

Oracle Insurance Data Foundation Application Pack

Upgrade Guide

Release 8.1.0.0.0

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Financial Services

Oracle Insurance Data Foundation Application Pack Upgrade Guide

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Document Control

Version Number	Revision Date	Change Log
1.0	30-September-2020	The first version of the ODF Application Pack Upgrade Guide is created and published.

Table of Contents

1	Preface.....	5
1.1	How this Guide is Organized	5
1.2	Purpose of this Document	5
1.3	Audience	5
1.4	Access to the Oracle Support	6
1.5	Related Documents	6
1.6	Conventions	7
1.7	Abbreviations	7
2	OIDF Application Pack Upgrade Process.....	9
2.1	Utility to Enable the Upgrade using Incremental Model Upload	9
2.2	Download the OOB Data Model.....	10
2.3	Generic Assumptions to Upgrade to v8.1.0.0	10
2.4	Assumptions for the Customizations using Incremental Model Upload.....	10
2.5	Upgrade Process Flow.....	11
2.5.1	<i>Analysis</i>	12
2.5.2	<i>Preparation</i>	12
2.5.3	<i>Execution</i>	17
2.5.4	<i>Error Code Dictionary</i>	23
3	Data and Metadata Approach during the Upgrade.....	25
3.1	Data Approach during the Upgrade	25
3.1.1	<i>Table Drops</i>	25
3.1.2	<i>Column Drops</i>	25
3.2	Metadata Approach during the Upgrade	27
3.2.1	<i>Table Drops</i>	27
3.2.2	<i>Column Drops</i>	29

1 Preface

This section provides information about the Oracle Insurance Data Foundation (OIDF) Application Pack Upgrade Guide.

Topics:

- [How this Guide is Organized](#)
- [Purpose of this Document](#)
- [Audience](#)
- [Access to the Oracle Support](#)
- [Related Documents](#)
- [Conventions](#)
- [Abbreviations](#)

1.1 How this Guide is Organized

The Installation Guide is organized into the following sections:

- [OIDF Application Pack Upgrade Process](#): This section provides information about the Model Upgrade utility, the assumptions during the upgrade process, and the flow diagram and different stages of the data model upload process.
- [Data and Metadata Approach during the Upgrade](#): This section provides information about the data and metadata approach to be taken before and after the OOB data model upload.

1.2 Purpose of this Document

The document provides the approach for the upgrade of the OIDF OOB data model from the 8.0.x release versions to the v8.1.0.0.0 release. Here, OIDF manages OFSAA common data model and associated metadata.

1.3 Audience

This document is intended for Administrators, Business User, Strategists, and Data Analyst, who are responsible for installing and maintaining the following application pack components:

- OIDF Data Model
- OFSAA Application Components
- OFSAA Architecture
- UNIX Commands
- Database Concepts

1.4 Access to the Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For more information, visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

1.5 Related Documents

Oracle strives to keep this and all other related documents updated regularly; visit the [OHC Documentation Library](#) and [My Oracle Support](#) to download the latest version available there. The list of related documents is provided as follows:

- [My Oracle Support](#) for the OI DF Application Pack Release 8.1.0.0.0 technical documents:
 - *Data Model Difference Reports*
 - *Changelog*
 - *SCD Metadata*
 - *T2T Metadata*
 - *Run Chart*
- [OHC Documentation Library](#) for the OI DF Application Pack Release 8.1.x.x.x documents:
 - [Oracle Insurance Data Foundation Application Pack Installation and Configuration Guide Release 8.1.0.0.0](#)
 - [Oracle Insurance Data Foundation Application Pack User Guide Release 8.1.0.0.0](#)
 - [Oracle Financial Services Analytical Applications \(OFSAA\) Data Model Extension Guidelines Document Release 8.1.x](#)
 - [Oracle Financial Services Analytical Applications \(OFSAA\) Data Model Naming Standards Guide Release 8.1.x](#)
 - [Oracle Financial Services Analytical Applications \(OFSAA\) Data Model Document Generation Release 8.1.x](#)
 - [Oracle Insurance Data Foundation Application Pack Cloning Reference Guide Release 8.1.x](#)
 - [Oracle Insurance Data Foundation Application Pack Security Guide Release 8.1.x](#)
 - [Oracle Insurance Data Foundation Application Pack Data Protection Implementation Guide Release 8.1.x](#)
- [OFS Analytical Applications Infrastructure Cloning Reference Guide Release 8.0.x](#)
- [OHC Documentation Library](#) for the OFSAA Release 8.1.x generic documents:
 - [Oracle Financial Services Analytical Applications Infrastructure Security Guide](#)
 - [Oracle Financial Services Analytical Applications Infrastructure Cloning Reference Guide](#)
- [Oracle Financial Services Analytical Applications Technology Matrix Release 8.1.0.0.0](#)
- [OHC Documentation Library](#) for the OFS AAI Application Pack Release 8.1.0.0.0 product documents:

- [Oracle Financial Services Advanced Analytical Applications Infrastructure Installation Guide Release 8.1.0.0.0](#)
- [Oracle Financial Services Advanced Analytical Applications Infrastructure User Guide Release 8.1.0.0.0](#)
- [Oracle Financial Services Advanced Analytical Applications Infrastructure Environment Check Utility Guide Release 8.1.x](#)
- [Oracle Financial Services Advanced Analytical Applications Infrastructure Administration and Configuration Guide Release 8.1.x](#)
- [Oracle Financial Services Analytical Applications Infrastructure Process Modelling Framework Orchestration Guide Release 8.1.0.0.0](#)
- [Oracle Financial Services Analytical Applications \(OFSAA\) Metadata Browser User Guide Release 8.1.0.0.0](#)

1.6 Conventions

The following text conventions are used in this document.

Table 1: Document Conventions

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, file names, text that appears on the screen, or text that you enter.
Hyperlink	Hyperlink type indicates the links to external websites, internal document links to sections.

1.7 Abbreviations

The following table lists the abbreviations used in this document.

