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# **Energy Portfolio Management**

## **Database Migration Guide**

Release 5.7.0.0

EMDDB-0225-2003-08

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# Chapter 1: Migration Overview

This document describes the migration process for EPM Operations which includes the following four products:

- Retail Operations (RO)
- Market Operations (MO)
- Counterparty Settlement & Billing (CSB)
- Demand Response Management System (DRMS)

EPM Operations 5.7.0.0 requires no database migration scripts to be run.

# Chapter 2: General Instructions

**Note:** This version requires no database migration scripts to be run. The following is for reference only.

## Pre-Upgrade Notes

### Important Notes:

Running a migration script setup program requires Oracle client software (sqlplus.exe) and a Java runtime environment to be installed.

When migrating Retail Operations, CSB, or DRMS with market interfaces, you must use a Market Operations server setup program to install the Oracle Scripts. Also note that you must use Retail Operations server setup program to deploy the correct web components. So you will need both server setup programs in this case.

*The presence of market interfaces can be detected by inspecting the database to see if a PL-SQL package named MM\_SEM exists. If it does then the database includes market interfaces.*

Make sure that no configuration imports remain open *before* starting the migration process. This can be done using the **Configuration Import Results** screen. See below (section *Resolve Configuration Conflicts*) for details on using this screen to close any open imports.

## Migration Scripts Locations

The server setup program must be run to install the migration scripts. There are two (2) different versions of the migration scripts included. By default, the migration scripts can be found in the following locations:

- **Retail Operations**
  - ♦ C:\Ventyx\RetailOperationsServer\V5.5.4\Migrations\v5.5.2-v5.5.4
  - ♦ C:\Ventyx\RetailOperationsServer\V5.5.4\Migrations\v5.5.3-v5.5.4
- **Market Operations**
  - ♦ C:\Ventyx\MarketOperationsServer\V5.5.4\Migrations\v5.5.2-v5.5.4
  - ♦ C:\Ventyx\MarketOperationsServer\V5.5.4\Migrations\v5.5.3-v5.5.4
- **CSB**
  - ♦ C:\Ventyx\CounterpartySettlementandBilling\V5.5.4\Migrations\v5.5.2-v5.5.4
  - ♦ C:\Ventyx\CounterpartySettlementandBilling\V5.5.4\Migrations\v5.5.3-v5.5.4
- **DRMS**
  - ♦ C:\Ventyx\DemandResponseManagementSystem\V5.5.4\Migrations\v5.5.2-v5.5.4
  - ♦ C:\Ventyx\DemandResponseManagementSystem\V5.5.4\Migrations\v5.5.3-v5.5.4

## Run Setup

1. At the root folder of the migration scripts, run the SETUP.BAT program (you can double-click it in Windows Explorer). For example:
  - a. C:\Ventyx\RetailOperationsServer\V5.5.4\Migrations\v5.5.2-v5.5.4\setup.bat
2. You will be prompted for the following information:
 

**Note:** We will use the term SOURCE to define the previous version to be migrated and the term TARGET to define the version that will be the result of the migration.

  - a. The Oracle user name of the SOURCE application schema to be upgraded.
  - b. The Oracle password of the SOURCE application schema.
  - c. The Database Name for the SOURCE application schema. This is the name of the database instance.
  - d. The name of an application user in the SOURCE application schema that belongs to the super-user role.
  - e. The path to TARGET Oracle scripts.

### Important Note:

You *must* install the V5.5.4 server setup first. At this prompt, enter the path to the OracleScripts folder in the installed directory. By default, this will be:

#### Retail Operations:

C:\Ventyx\RetailOperationsServer\V5.5.4\OracleScripts

#### Market Operations:

C:\Ventyx\MarketOperationsServer\V5.5.4\OracleScripts

#### CSB:

C:\Ventyx\CounterpartySettlementandBilling\V5.5.4\OracleScripts

#### DRMS:

C:\Ventyx\DemandResponseManagementSystem\V5.5.4\OracleScripts

## Verify Migration

A log file in the logs sub-folder will be created with a timestamp in its name (so that newer executions of the scripts do not overwrite logs of prior executions). When the migration is complete, examine this log file and search for "err", "fail", and "warn" to see if any problems were encountered.

