

Oracle Enterprise Taxation and Policy Management

Database Administrator's Guide

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Preface

This guide provides instructions for installing and maintaining the database for Oracle Enterprise Taxation and Policy Management .

This preface contains these topics:

- **Audience**
- **Related Documents**
- **Updates to this Documentation**
- **Conventions**

Audience

Oracle Enterprise Taxation and Policy Management Database Administrator's Guide is intended for database administrators who will be installing and maintaining the database for Oracle Enterprise Taxation and Policy Management .

Related Documents

For more information, see these Oracle documents:

- *Oracle Enterprise Taxation and Policy Management Quick Install Guide*
- *Oracle Enterprise Taxation and Policy Management Installation Guide*

Updates to this Documentation

This documentation is provided with the version of the product indicated. Additional and updated information about the operations and configuration of the product is available from the Knowledge Base section of My Oracle Support (<http://support.oracle.com>). Please refer to My Oracle Support for more information.

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Chapter 1

Database Overview

This section provides an overview of the Oracle Enterprise Taxation and Policy Management database, including:

- **Supported Database Platforms**
- **Database Maintenance Rules**

Supported Database Platforms

This section defines the platforms on which Oracle Enterprise Taxation and Policy Management is verified to operate.

Supported Platforms Summary Table

Oracle Enterprise Taxation and Policy Management is certified on the following platforms:

Platform	Database Version
AIX 6.1 TL4 (POWER 64-bit)	Oracle Database Server 11.2.0.1 (64-bit)
Oracle Linux 5.5 (64-bit) x86_64 (64-bit)	Oracle Database Server 11.2.0.1 (64-bit)
Red Hat Enterprise Linux 5.5 (64-bit) x86_64 (64-bit)	Oracle Database Server 11.2.0.1 (64-bit)
Solaris 10 (SPARC 64-bit)	Oracle Database Server 11.2.0.1 (64-bit)
Windows Server 2008 R2 Windows Server 2008 SP2 (x86_64 64-bit)	Oracle Database Server 11.2.0.1 (64-bit)

Note: Oracle Enterprise Taxation and Policy Management is tested on both Oracle Database Server Enterprise Edition and Standard Edition. Some features, such as Advanced Compression and partitioning, require the Enterprise Edition.

Refer to My Oracle Support for additional details.

Support for Software Patches and Upgrades

Due to the ongoing nature of software improvement, vendors will issue patches and service packs for the operating systems, application servers and database servers on top of specific versions that Oracle Enterprise Taxation and Policy Management has been tested with.

If it is necessary to apply an upgrade, please do so in a test environment that is running on the same platform as your production environment prior to updating the Oracle Enterprise Taxation and Policy Management production environment.

The exceptions from this rule are Hibernate software version 3.3.2 ga and the Oracle Client version 11.2.0.1. These versions should not be upgraded.

Always contact Oracle Enterprise Taxation and Policy Management support prior to applying vendor updates that do not guarantee backward compatibility.

Database Maintenance Rules

The database supplied with the product consists of the following elements:

- A set of users to administrate, execute and read the database schema provided.
- A set of database roles to implement security for each of the users provided.
- A tablespace and a schema containing the base database objects used by the product.

The installation of these components is outlined in the installation section of this document.

What Changes Are Permitted

During and after installation of the product the following changes may be performed by the database administrator personnel on site:

- Users supplied by product may be changed according to the site standards.
- Database objects may be added to the schema according to database naming standards outlined later in this document.
- Database views and indexes may be created against base database objects.
- Database storage attributes for base indexes and base tables may be changed according to site standards and hardware used.
- Tablespace names, attributes and locations may be changed according to site standards.
- Database topology (that is, base table/index to tablespace, tablespace to data file, data file to location) may be altered according to tuning and/or site standards.
- Database triggers may be created against base database objects unless they attempt to contravene base data integrity rules.
- Database initialization and parameter settings may be altered according to site standards unless otherwise advised by Oracle Support or outlined in this document.

What Changes Are Not Permitted

In order to maintain operability and upgradeability of the product, during and after the installation of the product the following changes may *not* be performed by the database administration personnel on site:

- Base objects must not be removed or altered in the following ways:
 - Columns in base tables must not be altered in anyway (altered, removed or added).
 - Columns in Indexes must not be altered or removed.
 - Tables must not be renamed or removed.
 - Base views must not be renamed or removed.
 - Base Triggers and Sequences must not be renamed or removed.
 - Base indexes must not be altered or removed.

Chapter 2

Database Installation

This section provides the steps required to install or upgrade the Oracle Enterprise Taxation and Policy Management database, including:

- **Installation Overview**
- **Oracle Database Installation**

Installation Overview

Note: Refer to the *Oracle Enterprise Taxation and Policy Management Installation Guide* for the hardware and software versions required for the installation on Unix or Windows. This installation is for Oracle Enterprise Taxation and Policy Management v2.3.0 and the upgrade of Oracle Enterprise Taxation and Policy Management v2.2 to v2.3.0.

The following type of installation is available for Oracle Enterprise Taxation and Policy Management :

- **Initial Install** - a database with no demo data.
- **Upgrade Install** - a database upgrade.
- **Demo Install** - a database populated with demo data.

Note: The database installation requires a supported version of the Java Development Kit to be installed on the Windows desktop where the install package is staged and run from. Refer to the Supported Platform section of the *Oracle Enterprise Taxation and Policy Management Installation Guide* for the required version of Java.

For an Initial Install or Demo Install you will create an empty database on the Unix or Windows server and then populate the database with data. For a database Upgrade Install you will upgrade your current Oracle Enterprise Taxation and Policy Management database.

Review the Storage.xml file prior to Initial Install or Upgrade Install. Information in this file is used by CDXDBI while installing and upgrading the Oracle Enterprise Taxation and Policy Management database objects. Refer to **Updating Storage.xml** on page 3-3 for more details on updating this file.

For optimum storage allocation, database administrators should create multiple tablespaces with extents sized to store different types of tables/indexes. They can then edit this file before each upgrade and install process, to spread tables and indexes across these tablespaces. Tables and indexes can be created in parallel by editing degree of parallelism.

Tablespace, storage options, securefile options, Advanced Compression, and parallel information are used only for new objects. Therefore, for initial installs, information for each object should be reviewed. For upgrades, only tablespace information for objects added in the current release needs to be reviewed. Be careful while editing this file. Make sure that tablespace names being used exist in the database. Do not change the basic format of this file.

Note. Prior to the installation of the database schema for the product, please ensure that the Database Management System software is installed according to your site standards and the installation guide provided by the database vendor.

Oracle Database Installation

The following section outlines the process for installing the Oracle Database for Oracle Enterprise Taxation and Policy Management .

Note: The installation tools outlined in this guide run on Windows and UNIX/Linux only. Please refer to **Supported Database Platforms** on page 1-2 for more information on supported platforms.

Initial Installation

This section describes the initial installation of the database.

Note: You must have a supported version of the Java Development Kit installed on the Windows desktop where you stage and run the database installation package. Refer to the *Oracle Enterprise Taxation and Policy Management Installation Guide* for more information.

Database Script and Utilities Installation

1. Unzip the database.zip file to your local machine.

The database folder contains several files that will be referred to in the installation process.

2. Set up a Microsoft Windows desktop with the Oracle Client installed.

Create Database

The Initial installation requires the following items to be installed before the installation can be started:

- An empty database must be created. Site standard techniques or tools should be used to create the database. The following example templates for creating the database are located under the relevant database version subdirectory of the “Database Creation”:

- createdb.sql - Create Database
- createdbcatalog.sql - Build database catalog tables.
- createdbfiles.sql - Create data files for tablespaces

You must update the storage.xml file located in the Install-Upgrade folder to match the tablespace names used in createdbfiles.sql

- init.ora - Sample initialization parameters for the database
- createcdxusers.sql - Create users

It is strongly recommended to change the default users and roles to satisfy security requirements.

- restartdb.sql - DB restart

Note: Please copy the above files before you make any edits for site specific changes.

Note: The CDXDBA utility provided in the Database Creation folder may be used to automate the process. See **Database Creation** on page 2-8 for more details.

Install

The files for the Initial Install of Oracle Enterprise Taxation and Policy Management v2.3.0 are located in the Install-Upgrade folder.

You will need the following information to successfully execute CDXBI:

- The database system user password.
- A user that will own the application schema (for example, CISADM).
- The password for the application schema owner (for example, CISADM).
- A user that has read-write (select/update/insert/delete) privileges to the objects in the application schema. The application will access the database as this user (for example, CISUSER).
- A user with read-only privileges to the objects in the application schema (for example, CISREAD).
- A database role that has read-write (select/update/insert/delete) privileges to the objects in the application schema. The application will access the database as this user (for example, CIS_USER).
- A database role with read-only privileges to the objects in the application schema. (for example, CIS_READ).
- Location for TUGBU jar files. The Jar files are bundled with the database package and can be found under \install-upgrade\jarfiles folder.
- Java Home (For example, C:\Java\jdk1.6.0_18)

To install the ETPM database:

1. Run CDXDBI.exe from Install-Upgrade. The utility prompts you to enter values for the following parameters:
 - The name of the target database.
 - The password for the SYSTEM user account in the database (in silent mode).
 - The name of the owner of the database schema.
 - The location of Java Home. (No spaces are allowed in the directory name.)
 - The location of TUGBU Jar files. (No spaces are allowed in the directory name.)
 - The password for the owner of the database schema. (Password is entered in silent mode.)
 - The Oracle user with read-write privileges to the database schema.
 - The Oracle user with read-only privileges to the database schema.
 - The Oracle database role with read-write privileges to the database schema.
 - The Oracle database role with read-only privileges to the database schema.
2. This utility populates the schema with the initial install data. If an error occurs while executing an SQL or another utility, it logs and displays the error message and allows you to re-execute the current step.

CDXDBI performs the following tasks:

- Interacts with the user to collect information about the name of Oracle account that will own the application schema (for example, CISADM), password of this account, password of the SYSTEM account in the database, and the name of the Oracle account that the application user will use (for example, CISUSER), and the name of the Oracle account that will be assigned read-only privileges to the application schema (for example, CISREAD).
- Connects to the database as SYSTEM account, checks whether the user already has the application schema installed to verify whether this is an initial installation.
- Verifies whether tablespace names already exist in Storage.xml file (if not, the process will abort).
- Installs the schema, installs the system data, and configures security.
- Maintains install log tables in the database.
- Updates release ID when the install is completed successfully.
- If an error occurs while executing a SQL script or another utility, it logs and displays the error message and allows you to re-execute the current step. Log files CDXDBI###.log are created in the same folder as CDXDBI and contains all the SQL commands executed against the database along with the results. The log files are incremental so that the results are never overwritten. If warning messages are generated during the upgrade, CDXDBI prompts the user at the end of the process. Users should check the log files to verify the warning messages. Warning messages are only alerts and do not necessary mean a problem exists.
- Stores the schema owner and password in the feature configuration table. The password is stored in encrypted format.

Post-Install Tasks:

Refer to **Populating Language Data** on page 2-10 if the application is to run in a language other than English.

Database Statistics Generation

Before starting to use the database, generate the complete statistics for these new objects using the DBMS_STATS package.

Upgrade Install

The following section assumes an existing Oracle Enterprise Taxation Management installation on top of an Oracle Utilities Application Framework installation. Refer to the *Quick Install Guide* for supported upgrade paths.

The files for the Upgrade Install of Oracle Enterprise Taxation and Policy Management v2.3.0 are located in the Install-Upgrade folder.

Install

The following process will upgrade the system data to v2.3.0.

You will need the following information to successfully execute CDXBI:

- The database system user password.
- A user that will own the application schema (for example, CISADM).
- The password for the application schema owner (for example, CISADM).
- A user that has read-write (select/update/insert/delete) privileges to the objects in the application schema. The application will access the database as this user (for example, CISUSER).

- A user with read-only privileges to the objects in the application schema (for example, CISREAD).
- A database role that has read-write (select/update/insert/delete) privileges to the objects in the application schema. The application will access the database as this user (for example, CIS_USER).
- A database role with read-only privileges to the objects in the application schema (for example, CIS_READ).
- The location for TUGBU jar files. The Jar files are bundled with the database package and can be found under \install-upgrade\jarfiles folder.
- Java Home (For example, C:\Java\jdk1.6.0_18)

To upgrade the database:

1. Review and edit the Storage.xml file to set the various options as described in **Updating Storage.xml** on page 3-3.

For optimum storage allocation, DBAs should create multiple tablespaces with extents sized to store different types of tables/indexes. They can then edit this file before each upgrade and install process, to spread the tables and indexes across these tablespaces. Tables and indexes can be created in parallel by editing degree of parallelism, it is set to 1.

The information is used only for new objects. Refer to the New Tables section in **Schema Change** on page A-2 for the new tables in v2.3.0.

2. Run CDXDBI.exe. The utility prompts you to enter values for the following parameters:
 - The name of the target database.
 - The password for the SYSTEM user account in the database. (Password is entered in silent mode.)
 - The name of the owner of the database schema.
 - The location of Java Home. (No spaces are allowed in the directory name.)
 - TUGBU Jar files location. (No spaces are allowed in the directory name.)
 - The password for the owner of the database schema. (Password is entered in silent mode.).
 - The Oracle user with read-write privileges to the database schema.
 - The Oracle user with read-only privileges to the database schema.
 - The Oracle database role with read-write privileges to the database schema.
 - The Oracle database role with read-only privileges to the database schema.
3. The utility at this point is ready to perform the upgrade install and prompts you for permission to start the process.
4. The utility upgrades the schema and the system data definitions. If an error occurs while executing an SQL or another utility, it logs and displays the error message and allows you to re-execute the current step.

CDXDBI performs the following tasks:

- Interacts with the user to collect information about the name of Oracle account that will own the application schema (for example, CISADM), password of this account, password of the SYSTEM account in the database, and the name of the Oracle account that the application user will use (for example, CISUSER), and the name of the Oracle account that will be assigned read-only privileges to the application schema (for example, CISREAD).
- Connects to the database as SYSTEM account, checks whether the user already has the application schema installed to verify whether this is an upgrade installation.
- Verifies whether the upgrade path from the current release id to the target release id is supported by the upgrade.
- Verifies whether the tablespace names already exist in Storage.xml file (the process aborts, if not).
- Upgrades the schema, upgrades the system data, and configures security.
- Maintains upgrade log tables in the database.
- Updates release ID when the upgrade is completed successfully.
- If an error occurs while executing a SQL script or another utility, it logs and displays the error message and allows you to re-execute the current step. Log files CDXDBI###.log are created in the same folder as CDXDBI and contains all the SQL commands executed against the database along with the results. The log files are incremental so that the results are never overwritten. If warning messages are generated during the upgrade, CDXDBI prompts the user at the end of the process. Users should check the log files to verify the warning messages. Warning messages are only alerts and do not necessary mean a problem exists.
- Stores the schema owner and password in feature configuration table. The password will be stored in encrypted format.

Post-Install

Refer to the **Populating Language Data** on page 2-10 if the application is to run in a language other than English.

Database Statistics Generation

During an install process, new database objects may be added to the target database. Before starting to use the database, generate the statistics for these new objects.

Environment Registration

Note: If the target database is registered as a configuration laboratory or archiving database in another database, or another database has been registered as a configuration laboratory or archiving database in this database, it is required that you upgrade the registration at this stage.

The detailed instructions for environment registration can be found in the Oracle Enterprise Taxation and Policy Management user documentation. Please refer to this documentation before executing the environment registration utility EnvSetup.exe included in the post-install folder.

Demo Install

A demo installation consists of the following steps:

1. Database creation.
2. Security configuration.

Database Creation

Note: The Unix and Windows installer will create an empty database and one tablespace for storing the application objects before running the install. The default name of the application tablespace is CISTS_01. If you do not use the default name or want to spread application objects across multiple tablespaces, you must create the tablespaces of your choice and edit the Storage.xml file, supplied with the install package, before starting the installation process.

UNIX

The database creation files are located in the DatabaseCreation folder.

1. FTP the contents of the Database Creation folder to a temporary directory on the UNIX server.
 2. To create the database set the ORACLE_HOME and ORACLE_BASE variables.
 3. Execute the utility cdxdba.plx by entering following command:
- ```
perl cdxdba.plx
```
4. The script will prompt for parameter values:
    - Enter the instance name (DEMO): DEMO
    - Enter ORACLE\_BASE: the directory where the setup files for the database will be created (/orasw/app/oracle):
    - Enter ORACLE\_HOME: the folder where the current version of Oracle software is installed (/orasw/app/oracle/product/10203):
    - Enter ORACLE\_DATA: the directory where the data files for the database will be created (/db05/oradata):
    - Enter the character set for the database (AL32UTF8):
  5. Enter the values based on the settings of your database server. You can also accept the default values displayed if they match your database server settings. You will be prompted to confirm the settings and select Y or N to create the database.

```
ORACLE_SID: DEMO
ORACLE_HOME: /orasw/app/oracle/product/1110710203
ORACLE_BASE: /orasw/app/oracle
ORACLE_DATA: /db05/oradata
Character Set: AL32UTF8
Do you want to continue (Y/N)?
```

6. Once the database has been created, you will be prompted with the questions:

```
Do you want to import a demo database dump into
this database (Y/N)?
```

- Select Y to import the Demo Install data.

For the Demo Install use the dump file exp\_demo.dmp. This file needs to be copied from the database creation folder to the directory pointing to data\_pump\_dir ORACLE\_BASE/admin/<ORACLE SID>/dpdump. For example, /orasw/app/oracle/admin/DEMO/dpdump.

- Enter the name of the dump file (exp\_demo.dmp):
- Enter the name of the dump file directory (data\_pump\_dir):
- Enter the name of the log file (exp\_demo.log):

```
Ready to import the CISADM schema into the database,
do you want to continue (Y/N)? Y
```

**Note.** Update the oratab, tnsnames.ora and listener.ora files for the new database and check the connectivity to this database from another server and from your desktop.

## Windows

The database creation files are located in the DatabaseCreation folder. You should be logged in as a user who is member of the local ORA\_DBA group on that server. The ORA\_DBA group should have “administrator” privileges assigned to it.

1. To create a database, run the utility CDXDBA.exe located in the Windows folder.

The utility will display a list with the following options:

- E - Export a schema from the database
- R - Refresh a schema with a database dump.
- C - Create/Recreate a local database.
- H - See help for the command line options.
- Q - Quit.

2. Select option C to create an empty database on your machine.

Follow the prompts to complete the install.

3. Once the database has been created select R - Refresh a schema with a database dump file to load the Demo Install data.

Option R causes the utility to drop all the objects from the schema and import the schema from a database dump file.

For the Demo Install use the dump file exp\_demo.dmp. This file needs to be copied from the database creation folder to the directory pointing to data\_pump\_dir (, ORACLE\_BASE\admin\\dpdump\). For example, c:\oracle\admin\DEMO\dpdump.

**Note:** Update the oratab, tnsnames.ora and listener.ora files for the new database and check the connectivity to this database from another server and from your desktop.

## Importing Demo Data in an Existing Database

The demo database can be imported into an existing database using database data pump import utility. Before importing the data, create the required database users and roles. Refer to the example template script createcdxusers .sql under database creation folder to create users and roles. After creating the users and roles, use the datapump utility to import the exp\_demo.dmp found under database creation folder. Once the dump file is imported generate the required permissions by executing Oragensec utility. Refer to **Security Configuration** on page 2-9 section for more information.

## Security Configuration

The configuration utility and scripts are located in the Security folder.

Execute the OraGenSec.exe utility.

The script will prompt you for parameter values:

```
Enter the application read-only user or Schema Owner in the
database (e.g CISADM or CISREAD): CISADM
```

```
Enter the password for the user: CISADM
```

```
Enter the name of the Oracle Database: database name
```

Enter a comma-separated list of Oracle users in which synonyms need to be created (e.g. cisuser,cisread): cisuser,cisread

Select the following options: A

(A/a): Generate security for All objects in the Database (e.g. A or a for all objects)

(O/o): Generate security for specific Objects inputted in this terminal (e.g. CI\_ACCT,CI\_ACCT\_K)

Generate security for specific objects generated from an input File (e.g. Security\_Objects.txt)

The utility configures security for the application owner schema objects.

**Note:** If you run Oragensec in Interactive Mode (without using the command line options), it will by default grant permissions to CIS\_USER and CIS\_READ Role. If you prefer to use site-specific roles then execute Oragensec after providing command line options.

For example:

```
(Oragensec.exe -d [Schema Owner],[Schema Owner's Password],[Database Name] -u [Read/Write User],[Read Only User] -r [Read Only Role],[Read Write Role] -a A -l [Logfile Name])
```

**Note:** Database vault must be disabled before running

## Post-Install

Configure the security for the database. Refer to **Security Configuration** on page 2-9.

Refer to the **Populating Language Data** on page 2-10 if the application is to run in another language other than English.

## Populating Language Data

At this point, the Oracle Enterprise Taxation and Policy Management database is ready for use. Please note that this database contains data in the ENGLISH language only. If you use any other supported language, you can run the F1-LANG batch program to duplicate the entries for new language records. For more information on running this batch program, refer to the user documentation section “Defining Background Processes.”

You can also install the language specific data packages (if available) into the database. Please contact your Oracle representative to receive information on these packages

# Chapter 3

---

## Database Design

This section provides a standard for database objects such as tables, columns, and indexes, for products using the Oracle Utilities Application Framework. This standard helps smooth integration and upgrade processes by ensuring clean database design, promoting communications, and reducing errors. Just as Oracle Utilities Application Framework goes through innovation in every release of the software, it is also inevitable that the product will take advantage of various database vendors' new features in each release. The recommendations in the database installation section include only the ones that have been proved by vigorous QA processes, field tests and benchmarks. This section includes:

- **Database Object Standard**
- **Column Data Type and Constraints**
- **Standard Columns**

# Database Object Standard

This section discusses the rules applied to naming database objects and the attributes that are associated with these objects.

## Categories of Data

A table can belong to one of the three categories:

- Control (admin)
- Master
- Transaction

For purposes of physical table space design, metadata and control tables can belong to the same category.

Example of tables in each category:

- **Control:** SC\_USER, CI\_ADJ\_TYPE, F1\_BUS\_OBJ
- **Master:** CI\_PER, CI\_PREM,
- **Transaction:** F1\_FACT, CI\_FT

All tables have the category information in their index name. The second letter of the index carries this information. See **Indexes** on page 3-3 for more information.

## Naming Standards

The following naming standards must be applied to database objects.

### Table

Table names are prefixed with the owner flag value of the product. For customer modification **CM** must prefix the table name. The length of the table names must be less than or equal to 30 characters. A language table should be named by suffixing **\_L** to the main table. The key table name should be named by suffixing **\_K** to the main table.

It is recommended to start a table name with the 2-3 letter acronym of the subsystem name that the table belongs to. For example, **MD** stands for metadata subsystem and all metadata table names start with **CI\_MD**.

Some examples are:

- CI\_ADJ\_TYPE
- CI\_ADJ\_TYPE\_L

A language table stores language sensitive columns such as a description of a code. The primary key of a language table consists of the primary key of the code table plus language code (LANGAGUE\_CD).

A key table accompanies a table with a surrogate key column. A key value is stored with the environment id that the key value resides in the key table.

The tables prior to V2.0.0 are prefixed with CI\_ or SC\_.

### Columns

The length of a column name must be less than or equal to 30 characters. The following conventions apply when you define special types of columns in the database.

- Use the suffix **FLG** to define a lookup table field. Flag columns must be CHAR(4). Choose lookup field names carefully as these column names are defined in the lookup table (CL\_LOOKUP\_FLD) and must be prefixed by the product owner flag value.
- Use the suffix **CD** to define user-defined codes. User-defined codes are primarily found as the key column of the admin tables.
- Use the suffix **ID** to define system assigned key columns.
- Use the suffix **SW** to define Boolean columns. The valid values of the switches are 'Y' or 'N'. The switch columns must be CHAR(1)
- Use the suffix **DT** to define Date columns.
- Use the suffix **DTTM** to define Date Time columns.
- Use the suffix **TM** to define Time columns.

Some examples are:

- ADJ\_STATUS\_FLG
- CAN\_RSN\_CD

## Indexes

Index names are composed of the following parts:

**[OF][*application specific prefix*][C/M/T]NNN[P/S]n**

- **OF**- Owner Flag. Prior to Version 4.1.0 of the framework the leading character of the base Owner Flag was used. From 4.1.0 on the first two characters of product's owner flag value should be used. For client specific implementation of index, use CM for Owner Flag.
- Application specific prefix could be C, F, T or another letter.
- **C/M/T** - The second character can be either C or M or T. C is used for control tables (Admin tables). M is for the master tables. T is reserved for the transaction tables.
- **NNN** - A three-digit number that uniquely identifies the table on which the index is defined.
- **P/S** - P indicates that this index is the primary key index. S is used for indexes other than primary keys. n is the index number, unique across all indexes on a given table (0 for primary and 1, 2, etc., for the secondary indexes).

Some examples are:

- F1C066P0
- F1C066S1
- CM206S2

Warning! Do not use index names in the application as the names can change due to unforeseeable reasons.

## Updating Storage.xml

The storage.xml file that comes with the product allocates all base tables and indexes to the default tablespace CISTS\_01. If you decide to allocate some tables or indexes outside of the default tablespace, then this has to be reflected in the storage.xml file by changing the tablespace name from the default value to a custom value, according to the format shown below:

### Format:

```
<Table_Name>
 <TABLESPACE>CISTS_01</TABLESPACE>
 <PARALLEL>1</PARALLEL>
- <LOB>
- <Column Name>
```

```

<TABLESPACE>CISTS_01</TABLESPACE>
<SECUREFILE>Y</SECUREFILE>
<CHUNK>8192</CHUNK>
<CACHE>N</CACHE>
<LOGGING>Y</LOGGING>
<INROW>Y</INROW>
<COMPRESS>N</COMPRESS>
</Column Name>
</LOB>
</Table_Name>

```

Where Parallel defines the number of threads, that Oracle DB Server will use to access a table or create an index.

For instance, if a DBA decided to allocate table CI\_ACCT in a tablespace MyTablespace, then they would have to change the storage.xml as follows:

```

<CI_ACCT>
<TABLESPACE>MyTablespace</TABLESPACE>
</CI_ACCT>

```

The cdxdbi process uses the storage.xml file to place the new database objects into defined tablespaces. A tablespace referenced in the storage.xml file must exist in the database.

The storage.xml file has to be adjusted before each upgrade and/or new installation as required to allocate the tables and indexes across those tablespaces.

Table name is included as a comment for each of the indexes for clarity.

For initial installs, information for each object should be reviewed by a DBA. For upgrades, only tablespace information for the objects added in the new release needs to be reviewed by a DBA.

Be careful while editing this file. Make sure that the tablespace names being used exist in the database. Do not change the basic format of this file.

## Sequence

The base sequence name must be prefixed with the owner flag value of the product.

The sequence numbers should be named as below

1. If the Sequence is used for a specific Table then use the following sequence name:

```
[OF][C/M/T]NNN_SEQ
```

- OF stands for Owner Flag. For example, Framework its F1. Other examples are M1,C1,D1,D2, etc.
- C/M/T stands for Control (Admin)/Master/Transaction Tables.
- NNN is a three digit unique Identifier for a Table on which the Sequence is defined.

For Example: F1T220\_SEQ

2. If more than one Sequence is used for a specific Table then use the following Sequence Name:

```
[OF][C/M/T]NNN_Column_Name_SEQ
```

- OF stands for Owner Flag. For example, the framework is F1. Other examples are M1,C1,D1,D2, etc.
- C/M/T stands for Control (Admin)/Master/Transaction tables.
- NNN is a three digit unique identifier for a table on which the sequence is defined.

For Example: F1T220\_BO\_STATUS\_CD\_SEQ and F1T220\_BUS\_OBJ\_CD\_SEQ

3. If sequence is used for a generic requirement and not specific to a table, then use the following sequence name.

[OF]Column\_Name\_SEQ

- OF stands for Owner Flag. For example, the framework is F1. Other examples are M1,C1,D1,D2, etc.

For Example: F1FKVALID\_SEQ

## **Trigger**

The base trigger name must be prefixed with the owner flag value of the product.

When implementers add database objects, such as tables, triggers and sequences, the name of the objects should be prefixed by CM.

## Column Data Type and Constraints

This section discusses the rules applied to column data type and constraints, and the attributes that are associated with these objects.

### User Defined Code

User Defined Codes are defined as CHAR type. The length can vary by the business requirements but a minimum of eight characters is recommended. You will find columns defined in less than eight characters but with internationalization in mind new columns should be defined as CHAR(10) or CHAR(12). Also note that when the code is referenced in the application the descriptions are shown to users in most cases.

### System Assigned Identifier

System assigned random numbers are defined as CHAR type. The length of the column varies to meet the business requirements. Number type key columns are used when a sequential key assignment is allowed or number type is required to interface with external software. For example, Notification Upload Staging ID is a Number type because most EDI software uses a sequential key assignment mechanism. For sequential key assignment implementation, the DBMS sequence generator is used in conjunction with Number Type ID columns.

### Date/Time/Timestamp

Date, Time and Timestamp columns are defined physically as DATE in Oracle. Non-null constraints are implemented only for the required columns.

### Number

Numeric columns are implemented as NUMBER type in Oracle. The precision of the number should always be defined. The scale of the number might be defined. Non-null constraints are implemented for all number columns.

### Fixed Length/Variable Length Character Columns

When a character column is a part of the primary key of a table define the column in CHAR type. For the non-key character columns, the length should be the defining factor. If the column length should be greater than 10, use VARCHAR2 type in Oracle.

### Null Constraints

The Non-null constraints are implemented for all columns except optional DATE, TIME or TIMESTAMP columns.

### Default Value Setting

The rules for setting the database default values are as follows:

- When a predefined default value is not available, set the default value of Non-null CHAR or VARCHAR columns to blank except the primary key columns.
- When a predefined default value is not available, set the default value Non-null Number columns to 0 (zero) except the primary key columns.
- No database default values should be assigned to the Non Null Date, Time, and Timestamp columns.

## Foreign Key Constraints

Referential integrity is enforced by the application. In the database do not define FK constraints. Indexes are created on most of Foreign Key columns to increase performance.

## Standard Columns

This section discusses the rules applied to standard columns and the attributes that are associated with these objects.

## Owner Flag

Owner Flag (OWNER\_FLG) columns exist on the system tables that are shared by multiple products. Oracle Utilities Application Framework limits the data modification of the tables that have owner flag to the data owned by the product.

## Version

The Version column is used to for optimistic concurrency control in the application code. Add the Version column to all tables that are maintained by a Row Maintenance program irrespective of the language used (COBOL or JAVA).



# Chapter 4

---

## Database Implementation Guidelines

The following section outlines the general implementation guidelines for the database components, including:

- **Configuration Guidelines**
- **Oracle Database Implementation Guidelines.**

Note: Refer to My Oracle Support for more information.

## Configuration Guidelines

This section includes general recommendations for configuring various database objects and includes a brief syntax overview. It covers the general aspects of the database objects and does not cover any specific implementation requirements.

### Index

Index recommendations specify points that need to be considered when creating indexes on a table.

1. Indexes on a table should be created according to the functional requirements of the table and not in order to perform SQL tuning.
2. The foreign keys on a table should be indexes.

In an Oracle Utilities Application Framework environment, always make sure that the optimization parameters are set as follows:

```
optimizer_index_cost_adj=1
optimizer_index_caching=100
```

This will make sure that the optimizer gives a higher priority to index scans.

### Table Partitioning Recommendations

Oracle Utilities has two recommendations for partitioning tables.

1. No partitioning for non-RAC environments.
2. Minimum of 'n' partitions for selective database objects, where 'n' is number of RAC nodes.

### Transparent Data Encryption Recommendations

Oracle Utilities supports Oracle Transparent Data Encryption (TDE) with the AES128 Encryption Algorithm. Oracle 11gR1 supports tablespace level encryption. The application supports tablespace level encryption for all Application data. Make sure that the hardware resources are sufficiently sized for this as it involves additional hardware utilization from the system.

### Advanced Data Compression Recommendations

Oracle Utilities supports Advanced Data Compression. This is available from Oracle 11gR1 onwards. It reduces the database storage by 40%. As the compressed data goes into SGA the potential IO is also reduced. Make sure that the hardware resources are sufficiently sized for this as it involves additional hardware utilization from the system.

Compression can be enabled at the Tablespace level or at the Table level.

A separate license is required for using Advanced Data Compression. As a part of the Schema creation we create the product-owned tables with compression turned OFF. If you have the license then you can enable compression.

### Database Vault Recommendations

We support Database Vault from the Oracle Utilities Application Framework 4.1.0. All non-application Usersids can be prevented from using DDL or DML statements against the application schema. So SYS and SYSTEM cannot issue DDL or DML statements against CISADM schema.

The application-specific administration account can issue DDL statements but should not be able to perform any DML or DCL statements.

Application user must be given DML only permissions.

Database Vault can be used to control access during patch process and Install/Upgrade process. From the Oracle Utilities Application Framework 4.1.0 patch application with Database Vault configuration is also supported.

## Storage Recommendations

This section specifies recommended options for storing the database objects.

### SecureFile for Storing LOBs

Beginning with Oracle 11g, tables having fields with data type of CLOB or BLOBS should have the LOB Columns stored as SecureFiles.

- The storage options with SecureFiles for Heap Tables should be ENABLE STORAGE IN ROW, CACHE and COMPRESS.
- For the IOT Table the PCTTHRESHOLD 50 OVERFLOW clause should be specified and the storage options with SecureFiles should be ENABLE STORAGE IN ROW, CACHE and COMPRESS.
- The PCTTHRESHOLD should be specified as a percentage of the block size. This value defines the maximum size of the portion of the row that is stored in the Index block when an overflow segment is used.
- The CHUNK option for storage, which is the data size used when accessing or modifying LOB values, can be set to higher than one database block size if big LOBs are used in the IO Operation.
- For SecureFiles, make sure that the initialization parameter db\_securefile is set to PERMITTED (the default).
- The Tablespace where you are creating the SecureFiles should be enabled with Automatic Segment Space Management (ASSM). In Oracle Database 11g, the default mode of Tablespace creation is ASSM so it may already be set for the Tablespace. If it's not, then you have to create the SecureFiles on a new ASSM Tablespace.

**Note:** To enable compression on SecureFiles, you must have an Oracle Advanced Compression license in addition to Oracle Database Server Enterprise Edition. This feature is not available for the standard edition of the Oracle database.

See **Database Syntax** on page 4-4 for more information on SecurFiles.

## Database Configuration Recommendations

This section specifies the recommended methods for configuring the database with a focus on specific functional area.

### Large Redo Log File Sizes

The Redo Log files are written by the Log Writer Background process. These Log files are written in a serial manner. Once a Log File is full, a Log Switch occurs and the next Log file starts getting populated.

It is recommended that the size of the Redo Log files should be sufficiently high so that you do not see frequent Log Switches in the Alert logs of the database. Frequent Log Switches impact the IO performance and can be avoided by having a larger Redo log File size.

Frequent Log Switches impacts the IO performance and can be avoided by having a bigger Redo log File Size.