Table 2: Abbreviations

Conventions	Description
DB XML	Database XML
DML	Data Manipulation Language
MOS	My Oracle Support
OFS	Oracle Financial Services
OFSAAI	Oracle Financial Services Analytical Application Infrastructure
OIDF	Oracle Insurance Data Foundation

Conventions	Description
OHC	Oracle Help Center
XML	Extensible Markup Language

2 OIDF Application Pack Upgrade Process

This section provides information about the upgrade approach adapted for the OIDF Application Pack v8.1.0.0.0 and the OOB data model upload process during upgrade from the 8.0.x release versions. Here, OIDF manages OFSAA common data model and associated metadata.

A utility is introduced in the OIDF Application Pack Release v8.1.0.0.0 to enable the upgrade installation using the Incremental model upload. This section also provides information about different stages in the OIDF Application Pack Upgrade Process.

Topics:

- [Utility to Enable the Upgrade using Incremental Model Upload](#)
- [Download the OOB Data Model](#)
- [Generic Assumptions to Upgrade to v8.1.0.0.0](#)
- [Assumptions for the Customizations using Incremental Model Upload](#)
- [Upgrade Process Flow](#)

2.1 Utility to Enable the Upgrade using Incremental Model Upload

A utility, called the *ModelUpgrade* is introduced in the OIDF Application Pack Release v8.1.0.0.0 to enable the upgrade installation using Incremental model upload. Using this utility, you can execute the packaged Prescripts before the upgrade and the Postscripts after the upgrade to handle the data and metadata.

The following are the results of using the ModelUpgrade utility:

- During the prescripts execution (before performing the custom model upload):
 - The dropped data is backed up and cleared
 - Then the dropped metadata is backed up and cleared
- During the postscripts execution (after the custom model upload and application upgrade):
 - The data is restored
 - Then the SCD and DQ metadata are restored

For the prescripts execution process, see the [Execute the ModelUpgrade.sh File for the Prescripts](#) section.

For the postscripts execution process, see the [Execute the ModelUpgrade.sh File for the Postscripts](#) section.

For information about the approach taken for the table and column drops, see the [Data and Metadata Approach during the Upgrade](#) section.

2.2 Download the OOB Data Model

To download the OIDF v8.1.0.0.0 ready-to-use data model, follow these steps:

1. Log in to [My Oracle Support \(MOS\)](#) with a valid Oracle account.
2. In the **Patches & Updates** tab, search for the OIDF OOB data model installer patch **31924513**, and download the patch. See the ReadMe available with the patch for further instructions on installing and extracting the patch.

NOTE

Download the [DROPPED DATAELEMENTS CUSTOMIZATION 81](#) document from [My Oracle Support](#).

2.3 Generic Assumptions to Upgrade to v8.1.0.0.0

These are the generic assumptions and observations regarding the v8.1.0.0.0 upgrade process:

- The minimum OFSAA Application Pack version must be v8.0.6.0.0 to upgrade to v8.1.0.0.0.
- The v8.0.x and v8.1.0.0.0 OFSAA Application Packs cannot coexist in the same environment. For example, if there are multiple OFSAA applications such as OIDF v8.0.x and OFS ALM v8.0.x are present on the machine, then you must upgrade both the OIDF and OFS ALM to the 8.1 version.
- Before the upgrade process, a backup of the production database at the site must be created and stored safely.
- Before the upgrade process, an environment with [Oracle Financial Services Analytical Applications Technology Matrix Release 8.1.0.0.0](#) must be available. If required, create a clone of the existing v8.0.x applications. See the [OFS Analytical Applications Infrastructure Cloning Reference Guide Release 8.0.x](#), for details.
- After the v8.1.0.0.0 application installation is complete, the Data Analysts at the site must review the upgraded environment before proceeding with the batch execution.

2.4 Assumptions for the Customizations using Incremental Model Upload

NOTE

The list of dropped tables and columns, which are not a part of the OOB OIDF v8.1 data model is mentioned in the [DROPPED DATAELEMENTS CUSTOMIZATION 81](#) document. However, the customers can retain those dropped tables and columns from the v8.0.x environment, and continue to use them as customizations in the v8.1.0.0.0 environment.

The customization is not supported for the dropped attributes, which are a part of the PK and (or) FK and (or) Not Null definitions.

These are the assumptions and observations regarding the customizations using the Incremental Model Upload (Custom Model Upload) in addition to the [Generic Assumptions to Upgrade to v8.1.0.0.0](#) section:

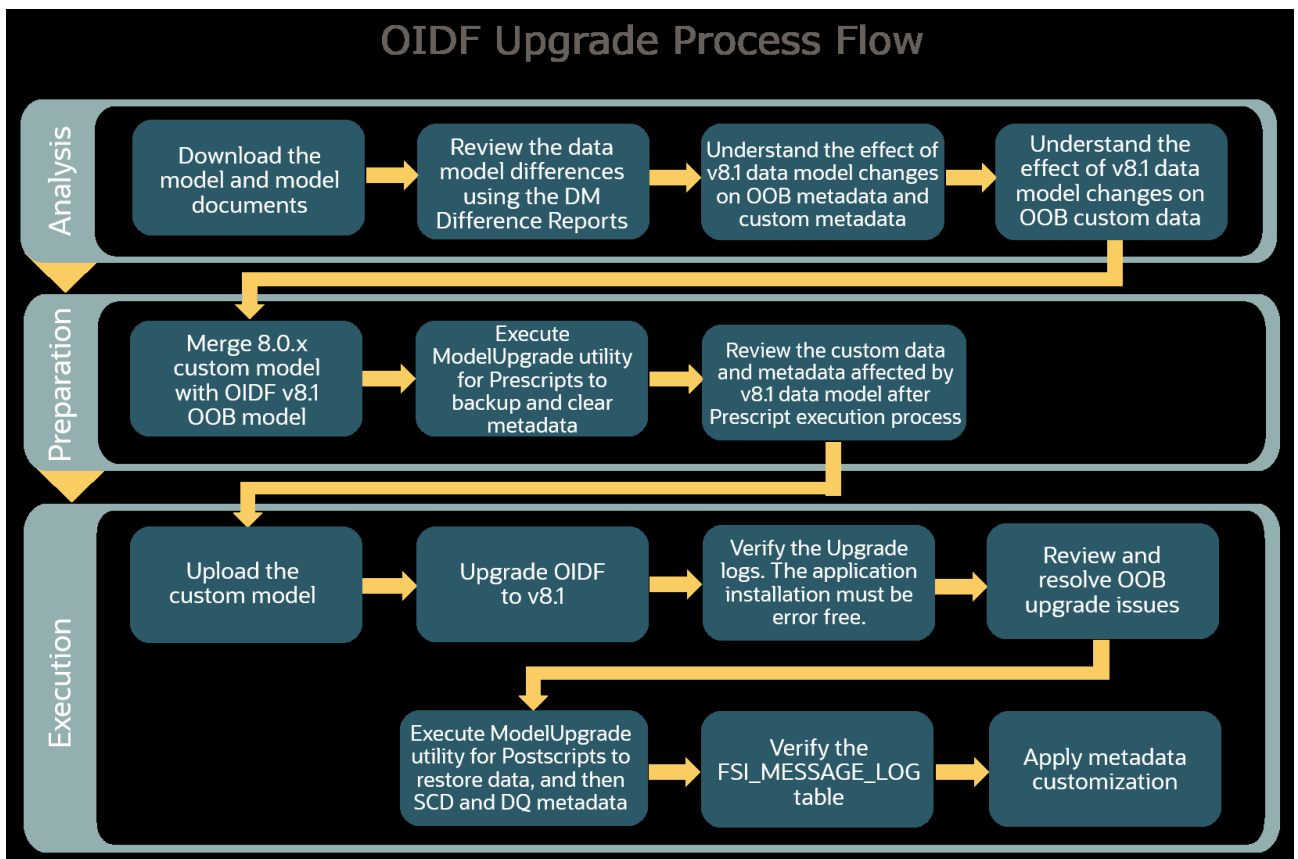
- Review and recompile the metadata defined in the [DROPPED DATAELEMENTS CUSTOMIZATION 81](#) document and retain as the custom metadata as a part of the upgrade at the site to ensure it meets your requirements based on the v8.1.0.0.0 OOB model changes.
- Review the existing custom metadata at the site that can be impacted by the v8.1.0.0.0 tables or attributes after the prescript execution process. See the [Oracle Financial Services Analytical Applications \(OFSAA\) Metadata Browser User Guide Release 8.1.0.0.0](#).

The upgrade process is explained in the following section [Upgrade Process Flow](#).

2.5 Upgrade Process Flow

This is a process flow diagram showing a series of actions that must be performed during the OIDF Application Pack upgrade to the v8.1.0.0.0 release from the v8.0.x releases.

Figure 1: OIDF Upgrade Process Flow Diagram



The upgrade process consists of three main stages:

- [Analysis](#)
- [Preparation](#)
- [Execution](#)

2.5.1 Analysis

In the analysis stage, follow these steps:

1. Download the new OIDF v8.1.0.0.0 OOB data model, data model documents (XML and other scripts), and the [DROPPED DATAELEMENTS CUSTOMIZATION 81](#) document.

NOTE

To download the OIDF v8.1.0.0.0 OOB data model, XML, and other scripts packaged in the data model patch, see the [Download the OOB Data Model](#) section.

To download the Data Model Difference Report documents, see the [OIDF Data Model Difference Report Documents](#) for the Release OIDF v8.1.0.0.0.

2. See the OIDF v8.1.0.0.0 Release related [Data Model Difference Report](#) documents, to review the differences between the v8.1.0.0.0 and earlier versions of the data models.
3. Understand the effect of v8.1.0.0.0 data model changes on the OOB metadata and custom metadata.
4. Understand the effect of v8.1.0.0.0 data model changes on the custom data.
5. From your data model at the site, you can decide to retain the custom existing tables and attributes that are discontinued in the v8.1 OOB data model, as a part of the customization.

For the list of dropped data elements, see the [DROPPED DATAELEMENTS CUSTOMIZATION 81](#) document.

2.5.2 Preparation

This section explains the `ModelUpgrade.sh` file execution before the model upload.

Topics:

- [Execute the ModelUpgrade.sh File for the Prescripts](#)
- [Verify the Prescript Execution Log Files](#)

For the upgrade preparation, follow these steps:

1. Ensure that you completed comparing the current custom 8.0.x data model in use at the site with the OOB v8.1.0.0.0 data model using the data model difference reports, and understood the v8.1.0.0.0 data model changes. Understand the effect of v8.1 data model changes on the OOB metadata and custom metadata. The v8.1.0.0.0 data model changes result in a delta. Use this delta as a reference.
2. Based on the delta reference, merge the current custom 8.0.x data model at the site with the OIDF v8.1.0.0.0 OOB data model. As a result, a custom model is generated. Before proceeding with the custom model upload, [Execute the ModelUpgrade.sh File for the Prescripts](#).

NOTE

For the detailed procedure about the data model merge process, see the *Data Model Merge Guidelines* section in the [Oracle Financial Services Analytical Applications \(OFSAA\) Data Model Extension Guidelines Document Release 8.1.x](#).

ATTENTION

You must continue with the next steps only if the custom data model is generated successfully and there are no issues reported. Contact [My Oracle Support \(MOS\)](#) for any issues.