## General Database Errors

The following error messages can be ignored and, in fact, are expected to occur if this migration script is run twice in the same environment:

- ORA-00955: name is already used by an existing object
- ORA-01408: such column list already indexed
- ORA-01451: column to be modified to NULL cannot be modified to NULL

Furthermore, the following errors can be ignored **if and only if** the step that caused the error is a rename operation. If they appear as a result of other operations they indicate material errors in the patch operation.

- ORA-23292: The constraint does not exist
- ORA-01418: specified index does not exist
- ORA-00942: table or view does not exist
- ORA-00957: duplicate column name

## UI Configuration Errors

You may encounter errors in the log when a UI Configuration Import does not complete successfully due to an existing "open" import. An example of the error message is:

```
Exception during the system configuration import:
ORA-20026: Cannot Open Multiple Imports
ORA-06512: at "XYZ.ERRS", line 52
ORA-06512: at "XYZ.ERRS", line 277
ORA-06512: at "XYZ.SO_IMPORT_EXPORT", line 2119
ORA-20026: Cannot Open Multiple Imports
```

The previous import may be "open" for a number of reasons, for example:

- A user may have loaded an import through the UI and did not close it.
- An import may have been loaded programmatically, but encountered conflicts that need to be resolved.

You can use the *Configuration Import Results* screen in the application to view the import details, resolve conflicts if necessary, and close the import. See the [Resolve Configuration Conflicts](#) section for more details.

Once the "open" import is closed, you will have to re-run the configuration scripts that failed during the first migration attempt. The migration script process can run multiple UI Configuration imports depending on which product is being migrated. When multiple imports are used, it's possible for one import to run, encounter a conflict, and then prevent subsequent imports from loading. When this happens, the individual import scripts must be executed manually by someone with DBA access to the database. The migration currently runs the following UI Configuration scripts:

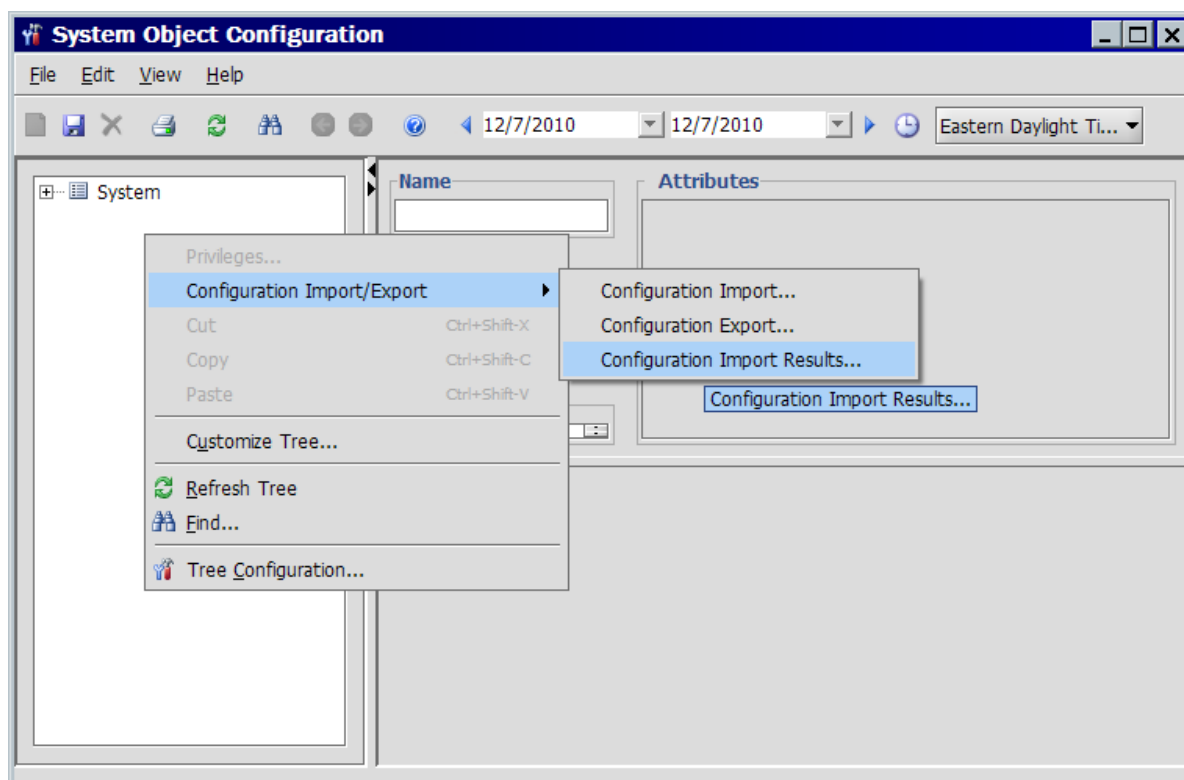
- Core UI Configuration  
[OracleScripts]\SystemObjects\CreateSystemConfig.sql
- Market Operations – SEM Market UI Configuration (Market Operations SEM clients only)  
[OracleScripts]\MarketManager\SEM\createSEMSystemConfig.sql
- Market Operations – TDIE UI Configuration (Market Operations IE T&D clients only)  
[OracleScripts]\SystemObjects\createTDIESystemConfig.sql