## Database Syntax

### SecureFile

```
CREATE TABLE <Table_Name>
 (COLUMN1 ...,
 COLUMN2 (CLOB)
)
LOB(COLUMN2) STORE AS SECUREFILE (CACHE COMPRESS);

CREATE TABLE <Table_Name>
 (COLUMN1 ...,
 COLUMN2 (CLOB)
 CONSTRAINT <> PRIMARY KEY(...)
)
ORGANIZATION INDEX PCTTHRESHOLD 50 OVERFLOW
LOB(COLUMN2) STORE AS SECUREFILE (ENABLE STORAGE IN ROW CHUNK CACHE
COMPRESS);
```

## Database Initialization Parameters

The recommended Initialization Parameters are given below. These parameters are a starting point for database tuning. An optimal value for a production environment may differ from one customer deployment to another.

```
db_block_size=8192
log_checkpoint_interval=10000
db_file_multiblock_read_count=8
transactions=3000
open_cursors=1200
optimizer_index_cost_adj=1
optimizer_index_caching=100
session_cached_cursors=50
trace_enabled=FALSE
db_files=1024
dbwr_io_slaves=10 (Only if Asynchronous IO is not Supported)
sessions=1528
sec_case_sensitive_logon=FALSE
processes=1000
dml_locks=4860
```

# Oracle Database Implementation Guidelines

This section provides guidelines for implementing the Oracle database.

## Oracle Partitioning

If you use a base index for the partitioning key, rename the index to CM\*\*.

If you use the primary key index of the table as the partitioning key:

- Make the index non-unique.
- Primary constraints should still exist.

The upgrade on the partitioned table will work the best if the partitioning key is not unique. This allows the upgrade tool to drop the PK constraints if the primary key columns are modified and recreate the PK constraints without dropping the index.



# Chapter 5

---

## Conversion Tools

This section describes the following database conversion tools:

- **Oracle Conversion Tool**

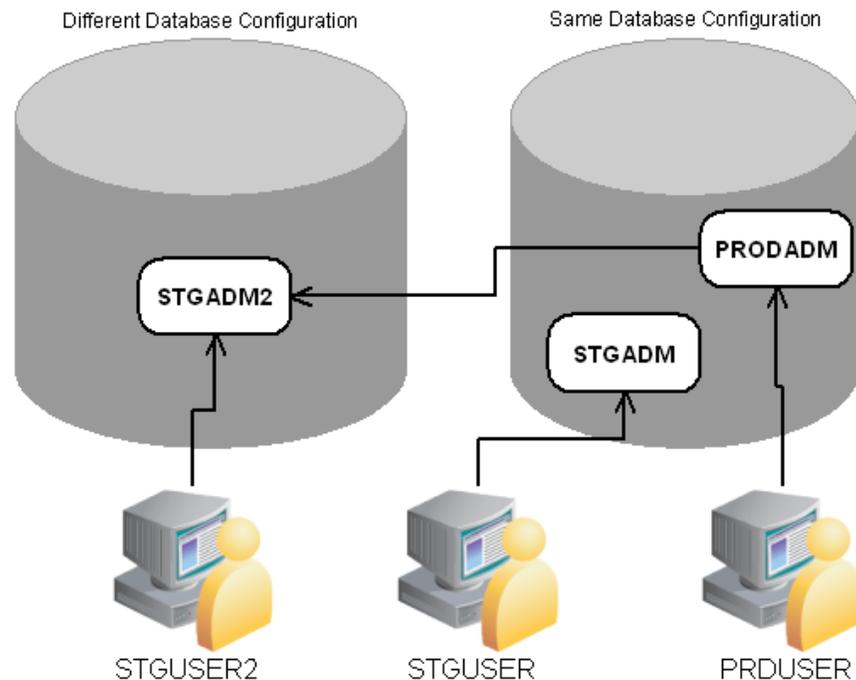
## Oracle Conversion Tool

This section explains how to set up the application database configuration in Oracle to run the Conversion Tool Kit.

### Database Configuration

The Conversion Tool Kit requires at least two sets of schema. One is to hold the staging data that the conversion tool gets the data from and performs validations. We call this schema the staging database. The target schema, which is referred to as the production database, is where the conversion tool inserts the validated data. Both the production database and the staging databases can reside in a single Oracle database or in different databases that are connected via a database link. Only the single database configuration is supported.

The following schematic diagram shows a sample configuration of both the production and staging environments in which the Conversion Tool Kit operates. There is no limit to how many staging databases can be configured for one production database. However, the production and staging databases must be the same release level.



All the tables and views for the application are defined in the production database. The staging database has the same set of tables and views as the production database, except the tables that are grouped as part of the business configuration (control tables). Details on the differences of the tables of the two databases and of the conversion tool functionality are found in the Conversion Tool document.

### Script Installation

With Oracle Enterprise Taxation and Policy Management v2.3.0 a new Conversion Setup Utility, ConvSetup.exe, is provided to set up conversion schemas.

1. Install the Oracle client V11g or later on Windows desktop and configure SQLNet to connect to the target database.

The Conversion folder contains the conversion setup utility: ConvSetup.exe and Conversion.bat.

---

This section of this document describes how to create the databases for the conversion tool kit.

## Preparing the Production Database

If the production database does not exist create the database under the production schema owner (CISADM).

If the production database is upgraded from the previous version of the application make sure all public synonyms that are created on the application tables are deleted. Instead, each application user should have private synonyms created on the application tables in order for the conversion tool configuration to work.

## Preparing the Staging Database

Multiple staging databases can be set up to facilitate the conversion process if the customer data can be moved to the application in phases or concurrently by different project groups.

Once you have created a staging owner (STGADM), application user (STGUSER) and read access user (STGREAD), install the initial database option in the staging schema. The rest of the steps are listed below.

ConvSetup.exe creates the database objects in staging schema. It prompts for Database Platform: Oracle (O), Database connection info, Database Name, System Password, Production Schema Name, Staging Schema Name, and Read-Write user for Staging Schema.

ConvSetup.exe performs following tasks:

- Creates cx\* views on the master/transaction tables in the production database.
- Grants the privileges on the master/transaction tables in the production database to the staging owner.
- Drops control tables and creates views on production control tables in the staging database.
- Grants privileges on the control tables to the staging owner.
- Grants privileges on the cx\* views to the staging application user.
- Creates generated key tables.
- Creates generated table primary key and secondary indexes.

In addition to above tasks ConvSetup.exe also generates the following SQL scripts:

- create\_cxviews.sql
- create\_ctlviews.sql
- createck\_tbls.sql
- create\_grants.sql
- createck\_pkix.sql
- createck\_secix.sql

By default the conversion.bat updates all changes to the staging schema. If you want to generate only the above sql scripts and not apply changes to staging schema then update conversion.bat by removing “-u”. The sql scripts can be applied to the staging schema later. The sqls scripts need to be executed in the same order as described above using SQL\*PLus.

Once the staging schema has been set up, generate the security for the staging user using:

```
oragensec -d stgadm,schemapassword,database_name -r
stg_read,stg_user -u stguser
```

**Note:** All database-related single fixes/service packs need to apply against production schema. Staging schema should not be updated with database single fixes or service packs. Staging schema need to be rebuilt for any fixes that contain DDL to create new database objects in production schema.

# Appendix A

---

## Upgrades to the Oracle Enterprise Taxation and Policy Management Database

This document describes the database upgrade process for the Oracle Enterprise Taxation and Policy Management database from v2.2.0.2 to v2.3.0. It highlights changes made to the administrative tables and how those changes should be applied to the data in order for a v2.2.0.2 database to work with the v2.3.0 application, and to preserve the business logic implemented in the previous version of the application. The changes that do not require data upgrade are not described in this document. The tasks that need to be performed after running the upgrade scripts are included.

The added functionality of v2.3.0 is not the scope of this documentation. The upgrade scripts do not turn on the newly added functionality by default. For new functionality, refer the v2.3.0 Release Notes. See **New Tables** on page A-2 for a list of the new tables that are added in V2.3.0.

This section includes:

- **Automatic Data Upgrade**
- **After Upgrade System Configuration**
- **Schema Change**
- **New System Data**
- **Changed System Data**
- **Removed System Data**
- **Planned System Data Deprecation**

## Automatic Data Upgrade

This section describes what the upgrade script will populate in new tables and columns to preserve the existing base product application functions of the previous version of Oracle Enterprise Taxation Management.

### Adjustment Log

New entries in the Adjustment Log (CI\_ADJ\_LOG) table are created for adjustments that have related tax forms or waivers. The script looks for adjustments that have a characteristic with the characteristic type 'C1-TXFRM' (tax form) or 'C1-WAIVR' (waiver). For each adjustment, a 'Related Object' log entry is created referring to the same characteristic type and value.

### After Upgrade System Configuration

None.

## Schema Change

### New Tables

The following new tables are added to Oracle Enterprise Taxation Management V2.3.0.

| Table                  | Description                       |
|------------------------|-----------------------------------|
| C1_APPEAL              | Appeal                            |
| C1_APPEAL_CHAR         | Appeal Characteristic             |
| C1_APPEAL_K            | Appeal Key                        |
| C1_APPEAL_LOG          | Appeal Log                        |
| C1_APPEAL_LOG_PARM     | Appeal Log Message Parameters     |
| C1_APPEAL_PER          | Appeal Related Person             |
| C1_APPEAL_REL_OBJ      | Appeal Related Object             |
| C1_APPEAL_RESP_USER    | Appeal Responsible User           |
| C1_APPEAL_REVIEW       | Appeal Review                     |
| C1_APPEAL_SUPP_SA      | Appeal Suppressed Obligation      |
| C1_APPEAL_TYPE         | Appeal Type                       |
| C1_APPEAL_TYPE_CHAR    | Appeal Type Characteristic        |
| C1_APPEAL_TYPE_L       | Appeal Type Language              |
| C1_AUDIT_CASE          | Audit Case                        |
| C1_AUDIT_CASE_CHAR     | Audit Case Characteristic         |
| C1_AUDIT_CASE_K        | Audit Case Key                    |
| C1_AUDIT_CASE_LOG      | Audit Case Log                    |
| C1_AUDIT_CASE_LOG_PARM | Audit Case Log Message Parameters |

| <b>Table</b>             | <b>Description</b>                    |
|--------------------------|---------------------------------------|
| C1_AUDIT_CASE_PER        | Audit Case Related Person             |
| C1_AUDIT_CASE_RESP_USER  | Audit Case Responsible User           |
| C1_AUDIT_CASE_REVIEW     | Audit Case Review                     |
| C1_AUDIT_CASE_SA         | Audit Case Audited Obligation         |
| C1_AUDIT_CASE_TYPE       | Audit Case Type                       |
| C1_AUDIT_CASE_TYPE_CHAR  | Audit Case Type Characteristic        |
| C1_AUDIT_CASE_TYPE_L     | Audit Case Type Language              |
| C1_BANKRUPTCY            | Bankruptcy                            |
| C1_BANKRUPTCY_CHAR       | Bankruptcy Characteristic             |
| C1_BANKRUPTCY_K          | Bankruptcy Key                        |
| C1_BANKRUPTCY_LOG        | Bankruptcy Log                        |
| C1_BANKRUPTCY_LOG_PARM   | Bankruptcy Log Message Parameters     |
| C1_BANKRUPTCY_MILESTONE  | Bankruptcy Milestone                  |
| C1_BANKRUPTCY_PER        | Bankruptcy Related Person             |
| C1_BANKRUPTCY_RESP_USER  | Bankruptcy Responsible User           |
| C1_BANKRUPTCY_SA         | Bankruptcy Covered Obligation         |
| C1_BANKRUPTCY_TYPE       | Bankruptcy Type                       |
| C1_BANKRUPTCY_TYPE_ALG   | Bankruptcy Type Algorithm             |
| C1_BANKRUPTCY_TYPE_CHAR  | Bankruptcy Type Characteristic        |
| C1_BANKRUPTCY_TYPE_L     | Bankruptcy Type Language              |
| C1_REVIEW                | Review                                |
| C1_REVIEW_CHAR           | Review Characteristic                 |
| C1_REVIEW_K              | Review Key                            |
| C1_REVIEW_LOG            | Review Log                            |
| C1_REVIEW_LOG_PARM       | Review Log Message Parameter          |
| C1_REVIEW_PROC_CTRL      | Review Process Control                |
| C1_REVIEW_PROC_CTRL_CHAR | Review Process Control Characteristic |
| C1_REVIEW_PROC_CTRL_L    | Review Process Control Language       |
| C1_REVIEW_PROC_EVT       | Review Process Event                  |
| C1_REVIEW_TYPE           | Review Type                           |
| C1_REVIEW_TYPE_CHAR      | Review Type Characteristic            |
| C1_REVIEW_TYPE_L         | Review Type Language                  |
| C1_SUPPRESSION           | Suppression                           |

| <b>Table</b>             | <b>Description</b>                 |
|--------------------------|------------------------------------|
| C1_SUPPRESSION_CHAR      | Suppression Characteristic         |
| C1_SUPPRESSION_ENTITY    | Suppression Entity                 |
| C1_SUPPRESSION_K         | Suppression Key                    |
| C1_SUPPRESSION_LOG       | Suppression Log                    |
| C1_SUPPRESSION_LOG_PARM  | Suppression Log Message Parameters |
| C1_SUPPRESSION_PROCESS   | Suppression Process                |
| C1_SUPPRESSION_TYPE      | Suppression Type                   |
| C1_SUPPRESSION_TYPE_CHAR | Suppression Type Characteristic    |
| C1_SUPPRESSION_TYPE_L    | Suppression Type Language          |
| CI_ADJ_LOG               | Adjustment Log                     |
| CI_ADJ_LOG_PARM          | Adjustment Log Message Parameters  |
| CI_AUDIT_INQUIRY         | Inquiry Audit                      |
| CI_AUDIT_INQUIRY_CHAR    | Inquiry Audit Characteristics      |
| CI_AUDIT_INQUIRY_K       | Inquiry Audit Key                  |
| CI_AUDIT_INQUIRY_VAL     | Inquiry Audit Values               |

## New Views

None

## Dropped Tables

None

## Unsupported Tables

None

## Added Columns

The following Table Columns are added to Oracle Enterprise Taxation Management V2.3.0.

| <b>Table</b> | <b>Column</b>    | <b>Required</b> | <b>Upgrade Notes</b> |
|--------------|------------------|-----------------|----------------------|
| CI_ADJ       | ADJ_CRE_RSN_XFLG | N               | None                 |
| CI_ADJ       | XFER_ROLE_FLG    | N               | None                 |
| CI_TAX_FORM  | AUDIT_CASE_ID    | N               | None                 |

## Dropped Columns

None

## Unsupported Table Columns

None

## Column Format Change

| Table             | Column       | From        | To           |
|-------------------|--------------|-------------|--------------|
| CI_ADJ_APREQ      | ADDRESS1     | VARCHAR2:64 | VARCHAR2:254 |
| CI_ADJ_APREQ      | ADDRESS2     | VARCHAR2:64 | VARCHAR2:254 |
| CI_ADJ_APREQ      | ADDRESS3     | VARCHAR2:64 | VARCHAR2:254 |
| CI_ADJ_APREQ      | ADDRESS4     | VARCHAR2:64 | VARCHAR2:254 |
| CI_BCHG_UP_XTYP_L | DESCR50      | VARCHAR2:50 | VARCHAR2:100 |
| CI_BILL_ROUTING   | ADDRESS1     | VARCHAR2:64 | VARCHAR2:254 |
| CI_BILL_ROUTING   | ADDRESS2     | VARCHAR2:64 | VARCHAR2:254 |
| CI_BILL_ROUTING   | ADDRESS3     | VARCHAR2:64 | VARCHAR2:254 |
| CI_BILL_ROUTING   | ADDRESS4     | VARCHAR2:64 | VARCHAR2:254 |
| CI_CHG_LOG        | PK_VAL1      | VARCHAR2:50 | VARCHAR2:300 |
| CI_PER            | ADDRESS1     | VARCHAR2:64 | VARCHAR2:254 |
| CI_PER            | ADDRESS2     | VARCHAR2:64 | VARCHAR2:254 |
| CI_PER            | ADDRESS3     | VARCHAR2:64 | VARCHAR2:254 |
| CI_PER            | ADDRESS4     | VARCHAR2:64 | VARCHAR2:254 |
| CI_PER_ADDR_OVRD  | ADDRESS1     | VARCHAR2:64 | VARCHAR2:254 |
| CI_PER_ADDR_OVRD  | ADDRESS2     | VARCHAR2:64 | VARCHAR2:254 |
| CI_PER_ADDR_OVRD  | ADDRESS3     | VARCHAR2:64 | VARCHAR2:254 |
| CI_PER_ADDR_OVRD  | ADDRESS4     | VARCHAR2:64 | VARCHAR2:254 |
| CI_PER_ADDR_SEAS  | ADDRESS1     | VARCHAR2:64 | VARCHAR2:254 |
| CI_PER_ADDR_SEAS  | ADDRESS2     | VARCHAR2:64 | VARCHAR2:254 |
| CI_PER_ADDR_SEAS  | ADDRESS3     | VARCHAR2:64 | VARCHAR2:254 |
| CI_PER_ADDR_SEAS  | ADDRESS4     | VARCHAR2:64 | VARCHAR2:254 |
| CI_PREM           | ADDRESS1_UPR | VARCHAR2:64 | VARCHAR2:254 |
| CI_PREM           | ADDRESS1     | VARCHAR2:64 | VARCHAR2:254 |
| CI_PREM           | ADDRESS2     | VARCHAR2:64 | VARCHAR2:254 |
| CI_PREM           | ADDRESS3     | VARCHAR2:64 | VARCHAR2:254 |

| <b>Table</b>    | <b>Column</b> | <b>From</b> | <b>To</b>    |
|-----------------|---------------|-------------|--------------|
| CI_PREM         | ADDRESS4      | VARCHAR2:64 | VARCHAR2:254 |
| CI_PRM_ALT_ADDR | ADDRESS1_UPR  | VARCHAR2:64 | VARCHAR2:254 |
| CI_PRM_ALT_ADDR | ADDRESS1      | VARCHAR2:64 | VARCHAR2:254 |
| CI_PRM_ALT_ADDR | ADDRESS2      | VARCHAR2:64 | VARCHAR2:254 |
| CI_PRM_ALT_ADDR | ADDRESS3      | VARCHAR2:64 | VARCHAR2:254 |
| CI_PRM_ALT_ADDR | ADDRESS4      | VARCHAR2:64 | VARCHAR2:254 |
| CI_REG_FORM     | ADDRESS1_UPR  | VARCHAR2:64 | VARCHAR2:254 |
| CI_REG_FORM     | ADDRESS1      | VARCHAR2:64 | VARCHAR2:254 |
| CI_REG_FORM     | ADDRESS2      | VARCHAR2:64 | VARCHAR2:254 |
| CI_REG_FORM     | ADDRESS3      | VARCHAR2:64 | VARCHAR2:254 |
| CI_REG_FORM     | ADDRESS4      | VARCHAR2:64 | VARCHAR2:254 |
| CI_TAX_FORM     | ADDRESS1_UPR  | VARCHAR2:64 | VARCHAR2:254 |
| CI_TAX_FORM     | ADDRESS1      | VARCHAR2:64 | VARCHAR2:254 |
| CI_TAX_FORM     | ADDRESS2      | VARCHAR2:64 | VARCHAR2:254 |
| CI_TAX_FORM     | ADDRESS3      | VARCHAR2:64 | VARCHAR2:254 |
| CI_TAX_FORM     | ADDRESS4      | VARCHAR2:64 | VARCHAR2:254 |

## New System Data

This section lists the new system data that are added for business process configuration.

### Algorithm Types

The following algorithm types are new to V2.3.0.

| Algorithm Type | Description                                              |
|----------------|----------------------------------------------------------|
| C1-ACRV-TRAN   | Audit Case Review - Transition Audit Case to Next State  |
| C1-ADCS-ASUR   | Audit Case - Assign to User                              |
| C1-ADCS-CAO    | Audit Case - Process Changes Related to Suppression      |
| C1-ADCS-CIRV   | Audit Case - Check for Incomplete Reviews                |
| C1-ADCS-CNRP   | Audit Case - Cancel Suppression                          |
| C1-ADCS-CRSP   | Audit Case - Create Suppression                          |
| C1-ADCS-RLSP   | Audit Case - Release Suppression                         |
| C1-ADCS-VAL    | Audit Case - Validation                                  |
| C1-AIZONEPRE   | Inquiry Audit - Populate IP Address                      |
| C1-AP-ADDUSR   | Appeal - Assign to User                                  |
| C1-AP-APRTL    | Appeal - Create To Do if Review In Progress for Too Long |
| C1-AP-APWL     | Appeal - Create To Do if Waiting Too Long                |
| C1-AP-CHKATL   | Appeal - Check Timeliness                                |
| C1-AP-CINCRE   | Appeal - Check For Incomplete Reviews                    |
| C1-AP-CLISLS   | Appeal - Clear Issues List                               |
| C1-AP-CNLSRP   | Appeal - Cancel Suppression                              |
| C1-AP-CPTODO   | Appeal - Complete To Dos                                 |
| C1-AP-CRTODO   | Appeal - Create To Do if Issues Detected                 |
| C1-AP-CRTSPR   | Appeal - Create Suppression                              |
| C1-AP-INFO     | Appeal - Information                                     |
| C1-AP-OPEN     | Highlight Open Appeals                                   |
| C1-AP-PSUCHG   | Appeal - Process Changes Affecting Suppression           |
| C1-AP-RLSSPR   | Appeal - Release Suppression                             |
| C1-AP-TRNISS   | Appeal - Transition from Issues Detected On Timeout      |
| C1-AP-TRNVAL   | Appeal - Transition from Validate                        |

| <b>Algorithm Type</b> | <b>Description</b>                                                |
|-----------------------|-------------------------------------------------------------------|
| C1-AP-VAL             | Appeal - Validation                                               |
| C1-AT-SUPPCH          | Check For Active Suppression                                      |
| C1-BK-ADDUSR          | Bankruptcy - Assign to User                                       |
| C1-BK-CHKOBL          | Bankruptcy - Check for Covered Obligations                        |
| C1-BK-CHKPPL          | Bankruptcy - Check for Pay Plans                                  |
| C1-BK-CNLSPR          | Bankruptcy - Cancel Suppression                                   |
| C1-BK-CRTODP          | Bankruptcy - Create Overdue Process                               |
| C1-BK-CRTSPR          | Bankruptcy - Create Suppression                                   |
| C1-BK-FTYCHG          | Bankruptcy - Process Filing Type Change                           |
| C1-BK-INFO            | Bankruptcy Information                                            |
| C1-BK-PDTCHG          | Bankruptcy - Process Petition Date Change                         |
| C1-BK-RLSSPR          | Bankruptcy - Release Suppression                                  |
| C1-BK-UPDSUP          | Bankruptcy - Update Suppressed Entities                           |
| C1-BKTY-SEOP          | Bankruptcy Type - Select Eligible Obligations as of Petition Date |
| C1-BKTY-VAL           | Bankruptcy Type - Validation                                      |
| C1-BNKR-OPN           | Highlight Open Bankruptcies                                       |
| C1-BNKR-VAL           | Bankruptcy - Validation                                           |
| C1-CCAL-ADCS          | Highlight Open Audit Cases                                        |
| C1-CCAL-ASE           | Active Suppression Exists                                         |
| C1-FR-POPTOO          | Populate Tax Owed/Overpaid                                        |
| C1-FR-PROPAS          | Create Proposed Assessment For Audit Form                         |
| C1-MO-ACINFO          | Audit Case Information                                            |
| C1-OE-RLBKSU          | Release Bankruptcy Suppression                                    |
| C1-OP-SUPPCH          | Overpayment Process - Check For Suppression                       |
| C1-OP-SUPPMN          | Overpayment Process - Stop Transition if Suppression Exists       |
| C1-OVRD-SUPP          | Hold Overdue Processing if Suppression Exists                     |
| C1-PI-PR-SUP          | Adjust Calculation Periods for Suppressions                       |
| C1-RVW-CCRR           | Review - Create Customer Contact for Appeal Review Response       |

| <b>Algorithm Type</b> | <b>Description</b>                                                     |
|-----------------------|------------------------------------------------------------------------|
| C1-RVW-CMPTD          | Review - Complete To Do Entries                                        |
| C1-RVW-INFO           | Review Information                                                     |
| C1-RVW-TDRPD          | Review - Create To Do for Review Response Past Due Date                |
| C1-RVW-TRTRR          | Review - Transition To Response Recorded                               |
| C1-RVW-VAL            | Review - Validation                                                    |
| C1-RVWPC-VAL          | Review Process Control - Validation                                    |
| C1-SUPP-AC            | Suppression - Activate                                                 |
| C1-SUPP-CTDO          | Suppression - Complete To Do Entries                                   |
| C1-SUPP-DTCH          | Suppression - Audit Date Changes                                       |
| C1-SUPP-EDEL          | Audit - Suppression Entity Deletion                                    |
| C1-SUPP-END           | Suppression - Default or Validate End Date                             |
| C1-SUPP-INF           | Suppression Information                                                |
| C1-SUPP-MAXD          | Suppression - Maximum Duration Period Has Been Exceeded                |
| C1-SUPP-PI            | Suppression - Update Penalty and Interest                              |
| C1-SUPP-REL           | Suppression - Release                                                  |
| C1-SUPP-UPI           | Suppression - Update Penalty and Interest                              |
| C1-SUPP-VAAC          | Suppression - Validate Activation                                      |
| C1-SUPP-VAL           | Suppression - Common Validation                                        |
| C1-SUPPT-VEP          | Suppression Type - Validate                                            |
| C1-TRNFRMRPT          | Parent Tax Form - Transition Non-Audit Form To The Next Default Status |
| C1-VALIBAN            | International Bank Account Number Validation                           |
| C1-VALRVRSTY          | Review Response Type - Validation                                      |
| C1-VL-POPTOO          | Populate Tax Owed/Overpaid - Validate                                  |
| C1-VL-PROPAS          | Create Proposed Assessment For Audit Form - Validate                   |

## Algorithms

The following Algorithms are Framework Owned system data in V2.3.0.

| <b>Algorithm</b> | <b>Description</b>                                      |
|------------------|---------------------------------------------------------|
| C1-ACRV-TRAN     | Audit Case Review - Transition Audit Case to Next State |
| C1-ADCS-ASUR     | Audit Case - Assign to User                             |
| C1-ADCS-CAO      | Audit Case - Process Changes Related to Suppression     |
| C1-ADCS-CIRV     | Audit Case - Check For Incomplete Reviews               |
| C1-ADCS-CNSP     | Audit Case - Cancel Suppression                         |
| C1-ADCS-CRSP     | Audit Case - Create Suppression                         |
| C1-ADCS-RLSP     | Audit Case - Release Suppression                        |
| C1-ADCS-VAL      | Audit Case - Validation                                 |
| C1-AIZONEPRE     | Inquiry Audit - Populate IP Address                     |
| C1-AP-ADDUSR     | Assign Appeal to User                                   |
| C1-AP-CINCRE     | Check For Incomplete Reviews - Appeal                   |
| C1-AP-CLISLS     | Appeals Clear Issues List                               |
| C1-AP-CNLSPR     | Appeal - Cancel Suppression                             |
| C1-AP-CPTODO     | Complete Appeal To Dos                                  |
| C1-AP-CRTSPR     | Appeal - Create Suppression                             |
| C1-AP-INFO       | Appeal Information                                      |
| C1-AP-OPEN       | Highlight Open Appeals                                  |
| C1-AP-PSUCHG     | Process Changes Affecting Suppression - Appeal          |
| C1-AP-RLSSPR     | Appeal - Release Suppression                            |
| C1-AP-TRNVAL     | Appeal - Transition from Validate                       |
| C1-AP-VAL        | Appeal - Validation                                     |
| C1-AT-SUPPCH     | Check For Active Suppressions                           |
| C1-BK-CHKOBL     | Bankruptcy - Check for Covered Obligations              |
| C1-BK-CHKPPL     | Bankruptcy - Check for Pay Plans                        |
| C1-BK-CNLSPR     | Bankruptcy - Cancel Suppression                         |
| C1-BK-CRTODP     | Bankruptcy - Create Overdue Process                     |
| C1-BK-CRTSPR     | Bankruptcy - Create Suppression                         |
| C1-BK-FTYCHG     | Bankruptcy - Process Filing Type Change                 |

| <b>Algorithm</b> | <b>Description</b>                                           |
|------------------|--------------------------------------------------------------|
| C1-BK-INFO       | Bankruptcy Information                                       |
| C1-BK-PDTCHG     | Bankruptcy - Process Petition Date Change                    |
| C1-BK-PRMUSR     | Bankruptcy - Assign to User                                  |
| C1-BK-RLSSPR     | Bankruptcy - Release Suppression                             |
| C1-BK-UPDSUP     | Bankruptcy - Update Suppressed Entities                      |
| C1-BKTY-VAL      | Bankruptcy Type - Validation                                 |
| C1-BNKR-OPN      | Highlight Open Bankruptcies                                  |
| C1-BNKR-VAL      | Bankruptcy - Validation                                      |
| C1-CCAL-ADCS     | Highlight Open Audit Cases                                   |
| C1-CCAL-ASE      | Active Suppression Exists                                    |
| C1-FR-POPTOO     | Populate Tax Owed/Overpaid                                   |
| C1-FR-PROPAS     | Create Proposed Assessment For Audit Form                    |
| C1-FRM-ARPST     | Tax Form - Apply Ready for Posting                           |
| C1-MO-ACINFO     | Audit Case Information                                       |
| C1-OE-RLBKSU     | Release Bankruptcy Suppression                               |
| C1-OP-SUPPCH     | Overpayment Process Suppression Check                        |
| C1-OP-SUPPMN     | Overpayment Process Suppression Monitor                      |
| C1-PI-PR-SUP     | Adjust Calculation Periods for Suppressions                  |
| C1-RVW-CMPTD     | Review - Complete Review To Dos                              |
| C1-RVW-INFO      | Review Information                                           |
| C1-RVW-TRTRR     | Review - Transition Review To Response Recorded              |
| C1-RVW-VAL       | Review - Validation                                          |
| C1-RVWPC-VAL     | Review Process Control - Validation                          |
| C1-SUPP-AC       | Activate Suppression                                         |
| C1-SUPP-DTCH     | Suppression - Audit Date Changes                             |
| C1-SUPP-EDEL     | Suppression Entity deletion                                  |
| C1-SUPP-END      | End Suppression                                              |
| C1-SUPP-INF      | Suppression Information                                      |
| C1-SUPP-PI       | Calculate P&I charges of obligations affected by suppression |
| C1-SUPP-REL      | Release Suppression                                          |

| <b>Algorithm</b> | <b>Description</b>                                                     |
|------------------|------------------------------------------------------------------------|
| C1-SUPP-UPI      | Update P&I charges of obligations linked to suppression.               |
| C1-SUPP-VAAC     | Validate Active Suppression                                            |
| C1-SUPP-VAL      | Suppression - Common Validation                                        |
| C1-SUPPT-VEP     | Validate suppression type                                              |
| C1-TRNFRMRPT     | Parent Tax Form - Transition Non-Audit Form To The Next Default Status |
| C1-VALRVRSTY     | Review Response Type - Validation                                      |
| C1-VL-POPTOO     | Populate Tax Owed/Overpaid - Validate                                  |
| C1-VL-PROPAS     | Create Proposed Assessment For Audit Form - Validate                   |

## Application Services

The following Application Services are new to V2.3.0.

| <b>Application Service</b> | <b>Description</b>        |
|----------------------------|---------------------------|
| C1-APPEAL                  | Appeal MO                 |
| C1-APPEALBOAS              | Appeal BO                 |
| C1-APPEALREVIEWBOAS        | Review - Appeal BO        |
| C1-APPEALTYP               | Appeal Type               |
| C1-AUDITCASEBOAS           | Audit Case BO             |
| C1-AUDITCASEM              | Audit Case MO             |
| C1-AUDITCASERVWBOAS        | Audit Case Review BO      |
| C1-AUDITCASETYPE           | Audit Case Type MO        |
| C1-AUDITINQUIRY            | Inquiry Audit MO          |
| C1-BANKRUPTCYBOAS          | Bankruptcy BO             |
| C1-BANKRUPTCYM             | Bankruptcy MO             |
| C1-BANKRUPTCYTY            | Bankruptcy Type MO        |
| C1-REVIEW                  | Review MO                 |
| C1-REVIEWTYP               | Review Type MO            |
| C1-RVWPROCCT               | Review Process Control MO |
| C1-SUPP-TYPE               | Suppression Type          |
| C1-SUPPRESSION             | Suppression MO            |
| C1-SUPPRESSIONBOAS         | Suppression BO            |

| <b>Application Service</b> | <b>Description</b>                      |
|----------------------------|-----------------------------------------|
| C1ACAUDC                   | Account's Open Audit Cases              |
| C1ACSUPP                   | Account Suppressions                    |
| C1ADACQ                    | Adjustments for Account Query Portal    |
| C1ADJMMA                   | Multiple Adjustments Portal             |
| C1ADJMMP                   | Multiple P&I Adjustments Portal         |
| C1ADJP                     | Adjustment Portal                       |
| C1ADJQRY                   | Adjustment Query                        |
| C1ADOBQ                    | Adjustments for Obligation Query Portal |
| C1APPL                     | Appeal Portal                           |
| C1APPLQP                   | Appeal Query Portal                     |
| C1APPLTY                   | Appeal Type Portal                      |
| C1AUDCTY                   | Audit Case Type Portal                  |
| C1AUDINQ                   | Inquiry Audit Query Portal              |
| C1AUDIT                    | Audit Case Portal                       |
| C1AUDITQ                   | Audit Case Query Portal                 |
| C1BKMP                     | Bankruptcy Portal                       |
| C1BNCYTY                   | Bankruptcy Type Portal                  |
| C1BNKRCG                   | Taxpayer's Open Bankruptcies            |
| C1BNKRCQ                   | Bankruptcy Query Portal                 |
| C1OBSUPP                   | Obligation Suppressions                 |
| C1PRSUPP                   | Person Suppressions                     |
| C1REVIEW                   | Review Portal                           |
| C1RVWPRC                   | Review Process Control Portal           |
| C1RVWTYP                   | Review Type Portal                      |
| C1SUPP                     | Suppression Portal                      |
| C1SUPPQ                    | Suppression Query Portal                |
| C1SUPPTY                   | Suppression Type Portal                 |
| C1TRSUPP                   | Tax Role Suppressions                   |
| C1WAOBQ                    | Waivers for Obligation Query Portal     |

## Access Mode Added to Application Service

The following access modes are added to existing Application Service in V2.3.0

| Application Service  | Description                        | Access Mode    |
|----------------------|------------------------------------|----------------|
| C1-PARENTTAXFORMBOAS | Parent Tax Form BO                 | Re-edit (C1RE) |
| C1-STDREGFRMTYBOAS   | Standard Registration Form Type BO | Active (F1AC)  |

## Batch Controls

The following Batch Controls are new to V2.3.0.