3. Log in to the system as a non-root user.
4. You must download and extract the v8.1 Data Model patch on the OFSAA installed host. See the [Download the OOB Data Model](#) section. For OIDF, the patch is 31924513_GENERIC.zip.
5. Execute the command line utility `MDBPublishExecution.sh` to publish metadata in the Metadata Browser. See the *Command Line Utility to Publish Metadata in Metadata Browser* section in the [Oracle Financial Services Analytical Applications \(OFSAA\) Metadata Browser User Guide Release 8.1.0.0.0](#).
6. Execute the `.profile` file.
7. Navigate to the `<App_Pack_data_model_patch>/ModelUpgrade/` directory.
8. Assign the 755 permission to the `ModelUpgrade` directory using the following command:

```
chmod -R 755 ModelUpgrade
```
9. Execute the Data Model Upgrade Preparation utility to identify the metadata impact on the current 8.0.x environment. To execute the utility, follow these steps:
 - a. Copy the change-list into the `DM_CHANGES.xlsx` file.
 - b. Execute the following command:

```
./run.sh <App_Pack_data_model_patch>/ModelUpgrade/DM_CHANGES.xlsx
```

Figure 2: Sample of the DM_CHANGES.xlsx file content

TABLE_NAME	COLUM_NAME	RETAIN_AS_CUSTOMIZATION
DIM_MITIGANT	V_MITIGANT_TITLE	Y
DIM_MITIGANT	F_MITIGANT_EXPOSURE_LTD_IND	Y
DIM_MITIGANT	V_ZIP_CODE	Y
STG_LOAN_CONTRACTS	F_MIN_CRAR_COMPLIANCE_FLAG	Y
STG_LOAN_CONTRACTS	N_LOAN_PROVISIONS_AMT_LCY	Y
STG_LOAN_CONTRACTS	N_WRITE_OFF_AMOUNT_LCY	Y
STG_LOAN_CONTRACTS	N_PRIN_RECOVERED_AMT_LCY	Y
STG_LOAN_CONTRACTS	N_INT_RECOVERED_AMT_LCY	Y
STG_LOAN_CONTRACTS	N_EXP_UNREALIZED_LOSS	Y
STG_HEALTH_INS_CONTRACTS	N_RETAINED_PREM_AMT	Y
STG_HEALTH_INS_CONTRACTS	N_WITHDRAWN_AMOUNT	Y
STG_HEALTH_INS_CONTRACTS	N_WRITTEN_EXPOSURE_AMT	Y
STG_HEALTH_INS_CONTRACTS	V_REINSURER_CD	Y
STG_HEALTH_INS_CONTRACTS	N_PAYOUT_AMOUNT_MTD	Y

- c. An Impacted_Objects.xlsx file is generated containing the impacted metadata list. In the generated file, the Metadata Code column is a reference to identify the impacted metadata.

Figure 3: Sample of the generated Impacted_Objects.xlsx file metadata list

Metadata Code	Type
DQFSDWNU0147	Data Quality Rule
DSGL012	Dataset
T2T_FCT_ENTITY_ORG_EXCHG_MAP	Data Mapping
DSGL011	Dataset
DSGL014	Dataset
DSGL013	Dataset
STG_LOAN_CONTRACTS	Entities
DSGL010	Dataset
DQINCONTRACTS74	Data Quality Rule
DSGL009	Dataset
DSGL008	Dataset
STG_HEALTH_INS_CONTRACTS	Entities
DSGL005	Dataset
T2T_FCT_LEGAL_ENTITY_DETAILS	Data Mapping
DSGL004	Dataset
DSGL007	Dataset
DSGL006	Dataset
HOIDF001	Hierarchy
T2T_FCT_CAP_INSTR_POSITIONS	Data Mapping
T2T_FCT_CAP_INSTR_TXNS	Data Mapping

NOTE Ensure to make the metadata changes before the custom 8.0.x data model upload to handle disruptive changes.

2.5.2.1 Execute the ModelUpgrade.sh File for the Prescripts

To execute the `ModelUpgrade.sh` file for the prescripts, follow these steps:

NOTE The ModelUpgrade utility is packaged in the OOB v8.1.0.0.0 data model patch of OFSAA applications (applications that consist of a data model). The application-specific Prescripts and Postscripts are packaged in that data model patch. At the site that houses more than one OFSAA application, the `ModelUpgrade.sh` file can be executed only once.

If the data model patches of different OFSAA applications are unzipped in *different* folders, then the `ModelUpgrade.sh` file must be executed for each application pack.

Oracle recommends unzipping the ModelUpgrade utility (data model patch) of all the OFSAA applications in the *same* folder.

1. Execute the `ModelUpgrade.sh` file with the `P` argument using the following command to back up the tables, columns, and metadata that are a part of the customization:

```
ModelUpgrade.sh P
```

2. As a result, the prescript files are executed.

ATTENTION The following table consists of the prescripts packaged in the OIDF Data Model patch kit. These file names are different for each Application Data Model patch.

The tables and columns present in the `Preparation_Script_oidf_810.sql` file are OIDF v8.1 application pack specific information.

Table 3: Prescript File Executed in the main Prescript config_pre.sql file of the OIDF Application Pack

Executed Prescript File Sequenced in the Main File	Purpose of the Sequenced Prescript File
PreScript_backup_T2T_oidf_810.sql	This script takes the backup of T2T metadata from the config schema and disables the current T2Ts.

NOTE Do not change the `config_pre.sql` file name.

Table 4: Prescript Files Executed in the main Prescript atomic_pre.sql file of the OIDF Application Pack

