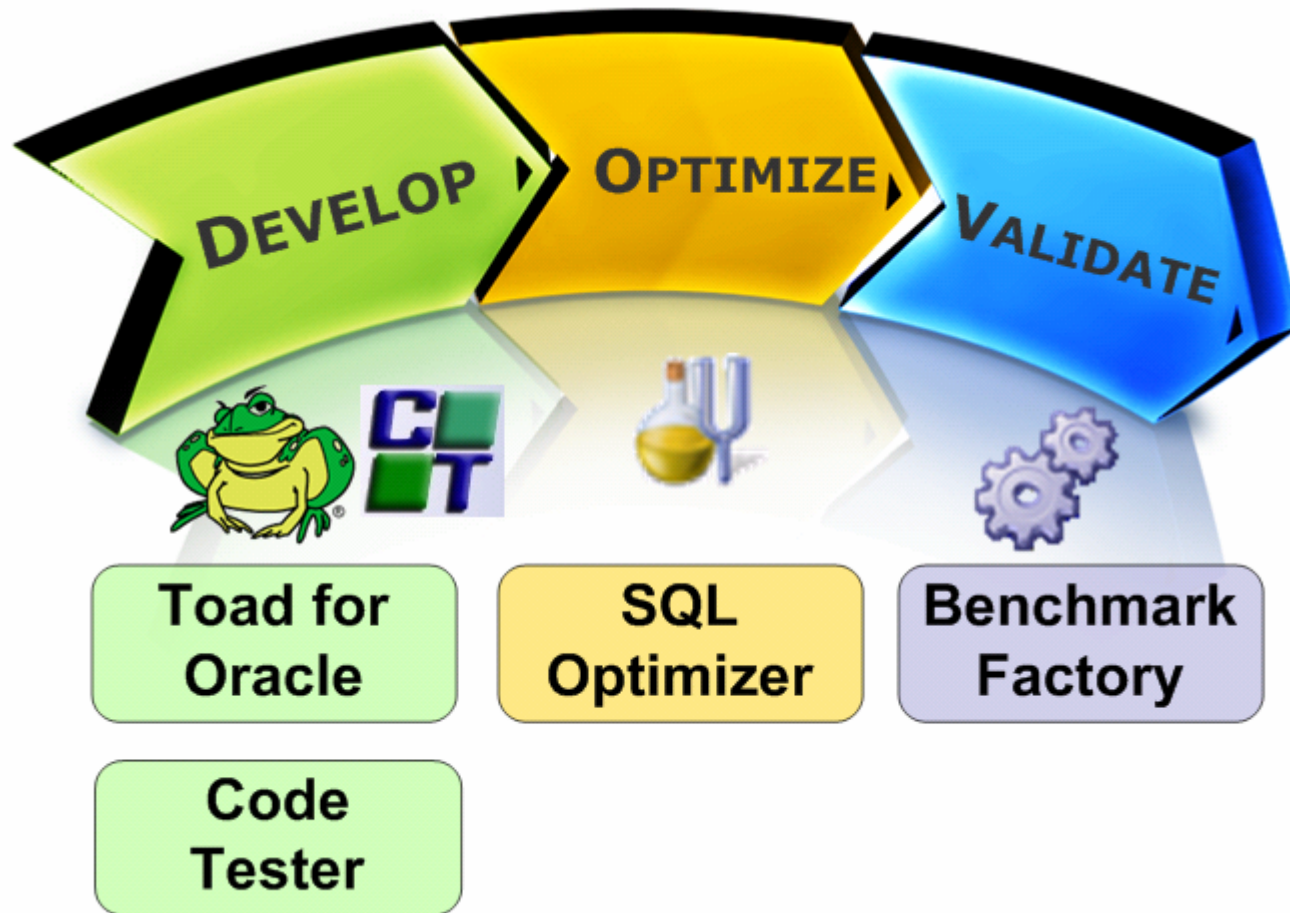


# Development Best Practices



# Toad<sup>®</sup> for Oracle v.9.6 Configurations

- **Toad<sup>®</sup> for Oracle Standard**
  - Basic Toad Features + Team Coding + PL/SQL Profiler + PL/SQL Debugging + Knowledge Xpert PL/SQL and DBA
- **Toad<sup>®</sup> for Oracle Professional**
  - **Toad for Oracle Standard** + **Code Xpert** + Import/Export Utility
- **Toad<sup>®</sup> for Oracle Xpert**
  - **Toad for Oracle Professional** + **SQL Optimizer**
- **Toad<sup>®</sup> for Oracle Development Suite**
  - **Toad for Oracle Xpert** + **Quest Code Tester** + **Benchmark Factory for Oracle**
- **Toad<sup>®</sup> DBA Suite for Oracle**
  - **Toad for Oracle Xpert** + **DB Admin Module** + **Spotlight on Oracle** + **Toad Data Modeler** + **Benchmark Factory for Oracle**



# Add-On modules of TOAD for Oracle

- **Toad<sup>®</sup> for Oracle DB Admin module**
  - Maintain database health and stability and ensure the best possible performance, while minimizing the impact of changes to the database environment.  
Including with **Import/Export Utility Wizard** and **Tablespace Management**
- **Quest Code Tester for Oracle**
  - By automating the test process, Quest Code Tester for Oracle helps you quickly build tests for both existing and new programs. These tests can be run as you develop your code and as regression tests before the code enters production, ensuring that your programs will remain free of bugs throughout their years of use and maintenance.
- **Toad<sup>®</sup> for Data Modeler**
  - Easily and quickly reverse engineer existing databases
  - Work with more than 40 different database versions
  - Increase the time spent designing by reducing the time spent learning the solution
  - Easily fit within any organization's budget
- **Benchmark Factory for Oracle**
  - Performance and code scalability testing tool that simulates users and transactions on the database and replays production or synthetic workload in non-production environments.



# Features Highlight

- **Toad<sup>®</sup> for Oracle Standard** offers a wide range of features for building and maintaining database programs, including PL/SQL and SQL scripts. It includes a **PL/SQL and SQL debugging suite** and built in knowledge bases: **Knowledge Xpert for PL/SQL** and **Knowledge Xpert for Oracle Administration**. You can:
  - Visually create queries and execute them
  - Construct and manage database objects
  - Share project assets such as templates, scripts, and code snippets, with other team members using Project Manager
  - Record workflow steps and play them back later with Action Recall
  - Profile your PL/SQL code to find performance bottlenecks and check for code coverage with **PL/SQL Profiler**

Toad for Oracle also has its own team collaboration utility called **Team Coding** . Team Coding works with Toad's editor to control code access.



# Features Highlight

- **Toad<sup>®</sup> for Oracle Professional** includes all of the features in Toad for Oracle Standard, plus **CodeXpert**, which automates code quality reviews for an objective and consistent review process. By incorporating rules from experts such as **Steven Feuerstein**, you have a virtual expert at your fingertips to advise you on your code. And, **Code Reviews** generate a quality and performance scorecard for your code.

Toad for Oracle Professional also includes an **Export File Browser**, unique functionality that simplifies the extraction of useful information, including objects and data from an Oracle export file, instead of having to import the entire file. Finally, this Edition of Toad, includes Oracle **Import/Export Utility Wizards**, which makes it easier for you to work more efficiently.



# Features Highlight

- **Toad<sup>®</sup> for Oracle Xpert** includes all of the features in **Toad for Oracle Professional**, plus integrated **SQL performance tuning** through **SQL Optimizer's SQL Scanner**. This utility automatically identifies the SQL statements that may perform poorly in production. It then **rewrites SQL** for you and **offers alternate implementations** to improve performance.

Toad for Oracle Xpert can also generate **virtual indexes** and provide **advice** on the impact of changes to improve the performance of a set of SQL statements.



# Features Highlight

- **Toad<sup>®</sup> for Oracle Development Suite** provides an easy, automated way to leverage a wide range of Toad capabilities. It ensures high-quality applications that meet user requirements and perform reliably under production conditions.