| Batch Control | Description                               |
|---------------|-------------------------------------------|
| C1-ADCSM      | Audit Case Monitor                        |
| C1-APMTR      | Appeal Monitor                            |
| C1-BKMTR      | Bankruptcy Monitor                        |
| C1-RVMTR      | Review Monitor                            |
| C1-SUPPD      | Suppression Monitor (Deferred)            |
| C1-SUPPM      | Suppression Monitor                       |
| CIPVADLI      | Insert CI_ADJ_LOG                         |
| CIPVADLV      | Foreign Key validation CI_ADJ_LOG         |
| CIPVADPI      | Insert CI_ADJ_LOG_PARM                    |
| CIPVADPV      | Foreign Key validation CI_ADJ_LOG_PARM    |
| CIPVALPI      | Insert C1_APPEAL_LOG_PARM                 |
| CIPVALPV      | Foreign Key validation C1_APPEAL_LOG_PARM |
| CIPVAPEI      | Insert C1_APPEAL_PER                      |
| CIPVAPEV      | Foreign Key validation C1_APPEAL_PER      |
| CIPVAPHI      | Insert C1_APPEAL_CHAR                     |
| CIPVAPHV      | Foreign Key validation C1_APPEAL_CHAR     |
| CIPVAPLI      | Insert C1_APPEAL_LOG                      |
| CIPVAPLV      | Foreign Key validation C1_APPEAL_LOG      |
| CIPVAPOI      | Insert C1_APPEAL_REL_OBJ                  |
| CIPVAPOV      | Foreign Key validation C1_APPEAL_REL_OBJ  |

| <b>Batch Control</b> | <b>Description</b>                               |
|----------------------|--------------------------------------------------|
| CIPVAPPI             | Insert C1_APPEAL                                 |
| CIPVAPPK             | Generate C1_APPEAL keys                          |
| CIPVAPPV             | Foreign Key validation C1_APPEAL                 |
| CIPVAPSI             | Insert C1_APPEAL_SUPP_SA                         |
| CIPVAPSV             | Foreign Key validation<br>C1_APPEAL_SUPP_SA      |
| CIPVAREI             | Insert C1_APPEAL_REVIEW                          |
| CIPVAREV             | Foreign Key validation<br>C1_APPEAL_REVIEW       |
| CIPVARSI             | Insert CI_ADM_RVW_SCH                            |
| CIPVARSV             | Foreign Key validation for<br>CI_ADM_RVW_SCH     |
| CIPVARUI             | Insert C1_APPEAL_RESP_USER                       |
| CIPVARUV             | Foreign Key validation<br>C1_APPEAL_RESP_USER    |
| CIPVAUCI             | Insert C1_AUDIT_CASE_CHAR                        |
| CIPVAUCV             | Foreign Key validation<br>C1_AUDIT_CASE_CHAR     |
| CIPVAUDI             | Insert C1_AUDIT_CASE                             |
| CIPVAUDK             | Generate C1_AUDIT_CASE keys                      |
| CIPVAUDV             | Foreign Key validation C1_AUDIT_CASE             |
| CIPVAULI             | Insert C1_AUDIT_CASE_LOG                         |
| CIPVAULV             | Foreign Key validation<br>C1_AUDIT_CASE_LOG      |
| CIPVAUMI             | Insert C1_AUDIT_CASE_LOG_PARM                    |
| CIPVAUMV             | Foreign Key validation<br>C1_AUDIT_CASE_LOG_PARM |
| CIPVAUPI             | Insert C1_AUDIT_CASE_PER                         |
| CIPVAUPV             | Foreign Key validation<br>C1_AUDIT_CASE_PER      |
| CIPVAURI             | Insert C1_AUDIT_CASE_REVIEW                      |
| CIPVAURV             | Foreign Key validation<br>C1_AUDIT_CASE_REVIEW   |
| CIPVAUSI             | Insert C1_AUDIT_CASE_SA                          |
| CIPVAUSV             | Foreign Key validation<br>C1_AUDIT_CASE_SA       |
| CIPVAUUI             | Insert C1_AUDIT_CASE_RESP_USER                   |

| <b>Batch Control</b> | <b>Description</b>                                |
|----------------------|---------------------------------------------------|
| CIPVAUUV             | Foreign Key validation<br>C1_AUDIT_CASE_RESP_USER |
| CIPVBKAI             | Insert C1_BANKRUPTCY_LOG_PARM                     |
| CIPVBKAV             | Foreign Key validation<br>C1_BANKRUPTCY_LOG_PARM  |
| CIPVBKCI             | Insert C1_BANKRUPTCY                              |
| CIPVBKCK             | Generate C1_BANKRUPTCY keys                       |
| CIPVBKCV             | Foreign Key validation<br>C1_BANKRUPTCY           |
| CIPVBKHI             | Insert C1_BANKRUPTCY_CHAR                         |
| CIPVBKHV             | Foreign Key validation<br>C1_BANKRUPTCY_CHAR      |
| CIPVBKLI             | Insert C1_BANKRUPTCY_LOG                          |
| CIPVBKLV             | Foreign Key validation<br>C1_BANKRUPTCY_LOG       |
| CIPVBKMI             | Insert<br>C1_BANKRUPTCY_MILESTONE                 |
| CIPVBKMV             | Foreign Key validation<br>C1_BANKRUPTCY_MILESTONE |
| CIPVBKOI             | Insert C1_BANKRUPTCY_SA                           |
| CIPVBKOV             | Foreign Key validation<br>C1_BANKRUPTCY_SA        |
| CIPVBKPI             | Insert C1_BANKRUPTCY_PER                          |
| CIPVBKPV             | Foreign Key validation<br>C1_BANKRUPTCY_PER       |
| CIPVBKUI             | Insert C1_BANKRUPTCY_RESP_USER                    |
| CIPVBKUV             | Foreign Key validation<br>C1_BANKRUPTCY_RESP_USER |
| CIPVREVI             | Insert C1_REVIEW                                  |
| CIPVREVK             | Generate C1_REVIEW keys                           |
| CIPVREVV             | Foreign Key validation C1_REVIEW                  |
| CIPVRLPI             | Insert C1_REVIEW_LOG_PARM                         |
| CIPVRLPV             | Foreign Key validation<br>C1_REVIEW_LOG_PARM      |
| CIPVRVCI             | Insert C1_REVIEW_CHAR                             |
| CIPVRVCV             | Foreign Key validation<br>C1_REVIEW_CHAR          |

| <b>Batch Control</b> | <b>Description</b>                                |
|----------------------|---------------------------------------------------|
| CIPVRVLI             | Insert C1_REVIEW_LOG                              |
| CIPVRVLV             | Foreign Key validation<br>C1_REVIEW_LOG           |
| CIPVSUCI             | Insert C1_SUPPRESSION_CHAR                        |
| CIPVSUCV             | Foreign Key validation<br>C1_SUPPRESSION_CHAR     |
| CIPVSUEI             | Insert C1_SUPPRESSION_ENTITY                      |
| CIPVSUEV             | Foreign Key validation<br>C1_SUPPRESSION_ENTITY   |
| CIPVSULI             | Insert C1_SUPPRESSION_LOG                         |
| CIPVSULV             | Foreign Key validation<br>C1_SUPPRESSION_LOG      |
| CIPVSUMI             | Insert C1_SUPPRESSION_LOG_PARM                    |
| CIPVSUMV             | Foreign Key validation<br>C1_SUPPRESSION_LOG_PARM |
| CIPVSUPI             | Insert C1_SUPPRESSION                             |
| CIPVSUPK             | Generate C1_SUPPRESSION keys                      |
| CIPVSUPV             | Foreign Key validation<br>C1_SUPPRESSION          |
| CIPVSURI             | Insert C1_SUPPRESSION_PROCESS                     |
| CIPVSURV             | Foreign Key validation<br>C1_SUPPRESSION_PROCESS  |
| VAL-APPL             | Validate Appeal                                   |
| VAL-AUDT             | Validate audit case                               |
| VAL-BKCY             | Validate bankruptcy                               |
| VAL-REVV             | Validate review                                   |
| VAL-SUPP             | Validate suppression                              |

### **New Parameters added to Existing Batch Control**

The following Batch Controls are new to V2.3.0.

| <b>Batch Control</b> | <b>Sequence</b> | <b>Required</b> | <b>Description</b>  |
|----------------------|-----------------|-----------------|---------------------|
| CL-APPCH             | 40              | N               | Default thread pool |

## Lookup Fields

The following Lookup Fields are new to V2.3.0.

| <b>Lookup Field</b>            |
|--------------------------------|
| ADJ_ACTION_FLG                 |
| ADJ_DEFAULT_FLG                |
| APPEAL_REL_OBJ_CAT_FLG         |
| APPEAL_REL_TYPE_FLG            |
| ASSIGNMENT_ROLE_FLG            |
| AUDIT_CASE_REL_TYPE_FLG        |
| AUDIT_SOURCE_FLG               |
| AUTO_EXPIRE_FLG                |
| BANKRUPTCY_REL_TYPE_FLG        |
| BANKRUPTCY_TYPE_SEVT_FLG       |
| BKRCY_OBL_ACTION_FLG           |
| BYPASS_FLG                     |
| C1DM_OPT_TYP_FLG               |
| C1_ADCS_COMMENTS_APPLICABILITY |
| C1_MM_ADJ_PROC_ACTION_FLG      |
| CREATE_PP_OPT_FLG              |
| FILING_BASED_OBL_BASIS_FLG     |
| IN_CITY_LIMIT_SW               |
| NON_FILING_BASED_OBL_BASIS_FLG |
| PAGE_ACTION_FLG                |
| PRIMARY_CONTACT_FLG            |
| REL_PROC_ENTITY_TYPE_FLG       |
| REPEAT_FLG                     |
| REVIEW_USAGE_FLG               |
| SUPPRESSION_ENTITY_LVL_FLG     |
| SUPPRESSION_USAGE_FLG          |
| XFER_ROLE_FLG                  |

## Business Objects

The following Business Objects are added data to V2.3.0.

| <b>Business Object</b>        | <b>Description</b>                          |
|-------------------------------|---------------------------------------------|
| C1-APRequestAdjustment        | A/P Request Adjustment                      |
| C1-APRequestAdjustmentChars   | A/P Request Adjustment with Characteristics |
| C1-AdjustmentFTDetails        | Adjustment - Financial Details              |
| C1-AdjustmentReasonLookup     | Adjustment Creation Reason                  |
| C1-Appeal                     | Appeal                                      |
| C1-AppealReview               | Appeal Review                               |
| C1-AppealType                 | Appeal Type                                 |
| C1-AppealTypePhysicalBO       | Physical BO for Appeal Type                 |
| C1-AssessmentAdjustment       | Assessment Adjustment                       |
| C1-AssessmentAdjustmentChars  | Assessment Adjustment with Characteristics  |
| C1-AuditCase                  | Audit Case                                  |
| C1-AuditCaseReasonLookup      | Audit Case Reason                           |
| C1-AuditCaseReview            | Audit Case Review                           |
| C1-AuditCaseSourceLookup      | Audit Case Source                           |
| C1-AuditCaseType              | Audit Case Type                             |
| C1-AuditCaseTypePhysicalBO    | Physical BO for Audit Case Type             |
| C1-Bankruptcy                 | Bankruptcy                                  |
| C1-BankruptcyFilingTypeLookup | Bankruptcy Filing Type                      |
| C1-BankruptcyType             | Bankruptcy Type                             |
| C1-BankruptcyTypePhysicalBO   | Physical BO for Bankruptcy Type             |
| C1-ClaimTypeLookup            | Bankruptcy Claim Type                       |
| C1-CreateProposedAssessment   | Create Proposed Assessment For Audit Form   |
| C1-GenericAdjustment          | Standard Adjustment                         |
| C1-GenericAdjustmentChars     | Standard Adjustment with Characteristics    |
| C1-MilestoneTypeLookup        | Milestone Type                              |
| C1-MiscUser                   | Miscellaneous User Information              |
| C1-PageAuditInquiry           | Page Inquiry Audit                          |
| C1-PopulateTaxOwedOverpaid    | Populate Tax Owed/Overpaid                  |
| C1-ReviewProcessControl       | Review Process Control                      |

| <b>Business Object</b>         | <b>Description</b>                       |
|--------------------------------|------------------------------------------|
| C1-ReviewProcessCtrlPhysicalBO | Physical BO for Review Process Control   |
| C1-ReviewResponseTypeLookup    | Review Response Type                     |
| C1-ReviewType                  | Review Type                              |
| C1-ReviewTypePhysicalBO        | Physical BO for Review Type              |
| C1-SuppressedProcessTypeLookup | Suppressed Process Type                  |
| C1-Suppression                 | Suppression                              |
| C1-SuppressionReasonLookup     | Suppression Creation Reason              |
| C1-SuppressionType             | Suppression Type                         |
| C1-SuppressionTypePhysicalBO   | Physical BO for Suppression Type         |
| C1-TransferAdjustment          | Transfer Adjustment                      |
| C1-TransferAdjustmentChars     | Transfer Adjustment with Characteristics |
| C1-ZoneAuditInquiry            | Zone Inquiry Audit                       |

## FK References

The following FK References are new to V2.3.0.

| <b>FK Reference</b> | <b>Description</b>                                |
|---------------------|---------------------------------------------------|
| C1-ADC              | Audit Case                                        |
| C1-ADCTY            | Audit Case Type                                   |
| C1-APLTY            | Appeal Type                                       |
| C1-APPL             | Appeal                                            |
| C1-BNK              | Bankruptcy                                        |
| C1-BNKTY            | Bankruptcy Type                                   |
| C1-OBACS            | Obligations for Audit Case                        |
| C1-RVW              | Review                                            |
| C1-RVWPC            | Review Process Control                            |
| C1-RVWTY            | Review Type                                       |
| C1-SUPP             | Suppression                                       |
| C1-SUPPT            | Suppression Type                                  |
| C1CS-BO             | BO Option - Bankruptcy Covered Obligations Script |
| C1CU-BO             | BO Option - Bankruptcy Covered Obligations Map    |
| C1DM-BO             | BO Option - Adj Financial Details Map             |

| FK Reference | Description                                           |
|--------------|-------------------------------------------------------|
| C1ES-BO      | BO Option - Bankruptcy Eligible Obligations Script    |
| C1EU-BO      | BO Option - Bankruptcy Eligible Obligations Map       |
| C1GE-BO      | BO Option - Adjustment Generate Pre-Processing Script |
| C1GU-BO      | BO Option - Adjustment Generate UI Map                |
| C1MU-MO      | MO Option - Default Miscellaneous User BO             |

## Lookups

The following Lookups are added to Oracle Enterprise Taxation Management V2.3.0.

| Lookup Field Name | Field Value | Language | Description        |
|-------------------|-------------|----------|--------------------|
| ACCESS_MODE       | C1AD        | ENG      | Audit In Progress  |
| ACCESS_MODE       | C1DD        | ENG      | Deny Discharge     |
| ACCESS_MODE       | C1DH        | ENG      | Discharge          |
| ACCESS_MODE       | C1DS        | ENG      | Dismiss            |
| ACCESS_MODE       | C1FD        | ENG      | Final Decision     |
| ACCESS_MODE       | C1IS        | ENG      | Issues Detected    |
| ACCESS_MODE       | C1RE        | ENG      | Re-edit            |
| ACCESS_MODE       | C1RF        | ENG      | Ready For Review   |
| ACCESS_MODE       | C1RR        | ENG      | Response Recorded  |
| ACCESS_MODE       | C1RS        | ENG      | Release            |
| ACCESS_MODE       | C1RW        | ENG      | Review In Progress |
| ADJ_ACTION_FLG    | A           | ENG      | Add                |
| ADJ_ACTION_FLG    | C           | ENG      | Change             |
| ADJ_ACTION_FLG    | DF          | ENG      | Default            |
| ADJ_ACTION_FLG    | R           | ENG      | Read               |
| ADJ_DEFAULT_FLG   | SA          | ENG      | Obligation         |
| ADJ_DEFAULT_FLG   | TYP         | ENG      | Adjustment Type    |
| ADJ_TYPE_CAT_FLG  | C1MA        | ENG      | Manual Adjustment  |
| ADJ_TYPE_CAT_FLG  | C1MP        | ENG      | Manual P&I         |

| Lookup Field Name       | Field Value | Language | Description                                      |
|-------------------------|-------------|----------|--------------------------------------------------|
| ALG_ENTITY_FLG          | C1EO        | ENG      | Bankruptcy Type - Determine Eligible Obligations |
| APPEAL_REL_TYPE_FLG     | C1AC        | ENG      | Accountant                                       |
| APPEAL_REL_TYPE_FLG     | C1AT        | ENG      | Attorney                                         |
| APPEAL_REL_TYPE_FLG     | C1CP        | ENG      | Contact Person                                   |
| APPEAL_REL_TYPE_FLG     | C1CT        | ENG      | Court                                            |
| APPEAL_REL_TYPE_FLG     | C1FR        | ENG      | Financially Responsible                          |
| APPEAL_REL_TYPE_FLG     | C1TE        | ENG      | Trustee                                          |
| ASSIGNMENT_ROLE_FLG     | C1PR        | ENG      | Primary                                          |
| ASSIGNMENT_ROLE_FLG     | C1SC        | ENG      | Secondary                                        |
| ASSIGNMENT_ROLE_FLG     | C1SP        | ENG      | Supervisor                                       |
| AUDIT_CASE_REL_TYPE_FLG | C1AC        | ENG      | Accountant                                       |
| AUDIT_CASE_REL_TYPE_FLG | C1AT        | ENG      | Attorney                                         |
| AUDIT_CASE_REL_TYPE_FLG | C1PP        | ENG      | Paid Preparer                                    |
| AUDIT_SOURCE_FLG        | C1PG        | ENG      | Page Service                                     |
| AUDIT_SOURCE_FLG        | C1ZN        | ENG      | Zone                                             |
| AUTO_EXPIRE_FLG         | C1AL        | ENG      | Allowed                                          |
| AUTO_EXPIRE_FLG         | C1NA        | ENG      | Not Allowed                                      |
| BANKRUPTCY_REL_TYPE_FLG | C1AC        | ENG      | Accountant                                       |
| BANKRUPTCY_REL_TYPE_FLG | C1AT        | ENG      | Attorney                                         |
| BANKRUPTCY_REL_TYPE_FLG | C1CA        | ENG      | Claims Agent                                     |
| BANKRUPTCY_REL_TYPE_FLG | C1CT        | ENG      | Court                                            |

| Lookup Field Name              | Field Value | Language | Description                                       |
|--------------------------------|-------------|----------|---------------------------------------------------|
| BANKRUPTCY_REL_TYPE_FLG        | C1FR        | ENG      | Financially Responsible                           |
| BANKRUPTCY_REL_TYPE_FLG        | C1TE        | ENG      | Trustee                                           |
| BANKRUPTCY_TYPE_SEVT_FLG       | C1EO        | ENG      | Determine Eligible Obligations                    |
| BKRCY_OBL_ACTION_FLG           | C1A         | ENG      | Add                                               |
| BKRCY_OBL_ACTION_FLG           | C1D         | ENG      | Delete                                            |
| BKRCY_OBL_ACTION_FLG           | C1U         | ENG      | Update                                            |
| BUS_OBJ_OPT_FLG                | C1AT        | ENG      | Adjustment BO Type                                |
| BUS_OBJ_OPT_FLG                | C1CS        | ENG      | Covered Obligation Display Service Script         |
| BUS_OBJ_OPT_FLG                | C1CU        | ENG      | Covered Obligation Maintenance UI Map             |
| BUS_OBJ_OPT_FLG                | C1DM        | ENG      | Adjustment Financial Details Display Map          |
| BUS_OBJ_OPT_FLG                | C1ES        | ENG      | Eligible Obligation Display Service Script        |
| BUS_OBJ_OPT_FLG                | C1EU        | ENG      | Eligible Obligation Maintenance UI Map            |
| BUS_OBJ_OPT_FLG                | C1GE        | ENG      | Generate Adjustment Pre-Processing Service Script |
| BUS_OBJ_OPT_FLG                | C1GU        | ENG      | Generate Adjustment UI Map                        |
| BYPASS_FLG                     | C1AL        | ENG      | Allowed                                           |
| BYPASS_FLG                     | C1NA        | ENG      | Not Allowed                                       |
| C1DM_OPT_TYP_FLG               | C1RC        | ENG      | Enforce Rate Validation                           |
| C1_ADCS_COMMENTS_APPLICABILITY | C1NA        | ENG      | Not Allowed                                       |
| C1_ADCS_COMMENTS_APPLICABILITY | C1OP        | ENG      | Optional                                          |
| C1_ADCS_COMMENTS_APPLICABILITY | C1RQ        | ENG      | Required                                          |
| C1_BO_STATUS_CATEGORY_FLG      | C1DB        | ENG      | Display Detailed Balances                         |

| Lookup Field Name             | Field Value | Language | Description                            |
|-------------------------------|-------------|----------|----------------------------------------|
| C1_BO_STATUS_CATEG<br>ORY_FLG | C1IP        | ENG      | In Progress                            |
| C1_BO_STATUS_CATEG<br>ORY_FLG | C1PI        | ENG      | P&I In Effect                          |
| C1_BO_STATUS_CATEG<br>ORY_FLG | C1RE        | ENG      | Changes to Related<br>Entities Allowed |
| C1_BO_STATUS_CATEG<br>ORY_FLG | C1RV        | ENG      | Allow Review                           |
| C1_MM_ADJ_PROC_<br>ACTION_FLG | C1DA        | ENG      | Display Adjustments                    |
| C1_MM_ADJ_PROC_<br>ACTION_FLG | C1UA        | ENG      | Update Adjustments                     |
| CHAR_ENTITY_FLG               | C1AC        | ENG      | Audit Case                             |
| CHAR_ENTITY_FLG               | C1AG        | ENG      | Audit Case Log                         |
| CHAR_ENTITY_FLG               | C1AI        | ENG      | Inquiry Audit                          |
| CHAR_ENTITY_FLG               | C1AO        | ENG      | Adjustment Log                         |
| CHAR_ENTITY_FLG               | C1AT        | ENG      | Audit Case Type                        |
| CHAR_ENTITY_FLG               | C1BL        | ENG      | Bankruptcy Log                         |
| CHAR_ENTITY_FLG               | C1BN        | ENG      | Bankruptcy                             |
| CHAR_ENTITY_FLG               | C1BT        | ENG      | Bankruptcy Type                        |
| CHAR_ENTITY_FLG               | C1LA        | ENG      | Appeal                                 |
| CHAR_ENTITY_FLG               | C1LL        | ENG      | Appeal Log                             |
| CHAR_ENTITY_FLG               | C1LR        | ENG      | Appeal Related Object                  |
| CHAR_ENTITY_FLG               | C1LT        | ENG      | Appeal Type                            |
| CHAR_ENTITY_FLG               | C1RL        | ENG      | Review Log                             |
| CHAR_ENTITY_FLG               | C1RP        | ENG      | Review Process Control                 |
| CHAR_ENTITY_FLG               | C1RT        | ENG      | Review Type                            |
| CHAR_ENTITY_FLG               | C1RV        | ENG      | Review                                 |
| CHAR_ENTITY_FLG               | C1S1        | ENG      | Suppression Type                       |
| CHAR_ENTITY_FLG               | C1S2        | ENG      | Suppression                            |
| CHAR_ENTITY_FLG               | C1S3        | ENG      | Suppression Log                        |
| CREATE_PP_OPT_FL<br>G         | C1MP        | ENG      | Create a Pay Plan for<br>each Account  |
| CREATE_PP_OPT_FL<br>G         | C1SP        | ENG      | Create a Single Pay Plan               |

| Lookup Field Name          | Field Value | Language | Description             |
|----------------------------|-------------|----------|-------------------------|
| EXT_SYS_TYP_FLG            | C1DM        | ENG      | Data Management Options |
| F1_BATCH_CTGY_FLG          | C1APG       | ENG      | Archive and Purge       |
| F1_BATCH_CTGY_FLG          | C1CLG       | ENG      | Config Lab              |
| F1_STATE_CONDITION_FLG     | C1AD        | ENG      | Adjust                  |
| F1_STATE_CONDITION_FLG     | C1FA        | ENG      | Form Added              |
| F1_STATE_CONDITION_FLG     | C1FU        | ENG      | Form Upload In Progress |
| F1_STATE_CONDITION_FLG     | C1MF        | ENG      | Map To Form             |
| F1_STATE_CONDITION_FLG     | C1PA        | ENG      | Pending Adjust          |
| F1_STATE_CONDITION_FLG     | C1PC        | ENG      | Pending Cancel          |
| F1_STATE_CONDITION_FLG     | C1PD        | ENG      | Pending Complete        |
| F1_STATE_CONDITION_FLG     | C1PR        | ENG      | Pending Reversal        |
| F1_STATE_CONDITION_FLG     | C1PT        | ENG      | Pending Transfer        |
| F1_STATE_CONDITION_FLG     | C1RL        | ENG      | Ready To Load           |
| F1_STATE_CONDITION_FLG     | C1RN        | ENG      | Review Needed           |
| F1_STATE_CONDITION_FLG     | C1RP        | ENG      | Ready For Posting       |
| F1_STATE_CONDITION_FLG     | C1RV        | ENG      | Reversed                |
| FILING_BASED_OBL_BASIS_FLG | C1ED        | ENG      | End Date                |
| FILING_BASED_OBL_BASIS_FLG | C1FD        | ENG      | Filing Due Date         |
| FILING_BASED_OBL_BASIS_FLG | C1SD        | ENG      | Start Date              |
| IN_CITY_LIMIT_SW           | N           | ENG      | No                      |
| IN_CITY_LIMIT_SW           | Y           | ENG      | Yes                     |

| Lookup Field Name               | Field Value | Language | Description                   |
|---------------------------------|-------------|----------|-------------------------------|
| LOG_ENTRY_TYPE_FLG              | C1CR        | ENG      | Created By Object             |
| LOG_ENTRY_TYPE_FLG              | C1RO        | ENG      | Related Object                |
| MAINT_OBJ_OPT_FLG               | C1MUG       | ENG      | Default Miscellaneous User BO |
| MODULE_FLG                      | C1AC        | ENG      | Accounting                    |
| MODULE_FLG                      | C1WM        | ENG      | Work Management               |
| NON_FILING_BASE_D_OBL_BASIS_FLG | C1ED        | ENG      | End Date                      |
| NON_FILING_BASE_D_OBL_BASIS_FLG | C1SD        | ENG      | Start Date                    |
| PAGE_ACTION_FLG                 | A           | ENG      | Add                           |
| PAGE_ACTION_FLG                 | C           | ENG      | Change                        |
| PAGE_ACTION_FLG                 | DF          | ENG      | Default                       |
| PRIMARY_CONTACT_FLG             | C1RP        | ENG      | Related Person                |
| PRIMARY_CONTACT_FLG             | C1TP        | ENG      | Taxpayer                      |
| REL_PROC_ENTTTYPE_FLG           | C1AP        | ENG      | Appeal                        |
| REPEAT_FLG                      | C1AL        | ENG      | Allowed                       |
| REPEAT_FLG                      | C1NA        | ENG      | Not Allowed                   |
| REVIEW_USAGE_FLG                | C1EXG       | ENG      | External                      |
| REVIEW_USAGE_FLG                | C1ING       | ENG      | Internal                      |
| RULE_EVT_FLG                    | C1RP        | ENG      | Ready for Posting             |
| SUPPRESSION_ENTTTYPE_LVL_FLG    | C1AC        | ENG      | Account                       |
| SUPPRESSION_ENTTTYPE_LVL_FLG    | C1OB        | ENG      | Obligation                    |
| SUPPRESSION_ENTTTYPE_LVL_FLG    | C1PR        | ENG      | Person                        |
| SUPPRESSION_ENTTTYPE_LVL_FLG    | C1TR        | ENG      | Tax Role                      |
| SUPPRESSION_USAGE_FLG           | C1AUE       | ENG      | Automatic                     |

| Lookup Field Name         | Field Value | Language | Description |
|---------------------------|-------------|----------|-------------|
| SUPPRESSION_USAG<br>E_FLG | C1MA        | ENG      | Manual      |
| XFER_ROLE_FLG             | C1SC        | ENG      | Source      |
| XFER_ROLE_FLG             | C1TG        | ENG      | Target      |

## Maintenance Objects

The following Maintenance Objects are new to V2.3.0.

| MO Code      | Description            |
|--------------|------------------------|
| C1-APPEAL    | Appeal                 |
| C1-APPEALTYP | Appeal Type            |
| C1-AUDINQ    | Inquiry Audit          |
| C1-AUDITCASE | Audit Case             |
| C1-AUDITCSTY | Audit Case Type        |
| C1-BNKRCY    | Bankruptcy             |
| C1-BNKRCYTYP | Bankruptcy Type        |
| C1-REVIEW    | Review                 |
| C1-REVIEWTYP | Review Type            |
| C1-RVWPRCTRL | Review Process Control |
| C1-SUPP      | Suppression            |
| C1-SUPP-TYPE | Suppression Type       |

## Scripts

The following Scripts are Framework-owned system data in V2.3.0.

| Script       | Description                                                   |
|--------------|---------------------------------------------------------------|
| C1-AAGenPre  | Generate Assessment Adjustment - Pre-processing               |
| C1-AAReqTran | Adjustment - Approval Request Transition to Approve or Reject |
| C1-ACBalDtls | Audit Case/Audit Tax Form - Balance Details Zone              |
| C1-AcctVal   | Validate Account Id Selected                                  |
| C1-ACShwATxF | Audit Case - Audit Balance Zone Visibility                    |
| C1-ACShwBDtl | Audit Case - Audit Balance Zone Visibility                    |

| <b>Script</b> | <b>Description</b>                                                         |
|---------------|----------------------------------------------------------------------------|
| C1-AddApLog   | Appeal - Add User Log Entry                                                |
| C1-AddAudLog  | Audit Case - Add User Log Entry                                            |
| C1-AddBkLog   | Bankruptcy - Add User Log Entry                                            |
| C1-AddPgAI    | Add Page Inquiry Audit Record (Internal)                                   |
| C1-AddRvwLog  | Appeal - Add User Log Entry                                                |
| C1-AddZnAI    | Add Zone Inquiry Audit Record (Internal)                                   |
| C1-AdjAddLog  | Adjustment - Add User Log Entry                                            |
| C1-AdjCalcLn  | Adjustment - Display Calc Line Characteristics                             |
| C1-AdjCanV    | Adjustment - Validate Adjustment Cancel Reason                             |
| C1-AdjChkAcc  | Adjustment - Check Accessibility                                           |
| C1-AdjFDetZ   | Adjustment - Financial Details Derivation                                  |
| C1-AdjFTDisp  | Adjustment - Retrieve FT Details for Display                               |
| C1-AdjFTVis   | Adjustment - FT Details Visibility                                         |
| C1-AdjRetAAA  | Adjustment - Retrieve Applicable Adjustment Actions                        |
| C1-AdjSpPrtl  | Adjustment Special Portal Display Object                                   |
| C1-AdjTypeV   | Adjustment - Validate Account                                              |
| C1-AIGenDisp  | Display Service Script for Inquiry Audit BOs                               |
| C1-AIZonePre  | Inquiry Audit - Populate IP Address                                        |
| C1-APAdjCDsp  | A/P Request Adjustment with Characteristics - Retrieve Details for Display |
| C1-APAdjCPre  | A/P Request Adjustment with Characteristics - Pre-processing               |
| C1-APAdjCPst  | A/P Request Adjustment with Characteristics - Post-processing              |
| C1-APAdjDisp  | A/P Request Adjustment - Retrieve Details for Display                      |
| C1-APAdjPost  | A/P Request Adjustment - Post-processing                                   |
| C1-APAdjPre   | A/P Request Adjustment - Pre-processing                                    |
| C1-AP-CLISLS  | Appeal - Clear Issues List                                                 |
| C1-ApITyLis   | Appeal Type - Build Active Appeal Type List                                |

| <b>Script</b> | <b>Description</b>                                      |
|---------------|---------------------------------------------------------|
| C1-AppealM    | Appeal - Maintain                                       |
| C1-AppealPre  | Appeal BO - Pre-processing                              |
| C1-AppealTyM  | Appeal Type - Maintain                                  |
| C1-ApplCrRvw  | Appeal - Create Review                                  |
| C1-ApplDisp   | Appeal - Retrieve Details for Display                   |
| C1-ApplTyDis  | Appeal Type - Retrieve Details for Display              |
| C1-ApplTyPre  | Appeal Type BO - Pre-Processing                         |
| C1-ApplTyV    | Appeal - Validate Appeal Type                           |
| C1-ApPost     | Appeal - Post Processing                                |
| C1-AppReqLog  | Adjustment Approval Request - Add User Log Entry        |
| C1-AprLogVis  | Adjustment - Adjustment Approval Request Log Visibility |
| C1-AssesmntV  | Adjustment - Validate Account                           |
| C1-AudCaseM   | Audit Case - Maintain                                   |
| C1-AudCaseRc  | Audit Case - Display Reason Comments                    |
| C1-AudCasLtr  | Audit Case - Create Letter                              |
| C1-AudCasLtV  | Audit Case - Validate Create Letter                     |
| C1-AudCasPre  | Audit Case - Pre-processing                             |
| C1-AudCasRvV  | Audit Case - Validate Create Review                     |
| C1-AudCasRvw  | Audit Case - Create Review                              |
| C1-AudCasTyM  | Audit Case Type - Maintain                              |
| C1-AudCDisp   | Audit Case - Retrieve Details for Display               |
| C1-AudChkPer  | Audit Case - Get Relationship Type Description          |
| C1-AudCrRvw   | Audit Case Create Review                                |
| C1-AudCTyDsp  | Audit Case Type - Retrieve Details for Display          |
| C1-AudCTyPre  | Audit Case Type - Pre-processing                        |
| C1-AuditCasV  | Audit Case - Validate Select Audit Case                 |
| C1-AudRvwDsp  | Audit Case Review - Retrieve Details for Display        |
| C1-AudRvwPre  | Audit Case Review - Pre-processing                      |
| C1-BkAdRmObl  | Bankruptcy - Add/Remove Obligations                     |

| <b>Script</b> | <b>Description</b>                                             |
|---------------|----------------------------------------------------------------|
| C1-BkClaimV   | Bankruptcy Create Proof of Claim - Validate                    |
| C1-BkCOblZ    | Bankruptcy - Covered Obligations Derivation                    |
| C1-BkCODisp   | Bankruptcy Covered Obligations - Retrieve Details for Display  |
| C1-BkCPPWarn  | Bankruptcy Create Pay Plan - Issue Warning                     |
| C1-BkCrePfCl  | Bankruptcy - Create Proof of Claim                             |
| C1-BkCrePyPl  | Bankruptcy - Create Pay Plan                                   |
| C1-BkCrePyPn  | Bankruptcy - Create Pay Plan                                   |
| C1-BkDisp     | Bankruptcy - Retrieve Details for Display                      |
| C1-BkEOblZ    | Bankruptcy - Eligible Obligations Derivation                   |
| C1-BkEODisp   | Bankruptcy Eligible Obligations - Retrieve Details for Display |
| C1-BkMain     | Bankruptcy - Maintenance                                       |
| C1-BkObShwZn  | Bankruptcy Eligible/Covered Obligations - Zone Visibility      |
| C1-BkPost     | Bankruptcy - Post-processing                                   |
| C1-BkPre      | Bankruptcy - Pre-processing                                    |
| C1-BkTyDisp   | Bankruptcy Type - Retrieve Details for Display                 |
| C1-BkTyMain   | Bankruptcy Type - Maintain                                     |
| C1-BkTyPre    | Bankruptcy Type - Pre-Processing                               |
| C1-BkVIPPOpt  | Bankruptcy - Create Pay Plan Validate Options                  |
| C1-CalcChDsp  | Adjustment - Retrieve Calc Line Chars for Display              |
| C1-ChkBOSStCa | Business Object Status - Check Status Category Existence       |
| C1-CrApplRvw  | Appeal - Create Review                                         |
| C1-CurrDttm   | Get current date time                                          |
| C1-DFLTPD'TTM | Default Process Date and Process Date Time                     |
| C1-EnterType  | Common Enter Type Processing - Select Type from dropdown       |