Executed Prescript File Sequenced in the Main File	Purpose of the Sequenced Prescript File
PreScript_Call_Atomic_Proc_oidf_1.sql	<p>This is an atomic schema related procedure script file. This script calls the procedures in the following files in this sequence:</p> <ol style="list-style-type: none"> 1. Preparation_Script_oidf_810.sql 2. Prescript_Default_Values_oidf_810.sql 3. Prescript_Drop_tables_oidf_810.sql 4. Prescript_Drop_Columns_oidf_810.sql 5. PreScript_SCD_Metadata_Backup_oidf_810.sql 6. Prescript_DQ_Metadata_Backup_oidf_810.sql
PreScript_conf_oidf_810.sql	<p>This script creates the UTIL_STATUS table. The UTIL_STATUS table contains the execution status of the ModelUpgrade . sh file. The APP_ID column represents the application pack for which the data model upload will be done. The IS_EXEC_FLAG column indicates whether the ModelUpgrade . sh is executed or not. The default value of the IS_EXEC_FLAG column is N.</p>
Preparation_Script_oidf_810.sql	<p>This script creates the DROPPED DATAELEMENTS CUSTOMIZATION 81 table. This table consists of all the tables and columns discontinued from the OIDF v8.1.0.0.0 OOB data model. You can query this table to see the detailed information.</p>
Prescript_Default_Values_oidf_810.sql	<p>This script handles the default values of the Not Null and the PK columns.</p>
Prescript_Drop_tables_oidf_810.sql	<p>This script takes the backup of all the dropped tables and then deletes the data from those tables.</p>
Prescript_Drop_Columns_oidf_810.sql	<p>This script takes the backup of all the tables from which the columns are being dropped and then deletes the data from those columns. NOTE: If the column is Nullable, then the dropped column value is updated as Null. If the column is Not Null, then the script deletes the data from the table.</p>
PreScript_SCD_Metadata_Backup_oidf_810.sql	<p>This script takes the backup of all the SCD metadata for the tables and columns.</p>
Prescript_DQ_Metadata_Backup_oidf_810.sql	<p>This script takes the backup of all the DQ metadata for the tables and columns.</p>
PreScript_Call_Atomic_Proc_oidf_2.sql	<p>This is an atomic schema related procedure script file. This script calls the procedures in the following files:</p> <ul style="list-style-type: none"> • Prescript_Delete_SCD_Metadata_oidf_810.sql • Prescript_Delete_DQ_Metadata_oidf_810.sql
Prescript_Delete_SCD_Metadata_oidf_810.sql	<p>This script deletes the SCD metadata for the tables and columns that are a part of the DROPPED DATAELEMENTS CUSTOMIZATION 81 table.</p>
Prescript_Delete_DQ_Metadata_oidf_810.sql	<p>This script deletes the DQ metadata for the tables and columns that are a part of the DROPPED DATAELEMENTS CUSTOMIZATION 81 table.</p>

NOTE Do not change the `atomic_pre.sql` file name.

To rerun the `ModelUpgrade.sh` file for the prescripts, delete the prescript entries from the `OFFLINE_SCRIPTS_DETAILS` table and then execute the `ModelUpgrade.sh` file with the `P` argument.

3. To verify the log information, see the [Verify the Prescript Execution Log Files](#) section.
4. The [DROPPED DATAELEMENTS CUSTOMIZATION 81](#) table is generated, which consists of all the tables and columns discontinued from the OIDF v8.1.0.0.0 OOB data model. Run the SQL query to view the table. Review the list and analyze the effects.

For information about the *metadata* approach, see the [Metadata Approach during the Upgrade](#) section. For information about the *data* approach, see the [Data Approach during the Upgrade](#) section.

2.5.2.2 Verify the Prescript Execution Log Files

See the following logs for more information:

- The log file `<App>OfflineStatus.log` in the `<App_Pack_data_model_patch>/ModelUpgrade/logs/<App_Pack>/` directory.
For example, for OIDF, `31924513_GENERIC/ModelUpgrade/logs/OFS_OIDF/` is the directory.
- The `FSI_MESSAGE_LOG` table.

NOTE In the log file `<App>OfflineStatus.log`, `<App>` is the folder name in the respective OFSAA application. The folder naming convention is based on the `APP_ID` parameter mentioned in the Infodom patches.

For information about the error codes that occur during the Prescripts execution, see the [Error Code Dictionary](#) section.

2.5.3 Execution

This section explains the `ModelUpgrade.sh` file execution during the upgrade process.

Topics:

- [Execute the ModelUpgrade.sh File for the Postscripts](#)
- [Apply the Metadata Customization as per your Requirement](#)
- [Restoration Process if any T2T Customizations are already present at the site before Upgrade](#)
- [Verify the Postscript Execution Log Files](#)

In the execution stage, perform the following steps:

1. Upload the custom model on the existing OFSAA environment and ensure that the data model upload is free of errors.

ATTENTION You must continue with the next steps only if the custom data model upload is successful and there are no issues reported. Contact [My Oracle Support \(MOS\)](#) for any issues.

NOTE For more information, see the *Model Upload Using erwin*, *Model Upload Using DB Catalog*, and *Model Upload Using OFSAA Data Model Descriptor (Database.XML) File* sections in the [Oracle Financial Services Advanced Analytical Applications Infrastructure User Guide Release 8.1.0.0.0](#).

2. Upgrade the existing version of your OFSAA application to v8.1.0.0.0. Your OFSAA application v8.1.0.0.0 installer is packaged in your application-specific installer kit. See your application-specific *Installation Guide v8.1.0.0.0* for the installation and configuration information.

NOTE For example, upgrade the current version of the OIDF Application Pack to v8.1.0.0.0. The OIDF Application Pack v8.1.0.0.0 installer is packaged in the OIDF v8.1.0.0.0 installer kit. For the detailed upgrade installation process, see the *Upgrade* section in the [Oracle Insurance Data Foundation Application Pack Installation and Configuration Guide Release 8.1.0.0.0](#).

NOTE After upgrading OIDF from 8.0.6.0.0 to 8.1.0.0.0, an error occurs in the alter table AAI_WF_PROCESS_EXE_ATTR_HIST with the following error message: *ORA-01430: column being added already exists in table*. You can ignore the error.

3. Ensure that the OFSAA application upgrade installation is free of errors.

ATTENTION You must continue with the next steps only if the application upgrade installation is successful and there are no issues reported. Contact [My Oracle Support \(MOS\)](#) for any issues.

2.5.3.1 Execute the ModelUpgrade.sh File for the Postscripts

To execute the `ModelUpgrade.sh` file for the postscripts, follow these steps:

1. Log in to the system as a non-root user.
2. Navigate to the `<App_Pack_data_model_patch>/ModelUpgrade/` directory.
3. Execute the `ModelUpgrade.sh` file with the `R` argument using the following command to restore the data and metadata:

```
ModelUpgrade.sh R
```

As a result, the postscript files are executed.

ATTENTION The following table consists of the Postscripts packaged in the OIDF Data Model patch kit. These file names are different for each Application Data Model patch.

Table 5: Postscript File Executed in the main Postscript config_post.sql file of the OIDF Application Pack

Executed Postscript File Sequenced in the Main File	Purpose of the Sequenced Postscript File
PostScript_Call_Config_Proc_oidf_810.sql	This script drops the PreScript_backup_T2T_oidf_810.sql procedure created during the ModelUpgrade.sh file execution for prescripts.

