

# Customer Evaluation Guide – Toad® for Oracle® Editions 2021 R1

## Oracle Database Administration



Thank you for choosing to download a Toad for Oracle trial. This guide will enable you to evaluate Toad's key technical features and business value. It can be used to evaluate the database administration aspects of Toad Editions.

**NOTE: Some recommended features/components have a hyperlink to a brief video clip or additional information.**

Activity	Recommended feature or component	Where to find it	Benefits	Available in these Toad for Oracle Editions							
				Base	Pro	Xpert	DB Admin	DBA Edition	RAC Edition	Exadata Ed.	
<b>1. Database maintenance</b>			<i>Features which enable the DBA to maintain the security, health and performance of their managed databases quickly, easily and accurately.</i>								
Perform all administration tasks from a central window	Database Browser	Main Toolbar Database Menu - Monitor	Consolidated view of all managed servers and databases from which many tasks can be performed. Any database can be drilled down to view database and schema objects.				✓	✓	✓	✓	
Compare Oracle user permissions	Compare User	Schema Browser – User Tab – Right-Click User	Ensures users have correctly defined Roles and System Privileges.	✓	✓	✓		✓	✓	✓	
Check Oracle role grants have been correctly applied	Configure Grantees	Schema Browser – Roles Tab – Right-Click Role	Ensures key roles like DBA are assigned to the correct users.	✓	✓	✓		✓	✓	✓	
Altering Oracle user accounts	Alter User	Schema Browser – User Tab – Right-Click User	Easily and confidently make changes to user accounts without relying on scripts.	✓	✓	✓		✓	✓	✓	
Cloning an Oracle user account	Clone/Copy	Schema Browser – User Tab – Right-Click User	Easily and accurately copy user accounts without relying on scripts.	✓	✓	✓		✓	✓	✓	
Understand schema object relationships	ER Diagram	Main Toolbar Table Right-Click	Generates a graphical representation of schema tables and views to help DBAs better understand object relationships and minimize errors. HTML and RTF reports can be generated and emailed.	✓	✓	✓		✓	✓	✓	
Export DDL for objects defined by APEX	APEX Export	Database Menu - Export	Provides the developer and DBA an efficient method to exporting APEX objects and their dependencies to script files	✓	✓	✓		✓	✓	✓	
Produce schema and database documentation	HTML Schema Doc Generator  HTML Database Doc Generator	Database Menu - Report	Enables the DBA to report on database objects in one or multiple schemas or instance information. This information can be published to people who do not have database access by viewing in their web browser. Reports can also be scheduled.	✓	✓	✓		✓	✓	✓	

# Customer Evaluation Guide – Toad® for Oracle® Editions 2021 R1

## Oracle Database Administration



Activity	Recommended feature or component	Where to find it	Benefits	Available in these Toad for Oracle Editions							
				Base	Pro	Xpert	DB Admin	DBA Edition	RAC Edition	Exadata Ed.	
<b>1. Database maintenance (cont)</b>			<i>Features which enable the DBA to maintain the security, health and performance of their managed databases quickly, easily and accurately.</i>								
Updating a data model from schema changes (reverse engineering)	<a href="#">Toad Data Modeler</a>	ER Diagram toolbar	Saved ER Diagram views can be reverse engineered into Toad Data Modeler as a physical data model to enable the DBA to make changes, version manage and create alter scripts for deploying changes.						✓	✓	✓
Understand code – object dependencies	Code Road Map	Main Toolbar PL/SQL Code Right-Click	Enables a graphical representation of relationships between PL/SQL code (inc Packages) and other objects such as Tables and Views to minimize the opportunity for making coding errors through not understanding the impact on a related program	✓	✓	✓		✓	✓	✓	
Generate test data	Generate Data	Create Table Schema Browser - Table Right Click ER Diagram Toolbar	Enables the DBA to quickly create large volumes of data for one or more tables using either "real-world" or random data. There is a server-side mode for faster performance where very large data volumes are required.		✓	✓		✓	✓	✓	
Understand data relationships	Master-Detail Browser	Database Menu - Report	Enables table data to be displayed in multiple panels representing Parent-Child dependencies	✓	✓	✓		✓	✓	✓	
Check Instances are up	Instance Manager	Database Menu - Monitor	From a single panel, check the server, database and Oracle Listener are up.				✓	✓	✓	✓	
Perform backups using RMAN	RMAN scripts	Database Browser – Right Click Database	Many standard RMAN scripts are provided which can be built up into a library. Running a script will initiate RMAN on the server. The Editor supports RMAN scripting & can be used to create new scripts				✓	✓	✓	✓	
Automate repetitive tasks in order to save time and focus on other priorities	Automation Designer	Main Toolbar	Tasks such as schema compare, schema reporting, health check, FTP, sending email, etc can be saved like macros, built into a sequenced task list and either re-used, shared with other DBAs, scheduled for automatic execution or called from the command line.	✓	✓	✓		✓	✓	✓	