| <b>Script</b> | <b>Description</b>                                                      |
|---------------|-------------------------------------------------------------------------|
| C1-GAdjChDsp  | Standard Adjustment with Characteristics - Retrieve Details for Display |
| C1-GAdjChPre  | Standard Adjustment with Characteristics - Pre-processing               |
| C1-GAdjChPst  | Standard Adjustment with Characteristics - Post-processing              |
| C1-GAGenPre   | Generate Standard Adjustment - Pre-processing                           |
| C1-GeAdjDisp  | Standard Adjustment - Retrieve Details for Displays                     |
| C1-GeAdjPost  | Standard Adjustment - Post-processing                                   |
| C1-GeAdjPre   | Standard Adjustment - Pre-processing                                    |
| C1-GetNxtClr  | Get Next Caller                                                         |
| C1-IAFltrVal  | Inquiry Audit - Search filter validation                                |
| C1-IdNbrMask  | Mask Person ID Number if provided                                       |
| C1-IsAlpha    | Check if character is alphabetic                                        |
| C1-MainAdj    | Adjustment - Maintain                                                   |
| C1-MainSuppT  | Suppression Type - Maintain                                             |
| C1-MainUsrIn  | User Miscellaneous Information - Maintain                               |
| C1-MisUsrDsp  | User Miscellaneous Information - Derivation                             |
| C1-MMAAdjMain | Adjustment - Multiple Manual Adjustment Maintenance                     |
| C1-NaviCcTy   | Navigate to Customer Contact Type Maintenance Page                      |
| C1-OpACSAIrt  | Highlight Open Audit Cases                                              |
| C1-PageAudit  | Page Inquiry Audit - Add                                                |
| C1-RelAdjVis  | Adjustment - Related Adjustments Visibility                             |
| C1-RetTypes   | Common Enter Type Processing - Retrieve Types for MO                    |
| C1-ReviewM    | Review - Maintain                                                       |
| C1-ReviewTyM  | Review Type - Maintain                                                  |
| C1-RevTyLis   | Review Type - Build Active Review Type List                             |
| C1-RvRsTyVal  | Review Response Type - Validation                                       |
| C1-RvTyDisp   | Review Type - Retrieve Details for Display                              |

| <b>Script</b> | <b>Description</b>                                                      |
|---------------|-------------------------------------------------------------------------|
| C1-RvwAppPre  | Review Appeal - Pre-processing                                          |
| C1-RvwDisp    | Review - Retrieve Details for Display                                   |
| C1-RvwPrCDis  | Review Process Control - Retrieve Details for Display                   |
| C1-RvwPrcPre  | Review Process Control BO - Pre-Processing                              |
| C1-RvwPrCtrM  | Review Process Control - Maintain                                       |
| C1-RvwRespDt  | Review Appeal - Recalculate Reviewer Response Due Date                  |
| C1-RvwTyPre   | Review Type BO - Pre-Processing                                         |
| C1-RvwTypV    | Review - Validate Review Type                                           |
| C1-SelAdjTyp  | Adjustment - Select Adjustment Type                                     |
| C1-SelApplTy  | Appeal - Select Appeal Type                                             |
| C1-SelRevTy   | Review - Select Review Type                                             |
| C1-ShwBalDtl  | Audit Case - Estimated Balance Detail Zone Visibility                   |
| C1-SpRIPost   | Suppression Release State Transition Post-processing                    |
| C1-SpRIPre    | Suppression Release State Transition Pre-processing                     |
| C1-SupAddLog  | Suppression - Add User Log Entry                                        |
| C1-SuppDisp   | Suppression - Retrieve Details for Display                              |
| C1-SuppMaint  | Suppression - Maintain                                                  |
| C1-SuppPre    | Suppression - Pre-processing                                            |
| C1-TAGenPre   | Generate Transfer Adjustment - Pre-processing                           |
| C1-TaxRespDt  | Review Appeal - Recalculate Taxpayer Response Due Date                  |
| C1-TFCreATF   | Tax Form - Create Audit Tax Form                                        |
| C1-TrnNonAud  | Parent Tax Form - Transition Non-Audit Form To The Next Default Status  |
| C1-TxAdjCDsp  | Transfer Adjustment with Characteristics - Retrieve Details for Display |
| C1-TxAdjCPre  | Transfer Adjustment with Characteristics - Pre-processing               |
| C1-TxAdjCPst  | Transfer Adjustment with Characteristics - Post-processing              |

| <b>Script</b> | <b>Description</b>                                            |
|---------------|---------------------------------------------------------------|
| C1-TxAdjDisp  | Transfer Adjustment - Retrieve Details for Display            |
| C1-TxAdjPost  | Transfer Adjustment - Post-processing                         |
| C1-TxAdjPre   | Transfer Adjustment - Pre-processing                          |
| C1-TxFrReed   | Tax Form - Re-edit Dialog                                     |
| C1-UPDBNCYOB  | Bankruptcy - Add/Update/Remove Obligations                    |
| C1-ValAdjQ    | Adjustment - Validate Query Filters                           |
| C1-ValApplQ   | Appeal - Validate Query Filters                               |
| C1-ValAudQ    | Audit Case - Validate Query Filters                           |
| C1-ValBnkQ    | Bankruptcy - Validate Query Filters                           |
| C1-ValFormat  | Validate ID Format                                            |
| C1-ValIBAN    | Validate IBAN Format                                          |
| C1-ValPNmIdQ  | Validate Person Name and Person ID Type / Value Query Filters |
| C1-ValSupQry  | Suppression - Validate Query Filters                          |
| C1-ValSupTyp  | Validate Suppression Type                                     |
| C1-ValType    | Common Enter Type Processing - Type Validation                |
| C1-WaivTyDis  | Waiver Type - Retrieve Details for Display                    |
| C1-xferOblV   | Transfer Adjustment - Validate Obligation Id                  |
| C1-ZoneAudit  | Zone Inquiry Audit - Add                                      |

## To Do Types

The following To Do Type is new to V2.3.0.

| <b>To Do Type</b> | <b>Description</b>            |
|-------------------|-------------------------------|
| C1-ADCMSM         | Audit Case Monitor Errors     |
| C1-APIID          | Appeal Issues Detected        |
| C1-APMTR          | Appeal Monitor Errors         |
| C1-APRTL          | Appeal in Review for Too Long |
| C1-APWTL          | Appeal Waiting Too Long       |
| C1-BKMTR          | Bankruptcy Monitor Errors     |

| To Do Type | Description                                 |
|------------|---------------------------------------------|
| C1-ODNSO   | Overdue Process With Non-suppressed Objects |
| C1-RRPDD   | Review Response Past Due Date               |
| C1-SUPAE   | Suppression Auto Expiration                 |
| C1-SUPOL   | Suppression Open Too Long                   |
| C1-SUPPD   | Suppression Monitor Errors (Deferred)       |
| C1-SUPPM   | Suppression Monitor Errors                  |

## Portals

The following Portals are new to V2.3.0.

| Portal    | Description                |
|-----------|----------------------------|
| C1ACAUDC  | Account's Open Audit Cases |
| C1ACSUPP  | Account's Suppressions     |
| C1ADACQ   | Account's Adjustments      |
| C1ADJMMA  | Multiple Adjustments       |
| C1ADJMMP  | Multiple P&I Adjustments   |
| C1ADJP    | Adjustment                 |
| C1ADJQRY  | Adjustment Query           |
| C1ADOBQ   | Obligation's Adjustments   |
| C1APPL    | Appeal                     |
| C1APPLP   | Appeal Log                 |
| C1APPLQP  | Appeal Query               |
| C1APPLTY  | Appeal Type                |
| C1APRQLP  | Adjustment Log             |
| C1AUDCTY  | Audit Case Type            |
| C1AUDINQ  | Inquiry Audit Query        |
| C1AUDIT   | Audit Case                 |
| C1AUDITQ  | Audit Case Query           |
| C1AUDTAB2 | Audit Case Log             |
| C1BKLP    | Bankruptcy Log             |
| C1BKMP    | Bankruptcy                 |
| C1BNCYTY  | Bankruptcy Type            |

| <b>Portal</b> | <b>Description</b>         |
|---------------|----------------------------|
| C1BNKRCCG     | Person's Open Bankruptcies |
| C1BNKRCCQ     | Bankruptcy Query           |
| C1OBSUPP      | Obligation's Suppressions  |
| C1PRSUPP      | Person's Suppressions      |
| C1REVIEW      | Review                     |
| C1RVLP        | Review Log                 |
| C1RVWPRC      | Review Process Control     |
| C1RVWTYP      | Review Type                |
| C1SUPLOG      | Suppression Log Tab        |
| C1SUPP        | Suppression                |
| C1SUPPQ       | Suppression Query          |
| C1SUPPTY      | Suppression Type           |
| C1TRSUPP      | Tax Role's Suppressions    |
| C1WAOBQ       | Obligation's Waivers       |

## Portal Zones

The following Portal Zones are added to V2.3.0

| <b>Portal</b> | <b>Zone</b> |
|---------------|-------------|
| C1ACAUDC      | C1-ACAUDGT  |
| C1ACSUPP      | C1-ACTSPGT  |
| C1ACSUPP      | C1-SUPPQRY  |
| C1ADACQ       | C1-ADJACTL  |
| C1ADACQ       | C1-ADJQRY   |
| C1ADJMMA      | C1-ADJPMMP  |
| C1ADJMMP      | C1-ADJPMPI  |
| C1ADJP        | C1-ADJASSL  |
| C1ADJP        | C1-ADJMP    |
| C1ADJP        | C1-ADJMFDTL |
| C1ADJQRY      | C1-ADJQRY   |
| C1ADOBQ       | C1-ADJOBLL  |
| C1ADOBQ       | C1-ADJQRY   |
| C1APPL        | C1-APPEAL   |

| <b>Portal</b> | <b>Zone</b>  |
|---------------|--------------|
| C1APPLP       | C1-APPLLG    |
| C1APPLQP      | C1-APPEALQRY |
| C1APPLTY      | C1-APPLTYLST |
| C1APPLTY      | C1-APPTYDISP |
| C1APRQLP      | C1-ADJLOG    |
| C1APRQLP      | C1-APPREQLOG |
| C1AUDCTY      | C1-AUDTYDM   |
| C1AUDCTY      | C1-AUDTYLIST |
| C1AUDINQ      | C1-AUDITINQ  |
| C1AUDINQ      | C1-AUDITINQI |
| C1AUDIT       | C1-AUDITBAL  |
| C1AUDIT       | C1-AUDITDM   |
| C1AUDIT       | C1-AUDITTF   |
| C1AUDITQ      | C1-AUDITQ    |
| C1AUDTAB2     | C1-AUDITLG   |
| C1BKLP        | C1-BNKTCYLG  |
| C1BKMP        | C1-BNKTCY    |
| C1BKMP        | C1-BNKTCYCO  |
| C1BKMP        | C1-BNKTCYEO  |
| C1BKMP        | C1-BNKTCYPC  |
| C1BKMP        | C1-BNKTCYPP  |
| C1BNCYTY      | C1-BKTYLIST  |
| C1BNCYTY      | C1-BNKTYDISP |
| C1BNKRCG      | C1-BNKRCGT   |
| C1BNKRCQ      | C1-BNKRCQRY  |
| C1OBSUPP      | C1-OBLSPGT   |
| C1OBSUPP      | C1-SUPPQRY   |
| C1PRSUPP      | C1-PERSPGT   |
| C1PRSUPP      | C1-SUPPQRY   |
| C1REVIEW      | C1-RVDISP    |
| C1RVLP        | C1-RVLG      |
| C1RVWPRC      | C1-RVWPCDISP |
| C1RVWPRC      | C1-RVWPRCLST |

| Portal       | Zone         |
|--------------|--------------|
| C1RVWTYP     | C1-RVWTYDISP |
| C1RVWTYP     | C1-RVWTYPLST |
| C1SUPLOG     | C1-SUPPLG    |
| C1SUPP       | C1-SUPPDM    |
| C1SUPPQ      | C1-SUPPQRY   |
| C1SUPPTY     | C1-SUPPTLIST |
| C1SUPPTY     | C1-SUPPTYPE  |
| C1TRSUPP     | C1-SUPPQRY   |
| C1TRSUPP     | C1-TXRSPGT   |
| C1TXFRM      | C1-AUDITBAL  |
| C1TXFRM      | C1-ESTBALDTL |
| C1WAOBQ      | C1-WAIOBL    |
| C1WAOBQ      | C1-WAIVERQRY |
| CI_DASHBOARD | C1-FRTYMT    |
| F1USRPTL     | C1-MISUSRINF |

## UI Maps

The following UI Maps are added to V2.3.0.

| Map                            | Description                                     |
|--------------------------------|-------------------------------------------------|
| C1-APReqAdjustmentChrDisplay   | A/P Request Adjustment with Chars - Display     |
| C1-APRequestAdjustmentChrMaint | A/P Request Adjustment with Chars - Maintenance |
| C1-APRequestAdjustmentDisplay  | A/P Request Adjustment - Display                |
| C1-APRequestAdjustmentMaint    | A/P Request Adjustment - Maintenance            |
| C1-APRequestDemoInfoAddUpd     | A/P Request Demographic Info - Maintenance      |
| C1-AccTaxTypeFilter            | Account and Tax Type Query Filter               |
| C1-AcctIdQryFltr               | Account ID Query Filter                         |
| C1-AdjCalcLineCharDispFragment | Adjustment Calculation Line Chars - Display     |
| C1-AdjCommonAppReq             | Adjustment Approval Request Information         |
| C1-AdjCreRsnLookupDisplay      | Adjustment Creation Reason - Display            |

| <b>Map</b>                     | <b>Description</b>                             |
|--------------------------------|------------------------------------------------|
| C1-AdjCreRsnLookupMaint        | Adjustment Creation Reason - Maintenance       |
| C1-AdjustmentCalcLineCharDisp  | Adjustment Calc Line Characteristics - Display |
| C1-AdjustmentCancel            | Adjustment - Cancel                            |
| C1-AdjustmentCharsDisplay      | Adjustment Characteristics - Display           |
| C1-AdjustmentCharsMaint        | Adjustment Characteristics - Maintenance       |
| C1-AdjustmentCommonDisplay     | Adjustment Common - Display                    |
| C1-AdjustmentCommonMaint       | Adjustment Common - Maintenance                |
| C1-AdjustmentFTDisplay         | Adjustment Financial Details - Display         |
| C1-AdjustmentGenerateCommon    | Adjustment Common - Generate                   |
| C1-AdjustmentSelAdjType        | Adjustment - Select Adjustment Type            |
| C1-AdjustmentTypeQueryFilter   | Adjustment - Adjustment Type Query Filter      |
| C1-AdjustmentUserLog           | Adjustment - Add User Log Entry                |
| C1-AppealDisplay               | Appeal - Display                               |
| C1-AppealMaint                 | Appeal - Maintenance                           |
| C1-AppealQueryFilter2          | Appeal - Filter by Appeal Date Status          |
| C1-AppealQueryFilter4          | Appeal - Filter by Related Object              |
| C1-AppealQueryFilter6          | Appeal - Filter by Review Information          |
| C1-AppealReviewDisplay         | Appeal Review - Display                        |
| C1-AppealReviewMaint           | Appeal Review - Maintenance                    |
| C1-AppealSuppObligationsFilter | Appeal - Suppressed Obligation Filter          |
| C1-AppealTypeDisplay           | Appeal Type - Display                          |
| C1-AppealTypeMaint             | Appeal Type - Maintenance                      |
| C1-AppealUserLog               | Appeal - Add User Log Entry                    |
| C1-AssessmentCommonDetails     | Assessment Common Details                      |
| C1-AssessmentQueryFilter       | Adjustment - Assessment Query Filter           |
| C1-AudCaseMaint                | Audit Case - Maintenance                       |
| C1-AuditCaseBalInfo            | Audit Case - Balance Information               |
| C1-AuditCaseDisplay            | Audit Case - Display                           |
| C1-AuditCaseLtrMaint           | Audit Case - Create Letter Maintenance         |
| C1-AuditCaseQueryFilter2       | Audit Case - Filter by Date Range Status       |
| C1-AuditCaseQueryFilter3       | Audit Case - Filter by Audited Obligation      |

| <b>Map</b>                      | <b>Description</b>                                |
|---------------------------------|---------------------------------------------------|
| C1-AuditCaseQueryFilter4        | Audit Case - Filter by Responsible User           |
| C1-AuditCaseQueryFilter5        | Audit Case - Filter by Account ID                 |
| C1-AuditCaseReasonLookupDisp    | Audit Case Reason - Display                       |
| C1-AuditCaseReasonLookupMaint   | Audit Case Reason - Maintenance                   |
| C1-AuditCaseRevDisplay          | Audit Case Review - Display                       |
| C1-AuditCaseRevMaint            | Audit Case Review - Maintenance                   |
| C1-AuditCaseSelectRevTyp        | Audit Case Review - Select Review Type            |
| C1-AuditCaseSourceLookupDisp    | Audit Case Source - Display                       |
| C1-AuditCaseSourceLookupMaint   | Audit Case Source - Maintenance                   |
| C1-AuditCaseTypeDisplay         | Audit Case Type - Display                         |
| C1-AuditCaseTypeMaint           | Audit Case Type - Maintenance                     |
| C1-AuditCaseUserLog             | Audit Case - Add User Log Entry                   |
| C1-AuditInquiryQueryFilter      | Inquiry Audit - Query Filters                     |
| C1-BankruptcyAddUserLog         | Bankruptcy - Add User Log Entry                   |
| C1-BankruptcyCovObligations     | Bankruptcy Covered Obligations - Maintenance      |
| C1-BankruptcyDisplay            | Bankruptcy - Display                              |
| C1-BankruptcyEligObligations    | Bankruptcy Eligible Obligations - Maintenance     |
| C1-BankruptcyFilingTypeDisplay  | Bankruptcy Filing Type - Display                  |
| C1-BankruptcyFilingTypeMaint    | Bankruptcy Filing Type - Maintenance              |
| C1-BankruptcyMaint              | Bankruptcy - Maintenance                          |
| C1-BankruptcyMilestonesMaint    | Bankruptcy Milestones Maintenance                 |
| C1-BankruptcyQueryFilter2       | Bankruptcy - Filter by Petition Date Status Court |
| C1-BankruptcyQueryFilter5       | Bankruptcy - Filter by Responsible User           |
| C1-BankruptcyRespUsersMaint     | Bankruptcy - Responsible Users Maintenance        |
| C1-BankruptcyTypeDisplay        | Bankruptcy Type - Display                         |
| C1-BankruptcyTypeMaint          | Bankruptcy Type - Maintenance                     |
| C1-BkCreatePayPlanMaint         | Bankruptcy Create Pay Plan - Enter Options        |
| C1-BkCreateProofOfClaimMaint    | Bankruptcy Create Proof of Claim                  |
| C1-BnkruptcyRelatedPersonsMaint | Bankruptcy - Related Persons Maintenance          |
| C1-ClaimTypeLookupDisplay       | Bankruptcy Claim Type - Display                   |

| <b>Map</b>                     | <b>Description</b>                             |
|--------------------------------|------------------------------------------------|
| C1-ClaimTypeLookupMaint        | Bankruptcy Claim Type - Maintenance            |
| C1-CreateProposedAssmntDisp    | Create Assessment For Audit Form - Display     |
| C1-CreateProposedAssmntMaint   | Create Assessment For Audit Form - Maintenance |
| C1-DisplayIssuesList           | Display Issues List                            |
| C1-EnterType                   | Common Enter Type Processing - Select Type     |
| C1-ExstAdjustmentCommonDetails | Existing Adjustments Common Details            |
| C1-FormRuleBOSearch            | Form Rule BO - Search                          |
| C1-GenericAdjCharsDisplay      | Standard Adjustment with Chars - Display       |
| C1-GenericAdjustmentCharsMaint | Standard Adjustment with Chars - Maintenance   |
| C1-GenericAdjustmentDisplay    | Standard Adjustment - Display                  |
| C1-GenericAdjustmentGenerate   | Generate Standard Adjustment                   |
| C1-GenericAdjustmentMaint      | Standard Adjustment - Maintenance              |
| C1-GetNextCaller               | Get Next Caller                                |
| C1-GoToSupp                    | Go To Suppressions                             |
| C1-MilestoneTypeLookupDisplay  | Milestone Type - Display                       |
| C1-MilestoneTypeLookupMaint    | Milestone Type - Maintenance                   |
| C1-MiscUserInfoDisplay         | Miscellaneous User Information - Display       |
| C1-MiscUserInfoMaint           | Miscellaneous User Info - Maintenance          |
| C1-MultiManAdjMaint            | Multiple Manual Adjustments                    |
| C1-MultiManPIAdjMaint          | Multiple Manual P&I Adjustment                 |
| C1-NewAdjustmentCommonDetails  | New Adjustment Common Details                  |
| C1-ObligationQryFltr           | Obligation ID Query Filter                     |
| C1-PageAuditInquiryDisplay     | Page Inquiry Audit - Display                   |
| C1-PerIdQryFltr                | Person ID Query Filter                         |
| C1-PersonNameAndIdQueryFilter  | Person Name and ID Type/Value Query Filter     |
| C1-PersonNameQueryFilter       | Obligation search using Person Name            |
| C1-PopTaxOwedOverpaidDisp      | Populate Tax Owed/Overpaid - Display           |
| C1-PopTaxOwedOverpaidMaint     | Populate Tax Owed/Overpaid - Maintenance       |
| C1-ResponsibleUsersMaint       | Responsible Users                              |

| <b>Map</b>                     | <b>Description</b>                                |
|--------------------------------|---------------------------------------------------|
| C1-ReviewProcessControlDisplay | Review Process Control - Display                  |
| C1-ReviewProcessControlMaint   | Review Process Control - Maintenance              |
| C1-ReviewSelectReviewType      | Review - Select Review Type                       |
| C1-ReviewTypeDisplay           | Review Type - Display                             |
| C1-ReviewTypeMaint             | Review Type - Maintenance                         |
| C1-ReviewUserLog               | Review - Add User Log Entry                       |
| C1-RvwResponseTypeLookupDisp   | Review Response Type - Display                    |
| C1-RvwResponseTypeLookupMaint  | Review Response Type - Maintenance                |
| C1-SelectAppealType            | Appeal - Select Appeal Type                       |
| C1-SelectReviewType            | Review - Select Review Type                       |
| C1-SuppProcessExtLookupDisplay | Suppressed Process Type - Display                 |
| C1-SuppProcessExtLookupMaint   | Suppressed Process Type - Maintenance             |
| C1-SuppQryCommonFilters        | Suppression - Filter by Process Start Date Status |
| C1-SuppReasonExtLookupDisplay  | Suppression Reason - Display                      |
| C1-SuppReasonExtLookupMaint    | Suppression Reason - Maintenance                  |
| C1-SuppReleaseStateTransition  | Suppression Release State Transition              |
| C1-SuppressionDisplay          | Suppression - Display                             |
| C1-SuppressionMaint            | Suppression - Maintenance                         |
| C1-SuppressionQuery1Filter     | Suppression - Filter by Person ID                 |
| C1-SuppressionQuery2Filter     | Suppression - Filter by Account ID                |
| C1-SuppressionQuery3Filter     | Suppression - Filter by Tax Role ID               |
| C1-SuppressionQuery4Filter     | Suppression - Filter by Obligation ID             |
| C1-SuppressionTypeDisplay      | Suppression Type - Display                        |
| C1-SuppressionTypeMaint        | Suppression Type - Maintenance                    |
| C1-SuppressionUserLog          | Suppression - Add User Log Entry                  |
| C1-TaxFormAuditCaseSelect      | UI map for selecting Audit Case Id                |
| C1-TaxFormBalInfo              | Tax Form - Balance Information                    |
| C1-TaxFormIdQryFltr            | Tax Form ID Query Filter                          |
| C1-TaxRoleIdQryFltr            | Tax Role ID Query Filter                          |
| C1-TransAdjCharsDispFragment   | Transfer Adjustment Chars - Display               |
| C1-TransAdjCharsMaintFragment  | Transfer Adjustment Chars - Maintenance           |
| C1-TransferAdjustmentChrDisp   | Transfer Adjustment with Chars - Display          |

| Map                           | Description                                  |
|-------------------------------|----------------------------------------------|
| C1-TransferAdjustmentChrMaint | Transfer Adjustment with Chars - Maintenance |
| C1-TransferAdjustmentDisplay  | Transfer Adjustment - Display                |
| C1-TransferAdjustmentGenerate | Generate Transfer Adjustment                 |
| C1-TransferAdjustmentMaint    | Transfer Adjustment - Maintenance            |
| C1-WaiverTypeDisplay          | Waiver Type - Display                        |
| C1-ZoneAuditInquiryDisplay    | Zone Audit Inquiry - Display                 |

## XAI Inbound Services

None

## Zone Types

None.

## Zones

The following new Zones are added to V2.3.0.

| Zone          | Zone Type    | Description                            |
|---------------|--------------|----------------------------------------|
| C1-ACAUDGT    | F1-DE        | Open Audit Cases for Account           |
| C1-ACCTSRC    | F1-DE-MULQRY | Account Search                         |
| C1-ACCTSRCQ1  | F1-DE-QUERY  | Person Name                            |
| C1-ACCTSRCQ2  | F1-DE-QUERY  | Person ID                              |
| C1-ACCTSRCQ3  | F1-DE-QUERY  | Account ID                             |
| C1-ACTSPGT    | F1-MAPEXPL   | Account Suppressions                   |
| C1-ADJACTL    | F1-DE-SINGLE | Adjustments for Account                |
| C1-ADJASSL    | F1-DE-SINGLE | Related Adjustments                    |
| C1-ADJLOG     | F1-DE        | Adjustment Log                         |
| C1-ADJM       | F1-MAPDERV   | Adjustment                             |
| C1-ADJMFTD'TL | F1-MAPDERV   | Financial Details                      |
| C1-ADJOBLL    | F1-DE-SINGLE | Adjustments for Obligation             |
| C1-ADJPMMP    | F1-MAPEXPL   | Multiple Adjustments                   |
| C1-ADJPMPI    | F1-MAPEXPL   | Multiple P&I Adjustments               |
| C1-ADJQRY     | F1-DE-MULQRY | Adjustment Search                      |
| C1-ADJQRY1    | F1-DE-QUERY  | Person Name and Person ID Type / Value |

| <b>Zone</b>  | <b>Zone Type</b> | <b>Description</b>                        |
|--------------|------------------|-------------------------------------------|
| C1-ADJQRY2   | F1-DE-QUERY      | Account ID                                |
| C1-ADJQRY3   | F1-DE-QUERY      | Obligation ID                             |
| C1-ADJQRY4   | F1-DE-QUERY      | Tax Form ID                               |
| C1-ADJQRY5   | F1-DE-QUERY      | Adjustment ID                             |
| C1-ADJTSRCH1 | F1-DE-QUERY      | Adjustment Type Code /<br>Description     |
| C1-ADJTYSRCH | F1-DE-MULQRY     | Adjustment Type Search                    |
| C1-AIFLDSRCH | F1-DE-QUERY      | Field Search                              |
| C1-AIMOSRCH  | F1-DE-QUERY      | Maintenance Object Search                 |
| C1-AIPTLSRCH | F1-DE-QUERY      | Portal Search                             |
| C1-AISPSRCH  | F1-DE-QUERY      | Service Program Name Search               |
| C1-AIUSRSRCH | F1-DE-QUERY      | User Search                               |
| C1-AIZNESRCH | F1-DE-QUERY      | Zone Search                               |
| C1-APPEAL    | F1-MAPDERV       | Appeal                                    |
| C1-APPEALQ1  | F1-DE-QUERY      | Person Name and Person ID<br>Type / Value |
| C1-APPEALQ2  | F1-DE-QUERY      | Appeal Date, Appeal Type, and<br>Status   |
| C1-APPEALQ3  | F1-DE-QUERY      | Suppressed Obligation                     |
| C1-APPEALQ4  | F1-DE-QUERY      | Appeal Related Object                     |
| C1-APPEALQ5  | F1-DE-QUERY      | Appeal ID                                 |
| C1-APPEALQ6  | F1-DE-QUERY      | Review Information                        |
| C1-APPEALQRY | F1-DE-MULQRY     | Appeal Search                             |
| C1-APPLLG    | F1-DE            | Appeal Log                                |
| C1-APPLTYLST | F1-DE-SINGLE     | Appeal Type List                          |
| C1-APPREQLOG | F1-DE            | Adjustment Approval Request<br>Log        |
| C1-APPTYDISP | F1-MAPDERV       | Appeal Type                               |
| C1-APRELOBJ  | F1-DE-SINGLE     | Appeal - Get Related Business<br>Object   |
| C1-APSOBSRCH | F1-DE-QUERY      | Appeal - Suppressed Obligation<br>Search  |
| C1-APTXPACC  | F1-DE-SINGLE     | Appeal - Retrieve Accounts of<br>Taxpayer |
| C1-ASSMTRCH  | F1-DE-QUERY      | Assessment Search                         |

| <b>Zone</b>  | <b>Zone Type</b> | <b>Description</b>                         |
|--------------|------------------|--------------------------------------------|
| C1-AUDCASRC1 | F1-DE-QUERY      | Primary Account ID                         |
| C1-AUDCASRC2 | F1-DE-QUERY      | Audited Obligation ID                      |
| C1-AUDCASRC3 | F1-DE-QUERY      | Audit Case ID                              |
| C1-AUDCASRCH | F1-DE-MULQRY     | Audit Case Search                          |
| C1-AUDITBAL  | F1-MAPEXPL       | Audit Balances                             |
| C1-AUDITDM   | F1-MAPDERV       | Audit Case                                 |
| C1-AUDITINQ  | F1-DE-QUERY      | Inquiry Audit Search                       |
| C1-AUDITINQI | F1-MAPDERV       | Inquiry Audit Details                      |
| C1-AUDITLG   | F1-DE            | Audit Case Log                             |
| C1-AUDITOBL  | F1-DE-QUERY      | Audit Case - Retrieve Audited Obligations  |
| C1-AUDITQ    | F1-DE-MULQRY     | Audit Case Search                          |
| C1-AUDITQ1   | F1-DE-QUERY      | Person Name and Person ID Type / Value     |
| C1-AUDITQ2   | F1-DE-QUERY      | Date Range, Audit Case Type and Status     |
| C1-AUDITQ3   | F1-DE-QUERY      | Audited Obligation ID                      |
| C1-AUDITQ4   | F1-DE-QUERY      | Responsible User                           |
| C1-AUDITQ5   | F1-DE-QUERY      | Primary Account ID                         |
| C1-AUDITQ6   | F1-DE-QUERY      | Audit Case ID                              |
| C1-AUDITTF   | F1-DE            | Audit Case - Retrieve Related Tax Forms    |
| C1-AUDRELOBJ | F1-DE-SINGLE     | Audit Case - Get Related Objects from Logs |
| C1-AUDTYDM   | F1-MAPDERV       | Audit Case Type                            |
| C1-AUDTYLIST | F1-DE-SINGLE     | Audit Case Type List                       |
| C1-BK-GETMS  | F1-DE-SINGLE     | Bankruptcy - Retrieve Milestones           |
| C1-BKACCTOBL | F1-DE-SINGLE     | Bankruptcy - Get Account's Obligations     |
| C1-BKPAYPLN  | F1-DE-SINGLE     | Bankruptcy - Get Active Pay Plans          |
| C1-BKRELACCT | F1-DE-SINGLE     | Bankruptcy - Get Distinct Accounts         |
| C1-BKRELCRT  | F1-DE-SINGLE     | Bankruptcy - Retrieve Related Court        |
| C1-BKRELOBJ  | F1-DE-SINGLE     | Bankruptcy - Get Related Objects from Logs |

| <b>Zone</b>  | <b>Zone Type</b> | <b>Description</b>                                       |
|--------------|------------------|----------------------------------------------------------|
| C1-BKTYLIST  | F1-DE-SINGLE     | Bankruptcy Type List                                     |
| C1-BNKRCGT   | F1-DE            | Open Bankruptcies for Taxpayer                           |
| C1-BNKRCQRY  | F1-DE-MULQRY     | Bankruptcy Search                                        |
| C1-BNKRCYQ1  | F1-DE-QUERY      | Person Name and Person ID<br>Type / Value                |
| C1-BNKRCYQ2  | F1-DE-QUERY      | Petition Date, Bankruptcy Type,<br>Status and Court      |
| C1-BNKRCYQ3  | F1-DE-QUERY      | External Case Identifier                                 |
| C1-BNKRCYQ4  | F1-DE-QUERY      | Covered Obligation                                       |
| C1-BNKRCYQ5  | F1-DE-QUERY      | Responsible User                                         |
| C1-BNKRCYQ6  | F1-DE-QUERY      | Person ID                                                |
| C1-BNKRCYQ7  | F1-DE-QUERY      | Bankruptcy ID                                            |
| C1-BNKTCY    | F1-MAPDERV       | Bankruptcy                                               |
| C1-BNKTCYCO  | F1-MAPDERV       | Covered Obligations                                      |
| C1-BNKTCYE0  | F1-MAPDERV       | Eligible Obligations                                     |
| C1-BNKTCYLG  | F1-DE            | Bankruptcy Log                                           |
| C1-BNKTCYPC  | F1-DE-SINGLE     | Proofs of Claim                                          |
| C1-BNKTCYPP  | F1-DE-SINGLE     | Pay Plans                                                |
| C1-BNKTYDISP | F1-MAPDERV       | Bankruptcy Type                                          |
| C1-BNKUSSRCH | F1-DE-QUERY      | Bankruptcy User Search                                   |
| C1-CCTYPELST | F1-DE-SINGLE     | Retrieve Customer Contact Types                          |
| C1-CHKADJASS | F1-DE-SINGLE     | Adjustment - Check if<br>Adjustment is an Assessment     |
| C1-DBTXPYRBK | F1-DE            | Taxpayer's Bankruptcies                                  |
| C1-ENTYCHTYP | F1-DE-SINGLE     | Retrieve Characteristic Type by<br>Characteristic Entity |
| C1-ESTBALDTL | F1-MAPEXPL       | Estimated Balance Details                                |
| C1-GPPOBLTY  | F1-DE-SINGLE     | Get Pay Plan Obligation Types                            |
| C1-MISUSRINF | F1-MAPDERV       | Miscellaneous User Information                           |
| C1-OBLSPGT   | F1-MAPEXPL       | Obligation Suppressions                                  |
| C1-OBLSRC    | F1-DE-MULQRY     | Obligation Search                                        |
| C1-OBLSRCQ1  | F1-DE-QUERY      | Account ID                                               |
| C1-OBLSRCQ2  | F1-DE-QUERY      | Person Name                                              |
| C1-OBLSRCQ3  | F1-DE-QUERY      | Tax Role ID                                              |