NOTE Do not change the config_post.sql file name.

Table 6: Postscript Files Executed in the main Postscript atomic_post.sql file of the OIDF Application Pack

Executed Postscript File Sequenced in the Main File	Purpose of the Sequenced Postscript File
PostScript_Call_Atomic_Proc_oidf_810.sql	This is a procedure that handles atomic schema. This script calls the procedures in the following files in the same sequence: <ol style="list-style-type: none"> PostScript_Restore_Tables_Cols_oidf_810.sql PostScript_Restore_Specific_Tbl_Cols_oidf_810.sql PostScript_SCD_Restore_Metadata_oidf_810.sql PostScript_DQ_Restore_Metadata_oidf_810.sql After the successful execution of these procedures, in the UTIL_STATUS table, the IS_EXEC_FLAG column is set to Y. Also, the procedures in the preceding postscript files get erased. The RETAIN_AS_CUSTOMIZATION column is set to Y after the postscript execution.
PostScript_Restore_Tables_Cols_oidf_810.sql	This script restores the data in the tables and columns that were backed up during the prescript execution (retained for customization).
PostScript_Restore_Specific_Tbl_Cols_oidf_810.sql	This script restores or appends the data in the tables where Not Null columns are newly added (in the v8.1.0.0.0 OOB data model).
PostScript_SCD_Restore_Metadata_oidf_810.sql	This script restores the SCD metadata that was backed up during the prescript execution (retained for customization).
PostScript_DQ_Restore_Metadata_oidf_810.sql	This script restores the DQ metadata that was backed up during the prescript execution (retained for customization).

NOTE

Do not change the `atomic_post.sql` file name.

To rerun the `ModelUpgrade.sh` file for the postscripts, delete the postscript entries from the `OFFLINE_SCRIPTS_DETAILS` table and then execute the `ModelUpgrade.sh` file with the `R` argument.

ATTENTION

The DQs and SCDs metadata that you had retained as a part of the customization, only those DQs, and SCDs metadata are restored.

The restoration of the T2Ts as a part of the customization is *not* supported.

The enablement of the T2Ts as a part of the customization is *not* supported.

NOTE

When the `ModelUpgrade.sh` file is executed for the postscripts, the data elements in the `DROPPED_DATAELEMENTS_CUSTOMIZATION_81` table are compared with the master copy of the tables (`REV_TABLES_B`) and columns (`REV_TAB_COLUMNS`) in the custom model at the site.

If any dropped data elements marked (for customization or retaining) in the `DROPPED_DATAELEMENTS_CUSTOMIZATION_81` table are also present in the master copy of the tables and columns, then the data is restored for those data elements in the output data model.

For example:

The `STG_CUSTOMER_MASTER` table is dropped from the OIDF v8.1.0.0.0 OOB data model packaged by OIDF. Therefore, the `STG_CUSTOMER_MASTER` table is present in the `DROPPED_DATAELEMENTS_CUSTOMIZATION_81` table packaged by the OIDF.

Now if you have opted to retain the `STG_CUSTOMER_MASTER` table, then after the postscripts execution, you can see this table in the `REV_TABLES_B` master copy and the data is restored in the table.

4. The Data Analysts at the site must review the upgraded environment before proceeding with the batch execution. For more information, see the [Apply the Metadata Customization as per your Requirement](#) section.
5. To verify the log information, see the [Verify the Postscript Execution Log Files](#) section.

2.5.3.2 Apply the Metadata Customization as per your Requirement

This section provides information about the metadata customization that you can apply as per the requirement.

If you had decided to retain the table for customization during the metadata approach for the table drop:

- For DQs and SCDs, you can add or maintain the Batch or Task as a part of the custom Run Chart.

NOTE

When the SCDs and DQs are restored, the SCD batch details and DQ batch details are not restored. You must handle all the batch related actions. This is applicable for the SCDs and DQs for which the metadata is discontinued in the v8.1 OOB data model.

- For T2Ts, after the upgrade installation, the Data Analysts at the site must review the list of restored tables and columns that are a part of the T2Ts; and then add those T2Ts to the Process Modeling Framework (PMF). The restoration of T2Ts must be manually done by the team at the site. See the [Oracle Insurance Data Foundation Run Chart Release v8.1.0.0.0](#).

NOTE

For existing T2Ts, the flag column F_IS_RECORD_LATEST is set to N and for the new T2Ts of the 8.1 data model, the flag column F_IS_RECORD_LATEST is set to Y. You must manually enable the flag column F_IS_RECORD_LATEST and then execute the T2Ts.

For the Fact tables, only if the related Stage and the Dimension tables are available, then the data in the Fact tables is restored.

All the tables and columns that are a part of the T2Ts must be restored, and only then, you can proceed to the customization.

In the metadata approach for the column drop:

- For DQs, you can maintain the Batch or Task as a part of the custom Run Chart.
- For SCDs, you can continue to use the OOB Batch or Task.
- For T2Ts, you must review the OOB and 8.0.x metadata to arrive at the post-upgrade customizations.

2.5.3.3 Restoration Process if any T2T Customizations are already present at the site before Upgrade

If there are any T2T customizations already present at the site even before the upgrade, follow the procedure in the subsequent sections to restore the customized T2Ts (after the `ModelUpgrade.sh` file execution for the Postscripts).

2.5.3.3.1 T2T is *not* a part of the v8.1 OOB Data Model

To restore the customized T2T when it is *not* a part of the v8.1 OOB Data Model, run the following query to update the record for the `<max_value>` of the N_VERSION column:

```
UPDATE AAI_OBJECT_B SET F_IS_RECORD_LATEST = 'Y' WHERE V_OBJ_SUBTYPE_CODE='T2T'
AND F_IS_RECORD_LATEST = 'N' AND V_OBJ_CODE = '<T2T_NAME>' and
N_VERSION=<max_value>;
```

```
COMMIT;
```

NOTE

`<T2T_NAME>` is the customized T2T.