# Customer Evaluation Guide – Toad® for Oracle® Editions 2021 R1

## Oracle Database Administration



Activity	Recommended feature or component	Where to find it	Benefits	Available in these Toad for Oracle Editions							
				Base	Pro	Xpert	DB Admin	DBA Edition	RAC Edition	Exadata Ed.	
<b>1. Database maintenance (cont)</b>			<i>Features which enable the DBA to maintain the security, health and performance of their managed databases quickly, easily and accurately.</i>								
Executing scripts against multiple databases	Script Manager	Main Toolbar. Database Browser – Right Click Database	Script Manager provides many DBA scripts, but existing scripts can be registered by DBAs to provide a central script catalog from which one or more scripts can be selected and executed against one or more databases simultaneously or scheduled saving a huge amount of time.	✓	✓	✓		✓	✓	✓	
Access to Oracle and Toad knowledge and advice	Jump Search Bar	Main window	Direct searches can be performed against Toad World sites, Technical Support Knowledge Base or Toad Help by entering a search string in Toad. Results are in context of the DBAs problem, for a quick resolution.	✓	✓	✓		✓	✓	✓	
Checking the health of the database instance and for database vulnerability (security) exposures	DB Health Check	Database Menu – Diagnose	User configurable multi-point check (per selected instance) across multiple categories. Can be run interactively or scheduled. A difference viewer highlights any differences from the last run report. Results can be saved as an HTML report.				✓	✓	✓	✓	
Advise on optimal Exadata configuration	DB Health Check	Database Menu – Diagnose	Same as above, <i>plus</i> additional checks specific to Exadata, to ensure the Exadata configuration matches Oracle’s best practice recommendation.							✓	
Exadata-specific parameters for tables	Create/Alter Table window	Database Menu – Create – Table	The CREATE and ALTER table dialogs include Exadata-specific parameters for Exadata							✓	
Drill into ASH data graphically	ASH Browser	Database Menu - Monitor	Pinpoint diagnostic and performance data from Oracle’s Active Session History in a graphical layout with charts and drill downs. <i>(Requires OEM Diagnostics Pack)</i>				✓	✓	✓	✓	
Perform ADDM/AWR configuration	ADDM/AWR Report	Database Menu - Monitor	Enables the creation of ADDM and AWR reports, manage Snapshots and manage Baselines. <i>(Requires OEM Diagnostics Pack)</i>				✓	✓	✓	✓	