| <b>Zone</b>   | <b>Zone Type</b> | <b>Description</b>                                      |
|---------------|------------------|---------------------------------------------------------|
| C1-OBLSRCQ4   | F1-DE-QUERY      | Obligation ID                                           |
| C1-ODPRTOBCH  | F1-DE-SINGLE     | Get Overdue Process Templates Collecting on Obligations |
| C1-OPENADCS   | F1-DE-SINGLE     | Open Audit Cases for Person or Account                  |
| C1-PERSPGT    | F1-MAPEXPL       | Person Suppressions                                     |
| C1-PERSRCH    | F1-DE-MULQRY     | Person Search                                           |
| C1-PERSRCHQ1  | F1-DE-QUERY      | Person Name / Type                                      |
| C1-PERSRCHQ2  | F1-DE-QUERY      | Person ID Type / ID Number                              |
| C1-PERSRCHQ3  | F1-DE-QUERY      | Person ID                                               |
| C1-RELOBLFRS  | F1-DE-QUERY      | Appeal - Appealed Obligation Search                     |
| C1-RELOBLSRC  | F1-DE-QUERY      | Audit Case - Audited Obligation Search                  |
| C1-RETADJCHT  | F1-DE-SINGLE     | Adjustment - Retrieve Valid Characteristic Types        |
| C1-RETADJNAV  | F1-DE-SINGLE     | Adjustment - Retrieve Navigation Option                 |
| C1-RETADJJOFO | F1-DE-SINGLE     | Adjustment - Retrieve Adjustments of an Obligation      |
| C1-RETADJTYP  | F1-DE-QUERY      | Adjustment - Retrieve Adjustment Types for Obligation   |
| C1-RETADTYDL  | F1-DE-SINGLE     | Adjustment Type - Retrieve Adjustment Type Details      |
| C1-RETAPPLY   | F1-DE-SINGLE     | Retrieve Active Appeal Types                            |
| C1-RETAPRLOG  | F1-DE-SINGLE     | Adjustment - Retrieve Adjustment Approval Request Log   |
| C1-RETASOFAD  | F1-DE-SINGLE     | Adjustment - Retrieve Assessment of an Adjustment       |
| C1-RETAUDRP   | F1-DE-QUERY      | Audit Case - Retrieve Related Persons                   |
| C1-RETAUDTYP  | F1-DE-SINGLE     | Retrieve Active Audit Case Types                        |
| C1-RETBNCYTY  | F1-DE-SINGLE     | Retrieve Active Bankruptcy Types                        |
| C1-RETFTDTLS  | F1-DE-SINGLE     | Adjustment - Retrieve FT Details                        |
| C1-RETMLTQRY  | F1-DE            | Retrieve Multi-Query Zone                               |
| C1-RETPAPRVW  | F1-DE-SINGLE     | Retrieve Previous Appeal Reviews                        |

| <b>Zone</b>  | <b>Zone Type</b> | <b>Description</b>                                          |
|--------------|------------------|-------------------------------------------------------------|
| C1-RETPAUDRV | F1-DE-SINGLE     | Audit Case - Retrieve Previous Reviews                      |
| C1-RETRAPRVW | F1-DE-SINGLE     | Retrieve Most Recent Appeal Review                          |
| C1-RETREPRTE | F1-DE-SINGLE     | Retrieve Active Review Process Controls                     |
| C1-RETREVRSP | F1-DE-SINGLE     | Audit Case - Retrieve Review Information                    |
| C1-RETRVWTYP | F1-DE-SINGLE     | Retrieve Active Review Types                                |
| C1-RETSQBYLT | F1-DE-SINGLE     | Adjustment - Retrieve Adjustment Log Sequence Number by Log |
| C1-RETSQCRBY | F1-DE-SINGLE     | Retrieve Sequence Number of the Created By Log Entry Type   |
| C1-RETSUPPTY | F1-DE-SINGLE     | Suppression - Retrieve Suppression Types                    |
| C1-RETSUPTY  | F1-DE-SINGLE     | Retrieve Active Suppression Types                           |
| C1-RETVADTYP | F1-DE-SINGLE     | Adjustment - Retrieve Valid Adjustment Types for Obligation |
| C1-RGFRSRC   | F1-DE-MULQRY     | Registration Form Type Search                               |
| C1-RGFRSRCQ1 | F1-DE-QUERY      | Form Type                                                   |
| C1-RVDISP    | F1-MAPDERV       | Review                                                      |
| C1-RVLG      | F1-DE            | Review Log                                                  |
| C1-RVWPCDISP | F1-MAPDERV       | Review Process Control                                      |
| C1-RVWPRCLST | F1-DE-SINGLE     | Review Process Control List                                 |
| C1-RVWTYDISP | F1-MAPDERV       | Review Type                                                 |
| C1-RVWTYPLST | F1-DE-SINGLE     | Review Type List                                            |
| C1-STATSRCH  | F1-DE-QUERY      | State Search                                                |
| C1-SUPCBOCH  | F1-DE-SINGLE     | Suppression Check Log for Created By Entry                  |
| C1-SUPPDM    | F1-MAPDERV       | Suppression                                                 |
| C1-SUPPLG    | F1-DE            | Suppression Log                                             |
| C1-SUPPQ1    | F1-DE-QUERY      | Person ID                                                   |
| C1-SUPPQ2    | F1-DE-QUERY      | Account ID                                                  |
| C1-SUPPQ3    | F1-DE-QUERY      | Tax Role ID                                                 |
| C1-SUPPQ4    | F1-DE-QUERY      | Obligation ID                                               |

| <b>Zone</b>  | <b>Zone Type</b> | <b>Description</b>                       |
|--------------|------------------|------------------------------------------|
| C1-SUPPQ5    | F1-DE-QUERY      | Suppression ID                           |
| C1-SUPPQRY   | F1-DE-MULQRY     | Suppression Search                       |
| C1-SUPPTLIST | F1-DE-SINGLE     | Suppression Type List                    |
| C1-SUPPTYPE  | F1-MAPDERV       | Suppression Type                         |
| C1-TNDSRCH   | F1-DE-MULQRY     | Tender Source Search                     |
| C1-TNDSRCHQ1 | F1-DE-QUERY      | Tender Source / Description              |
| C1-TNDSRCHQ2 | F1-DE-QUERY      | Tender Source Type / External Source     |
| C1-TXRSPGT   | F1-MAPEXPL       | Tax Role Suppressions                    |
| C1-TXTYPSRC  | F1-DE-MULQRY     | Tax Form Type / Tax Type                 |
| C1-TXTYSR    | F1-DE-MULQRY     | Tax Form Type Search                     |
| C1-TXTYSRQ1  | F1-DE-QUERY      | Form Type                                |
| C1-TXTYSRQ2  | F1-DE-QUERY      | Tax Type                                 |
| C1-VALADJTYP | F1-DE-SINGLE     | Adjustment - Validate Adjustment Type    |
| C1-WAIOBLL   | F1-DE-SINGLE     | Waivers for Obligation                   |
| C1-WUSDAMT   | F1-DE-SINGLE     | Retrieve Used Amount for One Time Waiver |

## Changed System Data

The following sections highlight significant changes to existing system data.

### Performance Metadata Flags

Two new Flags Cache Flag (CACHE\_FLG) and Key Validation Flag (KEY\_VALIDATION\_FLG) are added to the Metadata Table (CI\_MD\_TBL). The Cache Flag will enable L2 Caching of the Tables and the Key Validation Flag determines if Key Uniqueness is being issued by Framework before Inserting into the database. The valid values for cache flag are **not Cached** (NONE) and **cachedForBatch** (BTCH). The valid values for key validation flag are **always** (ALL), **never** (NONE) and **onlineOnly** (ONLI). These Flags can be changed by CM. As a part of the upgrade process the Initial values for CACHE\_FLG and KEY\_VALIDATION\_FLG would be populated.

### Categorization of Batch Jobs

A New flag Batch Category Flag (F1\_BATCH\_CTGY\_FLG) is added to Batch Control Table (CI\_BATCH\_CTRL). The valid values are 'Ad Hoc', 'Conversion', 'Extract', 'Monitor', 'Object Validation', 'Process What's Ready', 'Referential Integrity' and 'To Do Entry'. Along with this there are additional new columns added to the Batch Control Table. The initial values for the column F1\_BATCH\_CTGY\_FLG (which customer can modify) would be populated.

### Search Zone on FK Reference

A new search zone column ((ZONE\_CD)) is added to Foreign Key Reference Table (CI\_FK\_REF). The following FK references were updated to reference an appropriate search zone.

| FK Reference | Description              | Zone         |
|--------------|--------------------------|--------------|
| ACCT         | Account                  | C1-ACCTSRC   |
| ADJ          | Adjustment               | C1-ADJQRY    |
| C1-ACTRQ     | Activity Request         | C1-ACTREQACT |
| C1-ADJTY     | Adjustment Type          | C1-ADJTYSRCH |
| C1-COLCS     | Collection Case          | C1-CLCSQRY   |
| C1-FBHDR     | Form Batch Header        | C1-FBHQZ     |
| C1-FRGRP     | Form Rule Group          | C1-FRGRPQRY  |
| C1-FRMTY     | Form Type                | C1-FRTYQRY   |
| C1-FRULE     | Form Rule                | C1-FRULEQRY  |
| C1-FUS       | Form Upload Staging      | C1-FUSQRY    |
| C1-FUSTY     | Form Upload Staging Type | C1-FUSTYQRY  |
| C1-OVRPR     | Overpayment Process      | C1-OVRPAYQRY |
| C1-PFL       | Process Flow             | C1-PFLQRY    |

| FK Reference | Description       | Zone         |
|--------------|-------------------|--------------|
| C1-RGFRM     | Registration Form | C1-RGFRMQRY  |
| C1-TNDSR     | Tender Source     | C1-TNDSRCH   |
| C1-TXFRM     | Tax Form          | C1-TXFRQRY   |
| C1-TXRL      | Tax Role          | C1-TXRLQRY   |
| C1-WAIV      | Waiver            | C1-WAIVERQRY |
| PER          | Person            | C1-PERSRCH   |
| SA           | Obligation        | C1-OBLSRC    |

## Application Services

Several portals were incorrectly configured to be linked to the wrong application service. The maintenance portals for Collection Case (**C1COLCAS**), Collection Case Type (**C1CLCSTY**), Debt Category (**C1DBTCAT**), Debt Category Priority (**C1DCTPR**), Person Type (**C1PERTYP**), P&I Rule (**C1PIRULE**), Tax Role (**C1TXROLE**) and Tax Type (**C1TXTYPE**) were configured to reference the application service for its maintenance object rather than the separate application service for the portal. This has been corrected. Please ensure that the appropriate application security is configured for the application service for each portal above. (The application service code matches the portal code.)

## FK References

The FK reference for Adjustment (**ADJ**) was updated to refer to a new Java Info Program. However, the Info Program Type and Name fields are customizable columns and are therefore not updated on an upgrade.

The change to the info program is only relevant if your implementation chooses not to plug in a customized information routine on the Adjustment Business Object, Maintenance Object or one of the adjustment information plug-ins on Adjustment Type or Installation Options and rather relies on the system default information. The new information routine includes the Adjustment Creation Reason. To take advantage of this new system default logic, update the FK reference.

- Change the Info Program Type to **Java**
- Change the Info Program Name to **com.splwg.tax.domain.adjustment.adjustment.AdjustmentInformation**

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## Removed System Data

The following sections highlight system data no longer supported as of this release.

### Application Service

The following application services were incorrectly created in a previous release and have been removed.

- C1-GRPLINEBOAS
- C1-LBLLINEBOAS
- C1-CMPLXLINEBOAS
- CILMITMP
- CILTTTTP
- CILFUIGP
- CILGRCTP
- CILMONPP
- CILPCAPP

The application service C1-FRMUPDSTG was incorrectly defined with the **Execute** access mode. This has been removed.

### Batch Control

The following batch controls associated with the legacy Oracle Utility Business Intelligence module are no longer supported.

- C1-PCNRS
- EXTPER
- EXTACCT
- EXTADDR
- EXTADJT
- EXTBLUSG
- EXTCASE
- EXTCLOG
- EXTCTS
- EXTFIN
- EXTFIPD
- EXTPREM
- EXTRATE
- EXTSAARS
- EXTUSER
- C1-CCTTY
- C1-CSCNT
- C1-PYTND

- C1-TNDCT
- C1-TNDTY
- EXTLKUP
- EXTSAACC
- EXTSA
- EXTSQI
- EXTTOU
- EXTUOM

The owner flag of these batch controls have been set to CM so that implementations that are using these records may continue using them. For implementations that are not using the records, they may be removed in your installation.

## XAI Inbound Services

In previous releases the product provided several XAI inbound services for basic interaction with system services.

- CXxAccountFinancialHistoryList
- CDxXAIInboundService
- CDxAccountMaintenance
- CDxPersonMaintenance

The services are not related to any supported product integration. They have been removed.

Additionally, the XAI inbound services related to the legacy web self service functionality are no longer supported going forward.

## Planned System Data Deprecation

The script **C1-FVShwZn** was created in the previous release of the product but is a duplicate of **C1-FEShwZn**. Any zones referring to **C1-FVShwZn** should be changed to instead use **C1-FEShwZn**. **C1-FVShwZn** will be removed in a future release.

The business service **C1-GetFUSTypByFormTypSrcStatus** is extraneous and will get deprecated in a future release. It is a data explorer BS for the zone **C1-FUST-TYSS**. However, there is another base business service (**C1-FUST-TYSS**) that does the same thing.

# Appendix B

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## Oracle Enterprise Taxation and Policy Management System Table Guide

This chapter lists the system tables owned by Oracle Enterprise Taxation and Policy Management V2.3.0 and explains the data standards of the system tables. The data standards are required for Oracle Enterprise Taxation and Policy Management installation, development within Oracle Enterprise Taxation and Policy Management, configuration of the product, and customization of the product. Adhering to the data standards is a prerequisite for a seamless upgrade to the next release of the product.

For information about the application framework system tables, see **Appendix B: Oracle Application Framework System Table Guide**.

This section includes:

- **Business Configuration Tables**

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## Business Configuration Tables

### Installation Options

The installation option has only one row that is shipped with the initial installation of the product. The updateable columns in these tables are customer data and will not be overridden by the upgrade process unless a special script is written and included in the upgrade process.

| Properties   | Description                                                                                                                                                                                                                                                                                                         |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tables       | CO_INSTALLATION                                                                                                                                                                                                                                                                                                     |
| Initial Data | Location Geo Type Usage: Required<br>Alternate Representation: None<br>Person ID Usage: Required<br>Bill Segment Freeze Option: Freeze At Will<br>Accounting Date Freeze Option: Change If Period Is Closed<br>Rollover Threshold Factor: 0.7<br>User Can Override Bill Date: Yes<br>Fund Accounting: Not Practiced |

# Appendix C

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## Upgrades to the Oracle Utilities Application Framework Database

This document describes the database upgrade process for the Oracle Utilities Application Framework database from V2.2.0.8 to V4.1.0. It highlights changes made to the administrative tables and how those changes should be applied to the data in order for a V2.2.0.8 database to work with the V4.1.0 application, and to preserve the business logic implemented in the previous version of the application. The changes that do not require data upgrade are not described in this document. The tasks that need to be performed after running the upgrade scripts are included.

The added functionality of V4.1.0 is not the scope of this documentation. The upgrade scripts do not turn on the newly added functionality by default. For new functionality, refer the V4.1.0 User Guides. In the last section of this document you will find a list of the new tables that are added in V4.1.0.

## Automatic Data Upgrade

This section describes what the upgrade script will populate in new tables and columns to preserve the existing base product application functions of the previous version of Oracle Utilities Application Framework.

### Display/Expand Zones in Portal

To allow the user to display or hide zones in the portal, we need to provide an extra field on the Field Maintenance Page of Portal Zone (CI\_PORTAL\_ZONE). The new field added to Portal Zone is called Display Switch (DISPLAY\_SW). It defines a display switch value of Y or N to display or hide a zone within the portal.

Also to allow the user to expand or collapse the zones in the portal, we need to provide an extra field on the Field Maintenance Page of Portal Zone. The new field added to Portal Zone is called Zone Collapsed Switch (ZONE\_COLLAPSED\_SW). It defines a Zone Collapsed switch value of Y or N to collapse or display a zone within the portal.

As a part of the Upgrade Process DISPLAY\_SW is set to 'Y' and ZONE\_COLLAPSED\_SW is set to 'N'.

### Long Userid Support

To support Long User ID other than the fixed 8 Character Userid, a new column External Userid (EXT\_USER\_ID) is added to the User Table (SC\_USER) Table. The External Userid column has unique values and it is mapped to Userid (USER\_ID). Users are authenticated using External Userid and there after the Userid would be used by the Application. The External Userid (EXT\_USER\_ID) would be populated as Userid (USER\_ID) wherever the External Userid is not populated as a part of the Upgrade Process.

### Long Context Value on XAI Sender

A new field Context Value Long (F1\_CTXT\_VAL\_LONG) is added to XAI Sender Table (CI\_XAI\_SNDR\_CTX). This new field is a longer version of the existing field CTXT\_VAL. CTXT\_VAL supports only 50 characters. To accommodate the long Value for the SOAP Action URL (for making third party web service calls) and long encrypted passwords, the new column is added on the XAI Sender Table. The existing column CTXT\_VAL on this table would be unsupported. For this to be possible, as a part of upgrade script, all the current data in CTXT\_VAL column would be updated into F1\_CTXT\_VAL\_LONG column. There after the column CTXT\_VAL would be updated with a single Blank.

### Metadata For Translation

Two new Flags Translatable Flag (F1\_TRANSLATABLE\_FLG) and Extract for Translation Flag (F1\_EXTRACT\_TRANSLATION\_FLG) are added to aid in Translation, which was originally handled in a Text file. Translatable Flag is added in CI\_MD\_FLD and indicates whether we translate the label on this field or not and the valid values are yes (F1YS) and no (F1NO). Extract for Translation Flag is F1 added to CI\_MD\_TBL and CI\_MD\_TBL\_FLD and has a valid values of yes (F1YS) and no (NO). A table or a table field, which is marked for extraction, would be included in the extraction process to be sent to WPTG. As a part of upgrade process the flag F1\_TRANSLATABLE\_FLG is defaulted to yes (F1YS) and F1\_EXTRACT\_TRANSLATION\_FLG is defaulted to no (F1NO).

### Online Help

To follow Oracle documentation standards, TUGBU Word documentation for CCB and Framework is converted into DITA XML format. This will involve Conversion of old word files and indexes to DITA xml, Online help generation using DITA open toolkit and Integration of the

new online help with Framework. The DITA documentation architecture requires small individual topics that are built up into topic hierarchies. To support this for Help related Navigation keys in CI\_MD\_NAV Table, the URL (field- URL\_OVRD) is updated based on the set naming strategy. The similar update script is added for HELP\_TEXT\_URL on CI\_MD\_TBL as well.

## Performance Metadata Flags

Two new Flags Cache Flag (CACHE\_FLG) and Key Validation Flag (KEY\_VALIDATION\_FLG) are added to the Metadata Table (CI\_MD\_TBL). The Cache Flg will enable L2 Caching of the Tables and the Key Validation Flag determines if Key Uniqueness is being issued by Framework before Inserting into the database. The valid values for cache flag are not Cached (NONE) and cachedForBatch (BTCH). The valid values for key validation flag are always (ALL), never (NONE) and onlineOnly (ONLI). These flags can be changed by CM. As a part of the upgrade process the initial values for CACHE\_FLG and KEY\_VALIDATION\_FLG would be populated.

## Precise Time for Holiday Dates

Two new Fields named Holiday Start Date (F1\_HOLIDAY\_START\_DTTM) Holiday End Date (F1\_HOLIDAY\_END\_DTTM) are added to the Metadata Table (CI\_CAL\_HOL). This will help in defining the holiday begin and end dates with time. This is different from the existing Holiday dates where we just specify the date. As a part of the upgrade process the field F1\_HOLIDAY\_START\_DTTM would be populated with HOLIDAY\_DT with Time as 00:00:00. For F1\_HOLIDAY\_END\_DTTM the default value would be F1\_HOLIDAY\_START\_DTTM+24 Hours.

## Portal Display Rule

A new flag Allow User Configuration (USER\_CONFIG\_FLG) is added to the Portal Table (CI\_PORTAL). User Configuration Flag indicates if a user is allowed to have individual control of the zones on this portal. This flag is defaulted to 'Y' for all existing Portals during the upgrade process. If the Override User Configuration flag on CI\_PORTAL is Blank and Allow User Configuration Flag is set to Y, then display the Portal, else if it set to 'N' then the Portal should not get displayed.

## Rownum in Explorer Zones

The number of Records retrieved by the Query in Data Explorer Zone Types would be limited. This is because the entire result is neither required to be displayed and nor required for downloads. The existing Zone Parameter Values for Zone Type-Data Explorer and Zone Type Parameter-NBROFROWS and ROWSTOEXPORT would be updated. As a part of upgrade process when Zone Parameter values do not exists then limitFetch=false would be set. For existing non-blank Zone Parameter values, limitFetch=false count=ZONE\_PARM\_VAL would be updated.

## Script Eligibility Option

As a part of the Upgrade the Script Eligibility option for BPA Scripts is set to "Not Eligible" for Non-CM owned scripts. This will make sure that the product owned BPA script will not be visible through UI.

## Search For Old Style Entities

Searches for old style entities design introduces new search zones and updates existing FK references with the new zone searches. As Zone Code is a Cmable column on CI\_FK\_REF Table so an upgrade script is used to update the new search zone code for the existing FKs where Zone code is not yet populated.

## Secure Business Services and Service Scripts

Application Services (APP\_SVC\_ID) is added to Business Service Table (F1\_BUS\_SVC). Based on the Application Service, the ability to execute a Business Service and a Service Script by different user groups would be controlled. As a part of upgrade process the APP\_SVC\_ID column for existing Business Services (F1\_BUS\_SVC) and Service scripts (CI\_SCR) would be populated with a Default Application Service (F1-DFLTAPS) where there is no Application Service associated. The default Application Service would be added to all the existing User groups and the 'Execute' Access Mode on this Service would be granted to all the user groups.

## Security On User Access

A new flag User Enable (USER\_ENABLE\_FLG) is added to user table (SC\_USER). The valid values are Enable (ENBL) and Disable (DSBL). When a user depart or is no longer associated with the system then the BO Web service after confirming the status of the user and immediately deny user access to all "authorized" application services when the user is disabled. As a part of the upgrade process the USER\_ENABLE\_FLG will be set to 'ENBL' for the existing users in the Users table(SC\_USER).

## Support Child XML Storage

The child list elements are allowed to contain XML mappings to XML storage fields. The existing implementation of Business Objects storing any XML mapped fields under groups stored the field in the physical storage field as a top-level xml element. This may result in conflict in their storage. So the new Implementation will store the fields like so in the physical CLOB field. The existing Business Object schemas that exist will remain. As a part of Upgrade Process an attribute "fwRel="2" would be added to the root "schema" to provide backward compatibility to already existing Business Object schemas.

## Table Classification Flags

Two new Fields are added to CI\_MD\_TBL to make explicit Classification of Tables. First is table classification flag (TBL\_CLASSIFICATION\_FLG) and the second is table volume flag (TBL\_VOLUME\_FLG). The valid values for Table Classification flag are Admin System Table (F1AS), Admin Non System Table (F1AN), Master Table (F1MT), Transaction Table (F1TT) and Unclassified (F1UC). The valid values for Table Volume flag (which can be modified by the customer) are Low Volume (F1LV), Medium Volume (F1MV), High Volume (F1HV) and Unclassified (F1UC). The UI and the Metadata for these columns are under development and would be release as a part of BUG- 10309972. As a part of the upgrade script the Initial values would be populated in these columns.

## Timed Batch Jobs

Two New flag Batch Control Type (F1\_BATCH\_CTRL\_TYPE\_FLG) and Batch Category Flag (F1\_BATCH\_CTGY\_FLG) are added to Batch Control Table (CI\_BATCH\_CTRL). The valid values for F1\_BATCH\_CTRL\_TYPE\_FLG are Not Timed (F1NT) and Timed (F1TM). The valid values for F1\_BATCH\_CTGY\_FLG are 'Ad Hoc', 'Conversion', 'Extract', 'Monitor', 'Object Validation', 'Process What's Ready', 'Referential Integrity' and 'To Do Entry'. Along with this there are additional new columns added to the Batch Control Table. Based on this the batch controls will be automatically initialized on a timed basis. As a part of the upgrade process the F1\_BATCH\_CTRL\_TYPE\_FLG will be set to 'F1NT' for the existing data in the Batch Control Table. Similarly the initial values for the column F1\_BATCH\_CTGY\_FLG (which customer can Modify) would be populated.

## Update Zone Parameter

A new field Zone Parameter Value Override (ZONE\_PARM\_VAL\_OVRD) is added to the zone parameter table (CI\_ZONE\_PRM). The users are now able to override the existing value for Zone Parameter. For this to be possible, as part of the upgrade script, all Zone Type Parameters with usage as zone, which are not found in Zone Parameter, a record needs to be inserted in Zone Parameter with Zone Parameter value as blank.

## Schema Change

### New Tables

The following new tables are added to Oracle Utilities Application Framework V4.1.0.

| <b>Tables</b>              | <b>Description</b>                           |
|----------------------------|----------------------------------------------|
| CI_BATCH_CTRL_ALG          | Batch Control Algorithm                      |
| F1_ATTACHMENT              | Attachment                                   |
| F1_ATTACHMENT_CHAR         | Attachment Characteristics                   |
| F1_BUS_OBJ_STATUS_RSN      | Business Object Status Reason                |
| F1_BUS_OBJ_STATUS_RSN_CHAR | Business Object Status Reason Characteristic |
| F1_BUS_OBJ_STATUS_RSN_L    | Business Object Status Reason Language       |
| F1_DB_OBJECTS_REPO         | Database Objects Repository                  |
| F1_EXT_LOOKUP_VAL          | Extendable Lookup                            |
| F1_EXT_LOOKUP_VAL_L        | Extendable Lookup Language                   |
| F1_GEN_PROC                | General Process                              |
| F1_GEN_PROC_K              | General Process Key Table                    |
| F1_MANAG_CONTENT           | Managed Content                              |
| F1_MANAG_CONTENT_L         | Managed Content Language                     |
| F1_MST_CONFIG              | Master Configuration. Added in FW 22         |
| F1_REQ                     | Request                                      |
| F1_REQ_K                   | Request Key                                  |
| F1_REQ_LOG                 | Request Log                                  |
| F1_REQ_LOG_PARM            | Request Log Parameter                        |
| F1_REQ_TYPE                | Request Type                                 |
| F1_REQ_TYPE_L              | Request Type Language                        |
| F1_REQ_TYPE_LOG            | Request Type Log                             |
| F1_REQ_TYPE_LOG_PARM       | Request Type Log Parameter                   |
| F1_SYNC_REQ                | Sync Request                                 |
| F1_SYNC_REQ_CHAR           | Sync Request Characteristic                  |
| F1_SYNC_REQ_IN             | Inbound Sync Request                         |
| F1_SYNC_REQ_IN_CHAR        | Inbound Sync Request Characteristic          |
| F1_SYNC_REQ_IN_EXCP        | Inbound Sync Request Exception               |
| F1_SYNC_REQ_IN_EXCP_PARM   | Inbound Sync Request Exception Parameters    |

| <b>Tables</b>           | <b>Description</b>                  |
|-------------------------|-------------------------------------|
| F1_SYNC_REQ_IN_K        | Inbound Sync Request Key Table      |
| F1_SYNC_REQ_IN_LOG      | Inbound Sync Request Log            |
| F1_SYNC_REQ_IN_LOG_PARM | Inbound Sync Request Log Parameter  |
| F1_SYNC_REQ_IN_REL_OBJ  | Inbound Sync Request Related Object |
| F1_SYNC_REQ_K           | Sync Request Key Table              |
| F1_SYNC_REQ_LOG         | Sync Request Log                    |
| F1_SYNC_REQ_LOG_PARM    | Sync Request Log Parameter          |
| F1_WEB_SVC              | Web Services                        |
| F1_WEB_SVC_CHAR         | Web Services Characteristics        |
| F1_WEB_SVC_GTT          | Web Services Global Temporary Table |
| F1_WEB_SVC_L            | Web Services Language               |
| F1_WEB_SVC_LOG          | Web Services Log                    |
| F1_WEB_SVC_LOG_PARM     | Web Services Log Parameter          |
| F1_WEB_SVC_OPERATIONS   | Web Services Operations             |

## New Views

The following new views are added to Oracle Utilities Application Framework V4.1.0.

| <b>View</b>       | <b>Description</b>        |
|-------------------|---------------------------|
| CI_USR_ACC_GRP_VW | Access Group by User View |

## Dropped Tables

The following tables are dropped in this release.

- CI\_SCR\_STEP\_K
- CI\_XAI\_SVC\_VERS
- CI\_XAI\_SVC\_VERS\_L
- CI\_MODULE

## Unsupported Tables

The following tables would be deprecated in a future release.

- CI\_MD\_LOOKUP

## Added Columns

The following table columns are added to Oracle Utilities Application Framework V4.1.0.

| <b>Table</b>    | <b>Column</b>              | <b>Required</b> | <b>Upgrade Note</b>            |
|-----------------|----------------------------|-----------------|--------------------------------|
| CI_BATCH_CTRL   | BATCH_LANGUAGE_CD          | N               | Timed Batch Jobs               |
| CI_BATCH_CTRL   | BATCH_THREAD_CNT           | N               | Timed Batch Jobs               |
| CI_BATCH_CTRL   | EMAILID                    | N               | Timed Batch Jobs               |
| CI_BATCH_CTRL   | F1_BATCH_CTGY_FLG          | N               | Timed Batch Jobs               |
| CI_BATCH_CTRL   | F1_BATCH_CTRL_TYPE_FLG     | Y               | Timed Batch Jobs               |
| CI_BATCH_CTRL   | F1_TIMER_ACTIVE_FLG        | N               | Timed Batch Jobs               |
| CI_BATCH_CTRL   | MAX_COMMIT_RECORDS         | N               | Timed Batch Jobs               |
| CI_BATCH_CTRL   | TIMER_INTERVAL             | N               | Timed Batch Jobs               |
| CI_BATCH_CTRL   | TRC_PGM_END_SW             | N               | Timed Batch Jobs               |
| CI_BATCH_CTRL   | TRC_PGM_STRT_SW            | N               | Timed Batch Jobs               |
| CI_BATCH_CTRL   | TRC_SQL_SW                 | N               | Timed Batch Jobs               |
| CI_BATCH_CTRL   | TRC_STD_SW                 | N               | Timed Batch Jobs               |
| CI_BATCH_CTRL   | USER_ID                    | N               | Timed Batch Jobs               |
| CI_BATCH_JOB    | BATCH_NBR                  | N               | Timed Batch Jobs               |
| CI_CAL_HOL      | F1_HOLIDAY_END_DTTM        | Y               | Precise Time for Holiday Dates |
| CI_CAL_HOL      | F1_HOLIDAY_START_DTTM      | Y               | Precise Time for Holiday Dates |
| CI_FK_REF       | ZONE_CD                    | N               |                                |
| CI_INSTALL_PROD | PROD_TYPE_FLG              | N               |                                |
| CI_MD_FLD_L     | DESCRLONG_OVRD             | N               |                                |
| CI_MD_FLD       | F1_TRANSLATABLE_FLG        | Y               | Metadata for Translation       |
| CI_MD_FLD       | F1_TRANSLATION_CONTEXT     | N               | Metadata for Translation       |
| CI_MD_TBL       | CACHE_FLG                  | Y               | Performance Metadata Flags     |
| CI_MD_TBL       | KEY_VALIDATION_FLG         | Y               | Performance Metadata Flags     |
| CI_MD_TBL_FLD   | F1_EXTRACT_TRANSLATION_FLG | Y               | Metadata for Translation       |

| Table             | Column                     | Required | Upgrade Note                                 |
|-------------------|----------------------------|----------|----------------------------------------------|
| CI_MD_TBL_FLD     | F1_TRANSLATION_CONTEXT     | N        | Metadata for Translation                     |
| CI_MD_TBL         | F1_EXTRACT_TRANSLATION_FLG | Y        | Metadata for Translation                     |
| CI_MD_TBL         | F1_TRANSLATION_CONTEXT     | N        | Metadata for Translation                     |
| CI_MSG            | F1_TRANSLATION_CONTEXT     | N        | Metadata for Translation                     |
| CI_PORTAL         | USER_CONFIG_FLG            | Y        | Portal Display Rule                          |
| CI_PORTAL_ZONE    | SORT_SEQ                   | N        | Portal Display Rule                          |
| CI_PORTAL_ZONE    | SORT_SEQ_OVRD              | N        | Portal Display Rule                          |
| CI_PORTAL_ZONE    | ZONE_REFRESH_PERIOD        | N        |                                              |
| CI_PORTAL_ZONE    | DISPLAY_SW                 | N        | Display/Expand Zones in Portal               |
| CI_PORTAL_ZONE    | ZONE_COLLAPSED_SW          | N        | Display/Expand Zones in Portal               |
| CI_TIME_ZONE      | F1_TIMEZONE_NAME           | Y        |                                              |
| CI_TIME_ZONE_L    | DFLT_TIME_ZONE_LABEL       | N        |                                              |
| CI_TIME_ZONE_L    | SHIFT_TIME_ZONE_LABEL      | N        |                                              |
| CI_USR_ZONE       | ZONE_REFRESH_PERIOD        | N        |                                              |
| CI_XAI_SNDR_CTX   | F1_CTXT_VAL_LONG           | Y        | Long Context Value on XAI Sender             |
| CI_ZONE_L         | DESCRLONG_OVRD             | N        | Update Zone Parameter                        |
| CI_ZONE_PRM       | ZONE_PARM_VAL_OVRD         | N        | Update Zone Parameter                        |
| F1_BNDL_ENTITY    | USER_ID                    | N        |                                              |
| F1_BUS_OBJ_STATUS | STATUS_REASON_FLG          | N        |                                              |
| F1_BUS_SVC        | APP_SVC_ID                 | Y        | Secure Business Services and Service Scripts |
| F1_DATA_AREA      | F1_EXT_DATA_AREA_CD        | N        |                                              |

| Table       | Column                  | Required | Upgrade Note               |
|-------------|-------------------------|----------|----------------------------|
| F1_FACT     | BO_STATUS_REASO<br>N_CD | N        |                            |
| F1_FACT_LOG | BO_STATUS_REASO<br>N_CD | N        |                            |
| SC_USER     | EXT_USER_ID             | Y        | Long Userid<br>Support     |
| SC_USER     | TIME_ZONE_CD            | N        |                            |
| SC_USER     | F1_SECURITY_HASH        | N        | Long Userid<br>Support     |
| SC_USER     | USER_ENABLE_FLG         | N        | Security on User<br>Access |

## Dropped Columns

The following columns are dropped in this release.