2.5.3.3.2 T2T is a part of the v8.1.0.0.0 OOB Data Model

To restore the customized T2T when it is a part of the v8.1 OOB Data Model, follow these steps:

1. Update the record for the <max_value> of the N_VERSION column to *disable* the new T2T, which is a part of the v8.1.0.0.0 OOB data model. Run the following query:

```
UPDATE AAI_OBJECT_B SET F_IS_RECORD_LATEST = 'N' WHERE
V_OBJ_SUBTYPE_CODE='T2T' AND F_IS_RECORD_LATEST = 'Y' AND V_OBJ_CODE
='<T2T_NAME>' AND N_VERSION=<max_value>;

COMMIT;
```

NOTE <T2T_NAME> is the customized T2T.

2. Update the record for the <2nd_max_value> of the N_VERSION column to *enable* the previous T2T. Run the following query:

```
UPDATE AAI_OBJECT_B SET F_IS_RECORD_LATEST = 'Y' WHERE
V_OBJ_SUBTYPE_CODE='T2T' AND F_IS_RECORD_LATEST = 'N' AND V_OBJ_CODE
='<T2T_NAME>' AND N_VERSION=<2nd_max_value>;

COMMIT;
```

NOTE The previous T2T is the T2T that is a part of the previous data model at the site before the upgrade process.
<T2T_NAME> is the customized T2T.

2.5.3.4 Verify the Postscript Execution Log Files

See the following logs for more information:

- The log file <App>OfflineStatus.log in the <App_Pack_data_model_patch>/ModelUpgrade/logs/<App_Pack>/ directory.
For example, for ODF, 31924513_GENERIC/ModelUpgrade/logs/OFS_ODF/ is the directory.
- The FSI_MESSAGE_LOG table.

NOTE In the log file <App>OfflineStatus.log, <App> is the folder name in the respective OFSAA application. The folder naming convention is based on the APP_ID parameter mentioned in the Infodom patches.
For information about the error codes that occur during the Postscript execution, see the [Error Code Dictionary](#) section.

2.5.4 Error Code Dictionary

This section provides information of the Error Codes that occur during the Prescripts and Postscripts execution in the ModelUpgrade utility.

Table 7: Error Code Dictionary

Error Code	Cause	Resolution
20001	T2T Metadata backup is successfully done	No action required
20002	SCD Metadata Restore for customized tables and columns is successfully done	No action required
20002	SCD Metadata cleanup for dropped tables and columns is successfully done	No action required
20002	SCD Metadata backup for dropped tables and columns is successfully done	No action required
20003	DQ Metadata Restore for customized tables and columns is successfully done	No action required
20003	DQ Metadata cleanup for dropped tables and columns is successfully done	No action required
20003	DQ Metadata backup for dropped tables and columns is successfully done	No action required
20004	Table backup is successfully done which got dropped	No action required
20005	SQLERRM Script Failed while running the PostScript_SCD_Restore_Metadata_oidf_810.sql file	Verify the custom model before the model upload process
20005	SQLERRM Script Failed while running the Prescript_Delete_SCD_Metadata_oidf_810.sql file	Verify the custom model before the model upload process
20005	SQLERRM Script Failed while running Prescript SCD Metadata Backup	Verify the custom model before the model upload process
20005	SQLERRM Script Failed while running the Prescript_SCD_Metadata_Backup_oidf_810.sql file	Verify the custom model before the model upload process
20006	SQLERRCODE Script Failed while running the Postscript_DQ_Restore_Metadata_oidf_810.sql file	Verify the custom model before the model upload process
20006	SQLERRM Script Failed while running Prescript Delete DQ Metadata	Verify the custom model before the model upload process
20006	SQLERRM Script Failed while running the Prescript_Delete_DQ_Metadata_oidf_810.sql file	Verify the custom model before the model upload process
20006	SQLERRM Script Failed while running the Prescript_DQ_Metadata_Backup_oidf_810.sql file	Verify the custom model before the model upload process
20007	Default Value is updated successfully for the Not Null or PK Columns	No action required

Error Code	Cause	Resolution
20008	Table DROPPED_DATAELEMENTS_CUSTOMIZATION_81 has been populated with the entries of 24 dropped tables and columns	No action required
20009	Table backup is successfully done from which columns have got dropped	No action required
20010	Data Restoration for customized tables or columns is successfully done	No action required
20011	SQLERRM . Script Failed while executing the Prescript_Drop_Columns_oidf_810.sql file	Verify the custom model before the model upload process
20012	SQLERRM Script Failed while executing the PostScript_Restore_Tables_cols_oidf_810.sql file	Verify the custom model before the model upload process
20012	SQLERRM Script Failed while executing the Prescript_Drop_tables_oidf_810.sql file	Verify the custom model before the model upload process
20015	Tables or Columns with RETAIN_AS_CUSTOMIZATION value as Y are the customized data elements in table DROPPED_DATAELEMENTS_CUSTOMIZATION_81	No action required
20014	8.1 Installation has not happened properly after Prescript execution as part of Model Upgrade utility	Verify if the INFODOM_PATCHES table is updated with the correct values in the columns V_PATCH_VERSION and V_APP_ID.
20013	Postscripts are already executed. Please update IS_EXEC_FLAG to N of UTIL_STATUS table to execute Postscript again	Update the IS_EXEC_FLAG column to N in the UTIL_STATUS table to execute Post Script again

3 Data and Metadata Approach during the Upgrade

This section provides information about the approach to be taken for the data and metadata during the upgrade process.

Topics:

- [Data Approach during the Upgrade](#)
- [Metadata Approach during the Upgrade](#)

3.1 Data Approach during the Upgrade

For the upgrade process, the data approach is considered for the table drops and column drops as explained in the following sections.

Topics:

- [Table Drops](#)
- [Column Drops](#)

3.1.1 Table Drops

The data approach scenarios for the table drops are illustrated in the following table.

Table 8: Data Approach Scenarios for the Table Drop

Data Approach Scenarios	ModelUpgrade Utility		
	During Prescripts Execution		During Postscripts Execution
	Data backed up?	Table backed up?	Data restored in the table?
Dropped table is retained			Yes
Do not want to maintain the dropped table		Yes	
Table had PK changes	Yes		

3.1.2 Column Drops

The data approach scenarios for the column drops are illustrated in the following table.