# Customer Evaluation Guide – Toad® for Oracle® Editions 2021 R1

## Oracle Database Administration



Activity	Recommended feature or component	Where to find it	Benefits	Available in these Toad for Oracle Editions							
				Base	Pro	Xpert	DB Admin	DBA Edition	RAC Edition	Exadata Ed.	
<b>1. Database maintenance (cont)</b>			<i>Features which enable the DBA to maintain the security, health and performance of their managed databases quickly, easily and accurately.</i>								
Browse Oracle Alert Logs	Alert Log Viewer	Database Menu - Diagnose	Provides convenient access to review Oracle Alert Log issues. It groups events on a data grid while the lower portion of the screen lists the issues and details relative to a selected row in the grid.				✓	✓	✓	✓	
Create Oracle Pluggable Databases	Create Pluggable Database	Database Browser – Pluggable DBs tab – Create Pluggable Database	Streamlines the task of creating pluggable databases including automatically adding TNS entry, adding a new node into Database Browser and starting the database.				✓	✓	✓	✓	
Move Oracle PDBs to CDBs in the Oracle Database Cloud Service	Read <a href="#">this blog</a> on Toad World	Mainly Database Browser	Enables DBAs to manage Oracle databases both on-premises and in the Oracle Database Cloud Service as well as Amazon AWS and Microsoft Azure.				✓	✓	✓	✓	
Support for Oracle 19c features and components	<ul style="list-style-type: none"> <li>• Index Monitoring</li> <li>• DBMS_SCHEDULER</li> <li>• Scheduler Credential</li> <li>• Resource Plans/Groups</li> <li>• Redaction Policies</li> </ul> <p>And many others</p>	Database – Monitor - Index Monitoring Schema Browser – Scheduler tabs Schema Browser – Scheduler Credential Schema Browser – Resource Plans/Groups Schema Browser - Redaction Policies	Features which enable DBAs to perform many administrative tasks on Oracle 12c multi-tenant databases.				✓	✓	✓	✓	

# Customer Evaluation Guide – Toad® for Oracle® Editions 2021 R1

## Oracle Database Administration



Activity	Recommended feature or component	Where to find it	Benefits	Available in these Toad for Oracle Editions							
				Base	Pro	Xpert	DB Admin	DBA Edition	RAC Edition	Exadata Ed.	
<b>2. Performance management</b>			<i>Features which help the DBA become more proactive by diagnosing and resolving problems quickly and effectively</i>								
Collect Oracle StatsPack data & display advisories to correct potential performance issues	StatsPack Browser	Database Menu - Monitor	Enables data to be collected via Oracle snapshots and an assessment to be made of potential issues using graphical charts.				✓	✓	✓	✓	
Collect Oracle AWR data & display advisories to correct potential performance issues	AWR Browser	Database Menu - Monitor	Enables data to be collected via Oracle snapshots and an assessment to be made of potential issues using graphical charts. <i>(Requires OEM Diagnostics Pack)</i>				✓	✓	✓	✓	
Examine tables, indexes, and partitions to determine if and how much, space can be reclaimed in them with the SHRINK command	Segment Advisor	Database Menu - Diagnose	Enables the DBA to quickly determine if tablespace capacity can be saved thus prolonging their use. <i>(Requires the use of OEM Diagnostics Pack)</i>				✓	✓	✓	✓	
Manage the undo environment for Oracle 10g and above	Undo Advisor	Database Menu - Diagnose	Helps the DBA establish and automate a sound undo tablespace strategy. <i>(Requires the use of OEM Diagnostics Pack)</i>				✓	✓	✓	✓	
Fix performance problems due to excessive/insufficient redo log switching	Log Switch Frequency Map	Database Menu - Diagnose	Graphically maps out the log switch frequency throughout each day to indicate where bottlenecks occur allowing the DBA to take corrective action.				✓	✓	✓	✓	
Identify performance problems as they happen though alerting and enable an accurate diagnosis of the issue	Database Monitor <a href="#">Spotlight on Oracle</a>	Database Menu - Monitor	Database Monitor contains over 50 alert categories which can be configured with Min/Max threshold values. If a database experiences a performance issue, a visual alert is raised from which Spotlight on Oracle can be launched to provide real-time diagnostics thus speeding up problem resolution.				✓	✓	✓	✓	
							✓	✓	✓		
Monitor the dynamic condition of the database instance(s) in real-time. Identify a problem as it happens and be offered guidance on how to resolve it	<a href="#">Spotlight on Oracle</a>	Main Toolbar – External Tools Via Database Monitor (above)	Displays the Oracle architecture for any managed database in real-time with pre-defined thresholds enabling a color change when the database is stressed. Clicking on a stressed metric opens a drilldown screen showing diagnostic data with advisories which will rapidly assist in finding the root cause leading to an appropriate resolution. A history viewer allows monitored information to be collected for later viewing and an alert log keeps a history of different priority issues.					✓	✓	✓	