If any of these fail due to an open Import, they can be run manually once the open Import is resolved. Before running any of these scripts, you must run the following script in your Oracle session to establish authorization:

- [OracleScripts]\System\SU.sql

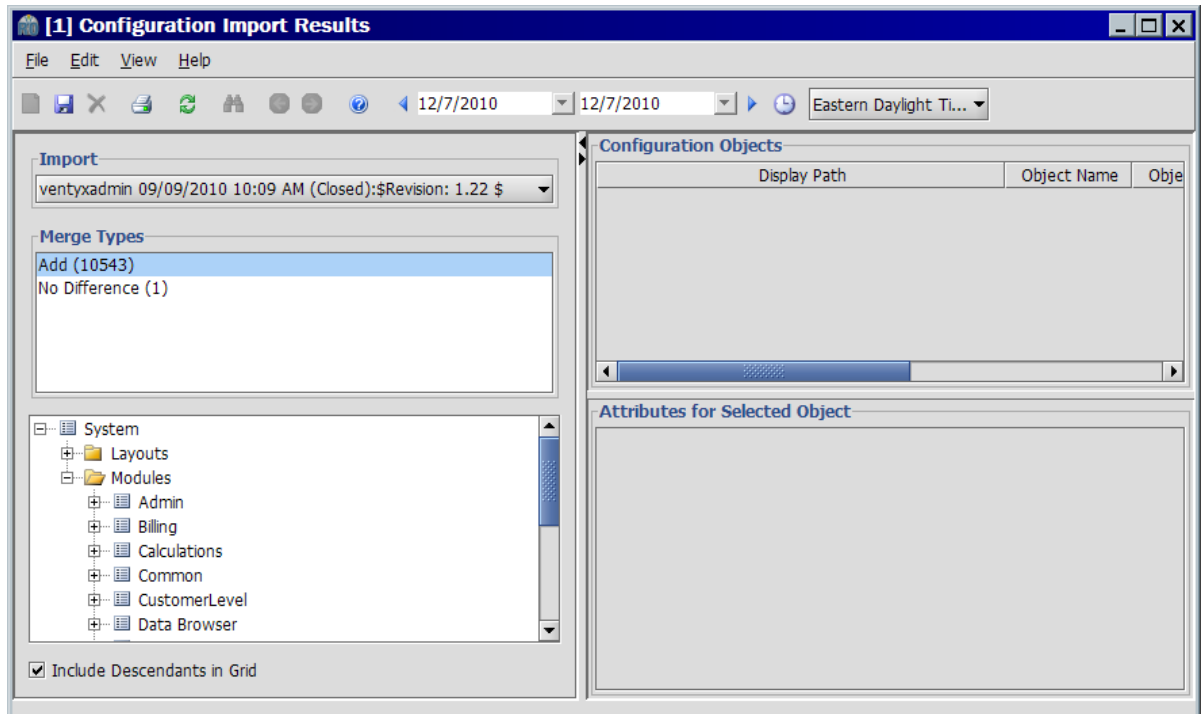
## Resolve Configuration Conflicts

1. Login to the application as an administrator and click the *Admin* link from the home page tree.