Table 9: Data Approach Scenarios for the Column Drop

Data Approach Scenarios		ModelUpgrade Utility								
		Supported?	During Prescripts Execution					During Postscripts Execution		
			Data is backed up?	Column is dropped?	Table is backed up?	Table is truncated?	Default value loaded in column?	Data is restored in column?	Data restored in table?	Table is restored?
PK and Not Null columns are retained		No								
Dropped column is retained			Yes	Yes				Yes		
Stage Table	PK column is added or dropped			Yes	Yes				Yes	
	Existing column is included as PK					Yes				
	Existing column is made Not Null					Yes				
	New Not Null column is added			Yes	Yes					Yes
Dimension Table	PK column dropped			Yes	Yes					Yes
	PK column update			Yes	Yes					Yes
	New PK column			Yes	Yes	Yes				
	New Not Null column			Yes	Yes	Yes				
	Null to Not Null column update			Yes		Yes				
Fact Table	PK column drop			Yes	Yes				Yes	
	PK and Not Null column update			Yes		Yes				
	New PK column			Yes	Yes	Yes				
	New Not Null column			Yes	Yes	Yes				

3.2 Metadata Approach during the Upgrade

For the upgrade process, the metadata approach is considered for the Table Drops and Column Drops as explained in the following sections.

ATTENTION

The DQs and SCDs metadata that you had retained as a part of the customization, only those DQs, and SCDs metadata are restored.

The restoration of the T2Ts as a part of customization is not supported.

Topics:

- [Table Drops](#)
- [Column Drops](#)

3.2.1 Table Drops

This section provides information about the metadata approach scenarios for the table drops.

Topics:

- [If the table is retained for the customization](#)
- [If the table is not retained for the customization](#)

The metadata approach scenarios for the table drops are as follows.

3.2.1.1 If the table is retained for the customization

- For DQs:
 - During the Prescripts execution in the ModelUpgrade utility:
 - All the DQs (of the table) are backed up for customization in the DQ_CHECK_MASTER_810 table.
 - All the DQ Groups are backed up for customization in the DQ_GROUP_MAPPING_810 table.
 - During the Postscripts execution in the ModelUpgrade utility, if the table or column used for the DQ is retained, then its metadata is restored:
 - In the DQ_CHECK_MASTER table for DQs.
 - In the DQ_GROUP_MAPPING table for the DQ Groups.
 - You can add or maintain the Batch or Task as a part of the custom Run Chart.
- For SCDs:
 - During the Prescripts execution in the ModelUpgrade utility:
 - All the SCDs are backed up for customization in the SYS_TBL_MASTER_810 table.

- All the SCD *mappings* are backed up for customization in the SYS_STG_JOIN_MASTER_810 table.
- For the View-based SCD, you must review the database Views and proceed with the customization.
- If both the Stage and Target tables are retained:
 - Then SCD *metadata* details are restored from the backup table SYS_TBL_MASTER_810 to the SYS_TBL_MASTER table during the Postscripts execution in the ModelUpgrade utility.
 - Then SCD *mapping* details are restored from the backup table SYS_STG_JOIN_MASTER_810 to the SYS_STG_JOIN_MASTER table during the Postscripts execution in the ModelUpgrade utility.
- You can maintain the Batch or Task as a part of your custom Run Chart.

NOTE

When the SCD and DQs are restored, the SCD batch details and the DQ batch details are not restored. You must handle all the batch related actions. This is applicable for the SCDs and DQs for which the metadata is discontinued in the v8.1 OOB data model.

- For all the T2Ts:
 - The flag column F_IS_RECORD_LATEST is set to N automatically for the old T2Ts in the AAI_OBJECT_B table.
 - After the upgrade installation, the Data Analysts at the site must review the list of restored tables and columns that are a part of the T2Ts; and then add those T2Ts to the Process Modeling Framework (PMF). The restoration of T2Ts must be manually done by the team at the site. See the [Oracle Insurance Data Foundation Run Chart Release v8.1.0.0.0](#).

NOTE

For existing T2Ts, the flag column F_IS_RECORD_LATEST is set to N and for the new T2Ts of the 8.1 data model, the flag column F_IS_RECORD_LATEST is set to Y. You must manually enable the flag column F_IS_RECORD_LATEST and then execute the T2Ts.

For the Fact tables, only if the related Stage and the Dimension tables are available, then the data in the Fact tables is restored.

All the tables and columns that are a part of the T2Ts must be restored, and only then, you can proceed to the customization.

3.2.1.2 If the table is *not* retained for the customization

- For DQs:
 - DQs are dropped.
 - DQ group mappings are dropped.
 - The Task and Batch references are deleted during the application upgrade installation process.

- For SCDs:
 - Map references are dropped.
 - The Task and Batch references are deleted during the application upgrade installation process.
- For T2Ts:
 - The flag column F_IS_RECORD_LATEST is set to N in the AAI_OBJECT_B table.
 - The Task and Batch references are deleted during the application upgrade installation process.

3.2.2 Column Drops

The metadata approach for the column drops is as follows:

- For DQs:
 - Same as that of the DQs metadata approach scenario for the table drops. See the *For DQs* subsection in the [If the table is retained for the customization](#) section.
- For SCDs:
 - No impact on the SYS_TBL_MASTER table.
 - For the retained columns, during the Postscripts execution in the ModelUpgrade utility, the SCD *mappings* are restored from the SYS_STG_JOIN_MASTER_810 table to the SYS_STG_JOIN_MASTER table.
 - You must review the database Views that are required for customization.
 - You can continue to use the OOB Batch or Task.
- For T2Ts:
 - The column F_IS_RECORD_LATEST is set to N in the AAI_OBJECT_B table for all the T2Ts.
 - The Data Analysts at the site must review the OOB and 8.0.x metadata to decide the customizations after the upgrade installation because the restoration of the T2Ts as a part of the customization is *not* supported.

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