Schema Manager saves you time, minimizes risk and documents all schema changes.

## Main Features

### Support for any Change Process

Schema Manager's flexible architecture allows you to manage any schema change process without having to change the way you work.

### Database Comparison

Schema Manager provides sophisticated facilities to compare databases or portions of databases with each other or with any baseline configuration recorded by Schema Manager. This can be performed as a pre- or post-release audit or as an independent reporting function.

### Data Manager

Data Manager provides the intelligence and automation necessary to extract and propagate logical subsets of your data. Building test databases and deploying reference data from development to production are just two of the complex data management tasks accomplished with Data Manager.

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*"Before Schema Manager, I had to manually import, export and run comparisons of my databases — it was at least a seven to eight hour operation. Now with Schema Manager, it takes as little as a half hour to two hours - depending on the level of re-synchronization I'm doing. It's been a huge time-saver for me. And, the entire process is confirmed and documented, so I know everything went as planned. Schema Manager's automated process and database deployment capabilities have greatly helped me to identify and avoid potential problems."*

— Mark Trainer, DBA  
Williams' Petroleum  
Services Group

For more information about Schema Manager or other Quest Software products, please call 949.754.8000 or visit us at [www.quest.com](http://www.quest.com).



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## Delta Support

Changes resulting from the database comparison form a delta that can be propagated to other databases. All other database definitions and user privileges remain intact. Additionally, a set of deltas can be combined into one delta, allowing for a single release of changes to a database.

## Quick Difference

A comparison report between two sets of users can be generated to find any differences between them based on database links. The users can be in the same database instance or in different instances.

## Delta Impact Analysis

Database impact and source code quality wizards validate SQL statements from programs and database objects for anomalies or inconsistencies that might result in missing objects or database performance issues.

## Release Management and Reporting

Schema Manager links changes together to define a "release" and automatically generates scripts to deploy the new version to the target database. Schema Manager then generates reports that summarize the differences between database versions and stored procedure versions.

## Storage Setup

Storage definitions for the deployment can easily be customized on an environment-by-environment basis by copying the storage of other objects. Pre-implementation audits check if sufficient space is available.

## Automatically Generate Apply and Rollback Scripts

Schema Manager generates Apply scripts so DBAs avoid manual scripting errors. "Undo"

scripts are also automatically generated, providing a quick way of reversing changes if necessary.

## Full Log of Change History

Schema Manager maintains a full historical record of schema configuration changes on an object-by-object basis.

## User Grants and Security

End users can be authorized for database access quickly and easily. Warnings prevent new objects from being released until appropriate permissions have been granted. DBA permissions are centrally granted, managed and documented.

## Development

Schema Manager was designed by long-time DBA and developer Mark Gurry, who is best known for co-authoring Oracle Performance Tuning — a bestseller with over 100,000 copies sold worldwide. Gurry is currently a self-employed consultant with Mark Gurry and Associates, a firm specializing in helping organizations develop and administer complex Oracle applications.

## Comprehensive Development and Deployment Solution

Schema Manager is one element within Quest Software's complete database development and deployment solution, which accelerates development of high-quality applications and facilitates the accurate deployment of changes from development through production.

Schema Manager is a Windows-based solution using a SQL\*Net connection to any Oracle server.

