# ORACLE CHANGE MANAGEMENT PACK FOR ORACLE DATABASE

# KEY FEATURES AND BENEFITS

CHANGE AUTOMATION AND TRACKING FOR ORACLE DATABASE APPLICATIONS

## FEATURES

- Schema change automation
- Impact analysis of application upgrades on customizations
- Tracking Production Changes
  and Remediation

## BENEFITS

- Eliminate errors by automating deployment of database changes across environments
- Accelerate application upgrades by tracking impact of upgrades on customizations
- Reduce downtime and speed up recovery by ensure compliance of production environments with established standards

Oracle Change Management Pack for Databases is a comprehensive solution for database administrators (DBAs) and application developers to automate the process of promoting planned schema changes from development to production. It also helps enterprises easily identify the impact of application upgrades on customizations and can pinpoint and remediate unplanned schema changes that are often the cause of application downtime. Accessible via Oracle Enterprise Manager and Oracle SQL Developer, this Management Pack helps lower application lifecycle costs through automation and reduces downtime caused by application changes.

### Schema change automation

Nearly half of all enterprise applications deployed today are custom-developed or customized implementations of packaged applications. Even as enterprises spend billions of dollars in development tools to increase the agility of application development, the process of deploying schema changes from development to production for these applications remains a manual process relying on hand-written SQL scripts. This approach is often error-prone and is not able to scale to handle the variations of managing applications across multiple environments, such as staging, user acceptance testing or training.

Oracle Change Management Pack provides complete automation for the deployment process by capturing the definitions of the application schema objects in the form of a gold definition called a dictionary baseline. When all development changes have been completed, DBAs can save them in these baselines and propagate the changes to any target database environment with a few simple clicks. Unlike SQL scripts, Oracle Change Management Pack intelligently validates the changes against the target database to identify any discrepancies or conflicts, such as data type mismatches or duplicate objects. This allows DBAs to proactively correct them prior to apply the changes. When new sets of application changes need to be deployed, they can be easily rolled out using newer versions of these baselines. Compare this with manual scripts where commands are manually edited and executed blindly often producing destructive changes.

### Impact analysis of application upgrades on customizations

Application upgrades require enterprises to run vendor-provided upgrade utilities which are often black box processes making hundreds of changes to schema objects under the covers. Due to the lack of visibility into the impact of these changes on application customizations, enterprises are forced to increase IT costs by prolonging



development and testing cycles during upgrades. Oracle Change Management Pack helps enterprises assess the impact of application upgrades by automatically identifying schema changes specific to each customization. Conversely, if there are no changes affecting those modules, application managers can eliminate testing of large areas of the application, thereby speeding up the upgrade process.



Figure 1: Impact of changes on application modules

Oracle Change Management Pack is so powerful that it can provide application developers with the specific details on each schema changes such as new columns added to tables, old indexes that were dropped or business logic changes made to PL/SQL based objects, so that they can modify their customization accordingly.

# **Tracking Production Changes and Remediation**

With application changes being the #1 cause of downtime, enterprises are confronted with the problem of identifying unplanned changes made to production environments. Using Oracle Change Management Pack, DBAs can easily pinpoint ad hoc changes made to production databases, whether they are changes to initialization parameters, new indexes or even malicious changes in business logic, by comparing the current production environment with an established gold baseline standard representing the optimal state of the production database schema. In Oracle Database 11g, DBAs can track schema changes in real time by setting the ENABLE\_DDL\_LOGGING initialization parameter to TRUE.



### Figure 2: Restore missing objects in Production

Upon identifying the missing or misconfigured schema objects, DBAs can quickly restore the production environment to its original state by re-generating the relevant database objects from the established baseline standard with a few clicks.



# RELATED PRODUCTS

- Oracle Diagnostics Pack
- Oracle Tuning Pack
- Oracle Data Masking
- Pack Oracle Real Application
- Testing option Oracle Configuration
- Management Pack for Databases

## **Oracle Enterprise Manager and Oracle SQL Developer integration**

Oracle Change Management Pack is completely integrated into the Oracle Enterprise Manager and Oracle SQL Developer graphical user interface allowing DBAs and application developers to perform schema comparisons or schema changes across environments rapidly.

## **Contact Us**

For more information about Oracle Change Management Pack, please visit oracle.com or call +1.800.ORACLE1 to speak to an Oracle representative.



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