2. Open the *System Object Configuration* view. This is a tab and is also available from other parts of the application from the main menu: Tools > Configuration > System Object Configuration.
3. Right-click in the tree and select **Configuration Import Results...**

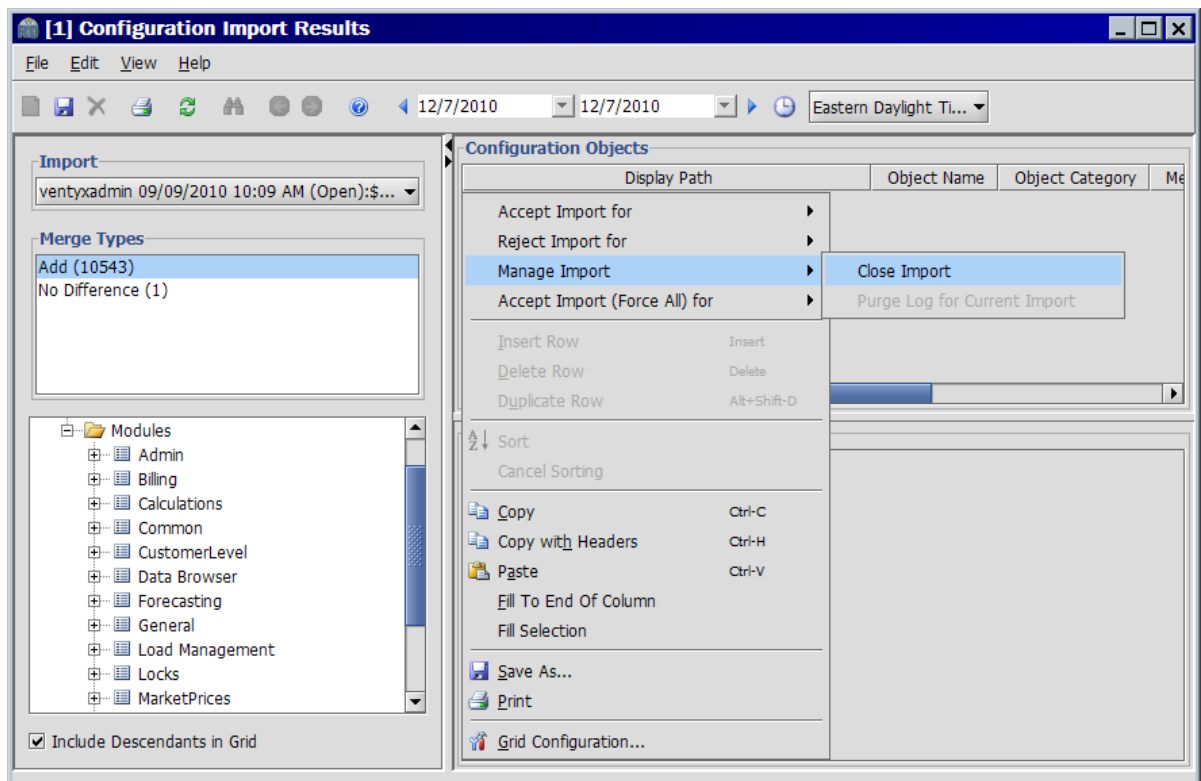




- From the resulting screen, you should see entries in the Import list drop-down with timestamps corresponding to when the migration scripts were run.