- CI\_PORTAL: USER\_CONFIG\_OVRD\_FLG column.
- F1\_MAP\_L: HTML\_DEFN column.
- CI\_XAI\_SNDR\_CTX: CTXT\_VAL column.
- CI\_XAI\_IN\_SVC\_L: DESCR254 column.
- CI\_SCR\_STEP, CI\_SCR\_STEP\_L, CI\_SCR\_PRMPT, CI\_SCR\_PRMPT\_L, CI\_SCR\_FLD\_MAP: SCR\_STEP\_ID column.
- CI\_XAI\_IN\_SVC: XAI\_VERSION\_ID Column.
- CI\_XAI\_JDBC\_CON: DATABASE\_NAME column.

## Unsupported Table Columns

These columns will be deprecated in a future release.

- None

## Column Format Change

| Table Name        | Column Name  | From          | To            |
|-------------------|--------------|---------------|---------------|
| CI_ALG_L          | DESCR50      | VARCHAR2: 50  | VARCHAR2: 100 |
| CI_ALG_TYPE_L     | DESCR50      | VARCHAR2: 50  | VARCHAR2: 100 |
| CI_BATCH_CTRL_P_L | DESCR50      | VARCHAR2: 50  | VARCHAR2: 100 |
| CI_MD_MENU_ITEM_L | DESCR50      | VARCHAR2: 50  | VARCHAR2: 100 |
| CI_MD_MENU_L      | DESCR50      | VARCHAR2: 50  | VARCHAR2: 100 |
| CI_MSG_L          | MESSAGE_TEXT | VARCHAR2: 100 | VARCHAR2: 254 |

| Table Name                      | Column Name           | From          | To            |
|---------------------------------|-----------------------|---------------|---------------|
| CI_MSG_L                        | MESSAGE_TEXT<br>_OVRD | VARCHAR2: 100 | VARCHAR2: 254 |
| CI_NT_DWN_PROF_<br>L            | DESCR50               | VARCHAR2: 50  | VARCHAR2: 100 |
| CI_NT_DWN_TYPE_<br>L            | DESCR50               | VARCHAR2: 50  | VARCHAR2: 100 |
| CI_NT_UP_XTYPE_L                | DESCR50               | VARCHAR2: 50  | VARCHAR2: 100 |
| CI_NT_XID_L                     | DESCR50               | VARCHAR2: 50  | VARCHAR2: 100 |
| CI_SYSDATA_LOG                  | PK_VAL1               | VARCHAR2: 50  | VARCHAR2: 300 |
| CI_SYSDATA_LOG                  | PK_VAL2               | VARCHAR2: 50  | VARCHAR2: 300 |
| CI_SYSDATA_LOG                  | PK_VAL3               | VARCHAR2: 50  | VARCHAR2: 300 |
| CI_SYSDATA_LOG                  | PK_VAL4               | VARCHAR2: 50  | VARCHAR2: 300 |
| CI_SYSDATA_LOG                  | PK_VAL5               | VARCHAR2: 50  | VARCHAR2: 300 |
| CI_XAI_JDBC_CON                 | DATABASE_PASS<br>WORD | VARCHAR2: 32  | VARCHAR2: 64  |
| CI_WF_EVT_TYPE_L                | DESCR50               | VARCHAR2: 50  | VARCHAR2: 100 |
| Change Done Only In<br>Metadata | ADDRESS1              | VARCHAR2: 64  | VARCHAR2: 254 |
| Change Done Only In<br>Metadata | ADDRESS2              | VARCHAR2: 64  | VARCHAR2: 254 |
| Change Done Only In<br>Metadata | ADDRESS3              | VARCHAR2: 64  | VARCHAR2: 254 |
| Change Done Only In<br>Metadata | ADDRESS4              | VARCHAR2: 64  | VARCHAR2: 254 |

## Metadata Changes in FW for Successful Upgrade

The Following Metdata is changed in FW40 for a successful Upgrade.

| Metadata Description                                                                                                                              | Action Items for Products                                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| ADDRESS1, ADDRESS2, ADDRESS3 and ADDRESS4 Fields are going to be set as FW owned during upgrade. The DataType would be set as VARCHAR2(254 BYTE). | Products that upgrade to FW40 need to make sure that the physical tables should have these columns of length 254. |
| The label of ADDRESS4 field is changed to 'Address 4                                                                                              | 'Products that upgrade to FW40 need to make sure that there would be a new label for Address4 field.              |
| BO_DATA_AREA, CITY, COUNTY, GEO_CODE, HOUSE_TYPE, IN_CITY_LIMIT, NUM1, NUM2 and POSTAL would be FW owned.                                         | NONE                                                                                                              |

| <b>Metadata Description</b>                                                                                                                   | <b>Action Items for Products</b>                                                                                                                                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The Label of GEO_CODE field is changed to 'Geographical Code                                                                                  | 'Products that upgrade to FW40 need to make sure that there would be a new label for GEO_CODE field.                                                                                                                                              |
| XAI_ENV_HNDL_ID = 'DefaultHnd' in CI_XAI_ENV_HNDL Table would be FW owned.                                                                    | NONE                                                                                                                                                                                                                                              |
| Lookup Field HOUSE_TYPE would be FW owned.                                                                                                    | NONE                                                                                                                                                                                                                                              |
| Lookup Field Value- DFLT for field ENV_TYPE_FLG would be FW owned                                                                             | NONE                                                                                                                                                                                                                                              |
| Lookup Field Values- APTF and FPNM for field SENDER_CTXT_FLG would be FW owned.                                                               | NONE                                                                                                                                                                                                                                              |
| ACCT_ID, PER_ID and PREM_ID fields are removed from FW. These fields would be now C1 owned.                                                   | Products that upgrade to FW40 need to make sure that these fields would be now C1 owned. During FW40 upgrade in BI these fields should be set as 'BI' owned. If they do not need these fields then it needs to be removed from their environment. |
| The label of NUM1 field is changed to 'Number 1                                                                                               | 'Products that upgrade to FW40 need to make sure that there would be a new label for NUM1 field.                                                                                                                                                  |
| ACTION_FLG (Lookup) and EFF_DT fields are promoted to FW.                                                                                     | Products that upgrade to FW40 need to make sure that these fields would now be F1 owned.                                                                                                                                                          |
| TST_COMP_TYP_CD is made CM owned in FW                                                                                                        | Products that upgrade to FW40 need to make sure that if they have this field as F1 owned then it would be deleted. This field is moved to CCB and is related to BUG-6698188                                                                       |
| Lookup Field- ACCESS_MODE and Field_Value- 'PE' would be set as F1 owned                                                                      | Products that upgrade to FW40 need to make sure that the field value-'PE' would now be F1 owned for field name-'ACCESS_MODE'.                                                                                                                     |
| Field TRANS_BUS_OBJ_CD would be FW Owned.                                                                                                     | Products that upgrade to FW40 need to make sure that this Field would now be F1 owned.                                                                                                                                                            |
| View CI_USR_ACC_GRP_VW would be F1 Owned                                                                                                      | Products that upgrade to FW40 need to make sure that this view would now be F1 owned.                                                                                                                                                             |
| CI_SCRIPTS Zone is deleted from FW. Also for CI_TODO Zone the record with Zone Parameter name as CACHE_DATA is made FW owned with value as 'Y | 'ETM , CCB and BI needs to care about this. The FW 402 upgrade scripts will handle this.                                                                                                                                                          |

| Metadata Description                                                                                                                                         | Action Items for Products                                                                                                                                                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| INPUT_OPT_TYPE is deleted from FW                                                                                                                            | Products that upgrade to FW40 need to make sure that these fields would be now C1 owned. During FW40 upgrade in BI these fields should be set as 'BI' owned. If they do not need these fields then it needs to be removed from their environment. |
| CACHE_FLG and<br>KEY_VALIDATION_FLG in<br>CI_MD_TBL and<br>F1_BATCH_CTGY_FLG in<br>CI_BATCH_CTRL Table are Cmable and<br>require Initial data to be populate | Refer to the upgrade script and add similar to that for your product - //<br>Release_Services/DBA/4.1.0/FW/<br>Upgrade/Oracle/Install-Upgrade/<br>FW410_apData25.sql.                                                                             |
| The INIT.inp file for the language pack<br>needs to be updated based on the latest<br>System Data upgrade Input file of the edge<br>product                  |                                                                                                                                                                                                                                                   |

## New System Data

This section lists the new system data that are added for business process configuration.

### Algorithm Type

The following algorithm types are new to V4.1.0.

| Algorithm Type | Description                                    |
|----------------|------------------------------------------------|
| F1-ACTIVEWS    | WebService - Verify Active Operations          |
| F1-COMPSNAPS   | Compare Initial and Final Snapshots            |
| F1-GCHG-CDCP   | Generic Change Data Capture                    |
| F1-GEN-BOMNJ   | Generic Business Object Status Monitor<br>Java |
| F1-GENPRINFO   | Maintenance Object - Information               |
| F1-MTR-EM      | To Do Summary Email Monitor                    |
| F1-ORAGEOCD    | Oracle Spatial Geocoding                       |
| F1-REQ-INF     | Request Information                            |
| F1-REQTY-VAL   | Request Type Validation                        |
| F1-SMSEND      | Send SMS Message Using Oracle BPEL             |
| F1-SYNC-INFO   | Sync Information                               |
| F1-SYNRCLREX   | Clear Exceptions on Sync Request               |
| F1-TD-SM-EM    | Email Users on Outstanding To Dos              |
| F1-TODORETRY   | Retry for To Dos                               |
| F1-WAITRELSR   | Wait For Related Sync To Complete              |

### Algorithm

The following Algorithms are Framework Owned system data in V4.1.0.

| Algorithm    | Description                                |
|--------------|--------------------------------------------|
| F1-ACTIVEWS  | Web Service - Verify Active Operations     |
| F1-AT-RQ     | Transition to Default Next Status (Script) |
| F1-AT-RQJ    | Transition to Default Next Status (Java)   |
| F1-COMPSNAPS | Compare Initial and Final Snapshots        |
| F1-GCHG-CDCP | Generic Change Data Capture                |
| F1-GENPRINFO | General Process                            |
| F1-MTR-EM    | To Do Summary Email Monitor                |
| F1-ORAGEOCD  | Oracle Spatial Geocoding                   |

| <b>Algorithm</b> | <b>Description</b>                     |
|------------------|----------------------------------------|
| F1-REQ-INF       | Request Information                    |
| F1-REQTY-VAL     | Request Type Validation                |
| F1-SMSSNDBPL     | Oracle SMS Send                        |
| F1-SYNC-INFO     | Sync Information                       |
| F1-SYNRCLREX     | Clear Exceptions on Sync Request       |
| F1-TD-SM-EM      | Email Users on Outstanding To Dos      |
| F1-TODOCOMPL     | Generic To Do Completion               |
| F1-TRN-DF-NS     | Generic Business Object Status Monitor |
| F1-WAITRELSR     | Wait For Related Sync To Complete      |

## Application Service

The following Application Services are new to V4.1.0.

| <b>Application Service</b> | <b>Description</b>                        |
|----------------------------|-------------------------------------------|
| F1-APAYEXPCRTYPEBOAS       | Request Type - To Do Summary Email Type   |
| F1-DECRPTBOAS              | Decision Report BO                        |
| F1-DFLTAPS                 | Default Execution Application Service     |
| F1-EXPUSERSREQBOAS         | Request - To Do Summary Email BO          |
| F1-GENPROC                 | General Process MO                        |
| F1-SYNCREQ                 | Sync Request MO                           |
| F1-SYNCREQIN               | Inbound Sync Request MO                   |
| F1-SYNCREQUESTBOAS         | Sync Request BO                           |
| F1-WEBSVCBOAS              | Web Service Adapter BO                    |
| F1ATTACHMENT               | Attachment                                |
| F1ADMIN                    | System Admin Functions via Browser Client |
| F1APPSEC                   | Application Security Portal               |
| F1CONFIGLOG                | Show User Config Log (Debugging Tool)     |
| F1DEBUG                    | Debug Option Access via Browser Client    |
| F1EMHLAU                   | Embedded Help Portal                      |
| F1EXLKP                    | Extendable Lookup Portal                  |
| F1EXLKPS                   | Extendable Lookup Query Portal            |
| F1LCAMRP                   | Request MO                                |

| <b>Application Service</b> | <b>Description</b>                             |
|----------------------------|------------------------------------------------|
| F1LEXILKUP                 | Extended Lookup Value MO                       |
| F1LTAMTP                   | Request Type MO                                |
| F1REQ                      | Request Portal                                 |
| F1REQTYP                   | Request Type Portal                            |
| F1STRDIS                   | Status Reason Display Portal                   |
| F1STREAS                   | Status Reason Portal                           |
| F1SUBRQQ                   | Request Query Portal                           |
| F1SYNCRM                   | Sync Request Portal                            |
| F1SYNCRQ                   | Sync Request Query Portal                      |
| F1TBLEXC                   | Translatable Strings Exceeding Capacity Portal |
| F1UIZONE                   | Context Sensitive Zone                         |
| F1WBSVCM                   | Web Service Adapter                            |
| F1WBSVCS                   | Web Service Adapter Query Portal               |
| F1WEBSVC                   | Web Service                                    |
| F1_BTST                    | Batch Run Statistics Portal                    |
| F1_USRSCR                  | Favorite Scripts Zone                          |
| FWLSTRJP                   | Status Reason MO                               |
| FWLTMGCT                   | Managed Content                                |

## Access Mode Added to Application Service

The following Access Mode is added to existing Application Services and is new to V4.1.0.

| <b>Application Service</b> | <b>Description</b>    | <b>Access Mode</b>    |
|----------------------------|-----------------------|-----------------------|
| CILTUSEP                   | User                  | Enable/Disable (ENBL) |
| CILTWSDP                   | Feature Configuration | Super User (F1SU)     |

## Batch Control

The following Batch Controls are new to V4.1.0.

| <b>Batch Control</b> | <b>Description</b> |
|----------------------|--------------------|
| F1-ARQPR             | Request Monitor    |

| <b>Batch Control</b> | <b>Description</b>                       |
|----------------------|------------------------------------------|
| F1-FLUSH             | Flush All Caches                         |
| F1-IDCSV             | User Extract for Identity Manager(CSV)   |
| F1-REQTY             | Request Type Monitor                     |
| F1-SAKRQ             | Sync Request Allocate Keys Monitor       |
| F1-SRLRQ             | Sync Request Load Records Monitor        |
| F1-SUBRQ             | Request Monitor (Deferred)               |
| F1-SYNRQ             | Sync Request Monitor Process             |
| F1-SYSRQ             | Sync Request Sampling Monitor (Deferred) |

## Business Object

The following Business Objects are Framework Owned system data in V4.1.0.

| <b>Business Object</b>    | <b>Description</b>                        |
|---------------------------|-------------------------------------------|
| F1-BOStatusReason         | Status Reason                             |
| F1-BatchRunStatistics     | Batch Run Statistics Snapshot             |
| F1-COUNTRY                | Country                                   |
| F1-ContextZonePhysicalBO  | Physical BO for Context Sensitive Zone    |
| F1-DecRpt                 | Decision Report                           |
| F1-ExtLkpPhysicalBO       | Physical BO for Extended Lookup           |
| F1-IDMUser                | User Object for OIM                       |
| F1-Installation           | Installation Options - Framework          |
| F1-MORevisionControl      | MO - Enable/Disable Revision Control      |
| F1-ManagedContPhysicalBO  | Physical BO for Managed Content           |
| F1-OpaWebSvc              | Rulebase Web Service Adapter              |
| F1-OutcomeStyleLookup     | Outcome Style                             |
| F1-StatusReasonPhysicalBO | Physical BO for Status Reason             |
| F1-SyncCfgBO              | Master Data Synchronization Configuration |
| F1-SyncRequest            | Sync Request                              |
| F1-ToDoSumEmailReq        | To Do Summary Email Request               |
| F1-ToDoSumEmailTyp        | To Do Summary Email                       |
| F1-User                   | User                                      |
| F1-WebSvc                 | Web Service Adapter                       |

| <b>Business Object</b> | <b>Description</b>  |
|------------------------|---------------------|
| F1-XAI_Inbound_Service | XAI Inbound Service |

## FK Reference

The following FK References are new to V4.1.0.

| <b>FK Reference</b> | <b>Description</b>                     |
|---------------------|----------------------------------------|
| C1-BOMO             | Business Objects for MO                |
| F1-ACCGP            | Access Group                           |
| F1-ACTTY            | Request Type                           |
| F1-BOSRC            | BO with Search Zone                    |
| F1-BTCCT            | Batch Control w/ context menu          |
| F1-BUS              | Business Object                        |
| F1-CAL              | Work Calendar                          |
| F1-CHARV            | Characteristic Value                   |
| F1-CNTRY            | Country                                |
| F1-CTXZN            | Context Sensitive Zone                 |
| F1-CURCY            | Currency                               |
| F1-DASRC            | Data Area with Search Zone             |
| F1-DISPR            | Display Profile                        |
| F1-ESSRC            | External System with Search Zone       |
| F1-EXLKP            | Extendable Lookup value list           |
| F1-EXLKU            | Extendable Lookup                      |
| F1-FKSRC            | Foreign Key Reference with Search Zone |
| F1-GENPR            | General Process                        |
| F1-MANCT            | Managed Content                        |
| F1-MDSO             | Meta-data Search Object                |
| F1-MOSRC            | MO with Search Zone                    |
| F1-PHONE            | Phone Type                             |
| F1-REQTY            | Request Type                           |
| F1-SCSRC            | Script with Search Zone                |
| F1-STRDS            | Status Reason Display                  |
| F1-STRSN            | Status Reason                          |
| F1-SUBRQ            | Request                                |

| <b>FK Reference</b> | <b>Description</b>                 |
|---------------------|------------------------------------|
| F1-SYNRQ            | Sync Request                       |
| F1-TBSRC            | Table with Search Zone             |
| F1-TZONE            | Time Zone                          |
| F1-UISRC            | UI Map with Search Zone            |
| F1-USSRC            | User Id With Search Zone           |
| F1-WBSVC            | Web Service Adapter                |
| F1-XAIAD            | XAI Adapter                        |
| F1-XAICL            | XAI Class                          |
| F1-XAIEH            | XAI Envelope Handler               |
| F1-XAIEX            | XAI Executer                       |
| F1-XAIFM            | XAI Format                         |
| F1-XAIRC            | XAI Receiver                       |
| F1-XAISV            | XAI Inbound Service                |
| F1-ZONHD            | Zone Type                          |
| F1MP-BO             | Business Service                   |
| F1OM-BO             | BO Option - Outbound Message Type  |
| F1PD-BO             | BO Option - Request Preview Script |
| F1PV-BO             | BO Option - Request Preview Map    |
| F1SB-MO             | MO Option - Sync Request BO        |
| F1SR-MO             | MO Option - Status Reason          |

## Lookups

The following Lookups are added to Oracle Utilities Application Framework V4.1.0.

| <b>Lookup Field Name</b> | <b>Field Value</b> | <b>Language</b> | <b>Description</b>       |
|--------------------------|--------------------|-----------------|--------------------------|
| ACCESS_MODE              | ENBL               | ENG             | Enable/Disable           |
| ACCESS_MODE              | F1AA               | ENG             | Awaiting Acknowledgement |
| ACCESS_MODE              | F1AC               | ENG             | Active                   |
| ACCESS_MODE              | F1DC               | ENG             | Discarded                |
| ACCESS_MODE              | F1DS               | ENG             | Determine If Sync Needed |
| ACCESS_MODE              | F1ER               | ENG             | Sync Error               |
| ACCESS_MODE              | F1IN               | ENG             | Inactive                 |

| Lookup Field Name | Field Value | Language | Description                                |
|-------------------|-------------|----------|--------------------------------------------|
| ACCESS_MODE       | F1SR        | ENG      | Send Request                               |
| ACCESS_MODE       | F1SU        | ENG      | Super User                                 |
| ACCESS_MODE       | F1SY        | ENG      | Synchronized                               |
| ALG_ENTITY_FLG    | F1GS        | ENG      | Installation - Address Geocoding           |
| ALG_ENTITY_FLG    | F1SR        | ENG      | Installation - SMS Receive                 |
| ALG_ENTITY_FLG    | F1SS        | ENG      | Installation-SMSSend                       |
| BO_ACTION_FLG     | RWOV        | ENG      | Read without Version                       |
| BO_OPT_FLG        | F1MR        | ENG      | ToDoMaximumRetries                         |
| BO_OPT_FLG        | F1RF        | ENG      | ToDoRetryFrequency                         |
| BUS_OBJ_OPT_FLG   | F121        | ENG      | Framework Version 2.1 Compatibility Mode   |
| BUS_OBJ_OPT_FLG   | F1EX        | ENG      | External System                            |
| BUS_OBJ_OPT_FLG   | F1MP        | ENG      | WSDL Mapping Business Service              |
| BUS_OBJ_OPT_FLG   | F1OM        | ENG      | Outbound Message Type                      |
| BUS_OBJ_OPT_FLG   | F1OS        | ENG      | Oracle Web Determinations Server Location  |
| BUS_OBJ_OPT_FLG   | F1PD        | ENG      | Request Preview Service Script             |
| BUS_OBJ_OPT_FLG   | F1PV        | ENG      | RequestPreviewMap                          |
| BUS_OBJ_OPT_FLG   | F1RB        | ENG      | Oracle Policy Automation Rulebase Location |
| BUS_OBJ_OPT_FLG   | F1SR        | ENG      | Status Reason Business Object              |
| BUS_OBJ_OPT_FLG   | F1WT        | ENG      | Web Service Type                           |
| CACHE_FLG         | BTCH        | ENG      | Cached for Batch                           |
| CACHE_FLG         | NONE        | ENG      | Not Cached                                 |
| CHAR_ENTITY_FLG   | F1AT        | ENG      | Attachment                                 |
| CHAR_ENTITY_FLG   | F1RT        | ENG      | Request Type Log                           |
| CHAR_ENTITY_FLG   | F1SE        | ENG      | Sync Request Inbound Exception             |
| CHAR_ENTITY_FLG   | F1SG        | ENG      | Sync Request Inbound Log                   |

| Lookup Field Name | Field Value | Language | Description                     |
|-------------------|-------------|----------|---------------------------------|
| CHAR_ENTITY_FLG   | F1SI        | ENG      | SyncRequestInbound              |
| CHAR_ENTITY_FLG   | F1SR        | ENG      | Sync RequestLog                 |
| CHAR_ENTITY_FLG   | F1SY        | ENG      | Sync Request                    |
| CHAR_ENTITY_FLG   | F1WL        | ENG      | Web Service Log                 |
| CHAR_ENTITY_FLG   | F1WS        | ENG      | Web Service                     |
| DEST_FLD_TYPE_FLG | GBLC        | ENG      | Global Context                  |
| DEST_FLD_TYPE_FLG | PRTC        | ENG      | Portal Context                  |
| EXT_DATA_TYPE_FLG | DUR         | ENG      | Duration                        |
| EXT_SYS_TYP_FLG   | F1CR        | ENG      | Application Context Root        |
| EXT_SYS_TYP_FLG   | F1DB        | ENG      | Database Connection Information |
| EXT_SYS_TYP_FLG   | F1SS        | ENG      | SMSSendConfiguration            |
| F1-DELETEME       | F1IA        | ENG      | Image Accessibility             |
| F1-DELETEME       | F1LG        | ENG      | System Data Logging Enabled     |
| F1DB_OPT_TYP_FLG  | F1DP        | ENG      | Schema Password                 |
| F1DB_OPT_TYP_FLG  | F1DU        | ENG      | Schema Owner                    |
| F1SS_OPT_TYP_FLG  | F1OP        | ENG      | Operation Name                  |
| F1SS_OPT_TYP_FLG  | F1PT        | ENG      | Port Type                       |
| F1SS_OPT_TYP_FLG  | F1PW        | ENG      | Password                        |
| F1SS_OPT_TYP_FLG  | F1SN        | ENG      | Service Name                    |
| F1SS_OPT_TYP_FLG  | F1SU        | ENG      | Server URL                      |
| F1SS_OPT_TYP_FLG  | F1UN        | ENG      | User Name                       |
| F1_BATCH_CTGY_FLG | F1AD        | ENG      | Ad Hoc                          |
| F1_BATCH_CTGY_FLG | F1CV        | ENG      | Conversion                      |
| F1_BATCH_CTGY_FLG | F1EX        | ENG      | Extract                         |
| F1_BATCH_CTGY_FLG | F1MN        | ENG      | Monitor                         |

| Lookup Field Name           | Field Value | Language | Description                  |
|-----------------------------|-------------|----------|------------------------------|
| F1_BATCH_CTGY_FL<br>G       | F1OV        | ENG      | Object Validation            |
| F1_BATCH_CTGY_FL<br>G       | F1PR        | ENG      | Process What's Ready         |
| F1_BATCH_CTGY_FL<br>G       | F1RI        | ENG      | Referential Integrity        |
| F1_BATCH_CTGY_FL<br>G       | F1TD        | ENG      | To Do Entry                  |
| F1_BATCH_CTRL_TY<br>PE_FLG  | F1NT        | ENG      | Not Timed                    |
| F1_BATCH_CTRL_TY<br>PE_FLG  | F1TM        | ENG      | Timed                        |
| F1_COMPOSITE_SY<br>NC_FLG   | F1CS        | ENG      | Composite Sync Request       |
| F1_COMPOSITE_SY<br>NC_FLG   | F1SS        | ENG      | Single Sync Request          |
| F1_DATA_SYNC_FL<br>G        | F1CM        | ENG      | Conversion Mode              |
| F1_DATA_SYNC_FL<br>G        | F1EA        | ENG      | Execute Validation Algorithm |
| F1_DATA_SYNC_FL<br>G        | F1RK        | ENG      | Resolve Keys                 |
| F1_DATA_SYNC_FL<br>G        | F1VS        | ENG      | Validate Schema              |
| F1_DATE_MATH_OP<br>TION_FLG | F1AB        | ENG      | Add Business Days            |
| F1_DATE_MATH_OP<br>TION_FLG | F1AD        | ENG      | Add Days                     |
| F1_DATE_MATH_OP<br>TION_FLG | F1AT        | ENG      | Add Times                    |
| F1_DATE_MATH_OP<br>TION_FLG | F1DD        | ENG      | Date Difference              |
| F1_DATE_MATH_OP<br>TION_FLG | F1DT        | ENG      | Date Time Difference         |
| F1_DATE_MATH_OP<br>TION_FLG | F1FL        | ENG      | Force Last Day               |
| F1_DATE_MATH_OP<br>TION_FLG | F1MD        | ENG      | Days in Month                |
| F1_DATE_MATH_OP<br>TION_FLG | F1WD        | ENG      | Day of Week                  |

| Lookup Field Name           | Field Value | Language | Description                  |
|-----------------------------|-------------|----------|------------------------------|
| F1_EXTRACT_TRANSLATION_FLG  | F1NO        | ENG      | No                           |
| F1_EXTRACT_TRANSLATION_FLG  | F1YS        | ENG      | Yes                          |
| F1_EXT_LOOKUP_USAGE_FLG     | F1AC        | ENG      | Active                       |
| F1_EXT_LOOKUP_USAGE_FLG     | F1IN        | ENG      | Inactive                     |
| F1_FORCE_SYNC_FLG           | F1FS        | ENG      | ForceSynchronization         |
| F1_INITIAL_LOAD_SYNC_FLG    | F1IC        | ENG      | Incremental Synchronization  |
| F1_INITIAL_LOAD_SYNC_FLG    | F1IL        | ENG      | Initial Load Synchronization |
| F1_INPUT_IS_IN_DST_FLG      | F1AN        | ENG      | AssumeNotinShift             |
| F1_INPUT_IS_IN_DST_FLG      | F1AY        | ENG      | Assume In Shift              |
| F1_INPUT_IS_IN_DST_FLG      | F1N         | ENG      | No                           |
| F1_INPUT_IS_IN_DST_FLG      | F1Y         | ENG      | Yes                          |
| F1_PROD_TYPE_FLG            | F1PL        | ENG      | Parallel application         |
| F1_SHOW_ALL_REQ_FLG         | F1YE        | ENG      | Yes                          |
| F1_STATE_CONDITION_FLG      | F1AC        | ENG      | Active                       |
| F1_STATE_CONDITION_FLG      | F1CN        | ENG      | Cancel                       |
| F1_STATE_CONDITION_FLG      | F1IN        | ENG      | Inactive                     |
| F1_STATE_CONDITION_FLG      | F1PE        | ENG      | Pending                      |
| F1_SYNC_REQUIRE_D_FLG       | F1NQ        | ENG      | Synchronization not required |
| F1_SYNC_REQUIRE_D_FLG       | F1RQ        | ENG      | Synchronization required     |
| F1_SYNC_REQ_DISCARD_RSN_FLG | F1NC        | ENG      | No changes detected          |

| Lookup Field Name               | Field Value | Language | Description                              |
|---------------------------------|-------------|----------|------------------------------------------|
| F1_SYNC_REQ_DISC<br>ARD_RSN_FLG | F1NS        | ENG      | SP not linked to active service          |
| F1_SYNC_REQ_DISC<br>ARD_RSN_FLG | F1SA        | ENG      | Synchronization not required for SA Type |
| F1_SYNC_REQ_DISC<br>ARD_RSN_FLG | F1SP        | ENG      | Synchronization not required for SP Type |
| F1_TIMER_ACTIVE_<br>FLG         | F1DS        | ENG      | No                                       |
| F1_TIMER_ACTIVE_<br>FLG         | F1EN        | ENG      | Yes                                      |
| F1_TRANSLATABLE_<br>FLG         | F1NO        | ENG      | No                                       |
| F1_TRANSLATABLE_<br>FLG         | F1YS        | ENG      | Yes                                      |
| GEO_MTCH_QTTY_<br>FLG           | 1           | ENG      | Exact match                              |
| GEO_MTCH_QTTY_<br>FLG           | 10          | ENG      | Postal code does not match               |
| GEO_MTCH_QTTY_<br>FLG           | 11          | ENG      | City does not match                      |
| GEO_MTCH_QTTY_<br>FLG           | 2           | ENG      | Street type does not match               |
| GEO_MTCH_QTTY_<br>FLG           | 3           | ENG      | House does not match                     |
| GEO_MTCH_QTTY_<br>FLG           | 4           | ENG      | Street address does not match            |
| ICON_TYPE_FLG                   | LBTN        | ENG      | 32 x 32 pixels                           |
| ICON_TYPE_FLG                   | MBTN        | ENG      | 24 x 24 pixels                           |
| ICON_TYPE_FLG                   | SBTN        | ENG      | 16 x 16 pixels                           |
| INS_ALG_ENTITY_F<br>LG          | F1GS        | ENG      | Geocoding Service                        |
| INS_ALG_ENTITY_F<br>LG          | F1SR        | ENG      | SMS Receive Service                      |
| INS_ALG_ENTITY_F<br>LG          | F1SS        | ENG      | SMS Send Service                         |
| KEY_VALIDATION_<br>FLG          | ALL         | ENG      | Always Check Uniqueness                  |
| KEY_VALIDATION_<br>FLG          | NONE        | ENG      | Never Perform Uniqueness Checking        |

| Lookup Field Name        | Field Value | Language | Description                              |
|--------------------------|-------------|----------|------------------------------------------|
| KEY_VALIDATION_FLG       | ONLI        | ENG      | Check Uniqueness Online Only             |
| MAINT_OBJ_OPT_FLG        | F1RB        | ENG      | ReplaceBO Option                         |
| MAINT_OBJ_OPT_FLG        | F1RM        | ENG      | ReplaceMO Option                         |
| MAINT_OBJ_OPT_FLG        | F1RS        | ENG      | Replace BO Status Option                 |
| MAINT_OBJ_OPT_FLG        | F1SR        | ENG      | Status Reason Field                      |
| MANAG_CONTENT_TYPE_FLG   | F1CS        | ENG      | CSS Definitions                          |
| MANAG_CONTENT_TYPE_FLG   | F1JS        | ENG      | Javascript                               |
| MANAG_CONTENT_TYPE_FLG   | F1WL        | ENG      | Whitelist                                |
| MANAG_CONTENT_TYPE_FLG   | F1X         | ENG      | XSLT                                     |
| MANAG_CONTENT_TYPE_FLG   | F1XC        | ENG      | XSLTC                                    |
| MSG_PARM_TYP_FLG         | DUR         | ENG      | Duration parameter                       |
| OPERATION_ACTIVE_FLG     | F1AC        | ENG      | Active                                   |
| OPERATION_ACTIVE_FLG     | F1IA        | ENG      | Inactive                                 |
| PROD_TYPE_FLG            | F1PL        | ENG      | Parallel Application                     |
| SCR_ENGINE_VERSION_FLG   | F11C        | ENG      | Framework Version 2.1 Compatibility Mode |
| SRC_FLD_TYPE_FLG         | GBLC        | ENG      | Global Context                           |
| SRC_FLD_TYPE_FLG         | PRTC        | ENG      | Portal Context                           |
| STATUS_REASON_FLG        | F1OT        | ENG      | Optional                                 |
| STATUS_REASON_FLG        | F1RD        | ENG      | Required                                 |
| STATUS_REASON_SELECT_FLG | F1SL        | ENG      | Selectable                               |
| STATUS_REASON_SELECT_FLG | F1US        | ENG      | Not Selectable                           |
| STD_TM_SRC_FLG           | F1RF        | ENG      | Referenced Time Zone                     |

| Lookup Field Name         | Field Value | Language | Description                    |
|---------------------------|-------------|----------|--------------------------------|
| STEP_TYPE_FLG             | NVRD        | ENG      | Navigate and refresh dashboard |
| USER_CONFIG_FLG           | N           | ENG      | No                             |
| USER_CONFIG_FLG           | Y           | ENG      | Yes                            |
| USER_ENABLE_FLG           | DSBL        | ENG      | Disable                        |
| USER_ENABLE_FLG           | ENBL        | ENG      | Enable                         |
| WEBSVC_STATUS_FLG         | F1FLG       | ENG      | Active                         |
| WEBSVC_STATUS_FLG         | F1IN        | ENG      | Pending                        |
| WEB_SVC_SECURITY_TYPE_FLG | F1HB        | ENG      | HTTP Basic                     |
| WEB_SVC_SECURITY_TYPE_FLG | F1NO        | ENG      | None                           |
| WEB_SVC_SECURITY_TYPE_FLG | F1WS        | ENG      | WS-Security                    |
| XAI_OPTION_FLG            | SUSR        | ENG      | Privileged Users               |
| ZONE_HPRM_USG_FLG         | ZOVR        | ENG      | Zone - Override Allowed        |
| ZONE_HPRM_USG_FLG         | ZTOR        | ENG      | Zone Type - Override Allowed   |

## Maintenance Object

The following Maintenance Objects are new to V4.1.0.

| MO code      | Description                         |
|--------------|-------------------------------------|
| F1-ATCHMT    | Attachment                          |
| F1-EXT LKUP  | Extendable Lookup                   |
| F1-GENPROC   | General Process                     |
| F1-MAN CONT  | Managed Content                     |
| F1-REQ       | Request                             |
| F1-REQ-TYPE  | Request Type                        |
| F1-STSREASON | Status Reason                       |
| F1-SYNC REQ  | Sync Request                        |
| F1-SYNCREQIN | Inbound Sync Request                |
| F1-UI ZONE   | Context Sensitive Zone - Single Row |

| <b>MO code</b> | <b>Description</b> |
|----------------|--------------------|
| F1-WEBSVC      | Web Service        |