# Customer Evaluation Guide – Toad® for Oracle® Editions 2021 R1

## Oracle Database Administration



Activity	Recommended feature or component	Where to find it	Benefits	Available in these Toad for Oracle Editions							
				Base	Pro	Xpert	DB Admin	DBA Edition	RAC Edition	Exadata Ed.	
<b>2. Performance management (cont)</b>			<i>Features which help the DBA become more proactive by diagnosing and resolving problems quickly and effectively</i>								
Monitor the dynamic condition of Oracle Data Guard in real-time. Identify a problem as it happens and be offered guidance on how to resolve it	<b>Spotlight on Oracle</b>	Spotlight on Oracle Connection Manager	DBAs can monitor and diagnose Oracle Data Guard failover environments, including data latency and performance of all replication processes. Drilldown screens show diagnostic data with advisories which will rapidly assist in finding the root cause leading to an appropriate resolution.						✓	✓	✓
Monitor the use of Oracle Enterprise Manager (OEM) in real-time	<b>Spotlight on Oracle</b>	Spotlight on Oracle Home Page	DBAs can monitor their usage of Oracle OEM if installed and will raise alarms for error conditions in OEM. You can also browse the various OEM log files from within Spotlight						✓	✓	✓
Monitor the dynamic condition of MySQL databases in real-time	<b>Spotlight on MySQL</b>	Spotlight on Oracle Connection Manager (bundled with Spotlight on Oracle)	Displays the MySQL database architecture in real-time with pre-defined thresholds enabling a color change when the database is stressed.						✓	✓	✓
Monitor the dynamic condition of the server operating system in real-time. Identify a problem as it happens and be offered guidance on how to resolve it	<b>Spotlight on Windows</b> <b>Spotlight on Unix/Linux</b>	Spotlight on Oracle Connection Manager (bundled with Spotlight on Oracle)	Displays the server's operating system architecture in real-time with pre-defined thresholds enabling a color change when the OS is stressed. Clicking on a stressed metric opens a drilldown screen showing diagnostic data with advisories which will rapidly assist in finding the root cause leading to an appropriate resolution. This allows the DBA to correlate what's happening on the database with other server activity.						✓	✓	✓
Perform predictive diagnostics to help pre-empt future performance degradation	<b>Spotlight on Oracle</b>	Spotlight on Oracle Main Menu	Predictive diagnostics allows the DBA to predict future resource requirements based on current activity in 2 key areas: degrading SQL statements, performance bottleneck detection. Spotlight then enables the DBA to perform predictive performance modeling based on their criteria to assess whether the database will be able to cope with future workload.						✓	✓	✓

# Customer Evaluation Guide – Toad® for Oracle® Editions 2021 R1

## Oracle Database Administration



Activity	Recommended feature or component	Where to find it	Benefits	Available in these Toad for Oracle Editions							
				Base	Pro	Xpert	DB Admin	DBA Edition	RAC Edition	Exadata Ed.	
<b>2. Performance management (cont)</b>			<i>Features which help the DBA become more proactive by diagnosing and resolving problems quickly and effectively</i>								
Monitor the dynamic condition of Oracle Real Application Clusters (RAC) in real-time. Identify a problem as it happens and be offered guidance on how to resolve it	<b>Spotlight on Oracle - RAC Edition</b>	Spotlight on Oracle - RAC Edition Connection Manager	This RAC Edition of Spotlight on Oracle greatly simplifies the DBAs ability to manage, understand and maintain their environment. It provides a graphical view of the entire RAC environment, not just node-by-node, but also the cluster and interconnect and gives the DBA the power to quickly diagnose the root cause of performance problems so they can be fixed before performance is impacted.							✓	✓
Real-time graphical view of Exadata-specific performance data	<b>Spotlight on Oracle - Exadata Edition</b>	Spotlight on Oracle – Exadata Edition home page	A complete view of the Exadata environment, showing the relationship between database and storage, to pinpoint Exadata-specific performance concerns (storage cell info, Smart Flash Cache, Smart Scans, EHCC, and more).								✓
Drill down into Exadata performance metrics to understand the root cause of a performance bottleneck	<b>Spotlight on Oracle - Exadata Edition</b>	Spotlight on Oracle – Exadata Edition home page	Quickly diagnose and resolve problems in the Exadata layer with drill-downs into databases, ASM groups, Cell Disks, Smart Flash Cache, Cell Balance, and Cell Metrics.								✓
View top sessions and manage user sessions	Top Session Finder	Database Menu - Monitor	Set which consumer unit you want to view (CPU, I/O, Memory, etc), then rank all user sessions by that resource. Session Browser launches from here	✓	✓	✓		✓	✓	✓	
	Session Browser	Main Toolbar	View all sessions by program name. Start or Stop a user Trace session. View Locks. Kill session. View current SQL, etc	✓	✓	✓		✓	✓	✓	
	SGA Trace/Optimize	Database Menu - Monitor	View frequently used SQL to look for tuning candidates.								