- If this import's status is *Closed* then no action is required. If, however, it is *Open* then you will need to use this screen to resolve conflicts and then manually close it.
- Manually closing the import is done by right-clicking in the top grid and choosing the following menu option: Manage Import > Close Import:

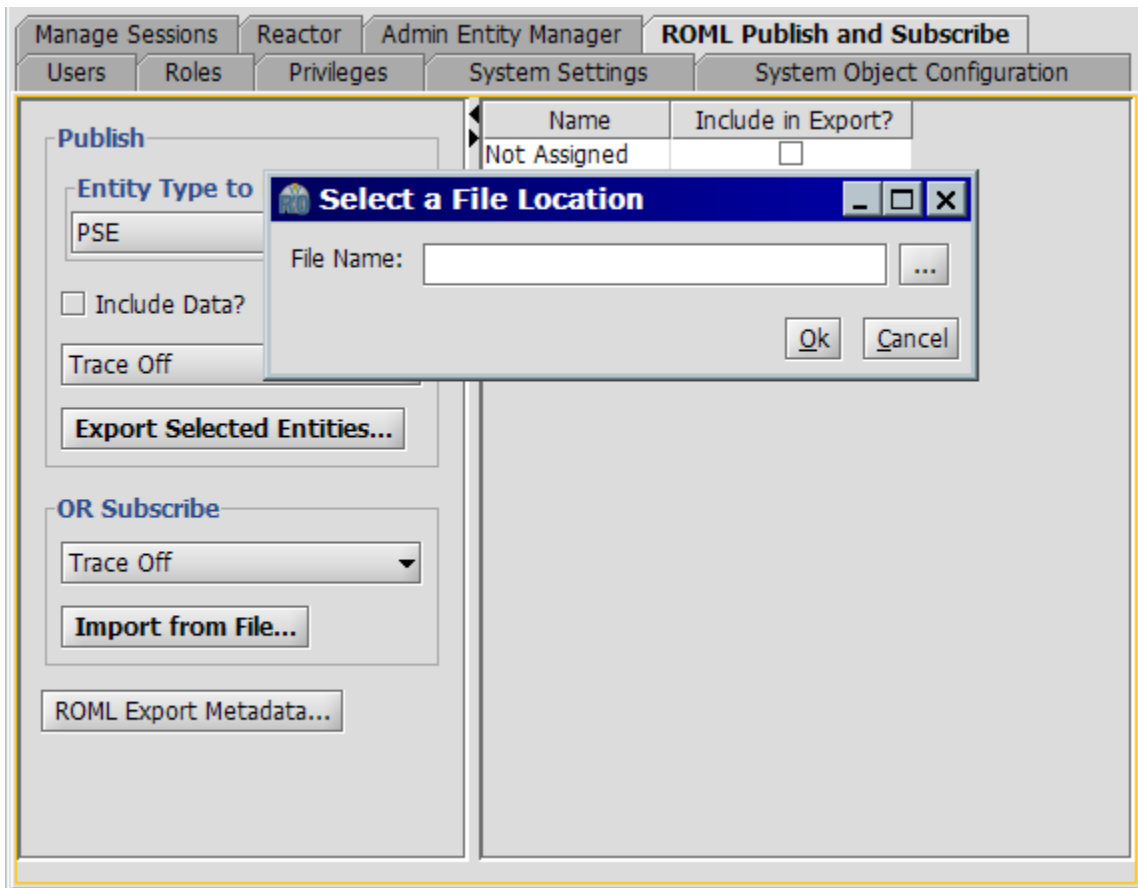


## Update Market Interfaces

For Market Operations, there are additional steps required to make sure all market interface configuration is fully updated to the new version:

For each market configured in the database, you will need to import any market-specific shadow settlement configuration files:

1. Login to the application as an administrator and click the *Admin* link from the home page tree.
2. Navigate to the tab named *ROML Publish and Subscribe* and click the button labeled **Import from File**.