## Script

The following Scripts are Framework-owned system data in V4.1.0.

| <b>Script</b> | <b>Description</b>                                                       |
|---------------|--------------------------------------------------------------------------|
| F1-ACTIVEWS   | Web Service Adapter - Verify Active Operations                           |
| F1-AppSerDet  | Get Application Service Details                                          |
| F1-AppSrvNav  | Navigate to User Group Application Service Page                          |
| F1-BOStatus   | Status Reason Drop Down populate - Pre Processing                        |
| F1-BRGetStat  | Retrieve batch run statistics from the fact holding the batch run's stat |
| F1-BRStatGra  | Update and retrieve batch run statistics                                 |
| F1-ChkOutLst  | Objects Checked Out By User                                              |
| F1-CompSnaps  | Compare Initial and Final Snapshots                                      |
| F1-CondShwZn  | Zone Visibility - Display Zone in Portal Conditionally                   |
| F1-CreEmail   | Request - Create Email                                                   |
| F1-DelUsrGrp  | Deny Access                                                              |
| F1-EdtMDFld   | Edit MD Field                                                            |
| F1-ExLkActn   | Extendable Lookup Actions                                                |
| F1-ExLkpValD  | Extendable Lookup Value Derivation Script                                |
| F1-ExLkpZ     | ExtendedLookup-ActionMapDerivation                                       |
| F1-ExtDA      | Visibility script for Extended Data Area                                 |
| F1-GENPRINFO  | General Process MO Information                                           |
| F1-GenDss     | Retrieve Business Object, Display Map and Script                         |
| F1-GenWsOpDA  | Web Service Adapter Operation - Generate Mapping Data Areas              |
| F1-GetBRStat  | Get Batch Run Statistics                                                 |
| F1-GetThdSta  | Get Thread Statistics                                                    |
| F1-GetUser    | Get the current User                                                     |

| <b>Script</b> | <b>Description</b>                                   |
|---------------|------------------------------------------------------|
| F1-GetUsrInf  | Retrieves the user information with user id appended |
| F1-GnChgDCap  | Generic Change Data Capture                          |
| F1-GotoPrtl   | Navigate to portal for an MO and key values          |
| F1-MORevCPos  | Enable MO Revision Control - Post-processing         |
| F1-MORevCPre  | Enable MO Revision Control - Pre-processing          |
| F1-MORevCtl   | Enable/Disable MO Revision Control                   |
| F1-MainRqTyp  | Request Type - Maintain                              |
| F1-MainSynRq  | Sync Request - Maintain                              |
| F1-MaintStRs  | Status Reason - Maintain                             |
| F1-MtrEmail   | Request Type - To Do Summary Email Monitor           |
| F1-PopMDFld   | Populate MD Field                                    |
| F1-ReqActn    | Request - Retrieve Action Details for Display        |
| F1-ReqAdd     | Request - Add                                        |
| F1-ReqCan     | Request - Cancel                                     |
| F1-ReqChg     | Request - Change                                     |
| F1-ReqDisp    | Request - BO and Map Derivation                      |
| F1-ReqInf     | Request - Information                                |
| F1-ReqTyDisp  | Request Type - Retrieve Details for Display          |
| F1-ReqTypSel  | Request Type - Select Active                         |
| F1-ReqValTyp  | Request - Validate Request Type                      |
| F1-ReqZ       | Request - Action Map Derivation                      |
| F1-RetChrDet  | Retrieve Characteristic Type Information Details     |
| F1-RetSchDef  | Retrieves schema definition                          |
| F1-RqTypActn  | Request Type - Retrieve Action Details for Display   |
| F1-RqTypZ     | Request Type - Action Map Derivation                 |
| F1-RqUsrLgAd  | Request - Add User Log Entry                         |
| F1-RtUsrLgAd  | Request Type - Add User Log Entry                    |
| F1-SReqQryV   | Validate Sync Request Query filters                  |

| <b>Script</b> | <b>Description</b>                                         |
|---------------|------------------------------------------------------------|
| F1-STRLONG    | String Too Long                                            |
| F1-SecAthLvl  | Security Type with Authorization Level Info                |
| F1-StRsnDspD  | StatusReasonDisplayDerivationScript                        |
| F1-StsReqRsn  | BO Statuses                                                |
| F1-SynRClrEx  | Sync Request - Clear Exception Info                        |
| F1-SyncInfo   | Sync Request - Information                                 |
| F1-SyncRActn  | Sync Request - Retrieve Action Details                     |
| F1-SyncRqLog  | Sync Request - Add User Log Entry                          |
| F1-TRANSTBL   | Inhibit tables with fields not exceeding capacity          |
| F1-TdSumText  | To Do Summary Text Message                                 |
| F1-ToDoRqDsp  | To Do Summary Email Request - Retrieve Details for Display |
| F1-ToDoSmPrv  | Request - Preview To Do Summary Email                      |
| F1-ToDoSumEm  | To Do Summary Email                                        |
| F1-ToDoTyDsp  | Retrieve To Do Summary Email for Display                   |
| F1-UpdMDFld   | Update MD Field                                            |
| F1-UsrGrpCds  | User Group Access Codes                                    |
| F1-ValTdsTyp  | To Do Summary Email Request Type Validation                |
| F1-ViewWSDL   | WSDL Source Viewer                                         |
| F1-WaitRelSR  | Wait For Related Sync To Complete                          |
| F1-WbSvcLgAd  | Web Service - Add User Log Entry                           |
| F1-WbSvcMain  | Web Service Adapter - Maintain                             |
| F1-WebSvcDtl  | Web Service Adapter - Retrieve Details for Display         |
| F1ExtLkMaint  | Extended Lookup - Maintain                                 |

## To do Type

The following To Do type is new to V4.1.0.

| <b>To Do Type</b> | <b>Description</b>     |
|-------------------|------------------------|
| F1-ARQPR          | Request Monitor Errors |

| To Do Type | Description                       |
|------------|-----------------------------------|
| F1-REQTY   | Request Type Monitor Errors       |
| F1-SUBRQ   | Request Monitor (Deferred) Errors |
| F1-SYNRQ   | Sync Request Error                |

## Portal

The following Portal is new to V4.1.0.

| Portal     | Description                             |
|------------|-----------------------------------------|
| F1APPSEC   | Application Security                    |
| F1EMHLAU   | Embedded Help                           |
| F1EXLKP    | Extendable Lookup                       |
| F1EXLKPS   | Extendable Lookup Query                 |
| F1REQ      | Request                                 |
| F1REQTYP   | Request Type                            |
| F1STRDIS   | Status Reason Display                   |
| F1STREAS   | Status Reason                           |
| F1SUBRQQ   | Request Query                           |
| F1SYNCRL   | Sync Request Log                        |
| F1SYNCRM   | Sync Request                            |
| F1SYNCRQ   | Sync Request Query                      |
| F1TBLEXC   | Translatable Strings Exceeding Capacity |
| F1WBSVCL   | Web Service Log                         |
| F1WBSVCM   | Web Service Adapter                     |
| F1WBSVCS   | Web Service Query                       |
| F1_BTST    | Batch Run Statistics                    |
| F1_MAN_CON | Managed Content                         |

## Portal Zone

The following Portal Zones are added to V4.1.0

| Portal       | Zone       |
|--------------|------------|
| CI_DASHBOARD | F1_USRSCR  |
| F1APPSEC     | F1-APSVDTL |

| <b>Portal</b> | <b>Zone</b>  |
|---------------|--------------|
| F1APPSEC      | F1-USGRPWSR  |
| F1APPSEC      | F1-USGRPWTSR |
| F1EMHLAU      | F1-UISRC     |
| F1EXLKP       | F1-EXLKPLST  |
| F1EXLKP       | F1-EXLKPVLD  |
| F1EXLKPS      | F1-EXLKPSRCH |
| F1REQ         | F1-SUBRACTN  |
| F1REQ         | F1-SUBRQL    |
| F1REQ         | F1-SUBRQZ    |
| F1REQTYP      | F1-REQTYL    |
| F1REQTYP      | F1-RQTACTN   |
| F1REQTYP      | F1-SUBRQD    |
| F1REQTYP      | F1-SUBRQT    |
| F1STRDIS      | F1-STRDS     |
| F1STREAS      | F1-BORFOL    |
| F1STREAS      | F1-SREBO     |
| F1SUBRQQ      | F1-SUBREQ    |
| F1SYNCRL      | F1-SYNCRQSTL |
| F1SYNCRM      | F1-SYNCRQSTA |
| F1SYNCRM      | F1-SYNCRQSTD |
| F1SYNCRQ      | F1-SYNREQQRY |
| F1TBLEXC      | F1-STRLONG   |
| F1TBLEXC      | F1-TRANSTBL  |
| F1WBSVCL      | F1-WBSVCLOG  |
| F1WBSVCM      | F1-WBSVCDISP |
| F1WBSVCS      | F1-WBSVCQ    |
| F1_BTST       | F1-BATCHCTL  |
| F1_BTST       | F1-BATCHRUN  |
| F1_BTST       | F1-BRSTATGRA |
| F1_MAN_CON    | F1-MAN-CON   |
| F1_MAN_CON    | F1-SCHHDR-MC |
| F1_SCHEMA_BO  | F1-SCHEMA-US |
| F1_SCHEMA_DA  | F1-EXTDA     |

## UI Map

The following UI Maps are Framework Owned system data in V4.1.0.

| <b>Map</b>                     | <b>Description</b>                               |
|--------------------------------|--------------------------------------------------|
| F1-AddSyncRequestLog           | Sync Request - Add User Log Entry                |
| F1-AppSrvDetDisp               | Application Service Details Display              |
| F1-AppSrvUsGrpFilter           | ApplicationServiceUserGroup Filter Area          |
| F1-AppZoneHeaderMenu           | Application URL Zone Header Menu                 |
| F1-BatchRunStatisticsGraph     | Batch Run Statistics                             |
| F1-CancelRequest               | Request - Cancel Confirmation                    |
| F1-CharAddDeleteButton         | Characteristics Add/Delete Button                |
| F1-CharValueDisplay            | Characteristic Value Display                     |
| F1-CharValueMaint              | Characteristic Value Maintenance                 |
| F1-CharacteristicTypeInfo      | Characteristic Type Information                  |
| F1-DAExplorerHeaderFrameAction | Explorer Header Actions                          |
| F1-DisplayFavoriteScripts      | Display Favorite Scripts                         |
| F1-DisplayRecordActionHeader   | Record Actions Header                            |
| F1-DisplayRecordActions        | Record Actions HTML Fragment                     |
| F1-EditMDField                 | Edit MD Field                                    |
| F1-EditorHeader                | HTML Editor Zone Header                          |
| F1-EnableMORevisionControlMap  | Enable MO Revision Control UI Map                |
| F1-EnterRequestType            | Request - Select Request Type                    |
| F1-ExplZoneHeadMenuFusion      | Fusion style zone header menu for explorer zones |
| F1-ExtDAHeader                 | Default Header for Data Explorers                |
| F1-ExtLookupLeftColumnDisplay  | ExtendableLookupLeftColumn - Display             |
| F1-ExtLookupRightColumnDisplay | Extendable Lookup Right Column - Display         |
| F1-ExtendableLookupActions     | Extendable Lookup - Actions                      |
| F1-ExtendedLookupCommonMaint   | Extendable Lookup Common - Maintenance           |
| F1-GenDA                       | Generate Mapping Data Areas                      |
| F1-GenericZoneHdrActions       | Generic Zone Header Actions                      |
| F1-MQueryExpHeaderFrameActions | Multi Query Explorer Header Action UI Map        |

| <b>Map</b>                   | <b>Description</b>                         |
|------------------------------|--------------------------------------------|
| F1-MessageQueryFilter        | Message Query Filter                       |
| F1-MultiExplorerHeadFrameAct | ExplorerHeader Action UI Map Fragment      |
| F1-OkCancelButtons           | Submit Ok or Cancel buttons                |
| F1-OutcomeStyleLookupDisplay | Outcome Style - Display                    |
| F1-OutcomeStyleLookupMaint   | Outcome Style - Maintenance                |
| F1-RecordInfo                | Record Information Fragment                |
| F1-RecordInfoHeader          | Record Information Header Fragment         |
| F1-RequestActions            | Request - Actions                          |
| F1-RequestTypeActions        | Request Type - Actions                     |
| F1-RequestTypeUserLogAdd     | Request Type - Add User Log Entry          |
| F1-RequestUserLogAdd         | Request - Add User Log Entry               |
| F1-SaveCancelButtons         | Save and Cancel Buttons                    |
| F1-StatusReasonDisplay       | Status Reason - Display                    |
| F1-StatusReasonInput         | State Transition - Enter Reason            |
| F1-StatusReasonMaintenance   | Status Reason - Maintenance                |
| F1-StringLongDetails         | Display fields exceeding 70% capacity      |
| F1-SyncCfgBOMaint            | Master Data Synchronization Configuration  |
| F1-SyncReqCancelReasonInput  | Sync Request - Enter Cancel Reason         |
| F1-SyncRequestActions        | Sync Request - Actions                     |
| F1-ToDoSumEmailDisp          | To Do Summary Email Request - Display      |
| F1-ToDoSumEmailPreview       | Request - Preview To Do Summary Email      |
| F1-ToDoSumEmailReqMaint      | Request - To Do Summary Email Maintenance  |
| F1-ToDoSumEmailTypMaint      | To Do Summary Email Type - Maintenance     |
| F1-ToDoSumEmailTypeDisp      | To Do Summary Email Request Type - Display |
| F1-UIMapHeadMenuFusion       | Fusion look zone header menu               |
| F1-WSDLViewer                | WSDL Source Viewer                         |
| F1-WbSvcSearchFilter         | Web Service Adapter - Query Filters        |
| F1-WebSvcDisplay             | Web Service Adapter - Display              |
| F1-WebSvcLogAdd              | Web Service Adapter - Add User Log Entry   |
| F1-WebSvcMain                | Web Service Adapter - Maintenance          |

## XAI Inbound Service

The following XAI Inbound Service is new to V4.1.0.

| XAI Inbound Service name          | Description                                    |
|-----------------------------------|------------------------------------------------|
| F1-UpdateAndTransitionSyncRequest | Update and Transition Master Data Sync Request |
| F1-SmsReceive                     | Receive SMS Message XAI Service                |

## Zone Type

The following Zone Types are new to V4.1.0.

| Zone Type code | Description     |
|----------------|-----------------|
| F1-APP-URL     | Application URL |

## Zone

The following new Zones are added to V4.1.0.

| Zone         | Zone Type    | Description                              |
|--------------|--------------|------------------------------------------|
| F1-ALGSQ1    | F1-DE-QUERY  | Algorithm Code/ Description              |
| F1-ALGSRCH   | F1-DE-MULQRY | Algorithm Search                         |
| F1-APSRVSEC  | F1-DE        | Get Application Service Security         |
| F1-APSVCSRCH | F1-DE-QUERY  | Application Service Search               |
| F1-APSVDTL   | F1-MAPEXPL   | Application Service Details              |
| F1-BATCHCTL  | F1-DE-QUERY  | Batch Control Query                      |
| F1-BATCHRUN  | F1-DE-SINGLE | Batch Runs (Last 20)                     |
| F1-BATCHRUNS | F1-DE-SINGLE | Thread Statistics                        |
| F1-BATCHSTAT | F1-DE-SINGLE | Batch Run Statistics                     |
| F1-BNCTXZS   | F1-DE-QUERY  | Context Sensitive Zone Search            |
| F1-BNEXLKPS  | F1-DE-QUERY  | Extended Lookup Search                   |
| F1-BNMANCONS | F1-DE-QUERY  | Managed Content Search                   |
| F1-BNSTSRSNS | F1-DE-QUERY  | Status Reason Search                     |
| F1-BOMOSRCH  | F1-DE-QUERY  | Business Object Search for Add           |
| F1-BORFOL    | F1-DE-SINGLE | Business Objects with Status Reason      |
| F1-BOSRCH    | F1-DE-QUERY  | Business Object Search                   |
| F1-BOSTSLST  | F1-DE-SINGLE | Retrieve BO Statuses Allowing Reason     |
| F1-BREACT    | F1-DE-SINGLE | Get Fact Id for a Batch Run's Statistics |

| <b>Zone</b>  | <b>Zone Type</b> | <b>Description</b>                              |
|--------------|------------------|-------------------------------------------------|
| F1-BRSTATGRA | F1-MAPEXPL       | Batch Run, RPS Graph, and Thread Statistics     |
| F1-BSRDRS    | F1-DE-SINGLE     | Get required status reasons                     |
| F1-BSSLRS    | F1-DE-SINGLE     | Get all selected Reasons                        |
| F1-CONDSHWZN | F1-DE-SINGLE     | Application Service Details                     |
| F1-CHVAL     | F1-DE-QUERY      | Predefined Characteristic Value/<br>Description |
| F1-DASRCH    | F1-DE-QUERY      | Data Area Search                                |
| F1-DBBATSTAT | F1-DE-SINGLE     | Batch Run Statistics (DB)                       |
| F1-DISSTS    | F1-DE-SINGLE     | Retrieve BO States with Reasons                 |
| F1-ESSRCH    | F1-DE-QUERY      | External System Search                          |
| F1-EXLKPLST  | F1-DE-SINGLE     | Extendable Lookup Value List                    |
| F1-EXLKPSRCH | F1-DE-QUERY      | Extendable Lookup Search                        |
| F1-EXLKPVALD | F1-MAPDERV       | Extendable Lookup Value                         |
| F1-EXTDA     | F1-DE-SINGLE     | Extension Data Areas                            |
| F1-FAVSCR    | F1-DE-SINGLE     | Retrieve User's Favorite Scripts                |
| F1-FKSRC     | F1-DE-QUERY      | Foreign Key Search                              |
| F1-FLDSRCH   | F1-DE-MULQRY     | Field Search                                    |
| F1-FLDSRCHQ1 | F1-DE-QUERY      | Field Name/ Description                         |
| F1-GETACTTYP | F1-DE-SINGLE     | Retrieve Active Request Types                   |
| F1-GETEXLKPD | F1-DE-SINGLE     | Get Extended Lookup Value details               |
| F1-GETEXTSYS | F1-DE-SINGLE     | Retrieve External Systems                       |
| F1-GETINITSR | F1-DE-SINGLE     | Get Initial Sync Requests                       |
| F1-GETMAXEND | F1-DE-SINGLE     | Get Maximum End for the batch run               |
| F1-GETMAXTHR | F1-DE-SINGLE     | Get Maximum Thread Number for Batch Run         |
| F1-GETMINSTR | F1-DE-SINGLE     | Get Minimum Start for the batch run             |
| F1-GETNONFSR | F1-DE-SINGLE     | Get Non-Final Sync Requests                     |
| F1-GETRECREQ | F1-DE-SINGLE     | Retrieve Latest Request for Request Type        |
| F1-GETTHDEND | F1-DE-SINGLE     | Get Thread End                                  |
| F1-GETTHDSTR | F1-DE-SINGLE     | Get Thread Start                                |
| F1-GPINFO    | F1-DE-SINGLE     | Retrieve General Process Information            |
| F1-MAN-CON   | F1-XMLEditor     | Editor                                          |
| F1-MONAVKEY  | F1-DE-SINGLE     | Get Tab Menu Navigation Key for MO              |

| <b>Zone</b>  | <b>Zone Type</b> | <b>Description</b>                          |
|--------------|------------------|---------------------------------------------|
| F1-MOSRCH    | F1-DE-QUERY      | Maintenance Object Search                   |
| F1-MSGCATSCH | F1-DE-QUERY      | Message Category Search                     |
| F1-MSGSRCH   | F1-DE-MULQRY     | Message Search                              |
| F1-MSGSRCHQ1 | F1-DE-QUERY      | Message Category/ Number/ Description       |
| F1-REQTYL    | F1-DE-SINGLE     | Request Type Log                            |
| F1-RQTACTN   | F1-MAPDERV       | Actions                                     |
| F1-SCHHDR-MC | F1-FIELDVALS     | General Information                         |
| F1-SCSRCH    | F1-DE-QUERY      | Script Search                               |
| F1-SREBO     | F1-DE-SINGLE     | Status Reasons                              |
| F1-STRDS     | F1-MAPDERV       | Status Reason Display                       |
| F1-STRLONG   | F1-MAPEXPL       | Translatable Strings Exceeding Capacity     |
| F1-SUBRACTN  | F1-MAPDERV       | Actions                                     |
| F1-SUBREQ    | F1-DE-QUERY      | Request Search                              |
| F1-SUBRQD    | F1-MAPDERV       | Request Type                                |
| F1-SUBRQL    | F1-DE-SINGLE     | Request Log                                 |
| F1-SUBRQT    | F1-DE-SINGLE     | Request Type List                           |
| F1-SUBRQZ    | F1-MAPDERV       | Request                                     |
| F1-SYNCRQSTA | F1-MAPDERV       | Actions                                     |
| F1-SYNCRQSTD | F1-MAPDERV       | Sync Request                                |
| F1-SYNCRQSTL | F1-DE            | Sync Request Log                            |
| F1-SYNREQQ3  | F1-DE-QUERY      | Maintenance Object                          |
| F1-SYNREQQRY | F1-DE-MULQRY     | Sync Request Search                         |
| F1-SYNRQALRT | F1-DE-SINGLE     | Retrieve Outstanding Sync Request           |
| F1-TBLSRCH   | F1-DE-QUERY      | Table Search                                |
| F1-TDS-ALL   | F1-DE-SINGLE     | To Do Summary Email All                     |
| F1-TDS-CNT   | F1-DE-SINGLE     | To Do Summary Email Count                   |
| F1-TDS-OPN   | F1-DE-SINGLE     | To Do Summary Email Get Open To Dos by Type |
| F1-TDS-PRV   | F1-DE-SINGLE     | To Do Summary Email Preview                 |
| F1-TRANSTBL  | F1-DE-SINGLE     | Translatable Tables                         |
| F1-TZSRCH    | F1-DE-QUERY      | Time Zone Search                            |
| F1-UISRC     | F1-DE-QUERY      | UI Map Search                               |
| F1-UISRCH    | F1-DE-QUERY      | UI Map Search                               |

| <b>Zone</b>  | <b>Zone Type</b> | <b>Description</b>                              |
|--------------|------------------|-------------------------------------------------|
| F1-USGRACML  | F1-DE            | Get User Group Access Modes                     |
| F1-USGRPWSR  | F1-DE            | User Groups with Access                         |
| F1-USGRPWTSR | F1-DE            | User Groups without Access                      |
| F1-USGRSECL  | F1-DE            | Get Security Type Access for User Group         |
| F1-USGRSRCH  | F1-DE-QUERY      | User Group Search                               |
| F1-USSRCH    | F1-DE-QUERY      | User Search                                     |
| F1-WBSVCDISP | F1-MAPDERV       | Web Service Adapter                             |
| F1-WBSVCLOG  | F1-DE            | Web Service Adapter Log                         |
| F1-WBSVCQ    | F1-DE-MULQRY     | Web Service Adapter Search                      |
| F1-WBSVCQ1   | F1-DE-QUERY      | Web Service Adapter Name/Description/<br>Status |
| F1-WORKCAL   | F1-DE-QUERY      | Work Calendar Search                            |
| F1HRBOTREE   | F1-DE            | BOs Linked To The MO                            |
| F1_MOREVCTRL | F1-DE            | Get the list of MOs that have physical BOs      |
| F1_USRSCR    | F1-MAPEXPL       | Favorite Scripts                                |



# Appendix D

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## Oracle Application Framework System Table Guide

This section lists the system tables owned by the Oracle Utilities Application Framework V4.1.0 and explains the data standards of the system tables. The data standards are required for the installation of Oracle Utilities Application Framework, development within the Oracle Utilities Application Framework, and the configuration and customization of Oracle Utilities products. Adhering to the data standards is a prerequisite for seamless upgrade to future releases.

This section includes:

- **About the Application Framework System Tables**
- **System Table Standards**
- **Guidelines for System Table Updates**
- **System Table List**

## About the Application Framework System Tables

System tables are a subset of the tables that must be populated at the time the product is installed. They include Metadata and configuration tables. The data stored in the system tables are the information that Oracle Utilities Application Framework product operations are based on.

As the product adds more functionality, the list of system tables can grow. The complete list of the system tables can be found in the **System Table List** section.

## System Table Standards

System table standards must be observed for the following reasons:

- The product installation and upgrade process and customer modification data extract processes depend on the data prefix and owner flag values to determine the system data owned by each product.
- The standards ensure that there will be no data conflict in the product being developed and the future Oracle Utilities Application Framework release.
- The standards ensure that there will be no data conflict between customer modifications and future Oracle Utilities product releases.
- The data prefix is used to prevent test data from being released to production.

**Developer's Note:** All test data added to the system data tables must be prefixed by ZZ (all upper case) in order for the installation and upgrade utility to recognize them as test data.

# Guidelines for System Table Updates

This section describes guidelines regarding the updating of the system table properties.

## Business Configuration Tables

The majority of data in the tables in this group belongs to the customer. But these tables are shipped with some initial data in order for the customer to login to the system and begin configuring the product. Unless specified otherwise, the initial data is maintained by Oracle Utilities Application Framework and subject to subsequent upgrade.

## Application Security and User Profile

These tables define the access rights of a User Group to Application Services and Application Users.

| Properties   | Description                                                                                                                                                                                                             |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tables       | SC_ACCESS_CNTRL, SC_USER, SC_USR_GRP_PROF, SC_USR_GRP_USR, SC_USER_GROUP, SC_USER_GROUP_L                                                                                                                               |
| Initial Data | User Group All SERVICES and default system user SYSUSER. Upon installation the system default User Group All SERVICES is given unrestricted accesses to all services defined in Oracle Utilities Application Framework. |

**Developer's Note:** When a new service is added to the system, all actions defined for the service must be made available to the User Group All SERVICES.

## Currency Code

The ISO 4217 three-letter codes are taken as the standard code for the representation of each currency.

| Properties   | Description                      |
|--------------|----------------------------------|
| Tables       | CI_CURRENCY_CD, CI_CURRENCY_CD_L |
| Initial Data | United States Dollar (USD).      |

## DB Process

| Properties   | Description                                                                                                                          |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Tables       | CI_DB_PROC, CI_DB_PROC_L,<br>CI_DB_INSTR, CI_DB_INSTR_L, L,<br>CI_DB_INSTR_OVRD                                                      |
| Initial Data | Copy DB Process (CL-COPDB). This DB process allows users to copy a DB process from one database to another using Config Lab utility. |

## Display Profile

The Display Profile Code is referenced in the User (SC\_USER) table.

| Properties   | Description                                |
|--------------|--------------------------------------------|
| Tables       | CI_DISP_PROF, CI_DISP_PROF_L               |
| Initial Data | North America (NORTHAM) and Europe (EURO). |

## Installation Options

Installation Option has only one row that is shipped with the initial installation of the Oracle Utilities Application Framework. The updatable columns in these tables are customer data and will not be overridden by the upgrade process unless a special script is written and included in the upgrade process.

| Properties   | Description                                                                                 |
|--------------|---------------------------------------------------------------------------------------------|
| Tables       | F1_INSTALLATION,<br>CI_INSTALL_ALG, CI_INSTALL_MSG,<br>CI_INSTALL_MSG_L,<br>CI_INSTALL_PROD |
| Initial Data | Option 11111.                                                                               |

**Developer's Note:** The system data owner of an environment is defined in the Installation Option. This Owner Flag value is stamped on all system data that is added to this environment. The installation default value is Customer Modification (CM). This value must be changed in the base product development environments.

## Language Code

Language Code must be a valid code defined in ISO 639-2 Alpha-3. Adding a new language code to the table without translating all language dependent objects in the system can cause errors when a user chooses the language.

| Properties   | Description    |
|--------------|----------------|
| Tables       | CI_LANGUAGE    |
| Initial Data | English (ENG). |

## To Do Priority and Role

New To Do Types released will be linked to the default To Do Role and set to the product assigned priority value initially. These initial settings can be overridden by the implementation.

| Properties   | Description                |
|--------------|----------------------------|
| Tables       | CI_ROLE(L), CI_TD_VAL_ROLE |
| Initial Data | F1_DFLT                    |

## Development and Implementation System Tables

This section defines the standards for the system tables that contain data for application development. The data in these tables implement business logic and UI functions shared by various products and product extensions in the same database.

### Standards

When adding new data, the owner flag value of the environment must prefix certain fields of these tables. For example, when a developer adds a new algorithm type to an Oracle Utilities Customer Care and Billing environment, C1 should prefix the new Algorithm Type code. The fields that are subject to this rule are listed in Standard Data Fields property.

The data that is already in these tables cannot be modified if the data owner is different than the environment owner. This prevents the developers from accidentally modifying system data that belongs to the Oracle Utilities application framework or the base products. However, some fields are exempt from this rule and can be modified by Customer Modification. These fields are listed in the Customer Modification Fields property.

Starting with version 2.2 of the framework a new system data upgrade rule was introduced - Override Owner flag. If duplicate data rows (data row with same primary key values) are found at the time of upgrade, the owner flag values will get overridden. The lower level application system data will override the upper level system data. For example, F1 overrides C1, F1&C1 override CM, and so on. This rule will be applied to the following tables: CI\_CHAR\_ENTITY, CI\_MD\_MO\_ALG, F1\_BUS\_OBJ\_ALG, F1\_BUS\_OBJ\_STATUS\_ALG, CI\_MD\_MO\_OPT, F1\_BUS\_OBJ\_OPT, F1\_BUS\_OBJ\_STATUS\_OPT, F1\_BUS\_OBJ\_STATUS, F1\_BUS\_OBJ\_STATUS\_L

### Algorithm Type

| Properties            | Description                                                    |
|-----------------------|----------------------------------------------------------------|
| Tables                | CI_ALG_TYPE, CI_ALG_TYPE_L, CI_ALG_TYPE_PRM, CI_ALG_TYPE_PRM_L |
| Standard Data Fields  | Algorithm Type (ALG_TYPE_CD)                                   |
| Customer Modification | None                                                           |

## Algorithm

| Properties            | Description                               |
|-----------------------|-------------------------------------------|
| Tables                | CI_ALG, CI_ALG_L, CI_ALG_PARM, CI_ALG_VER |
| Standard Data Fields  | Algorithm (ALG_CD)                        |
| Customer Modification | None                                      |

## Application Security

| Properties            | Description                                                                                                                                                   |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tables                | SC_APP_SERVICE, SC_APP_SERVICE_L, CI_APP_SVC_ACC                                                                                                              |
| Standard Data Fields  | Application Service ID (APP_SVC_ID). Customer care and billing products prior to version 2.0 will continue to use CI as a prefix for the application service. |
| Customer Modification | None                                                                                                                                                          |

## Batch Control

| Properties            | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tables                | CI_BATCH_CTRL, CI_BATCH_CTRL_L, CI_BATCH_CTRL_P, CI_BATCH_CTRL_P_L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Standard Data Fields  | Batch Process (BATCH_CD), Program Name (PROGRAM_NAME)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Customer Modification | Next Batch Number (NEXT_BATCH_NBR), Last Update Instance (LAST_UPDATE_INST), Last Update Date time (LAST_UPDATE_DTM) and the batch process update these columns. Time Interval (TIMER_INTERVAL), Thread Count (BATCH_THREAD_CNT), Maximum Commit Records (MAX_COMMIT_RECS), User (USER_ID), Language (LANGUAGE_CD), Email Address (EMAILID), Start program debug tracing (TRC_PGM_STRT_SW), End Program Debug trace (TRC_PGM_END_SW), SQL debug tracing (TRC_SQL_SW) and Standard debug tracing (TRC_STD_SW) on CI_BATCH_CTRL Table. Batch Parameter Value (BATCH_PARM_VAL) on Batch Control Parameters Table (CI_BATCH_CTRL_P) |

## Business Object

| Properties            | Description                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tables                | F1_BUS_OBJ, F1_BUS_OBJ_L,<br>F1_BUS_OBJ_ALG, F1_BUS_OBJ_OPT,<br>F1_BUS_OBJ_STATUS,<br>F1_BUS_OBJ_STATUS_L,<br>F1_BUS_OBJ_STATUS_ALG,<br>F1_BUS_OBJ_STATUS_OPT,<br>F1_BUS_OBJ_STATUS_RSN,<br>F1_BUS_OBJ_STATUS_RSN_L,<br>F1_BUS_OBJ_STATUS_RSN_CHAR<br>F1_BUS_OBJ_TR_RULE,<br>F1_BUS_OBJ_TR_RULE_L                                                                                                                       |
| Standard Data Fields  | Business Object (BUS_OBJ_CD)                                                                                                                                                                                                                                                                                                                                                                                            |
| Customer Modification | Batch Control (BATCH_CD), Alert<br>(BO_ALERT_FLG), Sequence<br>(SORT_SEQ5), Status Reason<br>(STATUS_REASON_FLG) fields on<br>Business Object Status Table<br>(F1_BUS_OBJ_STATUS). Instance<br>Control (INSTANCE_CTRL_FLG),<br>Application Service (APP_SVC_ID) on<br>Business Object Table (F1_BUS_OBJ).<br>Status Reason Selection<br>(STATUS_REASON_SELECT_FLG) on<br>Status Reason Table<br>(F1_BUS_OBJ_STATUS_RSN) |

## Business Service

| Properties            | Description                      |
|-----------------------|----------------------------------|
| Tables                | F1_BUS_SVC, F1_BUS_SVC_L         |
| Standard Data Fields  | Business Service (BUS_SVC_CD)    |
| Customer Modification | Application Service (APP_SVC_ID) |

## Characteristics

| Properties           | Description                                                                    |
|----------------------|--------------------------------------------------------------------------------|
| Tables               | CI_CHAR_TYPE, CI_CHAR_TYPE_L,<br>CI_CHAR_ENTITY, CI_CHAR_VAL,<br>CI_CHAR_VAL_L |
| Standard Data Fields | Characteristic Type (CHAR_TYPE_CD)                                             |

| Properties            | Description                                                                                                   |
|-----------------------|---------------------------------------------------------------------------------------------------------------|
| Customer Modification | Adhoc Characteristic Value Validation Rule (ADHOC_VAL_ALG_CD) on Characteristic Entity Table (CI_CHAR_ENTTTY) |

### Data Area

| Properties            | Description                   |
|-----------------------|-------------------------------|
| Tables                | F1_DATA_AREA, F1_DATA_AREA_L  |
| Standard Data Fields  | Data Area Code (DATA_AREA_CD) |
| Customer Modification | None                          |

### Display Icon

| Properties            | Description                      |
|-----------------------|----------------------------------|
| Tables                | CI_DISP_ICON, CI_DISP_ICON_L     |
| Standard Data Fields  | Display Icon Code (DISP_ICON_CD) |
| Customer Modification | None                             |

### Foreign Key Reference

| Properties            | Description                                  |
|-----------------------|----------------------------------------------|
| Tables                | CI_FK_REF, CI_FK_REF_L                       |
| Standard Data Fields  | FK reference code (FK_REF_CD)                |
| Customer Modification | Info Program Name (INFO_PRG), Zone (ZONE_CD) |

### Lookup

| Properties | Description                                                                                         |
|------------|-----------------------------------------------------------------------------------------------------|
| Tables     | CI_LOOKUP_FIELD,<br>CI_LOOKUP_VAL,<br>CI_LOOKUP_VAL_L,<br>F1_EXT_LOOKUP_VAL,<br>F1_EXT_LOOKUP_VAL_L |

| Properties            | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standard Data Fields  | <p>Field Name (FIELD_NAME)</p> <ul style="list-style-type: none"> <li>A lookup field name must have corresponding field metadata. The name of the lookup field column must be assigned to avoid conflicts among different products. If you follow the standards for database field names, a Customer Modification lookup field name will be automatically Customer Modification prefixed.</li> </ul> <p>Field Value (FIELD_VALUE)</p> <ul style="list-style-type: none"> <li>If a lookup field is customizable, Customer Modification can insert new lookup values. X or Y must prefix when implementers introduce a new lookup value.</li> <li>Product development can extend the Oracle Utilities Application Framework owned lookup field's value with caution. When it needs to be extended, prefix the first letter of the Owner Flag to the value. For example, when adding a new value to the algorithm entity flag (ALG_ENTITY_FLG), prefix with C1 if you are developing an Oracle Utilities Customer Care and Billing product.</li> </ul> <p>Introduced in V 4.0.1:<br/>Value (F1_EXT_LOOKUP_VALUE)</p> <ul style="list-style-type: none"> <li>This will allow storing longer value keys rather than the normal 4byte lookup values.</li> </ul> |
| Customer Modification | <p>Override Description (DESCR_OVRD) on Lookup Field Value Language Table (CI_LOOKUP_VAL_L)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

A new Feature option is defined through adding a value to EXT\_SYS\_TYP\_FLG. The field value for this look up field must be prefixed by the Owner flag value.