# Customer Evaluation Guide – Toad® for Oracle® Editions 2021 R1

## Oracle Database Administration



Activity	Recommended feature or component	Where to find it	Benefits	Available in these Toad for Oracle Editions							
				Base	Pro	Xpert	DB Admin	DBA Edition	RAC Edition	Exadata Ed.	
<b>2. Performance management (cont)</b>			<i>Features which help the DBA become more proactive by diagnosing and resolving problems quickly and effectively</i>								
Rebuild indexes to regain lost performance	Rebuild Multiple Objects	Database Menu - Optimize	Allows the DBA to quickly find Indexes by User or Tables and create a rebuild script which can be scheduled to run using the integrated Windows Task Scheduler.	✓	✓	✓		✓	✓	✓	
Assess application session Oracle Trace files for performance problems and take appropriate corrective action to resolve	Trace File Browser	Database Menu - Monitor	Enables the DBA to review SQL tuning candidates by providing a highly visual access to Oracle Trace files. This enables a much more proactive approach to application performance rather than the usual 'firefighting'.				✓	✓	✓	✓	
Identification and classification of under-performing SQL from application, SGA, PL/SQL, etc.	SQL Optimizer for Oracle – Scan SQL	Editor Toolbar Query Builder SGA Trace/Optimization Session Browser Trace File Browser Database Menu - Optimize	SQL Optimizer scans for under-performing SQL statements in the application and classify them according to potential performance impact.			✓		✓	✓	✓	
Automatic re-writing and optimization of SQL alternatives	SQL Optimizer for Oracle – Optimize SQL	Editor Toolbar Query Builder SGA Trace/Optimization Session Browser Trace File Browser Database Menu – Optimize	SQL Optimizer will generate every possible re-write and quickly discard those of minimum benefit. This process will ensure every SQL alternative is considered – a process which would take an average DBA many hours to perform.			✓		✓	✓	✓	
Automatic re-writing and optimization of SQL alternatives (simplified capability)	Auto Optimize SQL	Editor – Toolbar Schema Browser (PL/SQL object) Query Builder Toolbar SGA Trace/Optimization Session Browser	Auto Optimize SQL provides users who are less experienced with SQL the ability to simply optimize it with a couple of mouse clicks within the Editor window itself without launching the SQL Optimizer tool. Great for application developers less familiar with SQL.			✓		✓	✓	✓	
Analysis and recommendation of best Indexes	SQL Optimizer for Oracle – Optimize Indexes	Editor Toolbar Query Builder SGA Trace/Optimization Session Browser Trace File Browser Database Menu - Optimize	Optimize Indexes is based on SQL execution workload. It continuously assesses the potential for performance improvement through indexing changes based on current database workload.			✓		✓	✓	✓	



# Customer Evaluation Guide – Toad® for Oracle® Editions 2021 R1

## Oracle Database Administration



Activity	Recommended feature or component	Where to find it	Benefits	Available in these Toad for Oracle Editions							
				Base	Pro	Xpert	DB Admin	DBA Edition	RAC Edition	Exadata Ed.	
<b>2. Performance management (cont)</b>			<i>Features which help the DBA become more proactive by diagnosing and resolving problems quickly and effectively</i>								
Optimize SQL executions utilizing Exadata-specific Explain Plans	<b>SQL Optimizer for Oracle – Exadata Edition</b>	Database Menu - Optimize	SQL rewrite recommendations specifically designed for Exadata instances, to take advantage of and optimize for the performance benefits of the hardware layer. Storage and Bloom Filter information is displayed in the Explain Plan analysis of SQL Optimizer.								✓
Evaluate offloading actions in Exadata environments	<b>SQL Optimizer for Oracle – Exadata Edition</b>	Database Menu - Optimize	View the number of offloading operations in the plan of each recommended alternative rewrite.								✓
Space Management – checking for tablespace fragmentation	Tablespaces Map	Database Menu – Diagnose	Generates a graphical representation of tablespace fragmentation to ascertain your defragmentation/reorganization strategy.				✓	✓	✓	✓	