The suite comprises **Toad for Oracle Xpert**, **Quest Code Tester for Oracle** and **Benchmark Factory<sup>®</sup> for Databases**. It helps you focus on three areas to deploy the best possible code to production:

- **Develop** code faster and with fewer bugs - utilize **Quest Code Tester for Oracle**, the first automated **PL/SQL testing** tool on the market, in concert with the Toad for **Oracle Debugger**
- **Optimize** SQL code with **CodeXpert** to simultaneously scan code and perform a code quality review - use **SQL Optimizer** to rewrite the SQL and ensure the delivery of efficient and easy-to-maintain code. Also, manage user options and window settings centrally with Group Policy Manager
- **Validate** code using regression tests built during development with **Quest Code Tester for Oracle** - test code for performance and scalability under production-like conditions with **Benchmark Factory for Databases**



# Features Highlight Add-On module

- **Toad® for Oracle DB Admin Module** (formerly Toad DBA Module) helps maintain database health and stability. It ensures the best possible efficiency and performance while minimizing the impact of changes to your database environment.

The DB Admin Module not only automates administration and reporting tasks, but it also provides a workflow that allows you to easily transition from one task to another. The Toad for Oracle DB Admin Module facilitates database administration tasks with a powerful browser-based view of performance information across multiple database instances, right down to the user session level. With the Toad or Oracle DB Admin Module, administrators can quickly:

- Navigate across multiple databases and perform object management with the Database Browser
- Generate synchronization scripts, and compare and synchronize database schemas
- View Oracle performance metrics using **StatsPack Browser** or the **AWR** (Automatic Workload Repository) Browser
- Manage Oracle user accounts
- Execute a **86-point health check**, complete with **23 vulnerability assessment** checks
- Utilize the **export file browser**
- Perform **Tablespace Management**
- Schedule batch jobs





# Features Highlight Add-On module

- **Quest Code Tester for Oracle** by automating the test process, Quest Code Tester for Oracle helps you quickly build tests for both existing and new programs. These tests can be run as you develop your code and as regression tests before the code enters production, ensuring that your programs will remain free of bugs throughout their years of use and maintenance.

Here's how Quest Code Tester revolutionizes the PL/SQL testing experience:

- Rather than writing lengthy test scripts, you describe the required tests or expected behavior of the program through an intuitive graphical interface
- Quest Code Tester then generates a PL/SQL test package that exercises programs according to the inputs you have provided
- You can run your tests through the user interface (as an aid to development) and in batch mode (regression testing) via a command line interface
- Quest Code Tester automatically verifies the results and displays them in an intuitive “red-light, green-light” (pass/fail) Results Viewer -- you can also ask Code Tester to generate code profiling data, from which you can produce code coverage reports
- Test definitions and results are stored in a repository (Oracle backend), from which you can generate reports and analyze the quality and quantity of testing



# Features Highlight Add-On module

- **Toad® Data Modeler** is a cost-effective, yet powerful data modeling and design tool that is built for the *individual* developer, DBA and data architect.
  - Quickly and automatically generate **new database structures** or **make changes** to existing models
  - Visually create structures with an **Entity Relationship Diagram**
  - Easily **reverse engineer** databases
  - **Migrate data structures** from one database version or platform to another
  - **Generate detailed reports** for documenting existing database structures
  - Model according to **business requirements** by adding logical data to your diagrams
  - **Synchronize a model** with the physically existing database using “ALTER” script generation (Oracle only) and Model Merge features



