

**Abstract** -- This paper examines the way to build an enterprise configuration management framework for Oracle Enterprise Business Suite of Applications (EBS) using MigrationLogiK GUI tool.

**Oracle EBS Customizations** -- Oracle E-Business Suite of applications represents an information domain supporting all business activities that can range from back office applications to manufacturing and shipping interfaces. Due to an individual character of every business organization – EBS implementation is constantly going through the set of customizations. Business requires changes in the EBS processes due to various reasons. Change can be triggered by the request to optimize certain process, slow performance or by introduction of a new legislation. The common types of EBS objects which are being changed more frequently includes Concurrent Programs, Profile Options, Value Sets, OA framework pages, PLSQL code plus various database objects such as tables, views, procedures etc.. These changes are usually the result of combined effort by functional analysts and Oracle developers. To promote customized EBS objects through the different stages of the development life cycle, IT organization has a dedicated team specializing in the change management or release management (CM) activities.

**Oracle Migration Utilities** – As part of EBS license Oracle provides a number of utilities to support and ease custom EBS objects migration along SDLC steps. These utilities include FNDLOAD, XDOLoader, XLIFFLoader and number of others.

The customization process begins in the development EBS instance. As part of a software life cycle all the changes made in the development instance have to be promoted to QA / UAT instance for the final testing and then to production EBS instance.

Typically these migration activities are not automated and require heavy documentation volume and significant labor efforts from the expensive resources and within narrow time windows.

The focus of this paper is MigrationLogiK - EBS migration tool ( “ML”) and how the migration framework can be organized using this application.

“ML” is a Java based GUI wrapped into MS Windows executable.

**System requirements:** MS Windows 7 or MS Windows XP, 32 bit Java Runtime Environment version 1.5 or higher.

**Installation:** “ML” installation is a simple process. Client downloads MigrationLogiK.zip (MigrationLogiKG.zip for “G” release) file using download link provided after the registration process is completed and then extracts MigrationLogiK.exe or MigrationLogiKG.exe. Either one of these executables will work as long as client desktop configuration fits system requirements. Application doesn’t require any other special install and doesn’t update Windows system repository.

## Migration Projects Repository:

Migrations projects repository is in the center of “ML” data structure.

“ML” projects repository is based on MS Windows folders setup.

It has the following hierarchy:

- [Main Repository Folder]
  - [Project folder]
    - MigrationContent
      - DBObjects
      - Scripts
        - Shell
        - SQL

**Main Repository Folder** – migration projects main repository. The best practice is to maintain it at the shared location to make it available to all development teams.

**Project folder** – a specific project directory

**MigrationContent** – main project data sub directory.

**DBObjects** – source code for the database objects (Tables, Views, PLSQL Packages etc..)

**Scripts** – main compilation scripts directory

**Shell** – subdirectory, containing shell scripts for FNDLOAD, XDOLoader utilities

**SQL** – subdirectory, containing database objects compilation scripts

While main project repository can be setup on the client computer, having it in a shared location has some obvious benefits.

- All team members have access to all migration projects
- Configuration management team can access the projects created by developers or analysts to promote changes to the next SDLC stage
- Backup activity can be performed and scheduled more efficiently
- No need to synchronize the same EBS objects across multiple computers
- Management can access all migration projects at any time for control and reporting purposes

“ML” can perform an automated download/upload scripts generation for the following FND objects:

- Responsibility
- User
- Value Set
- Value Set with Values
- Profile Option
- Profile Option Setup without Values
- Profile Option at Responsibility level

Message  
Concurrent Program  
Request Group  
Request Group Unit  
Request Set  
Request Set Links  
Forms  
Forms Function  
Forms Personalization  
Menu  
Menu: Submenu  
DFF  
DFF Context Code  
KFF  
Lookup Type  
Printer  
Printer Style  
Printer Driver  
Printer Type  
Alerts  
Concurrent Managers  
Audit Groups  
XMLPublisher Templates

It also generates compilation scripts for the database objects:

Table  
View  
Sequence  
Trigger  
Index  
Synonym  
Grant  
Procedure  
Function  
PLSQL Package  
Database Link  
Directory  
Materialized View

Using “ML” GUI for browsing through EBS and DB objects, user assembles the list of the objects for migration and saves it as a migration project.

When migration project is saved, application simultaneously generates the set of migration scripts and the set of compilation scripts under [PROJECT] subfolder in the main projects repository.

The entire content of the migration project can be checked into version control system to track any future changes.

Migration Project attributes include Project name and Project description, which can also be VCS (version control system) label to provide link for CM (Configuration Management) team to extract the project for migration.

There are few scenarios where “ML” can provide a significant help in maintaining changes in EBS:

- Daily customizations promotions
- Backup development work before the refresh
- New release implementation
- Troubleshooting of the customizations
- Audit trail for all customizations
- Detecting all FND objects created by a certain user
- Recurring downloads of the custom

Due to OS folders based nature of the main repository, it can be easily moved to another storage or replicated without any data loss.

“ML” offers certain migration abilities which are not available in the standard FNDLOAD objects list.

It includes “Forms Personalizations Action”, “Forms Personalization Rules”, “Profile Options at the Responsibility Level”.

One of the most important features is the ability to track all migration activities and log everything in the custom “ML” table.

Information which is recorded includes all data associated with the migration projects and the users who created migration project and who applied the changes.

Oracle provided utilities FNDLOAD or XDOLOADER doesn’t record this information which is needed to make migration SOX compliant.

Another important feature of “ML” is intuitive interface and high level of automation.

For example database objects have internally defined set of dependent objects which are being detected automatically as soon as the parent object is selected for migration.