# Customer Evaluation Guide – Toad® for Oracle® Editions 2021 R1

## Oracle Database Administration



Activity	Recommended feature or component	Where to find it	Benefits	Available in these Toad for Oracle Editions							
				Base	Pro	Xpert	DB Admin	DBA Edition	RAC Edition	Exadata Ed.	
<b>3. Change management</b>			<i>Features which help the DBA mitigate the risk to production databases by predicting the impact of changes first. Also helps DBAs roll-out application changes to production.</i>								
Tablespace and Rollback Segment Management	Individual Tablespace/RBS overview and modification	Database Menu – Administer	Database Menu - Administer Tablespace and RB Segment summary to quickly assess usage, fragmentation and object distribution and make changes to tablespace files and to assess rollback strategy, take segments offline, etc.	✓	✓	✓		✓	✓	✓	
	Segment Advisor ASM Manager	Database Menu – Diagnose Schema Browser – Tablespaces & RBS	Can be used in conjunction with Schema Browser and SHRINK command. An easy interface to Oracle ASM to manage your file groups. <i>(Requires the use of OEM Diagnostics Pack)</i>				✓	✓	✓	✓	
Compare and Synchronize Schemas	Schema Compare and Sync	Database Menu – Compare - Schemas	Quickly compare the differences between one or more schemas (e.g. Test and Dev). Compares all object types. Schema definitions can be saved as snapshots to enable different versions to be preserved and used for comparison. Routine comparisons can be saved like a macro and automated or scheduled using Automation Designer.	✓	✓	✓	✓	✓	✓	✓	
	<b>NOTE:</b> Sync is available in Xpert Edition or DB Admin Module.		Generates a synchronization script to make both schemas the same. <b>NOTE:</b> The generation of a synchronization script requires the Xpert Edition or DB Admin Module.			✓	✓	✓	✓	✓	
	Multi Schema Compare	Database menu – Compare – Multiple Schemas	Enables multiple schemas across two database environments (e.g. PROD and TEST) to be compared in a single step.				✓	✓	✓	✓	
	<b>NOTE:</b> Sync is available in Xpert Edition or DB Admin Module.		Generates a synchronization script to make both schemas the same. <b>NOTE:</b> The generation of a synchronization script requires the Xpert Edition or DB Admin Module.			✓	✓	✓	✓	✓	