## Map

| Properties            | Description      |
|-----------------------|------------------|
| Tables                | F1_MAP, F1_MAP_L |
| Standard Data Fields  | UI Map (MAP_CD)  |
| Customer Modification | None             |

## Managed Content

| Properties            | Description                             |
|-----------------------|-----------------------------------------|
| Tables                | F1_MANAG_CONTENT,<br>F1_MANAG_CONTENT_L |
| Standard Data Fields  | Managed Content<br>(MANAG_CONTENT_CD)   |
| Customer Modification | None                                    |

## Messages

| Properties | Description                                             |
|------------|---------------------------------------------------------|
| Tables     | CI_MSG_CATEGORY,<br>CI_MSG_CATEGORY_L, CI_MSG, CI_MSG_L |

| Properties           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standard Data Fields | <p data-bbox="946 218 1404 243">Message Category (MESSAGE_CAT_NBR)</p> <ul data-bbox="946 254 1485 945" style="list-style-type: none"> <li data-bbox="946 254 1485 405">• Messages are grouped in categories and each category has message numbers between 1 and 99999. A range of message categories is assigned to a product. You must use only the assigned category for your product.</li> <li data-bbox="946 426 1485 514">• Oracle Utilities Customer Care and Billing and Oracle Utilities Business Intelligence - 00001 thru 00100</li> <li data-bbox="946 535 1485 594">• Oracle Utilities Application Framework Java - 11001 thru 11100</li> <li data-bbox="946 615 1485 674">• Oracle Utilities Customer Care and Billing Java - 11101 thru 11200</li> <li data-bbox="946 695 1485 753">• Oracle Utilities Business Intelligence Java - 11201 thru 11300</li> <li data-bbox="946 774 1307 800">• Implementer COBOL - 90000</li> <li data-bbox="946 821 1263 846">• Implementer WSS - 90001</li> <li data-bbox="946 867 1258 892">• Implementer Java - 90002</li> <li data-bbox="946 913 1268 938">• Reserved for Tests - 99999</li> </ul> <p data-bbox="946 961 1485 1020">Message Number (MESSAGE_NBR) for COBOL message categories</p> <ul data-bbox="946 1031 1485 1119" style="list-style-type: none"> <li data-bbox="946 1031 1485 1119">• Message numbers below 1000 are reserved for common messages. Implementers must not use message numbers below 1000.</li> </ul> <p data-bbox="946 1142 1485 1201">Message Number (MESSAGE_NBR) for Java message categories</p> <ul data-bbox="946 1211 1485 1911" style="list-style-type: none"> <li data-bbox="946 1211 1485 1270">• Subsystem Standard Messages - 00001 thru 02000</li> <li data-bbox="946 1291 1291 1316">• Reserved - 02001 thru 09999</li> <li data-bbox="946 1337 1404 1362">• Published Messages - 10001 thru 11000</li> <li data-bbox="946 1383 1383 1409">• Package Messages - 10001 thru 90000</li> <li data-bbox="946 1430 1291 1455">• Reserved - 90001 thru 99999</li> <li data-bbox="946 1476 1485 1535">• Each package is allocated 100 message numbers, each starting from 101.</li> <li data-bbox="946 1556 1485 1803">• Published Messages are messages that are special-interest messages that implementations need to know about and are therefore published in the user docs. Examples of these include messages that are highly likely to be changed for an implementation, or messages that are embedded into other texts/messages and therefore the message number is never shown</li> <li data-bbox="946 1824 1485 1911">• Reserved message number ranges are for future use and therefore must not be used by all products.</li> </ul> |

| Properties            | Description                                                                      |
|-----------------------|----------------------------------------------------------------------------------|
| Customer Modification | Override Description (DESCRLONG_OVRD), Message Text Override (MESSAGE_TEXT_OVRD) |

## Meta Data - Table and Field

| Properties            | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tables                | CI_MD_TBL, CI_MD_TBL_FLD, CI_MD_TBL_L, CI_MD_TBL_FLD_L, CI_MD_FLD, CI_MD_FLD_L, F1_DB_OBJECTS_REPO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Standard Data Fields  | <p>Table Name (TBL_NAME)</p> <ul style="list-style-type: none"> <li>Table names must match with the physical table name or view name in the database.</li> <li>Field Name (FLD_NAME)Field name must match with the physical column name in the database unless the field is a work field. Field name does not have to follow the prefixing standard unless the field is a work field or customer modification field.</li> <li>F1_DB_OBJECTS_REPO Table stores information about Indexes, Sequences, Triggers and other database objects excluding Tables and Fields (as they are already stored in the other Metadata tables)</li> </ul> |
| Customer Modification | <p>Audit Switches (AUDIT_INSERT_SW, AUDIT_UPDATE_SW, AUDIT_DELETE_SW), Override label (OVRD_LABEL) on MD Table Field Table (CI_MD_TBL_FLD). Audit Program Name (AUDIT_PGM_NAME), Audit Table Name (AUDIT_TBL_NAME), Audit Program Type (AUDIT_PGM_TYPE_FLG), Key Validation (KEY_VALIDATION_FLG) and Caching strategy (CACHE_FLG) on MD Table (CI_MD_TBL). Override Label (OVRD_LABEL) and Customer Specific Description (DESCRLONG_OVRD) on Field Table.</p>                                                                                                                                                                            |

## Meta Data - Constraints

| Properties            | Description                                                                                                                                                                                                                                                  |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tables                | CI_MD_CONST, CI_MD_CONST_FLD                                                                                                                                                                                                                                 |
| Standard Data Fields  | Constraint Id (CONST_ID) <ul style="list-style-type: none"> <li>Index Name for Primary Constraints</li> <li>&lt;Index Name&gt;Rnn for Foreign Key Constraints Where <ul style="list-style-type: none"> <li>nn: integer, 01 through 99</li> </ul> </li> </ul> |
| Customer Modification | None                                                                                                                                                                                                                                                         |

## Meta Data - Menu

Menus can be extended to support multiple products by adding a new menu line to an existing menu. The sequence number on the menu line language table (CI\_MD\_MENU\_LINE\_L) determines the order the menu lines appear. Within the same sequence, alphabetic sorting is used.

| Properties            | Description                                                                                                  |
|-----------------------|--------------------------------------------------------------------------------------------------------------|
| Tables                | CI_MD_MENU, CI_MD_MENU_L,<br>CI_MD_MENU_ITEM,<br>CI_MD_MENU_ITEM_L,<br>CI_MD_MENU_LINE,<br>CI_MD_MENU_LINE_L |
| Standard Data Fields  | Menu Name (MENU_NAME), Menu Item Id (MENU_ITEM_ID), Menu Line Id (MENU_LINE_ID)                              |
| Customer Modification | Override Label (OVRD_LABEL) on Menu Line Language Table (CI_MD_MENU_LINE_L)                                  |

## Meta Data - Program, Location and Services

| Properties | Description                                                                                                                                                                                                         |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tables     | CI_MD_PRG_COM,<br>CI_MD_PRG_LOC, CI_MD_SVC,<br>CI_MD_SVC_L, CI_MD_SVC_PRG,<br>CI_MD_PRG_REF, CI_MD_PRG_MOD,<br>CI_MD_PRG_EL_AT,<br>CI_MD_PRG_ELEM,<br>CI_MD_PRG_SEC, CI_MD_PRG_SQL,<br>CI_MD_PRG_VAR, CI_MD_PRG_TAB |

| Properties            | Description                                                                                                                                                |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standard Data Fields  | Program Component Id (PROG_COM_ID), Location Id (LOC_ID), Program Component Name (PROG_COM_NAME), Service Name (SVC_NAME), Navigation Key (NAVIGATION_KEY) |
| Customer Modification | User Exit Program Name (USER_EXIT_PGM_NAME) on Program Components Table (CI_MD_PRG_COM),                                                                   |

### Meta Data - Maintenance Object

| Properties            | Description                                                    |
|-----------------------|----------------------------------------------------------------|
| Tables                | CI_MD_MO, CI_MD_MO_L, CI_MD_MO_TBL, CI_MD_MO_OPT, CI_MD_MO_ALG |
| Standard Data Fields  | Maintenance Object (MAINT_OBJ_CD)                              |
| Customer Modification | None                                                           |

### Meta Data - Work Tables

| Properties            | Description                                                    |
|-----------------------|----------------------------------------------------------------|
| Tables                | CI_MD_WRK_TBL, CI_MD_WRK_TBL_L, CI_MD_WRK_TBLFLD, CI_MD_MO_WRK |
| Standard Data Fields  | Work Table Name (WRK_TBL_NAME)                                 |
| Customer Modification | None                                                           |

### Meta Data - Search Object

| Properties            | Description                                                                                                                         |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Tables                | CI_MD_SO, CI_MD_SO_L, CI_MD_SO_RSFLD, CI_MD_SO_RSFLDAT, CI_MD_SOCG, CI_MD_SOCG_FLD, CI_MD_SOCG_FLDAT, CI_MD_SOCG_L, CI_MD_SOCG_SORT |
| Standard Data Fields  | Search Object (SO_CD)                                                                                                               |
| Customer Modification | None                                                                                                                                |

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## Navigation Option

| Properties            | Description                                                                |
|-----------------------|----------------------------------------------------------------------------|
| Tables                | CI_NAV_OPT, CI_NAV_OPT_L,<br>CI_NAV_OPT_CTXT,<br>CI_NAV_OPT_USG, CI_MD_NAV |
| Standard Data Fields  | Navigation Option Code<br>(NAV_OPT_CD), Navigation Key<br>(NAVIGATION_KEY) |
| Customer Modification | None                                                                       |

## Portal and Zone

| Properties            | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tables                | CI_PORTAL, CI_PORTAL_L,<br>CI_PORTAL_ZONE, CI_ZONE,<br>CI_ZONE_L, CI_ZONE_PRM,<br>CI_ZONE_HDL, CI_ZONE_HDL_L,<br>CI_ZONE_HDL_PRM,<br>CI_ZONE_HDL_PRM_L,<br>CI_UI_ZONE                                                                                                                                                                                                                                                                                                                             |
| Standard Data Fields  | Portal Code (PORTAL_CD), Zone Code (ZONE_CD), Zone Type Code (ZONE_HDL_CD) <ul style="list-style-type: none"> <li>A new Zone can be added to the Product owned Portal Pages.</li> <li>The existing Zones cannot be removed from the Product owned Portal Pages.</li> </ul>                                                                                                                                                                                                                        |
| Customer Modification | Sort Sequence (SORT_SEQ) on Context Sensitive Zone Table (CI_UI_ZONE). Show on Portal Preferences (USER_CONFIG_FLG) on Portal Table (CI_PORTAL). Override Sequence (SORT_SEQ_OVRD) on Portal Zone Table (CI_PORTAL_ZONE). Customer Specific Description (DESCRLONG_OVRD) on Zone Language Table (CI_ZONE_L). Override Parameter Value (ZONE_HDL_PARM_OVRD) on Zone Type Parameters Table (CI_ZONE_HDL_PRM). Override Parameter Value (ZONE_PARM_VAL_OVRD) on Zone Parameters Table (CI_ZONE_PRM). |

## Sequence

| Properties            | Description                                                                                                   |
|-----------------------|---------------------------------------------------------------------------------------------------------------|
| Tables                | CI_SEQ                                                                                                        |
| Standard Data Fields  | Sequence Name (SEQ_NAME)                                                                                      |
| Customer Modification | Sequence Number (SEQ_NBR)<br>This field is updated by the application process and must be set to 1 initially. |

## Schema

| Properties            | Description               |
|-----------------------|---------------------------|
| Tables                | F1_SCHEMA                 |
| Standard Data Fields  | Schema Name (SCHEMA_NAME) |
| Customer Modification | None                      |

## Script

| Properties            | Description                                                                                                                                                         |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tables                | CI_SCR, CI_SCR_L, CI_SCR_CRT,<br>CI_SCR_CRT_GRP,<br>CI_SCR_CRT_GRP_L, CI_SCR_DA,<br>CI_SCR_FLD_MAP, CI_SCR_PRMP,CI,<br>CI_SCR_PRMP_L, CI_SCR_STEP,<br>CI_SCR_STEP_L |
| Standard Data Fields  | Script (SCR_CD)                                                                                                                                                     |
| Customer Modification | None                                                                                                                                                                |

## To Do Type

| Properties            | Description                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Tables                | CI_TD_TYPE, CI_TD_TYPE_L,<br>CI_TD_SRTKEY_TY,<br>CI_TD_DRLKEY_TY,<br>CI_TD_SRTKEY_TY_L                                                         |
| Standard Data Fields  | To Do Type Code (TD_TYPE_CD)                                                                                                                   |
| Customer Modification | Creation Batch Code (CRE_BATCH_CD),<br>Route Batch Code (RTE_BATCH_CD),<br>Priority Flag (TD_PRIORITY_FLG) on<br>To Do Type Table (CI_TD_TYPE) |

## XAI configuration

| Properties            | Description                                                                                                                                                                                                                                                                                                                |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tables                | CI_XAI_ADAPTER,<br>CI_XAI_ADAPTER_L, CI_XAI_CLASS,<br>CI_XAI_CLASS_L,<br>CI_XAI_ENV_HNDL,<br>CI_XAI_ENV_HNDL_L,<br>CI_XAI_FORMAT,<br>CI_XAI_FORMAT_L, CI_XAI_RCVR,<br>CI_XAI_RCVR_L, CI_XAI_RCVR_CTX,<br>CI_XAI_RCVR_RSP,<br>CI_XAI_RCVR_RGRP,<br>CI_XAI_SENDER,<br>CI_XAI_SERNDER_L,<br>CI_XAI_SNDR_CTX,<br>CI_XAI_OPTION |
| Standard Data Fields  | Adapter Id (XAI_ADAPTER_ID), Class Id (XAI_CLASS_ID), Envelope Handler Id (XAI_ENV_HNDL_ID), XAI Format Id (XAI_FORMAT_ID), Receiver Id (XAI_RCVR_ID), Sender Id (XAI_SENDER_ID)                                                                                                                                           |
| Customer Modification | Option Value (OPTION_VALUE on XAI Option Table (CI_XAI_OPTION))                                                                                                                                                                                                                                                            |

The following XAI tables might have system data installed upon the initial installation but a subsequence system data upgrade process will not update the content of these table unless the change is documented in the database upgrade guide : CI\_XAI\_RCVR, CI\_XAI\_RCVR\_L, CI\_XAI\_RCVR\_CTX, CI\_XAI\_RCVR\_RSP, CI\_XAI\_RCVR\_RGRP, CI\_XAI\_SENDER, CI\_XAI\_SERNDER\_L, CI\_XAI\_SNDR\_CTX

## XAI Services

| Properties            | Description                                                                                                                                                                                                                |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tables                | CI_XAI_IN_SVC, CI_XAI_IN_SVC_L,<br>CI_XAI_SVC_PARM                                                                                                                                                                         |
| Standard Data Fields  | XAI Inbound Service Id (XAI_IN_SVC_ID), XAI Inbound Service Name (XAI_IN_SVC_NAME)                                                                                                                                         |
| Customer Modification | XAI Version (XAI_VERSION_ID), Trace (TRACE_SW), Debug (DEBUG_SW), Request XSL (INPUT_XSL), Response XSL (RESPONSE_XSL), Record XSL (RECORD_XSL and Post Error (POST_ERROR_SW) on XAI Inbound Service Table (CI_XAI_IN_SVC) |

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## Oracle Utilities Application Framework Only Tables

All data of the tables in this group belong to the Oracle Utilities Application Framework. No data modification or addition is allowed for these tables by base product development and customer modification. When an environment is upgraded to the next release of the Oracle Utilities Application Framework, the upgrade process will refresh the data in these tables.

- CI\_MD\_AT\_DTL / CI\_MD\_AT\_DTL\_L
- CI\_MD\_ATT\_TY
- CI\_MD\_CTL / CI\_MD\_CTL\_L
- CI\_MD\_CTL\_TMPL
- CI\_MD\_ELTY / CI\_MD\_ELTY\_L
- CI\_MD\_ELTY\_AT
- CI\_MD\_LOOKUP / CI\_MD\_LOOKUP\_F
- CI\_MD\_PDF / CI\_MD\_PDF\_VAL
- CI\_MD\_MSG / CI\_MD\_MSG\_L
- CI\_MD\_SRC\_TYPE / CI\_MD\_SRC\_TYPE\_L
- CI\_MD\_TMPL / CI\_MD\_TMPL\_L
- CI\_MD\_TMPL\_ELTY
- CI\_MD\_TMPL\_VAR / CI\_MD\_TMPL\_VAR\_L
- CI\_MD\_VAR / CI\_MD\_VAR\_DTL / CI\_MD\_VAR\_DTL\_L
- CI\_XAI\_EXECUTER / CI\_XAI\_EXECUTER\_L

## System Table List

This section contains names of system tables, upgrade actions, and a brief description of tables. The upgrade actions are explained below.

**Keep (KP):** The data in the table in the customer's database is kept untouched. No insert or delete is performed to this table by the upgrade process. The initial installation will add necessary data for the system.

**Merge (MG):** The non-base product data in the table in the database is kept untouched. If the data belongs to the base product, any changes pertaining to the new version of the software are performed.

**Refresh (RF):** The existing data in the table is replaced with the data from the base product table.

**Note.** New product data is also inserted into tables marked as 'Merge'. If implementers add rows for a customer specific enhancement, it can cause duplication when the system data gets upgraded to the next version. We strongly recommend following the guidelines on how to use designated range of values or prefixes to segregate the implementation data from the base product data.

| Table Name        | Upgrade Action | Description                        |
|-------------------|----------------|------------------------------------|
| CI_ALG            | MG             | Algorithm                          |
| CI_ALG_L          | MG             | Algorithm Language                 |
| CI_ALG_PARM       | MG             | Algorithm Parameters               |
| CI_ALG_TYPE       | MG             | Algorithm Type                     |
| CI_ALG_TYPE_L     | MG             | Algorithm Type Language            |
| CI_ALG_TYPE_PRM   | MG             | Algorithm Type Parameter           |
| CI_ALG_TYPE_PRM_L | MG             | Algorithm Type Parameter Language  |
| CI_ALG_VER        | MG             | Algorithm Version                  |
| CI_APP_SVC_ACC    | MG             | Application Service Access Mode    |
| CI_BATCH_CTRL     | MG             | Batch Control                      |
| CI_BATCH_CTRL_ALG | KP             | Batch Control Algorithm            |
| CI_BATCH_CTRL_L   | MG             | Batch Control Language             |
| CI_BATCH_CTRL_P   | MG             | Batch Control Parameters           |
| CI_BATCH_CTRL_P_L | MG             | Batch Control Parameters Language  |
| CI_CHAR_ENTITY    | MG             | Characteristic Type Entity         |
| CI_CHAR_TYPE      | MG             | Characteristic Type                |
| CI_CHAR_TYPE_L    | MG             | Characteristic Type Language       |
| CI_CHAR_VAL       | MG             | Characteristic Type Value          |
| CI_CHAR_VAL_L     | MG             | Characteristic Type Value Language |

| <b>Table Name</b> | <b>Upgrade Action</b> | <b>Description</b>                        |
|-------------------|-----------------------|-------------------------------------------|
| CI_CURRENCY_CD    | KP                    | Currency Code                             |
| CI_CURRENCY_CD_L  | KP                    | Currency Code Language                    |
| CI_DB_INSTR       | KP                    | DB Process Instruction                    |
| CI_DB_INSTR_ALG   | KP                    | DB Process Instruction Algorithm          |
| CI_DB_INSTR_L     | KP                    | DB Process Instruction Language           |
| CI_DB_INST_OVRD   | KP                    | DB Process Instruction Override           |
| CI_DB_PROC        | KP                    | DB Process                                |
| CI_DB_PROC_L      | KP                    | DB Process Language                       |
| CI_DISP_ICON      | MG                    | Display Icon                              |
| CI_DISP_ICON_L    | MG                    | Display Icon Language                     |
| CI_DISP_PROF      | KP                    | Display Profile                           |
| CI_DISP_PROF_L    | KP                    | Display Profile Language                  |
| CI_FK_REF         | MG                    | Foreign Key Reference                     |
| CI_FK_REF_L       | MG                    | Foreign Key Reference Language            |
| CI_LANGUAGE       | MG                    | Language Code                             |
| CI_LOOKUP_FIELD   | MG                    | Lookup Field                              |
| CI_LOOKUP_VAL     | MG                    | Lookup Field Value                        |
| CI_LOOKUP_VAL_L   | MG                    | Lookup Field Value Language               |
| CI_MD_ATT_TY      | RF                    | MD Element Attribute Type                 |
| CI_MD_AT_DTL      | RF                    | MD Element Attribute Type Detail          |
| CI_MD_AT_DTL_L    | RF                    | MD Element Attribute Type Detail Language |
| CI_MD_CONST       | MG                    | Constraints                               |
| CI_MD_CONST_FLD   | MG                    | Constraint Fields                         |
| CI_MD_CTL         | RF                    | Generator Control                         |
| CI_MD_CTL_L       | RF                    | Generator Control Language                |
| CI_MD_CTL_TMPL    | RF                    | Generator Control Template                |
| CI_MD_ELTY        | RF                    | MD Element Type                           |
| CI_MD_ELTY_AT     | RF                    | Element Type Attributes                   |
| CI_MD_ELTY_L      | RF                    | Element Type Language                     |
| CI_MD_FLD         | MG                    | Field                                     |
| CI_MD_FLD_L       | MG                    | Field Language                            |

| <b>Table Name</b> | <b>Upgrade Action</b> | <b>Description</b>             |
|-------------------|-----------------------|--------------------------------|
| CI_MD_LOOKUP      | RF                    | MD Lookup Field Value          |
| CI_MD_LOOKUP_F    | RF                    | MD Lookup Field                |
| CI_MD_MENU        | MG                    | Menu Information               |
| CI_MD_MENU_IMOD   | MG                    | Menu Item Module Maint         |
| CI_MD_MENU_ITEM   | MG                    | Menu Item                      |
| CI_MD_MENU_ITEM_L | MG                    | Menu Item Language             |
| CI_MD_MENU_L      | MG                    | Menu Language                  |
| CI_MD_MENU_LINE   | MG                    | Menu Line                      |
| CI_MD_MENU_LINE_L | MG                    | Menu Line Language             |
| CI_MD_MENU_MOD    | MG                    | Menu Product Components        |
| CI_MD_MO          | MG                    | Maintenance Object             |
| CI_MD_MO_ALG      | MG                    | Maintenance Object Algorithm   |
| CI_MD_MO_L        | MG                    | Maintenance Object Language    |
| CI_MD_MO_OPT      | MG                    | Maintenance Object Option      |
| CI_MD_MO_TBL      | MG                    | Maintenance Object Table       |
| CI_MD_MO_WRK      | MG                    | Maintenance Object Work Tables |
| CI_MD_MSG         | RF                    | MD Message                     |
| CI_MD_MSG_L       | RF                    | MD Message Language            |
| CI_MD_NAV         | MG                    | Navigation Key                 |
| CI_MD_PDF         | RF                    | Predefined Fields              |
| CI_MD_PDF_VAL     | RF                    | Predefined Values              |
| CI_MD_PRG_COM     | MG                    | Program Components             |
| CI_MD_PRG_ELEM    | MG                    | UI Page Elements               |
| CI_MD_PRG_EL_AT   | MG                    | UI Page Element Attributes     |
| CI_MD_PRG_LOC     | MG                    | Program Location               |
| CI_MD_PRG_MOD     | MG                    | Program Module                 |
| CI_MD_PRG_SEC     | MG                    | UI Page Sections               |
| CI_MD_PRG_SQL     | MG                    | MD SQL Meta Data               |
| CI_MD_PRG_TAB     | MG                    | UI Tab Meta Data               |
| CI_MD_PRG_VAR     | MG                    | Program Variable               |
| CI_MD_SO          | MG                    | Search Object                  |
| CI_MD_SOCG        | MG                    | Search Object Criteria Group   |

| Table Name       | Upgrade Action | Description                             |
|------------------|----------------|-----------------------------------------|
| CI_MD_SOCG_FLD   | MG             | Search Object Criteria Group Field      |
| CI_MD_SOCG_FLDAT | MG             | Search Criteria Group Field Attribute   |
| CI_MD_SOCG_L     | MG             | Search Object Criteria Group Language   |
| CI_MD_SOCG_SORT  | MG             | Search Criteria Group Result Sort Order |
| CI_MD_SO_L       | MG             | Search Object Language                  |
| CI_MD_SO_RSFLD   | MG             | Search Object Result Field              |
| CI_MD_SO_RSFLDAT | MG             | Search Object Result Field Attribute    |
| CI_MD_SRC_TYPE   | RF             | Source Type                             |
| CI_MD_SRC_TYPE_L | RF             | Source Type Language                    |
| CI_MD_SVC        | MG             | MD Service                              |
| CI_MD_SVC_L      | MG             | MD Service Language                     |
| CI_MD_SVC_PRG    | MG             | MD Service Program                      |
| CI_MD_TAB_MOD    | MG             | UI Tab Module                           |
| CI_MD_TBL        | MG             | MD Table                                |
| CI_MD_TBL_FLD    | MG             | MD Table Field                          |
| CI_MD_TBL_FLD_L  | MG             | MD Table Field Language                 |
| CI_MD_TBL_L      | MG             | MD Table Language                       |
| CI_MD_TMPL       | RF             | Template                                |
| CI_MD_TMPL_ELTY  | RF             | Template Element Types                  |
| CI_MD_TMPL_L     | RF             | Template Language                       |
| CI_MD_TMPL_VAR   | RF             | Template Variable                       |
| CI_MD_TMPL_VAR_L | RF             | Template Variable Language              |
| CI_MD_VAR        | RF             | Variable                                |
| CI_MD_VAR_DTL    | RF             | Variable Detail                         |
| CI_MD_VAR_DTL_L  | RF             | Variable Detail Language                |
| CI_MD_WRK_TBL    | MG             | Work Table                              |
| CI_MD_WRK_TBLFLD | MG             | Work Table Field                        |
| CI_MD_WRK_TBL_L  | MG             | Work Table Language                     |
| CI_MSG           | MG             | Message                                 |
| CI_MSG_CATEGORY  | MG             | Message Category                        |

| Table Name        | Upgrade Action | Description                    |
|-------------------|----------------|--------------------------------|
| CI_MSG_CATEGORY_L | MG             | Message Category Language      |
| CI_MSG_L          | MG             | Message Language               |
| CI_NAV_OPT        | MG             | Navigation Option              |
| CI_NAV_OPT_CTXT   | MG             | Navigation Option Context      |
| CI_NAV_OPT_L      | MG             | Navigation Option Language     |
| CI_NAV_OPT_USG    | MG             | Navigation Option Usage        |
| CI_PORTAL         | MG             | Portal                         |
| CI_PORTAL_L       | MG             | Portal Language                |
| CI_PORTAL_ZONE    | MG             | Portal Zone                    |
| CI_SCR            | MG             | Script                         |
| CI_SCR_CRT        | MG             | Script Criteria                |
| CI_SCR_CRT_GRP    | MG             | Script Criteria Group          |
| CI_SCR_CRT_GRP_L  | MG             | Script Criteria Group Language |
| CI_SCR_DA         | MG             | Script Data Area               |
| CI_SCR_FLD_MAP    | MG             | Script Field Mapping           |
| CI_SCR_L          | MG             | Script Language                |
| CI_SCR_PRMPPT     | MG             | Script Prompt                  |
| CI_SCR_PRMPPT_L   | MG             | Script Prompt Language         |
| CI_SCR_STEP       | MG             | Script Step                    |
| CI_SCR_STEP_L     | MG             | Script Step Language           |
| CI_SEQ            | MG             | Sequence                       |
| CI_TD_DRLKEY_TY   | MG             | To Do Type Drill Key           |
| CI_TD_SRTKEY_TY   | MG             | To Do Type Sort Key            |
| CI_TD_SRTKEY_TY_L | MG             | To Do Type Sort Key Language   |
| CI_TD_TYPE        | MG             | To Do Type                     |
| CI_TD_TYPE_L      | MG             | To Do Type Language            |
| CI_USR_NAV_LINK   | MG             | User Favorite Links            |
| CI_USR_PORTAL     | KP             | User Portal                    |
| CI_USR_ZONE       | KP             | User Zone                      |
| CI_XAI_ADAPTER    | MG             | XAI Adapter                    |
| CI_XAI_ADAPTER_L  | MG             | XAI Adapter Lang               |
| CI_XAI_CLASS      | MG             | XAI Class                      |
| CI_XAI_CLASS_L    | MG             | XAI Class Language             |

| Table Name        | Upgrade Action | Description                    |
|-------------------|----------------|--------------------------------|
| CI_XAI_ENV_HNDL   | MG             | XAI Envelope Handler           |
| CI_XAI_ENV_HNDL_L | MG             | XAI Envelope Handler Language  |
| CI_XAI_EXECUTER   | RF             | XAI Executer                   |
| CI_XAI_EXECUTER_L | RF             | XAI Executer Language          |
| CI_XAI_FORMAT     | RF             | XAI Format                     |
| CI_XAI_FORMAT_L   | RF             | XAI Format Language            |
| CI_XAI_IN_SVC     | MG             | XAI Inbound Service            |
| CI_XAI_IN_SVC_L   | MG             | XAI Inbound Service Language   |
| CI_XAI_JNDI_SVR   | KP             | XAI JNDI Server                |
| CI_XAI_JNDI_SVR_L | KP             | XAI JNDI Server Language       |
| CI_XAI_OPTION     | KP             | XAI Option                     |
| CI_XAI_RCVR       | KP             | XAI Receiver                   |
| CI_XAI_RCVR_CTX   | KP             | XAI Receiver Context           |
| CI_XAI_RCVR_L     | KP             | XAI Receiver Language          |
| CI_XAI_RCVR_RGRP  | KP             | XAI Receiver Rule Group        |
| CI_XAI_RCVR_RSP   | KP             | XAI Receiver Response          |
| CI_XAI_SENDER     | KP             | XAI Sender                     |
| CI_XAI_SENDER_L   | KP             | XAI Sender Language            |
| CI_XAI_SNDR_CTX   | KP             | XAI Sender Context             |
| CI_XAI_SVC_PARM   | MG             | XAI Inbound Service Parameters |
| CI_ZONE           | MG             | Zone                           |
| CI_ZONE_HDL       | MG             | Zone Type                      |
| CI_ZONE_HDL_L     | MG             | Zone Type Language             |
| CI_ZONE_HDL_PRM   | MG             | Zone Type Parameters           |
| CI_ZONE_HDL_PRM_L | MG             | Zone Type Parameters Language  |
| CI_ZONE_L         | MG             | Zone Language                  |
| CI_ZONE_PRM       | MG             | Zone Parameters                |
| F1_BUS_OBJ        | MG             | Business Object                |
| F1_BUS_OBJ_ALG    | MG             | Business Object Algorithm      |
| F1_BUS_OBJ_L      | MG             | Business Object Language       |
| F1_BUS_OBJ_OPT    | MG             | Business Object Option         |
| F1_BUS_OBJ_STATUS | MG             | Business Object Status         |

| <b>Table Name</b>              | <b>Upgrade Action</b> | <b>Description</b>                          |
|--------------------------------|-----------------------|---------------------------------------------|
| F1_BUS_OBJ_STATUS_AL<br>G      | MG                    | Business Object Status Algorithm            |
| F1_BUS_OBJ_STATUS_L            | MG                    | Business Object Status Language             |
| F1_BUS_OBJ_STATUS_OP<br>T      | MG                    | Business Object Status Option               |
| F1_BUS_OBJ_STATUS_RS<br>N      | MG                    | Status Reason                               |
| F1_BUS_OBJ_STATUS_RS<br>N_CHAR | KP                    | Status Reason Characteristic                |
| F1_BUS_OBJ_STATUS_RS<br>N_L    | MG                    | Status Reason Language                      |
| F1_BUS_OBJ_TR_RULE             | MG                    | Business Object Transition Rule             |
| F1_BUS_OBJ_TR_RULE_L           | MG                    | Business Object Transition Rule<br>Language |
| F1_BUS_SVC                     | MG                    | Business Service                            |
| F1_BUS_SVC_L                   | MG                    | Business Service Language                   |
| F1_DATA_AREA                   | MG                    | Data Area                                   |
| F1_DATA_AREA_L                 | MG                    | Data Area Language                          |
| F1_DB_OBJECTS_REPO             | MG                    | Database Objects Repository                 |
| F1_EXT_LOOKUP_VAL              | MG                    | Extendable Lookup                           |
| F1_EXT_LOOKUP_VAL_<br>L        | MG                    | Extendable Lookup Language                  |
| F1_INSTALLATION                | KP                    | Installation Option - Framework             |
| F1_MANAG_CONTENT               | MG                    | Managed Content                             |
| F1_MANAG_CONTENT_<br>L         | MG                    | Managed Content Language                    |
| F1_MAP                         | MG                    | UI Map                                      |
| F1_MAP_L                       | MG                    | UI Map Language                             |
| F1_SCHEMA                      | MG                    | Schema                                      |
| SC_ACCESS_CNTRL                | MG                    | User Group Access Control                   |
| SC_APP_SERVICE                 | MG                    | Application Service                         |
| SC_APP_SERVICE_L               | MG                    | Application Service Language                |
| SC_USER                        | KP                    | User                                        |
| SC_USER_GROUP                  | KP                    | User Group                                  |
| SC_USER_GROUP_L                | KP                    | User Group Language                         |
| SC_USR_GRP_PROF                | MG                    | User Group Profile                          |

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| <b>Table Name</b> | <b>Upgrade Action</b> | <b>Description</b> |
|-------------------|-----------------------|--------------------|
| SC_USR_GRP_USR    | KP                    | User Group User    |

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# Appendix E

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