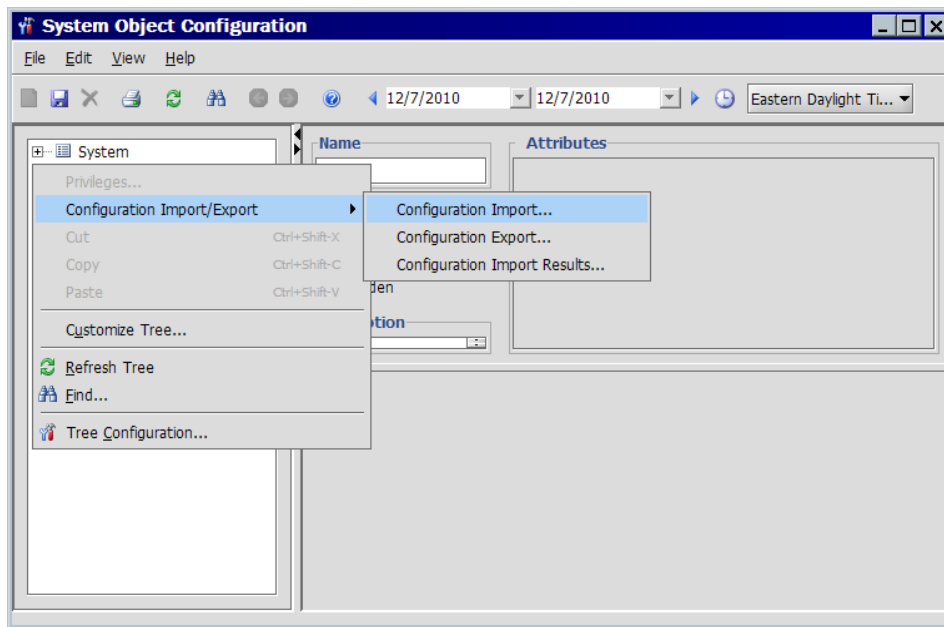


3. In the resulting screen, use the browse button (labeled "...") to locate the market-specific configuration files:
  - ♦ One or more ROML files found in **MarketManager\<Market Name>** sub-folder of the OracleScripts installed from the server setup.
4. Click the **OK** button to load a single file and then repeat to load the next.

## Manually Loading Market-Specific Configuration

**Important Note:** The migration scripts will re-execute market setup scripts for the SEM and IE T&D systems, if enabled. These scripts load market-specific configuration. But, if any of these import steps fail, it may be necessary to import market-specific UI configuration files manually. This section describes this manual procedure.

1. Login to the application as an administrator and click the *Admin* link from the home page tree.
2. Open the *System Object Configuration* view. This is a tab and is also available from other parts of the application from the main menu: Tools > Configuration > System Object Configuration.
3. Right-click in the tree and select *Configuration Import*:



4. In the resulting screen, use the browse button (labeled "...") under the **Import** heading) to locate the market-specific configuration files:
  - ♦ One or more XML files found in **MarketManager\<Market Name>\<Market Name>Configs** sub-folder of the OracleScripts installed from the server setup.
5. Click the **Run** button to load a single file before proceeding to the next.
6. If any conflicts are detected during import, the **Configuration Import Results** screen must be used to resolve conflicts and manually close the import before moving on to the next file. See above (section *Resolve Configuration Conflicts*) for details on this procedure.

## Update CSB Sub-Daily Views

For Counterparty Settlements and Billing configured for sub-daily account relationship changes, there are additional steps required to make sure the sub-daily account relationship views are correctly configured.

1. From a SQL prompt, log into the CSB database schema as a user with permissions to run Dynamic DDL statements.
2. Run the following script:

```
BEGIN
    CSB.SET_SUBDAILY_ENT_RELATIONSHIPS(1);
END;
/
```