# Customer Evaluation Guide – Toad® for Oracle® Editions 2021 R1

## Oracle Database Administration



Activity	Recommended feature or component	Where to find it	Benefits	Available in these Toad for Oracle Editions							
				Base	Pro	Xpert	DB Admin	DBA Edition	RAC Edition	Exadata Ed.	
<b>3. Change management (cont)</b>			<i>Features which help the DBA mitigate the risk to production databases by predicting the impact of changes first. Also helps DBAs roll-out application changes to production.</i>								
Compare and Synchronize Databases	Database Compare	Database Menu – Compare - Database	Compare the differences in the configuration of a source database against one or more targets (such as production vs test) to ensure they are the same. A synchronization script will be generated if there are differences. Routine comparisons can be saved like a macro and automated or scheduled using Automation Designer.				✓	✓	✓	✓	
Compare and Synchronize Data (single table pairs)	Compare Data	Database Menu – Compare - Data	Compare the data across a <b>pair of tables</b> across 2 databases (remote DBs using a DB Link) e.g. between test and production and generate a synchronization script to make the data in both tables the same.		✓	✓	✓	✓	✓	✓	
Compare and Sync Data (multiple table pairs)	Compare Multiple Tables	Database Menu – Compare – Multiple Tables	Enables data to be compared across <b>multiple</b> tables in a schema, between 2 databases (e.g. test and prod) and a synchronization script created to make the data in both schemas the same.			✓	✓	✓	✓	✓	
Compare and Synchronize data models	<a href="#">Toad Data Modeler</a>	TDM Model Menu – Compare Model Menu – Alter Scripting	Quickly compare 2 versions of a data model using Version Manager and display the differences graphically. By selecting what changes you wish to implement, an Alter Script will be generated which can be viewed and executed in Toad's Editor.					✓	✓	✓	
Forecast tablespace growth and I/O rates (based on historical collection) in order to predict expected future storage requirements	Tablespace Management	Database Menu – Administer	By collecting tablespace usage and I/O data using Oracle's DBMS_JOB and storing the data in a repository, the DBA can graphically predict when storage is likely to become a problem in the future and reduce the possibility of critical space issues occurring. Tablespace I/O rates can also be checked to track possible performance degradation.				✓	✓	✓	✓	
Assessing the correct indexing strategy and dealing with making index changes effectively is essential for maintaining performance	SQL Optimizer for Oracle – Virtual Indexes, Optimize Indexes, Analyze Impact	SQL Optimizer - Main tabs	Virtual indexes allow DBAs to decide which index to use to improve a single SQL based on data collected from Oracle before building. Optimize Indexes is similar, but suggests index sets based on SQL execution workload. Analyze Impact tracks the changes made in different environments to pre-empt performance regression due to database configuration changes or upgrades.			✓		✓	✓	✓	

# Customer Evaluation Guide – Toad® for Oracle® Editions 2021 R1

## Oracle Database Administration



Activity	Recommended feature or component	Where to find it	Benefits	Available in these Toad for Oracle Editions							
				Base	Pro	Xpert	DB Admin	DBA Edition	RAC Edition	Exadata Ed.	
<b>3. Change management (cont)</b>			<i>Features which help the DBA mitigate the risk to production databases by predicting the impact of changes first. Also helps DBAs roll-out application changes to production.</i>								
Test for production database scalability by replaying existing production transactions in a test database and scale up. (Database workload replay)	<a href="#">Benchmark Factory – Workload Replay</a>  Spotlight on Oracle	Trace File Browser – Main Menu (send trace file to Benchmark Factory)  Main Toolbar – External Programs	Capturing actual transactions from production using an Oracle Trace file or Oracle’s Fine Grained Access Control (FGAC) and replaying, with a scale factor, in a similarly configured test database will enable a prediction to be made of whether the production database will scale sufficiently in the future with more users. Spotlight can be used in the test environment to identify potential bottlenecks.					✓	✓	✓	
Working with Oracle’s Edition-Based Redefinition (from Oracle 11g R2)	Editions	Schema Browser tab	Enables the administration of editions and the enablement of editions to user accounts.	✓	✓	✓	✓	✓	✓	✓	✓

# Customer Evaluation Guide – Toad® for Oracle® Editions 2021 R1

## Oracle Database Administration



Activity	Recommended feature or component	Where to find it	Benefits	Available in these Toad for Oracle Editions							
				Base	Pro	Xpert	DB Admin	DBA Edition	RAC Edition	Exadata Ed.	
<b>4. Additional tasks and utilities</b>			<i>Features which will help the DBA on an ad-hoc basis such as database exports, auditing, creating a new database instance, etc</i>								
Importing or exporting objects, users, tablespaces or schemas  Viewing Oracle export files	Oracle Import/Export Utility Oracle Data Pump Export/Import Utility (10g)  Export File Browser	Database Menu – Import/Export	Uses the standard Oracle utility but accessed through efficient, easy-to-use wizards rather than using the utility by command line. Data Pump introduced with 10g and is more efficient.  Export File Browser allows DBAs to view the contents of an Oracle .dmp file as though they were looking at the objects in the database. Object DDL and even table data can be viewed and used to re-create objects in the database and retrieve data.	✓	✓	✓	✓	✓	✓	✓	✓
Implementation of Oracle Auditing	Auditing	Database Menu - Administer	Enables the DBA to implement their database auditing strategy. Once auditing is enabled on the Oracle database, auditing can be implemented by objects or by SQL/Sys Privs. The audit trail can then be viewed via Schema Browser.	✓	✓	✓	✓	✓	✓	✓	✓
Support for Oracle Unified Auditing	Unified Auditing (Oracle 12c)	Database Menu – Schema Browser	Support for Oracle’s consolidated auditing capability is built into the Schema Browser				✓	✓	✓	✓	
Recovering user errors (e.g. Drop Table, execution of UPDATE statement without a WHERE clause, etc.)	Flashback Table (Oracle 10g)  Log Miner	Schema Browser – Recycle Bin tab. Select object – Right Click  Database Menu – Diagnose	Easy recovery of a dropped object such as a table by retrieval from the Oracle 10g Recycle Bin. Recovers table data, indexes, etc.  Using the Oracle DBMS_LOGMNR package, Toad mines the Oracle redo logs and allows the DBA to apply filters to access the appropriate offending SQL and its corresponding undo SQL for retrieval.				✓	✓	✓	✓	