# Features Highlight Add-On module

- **Benchmark Factory® for Databases** supports database developers, DBAs and QA/Software testing teams in the following ways:
  - ***Database workload generation***  
Replay production or synthetic activity in test or development environments to simulate real world production loads. Understand future performance problems and do "what-if" analysis using actual transactions workloads.
  - ***Database code scalability testing***  
Easily perform load tests on SQL scripts, PL/SQL, T-SQL code, and stored procedures under different concurrent user configurations.
- **Benchmark Factory** also integrates with Quest's SQL Tuning products, such as **Quest® SQL Optimizer**, to fix any code performance issues found prior to production deployment.
- ***Industry standard benchmark testing***  
Simulate real database application workloads using out-of-the-box industry standard benchmarks (TPC-C, TPC-H, TPC-D, ASP3AP, and Scalable Hardware). Evaluate database scalability, test hardware/configurations, and determine system throughput.
- ***Virtual user (VU) and transaction load simulation***  
Determine system throughput and find database breaking points. View statistics, such as run times and transactions per second, on simulated users and workloads.



# Features Highlight Add-On module

- **Spotlight® on Oracle** The FASTEST way to find and fix Oracle performance bottlenecks
  - Discover hard-to-find bottlenecks that comprise up to 80% of performance issues
  - Eliminate guesswork in identifying and fixing problems in the Oracle database
  - Instant visual comprehension, via an intuitive GUI, of performance bottlenecks for quick time to resolution
  - Prevent or minimize unplanned downtime of the database



# Toad for Oracle 9.6 Developer Bundles

## Toad for Oracle

The development tool of choice for database professionals world wide.

Toad for Oracle is the essential tool for an Oracle developer to perform daily tasks efficiently and accurately.

*New for Toad for Oracle 9.6:*

- PL/SQL debugger
- Knowledge Xpert for PL/SQL and Oracle Administration
- Simplified customization
- Improved PL/SQL Profiler

## Toad for Oracle Professional

Built for developers that focus on building code with for quality and maintainability.

Includes all functionality in the Toad for Oracle base edition, plus:

- Code Xpert
- Export File Browser

*New for Toad for Oracle 9.6:*

- Import/Export utility wizards
- Code Xpert – updated to simplify reporting; plus new “Toad Code Rating” – green, yellow, red

## Toad for Oracle Xpert

Designed for developers with SQL tuning responsibilities that need to ensure optimal database performance

Includes functionality in Toad for Oracle Professional, plus Quest SQL Optimizer for Oracle, which includes:

- SQL Scanner
- Virtual Index Generator

*New for Toad for Oracle 9.6 – SQL Optimizer 7.3*

- Integration with Benchmark Factory
- Users can select where code is tuned (SQL Lab or Batch Optimizer)
- Users can use a “Plan” table from a different schema

## Toad Development Suite for Oracle

Enables Database Development Best Practices and ensures that the best possible code is deployed to production.

Integrated suite of three tools:

- Toad for Oracle Xpert
- Quest Code Tester for Oracle
- Benchmark Factory for Databases Oracle Edition

*New for Toad for Oracle 9.6:*

- Greater workflow integration with Quest Code Tester for Oracle 1.8

*New for Quest Code Tester for Oracle 1.8*

- User Interface enhancements

# Toad for Oracle 9.6 DBA Bundles

## Toad for Oracle DB Admin Module (formerly DBA Module)

Maintain database health and stability and ensure the best possible performance, while minimizing the impact of changes to the database environment.

*New for Toad for Oracle 9.6:*

- Health Check: Vulnerability Assessment
  - AWR Browser
  - Enhanced DB Browser
- Flashback archives for Oracle 11g

## Toad DBA Suite for Oracle

Simplifies common database administration and helps you become more proactive in solving database-related performance issues before end users are impacted.

The suite includes: **Toad for Oracle Xpert, with DB Admin Module; Spotlight on Oracle Standard Edition; Toad Data Modeler; Benchmark Factory for Databases Oracle Edition**

*New for Toad for Oracle 9.6:*

- **Tighter workflow integration** with Toad Data Modeler

*New for Toad Data Modeler 3.1*

- **Live reverse engineering** making it easier to add entities to models
- **Generate alter reports** that include changes between two models from the Converter and Comparator dialogs
- **Import models** from Toad Data Modeler 2.0

• The DB Admin Module must be purchased with or added onto another edition of Toad for Oracle.