# Customer Evaluation Guide – Toad® for Oracle® Editions 2021 R1

## Oracle Database Administration



Activity	Recommended feature or component	Where to find it	Benefits	Available in these Toad for Oracle Editions							
				Base	Pro	Xpert	DB Admin	DBA Edition	RAC Edition	Exadata Ed.	
<b>5. Personal &amp; Sensitive Data Protection</b>			<i>Features which enable the classification, scanning, reporting and protection of personal or sensitive data across multiple Oracle databases to ensure compliance with regulations such as GDPR, CCPA, HIPAA and others.</i>								
Scanning and identification of sensitive and personal data	<b>Toad Sensitive Data Protection Module – Sensitive Data Search</b>	Database – Report - Sensitive Data Search <b>NOTE:</b> add-on module available with Pro and Higher	Based on pre-defined rules, automatically scans across Oracle databases and reports on tables and columns that contain personal and sensitive information using meta data search and data polling.		✓	✓	✓	✓	✓	✓	✓
Protection of sensitive and personal data	<b>Toad Sensitive Data Protection Module – Sensitive Data Search</b>	Database – Report - Sensitive Data Search <b>NOTE:</b> add-on module available with Pro and Higher	Leverages Oracle Advanced Security features such as encryption, redaction and auditing to protect data and to implement an audit trail.		✓	✓	✓	✓	✓	✓	✓
Visual notification of sensitive data usage.	<b>Toad Sensitive Data Protection Module – Sensitive Data Awareness</b>	Editor Schema Browser - Create Table Schema Browser - Alter Table	Based on pre-defined rules, identifies personal and sensitive information usage in DDL or procedural PL/SQL code.		✓	✓	✓	✓	✓	✓	✓
<b>6. General</b>			<i>Additional capabilities which extend users knowledge of Toad and control access to the Oracle database</i>								
<b>FREE</b> Training – Toad Fundamentals (also available for Trial users)	<a href="#">Web-based training courses</a>	Quest Support portal	Ensures users get the full benefit of the product through coverage of most of the key features of the Base product.	✓	✓	✓	✓	✓	✓	✓	✓
<b>FREE</b> Training – Advanced DBA Tasks using Toad (also available for Trial users)	<a href="#">Web-based training courses</a>	Quest Support portal	Learn how to get the most from the Toad DBA Edition for Oracle to diagnose and resolve database performance issues, identify and resolve bottlenecks, and efficiently manage change in complex database environments.	✓	✓	✓	✓	✓	✓	✓	✓
Control access to protected databases	Connection window – Read Only connections	Main toolbar	Ensure developers can't inadvertently change data or database objects	✓	✓	✓	✓	✓	✓	✓	✓
Work with Oracle database versions from 10gR2 to 19c	Connection window	Main toolbar	Provide the necessary flexibility development teams need when using older versions of Oracle	✓	✓	✓	✓	✓	✓	✓	✓
Connect using TNS, Direct or LDAP	Connection window	Main toolbar	Provides the flexibility development teams need for different environments where connection methods may vary	✓	✓	✓	✓	✓	✓	✓	✓