

# **Oracle Insurance Loss Modeller Installation Guide**

**Installation Guide**

**Release 8.1.2.1.0**

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**ORACLE**  
Financial Services

## Oracle Insurance Loss Modeller Installation Guide

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# Document Control

Version Number	Revision Date	Change Log
1	July 2022	Created the document with instructions for the installation of the Oracle Insurance Loss Modeller Release 8.1.2.1.0.

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# 1 Preface

This section provides supporting information for the Oracle Insurance Loss Modeller Installation Guide.

You can find the latest copy of this document in the [OHC Documentation Library](#) which includes all the recent additions or revisions (if any) done to date.

Before you begin the installation, ensure that you have access to [My Oracle Support](#) with the required login credentials to quickly notify us of any issues at any stage.

## Topics:

- [Intended Audience](#)
- [Related Documents](#)
- [Conventions](#)
- [Abbreviations](#)

## 1.1 Intended Audience

The Oracle Insurance Loss Modeller Installation Guide is intended for administrators, business users, strategists, data analysts, and implementation consultants who handle installing and maintaining the application pack components.

This document assumes that you have experience installing enterprise components and basic knowledge of the following:

- Oracle Insurance Loss Modeller Components
- OFSAA Architecture
- UNIX Commands
- Database Concepts
- The Web Server or Web Application Server

## 1.2 Related Documents

We strive to keep this document and all other related documents updated regularly. Visit the [OHC Documentation Library](#) to download the latest version available. The list of related documents is provided here:

- [OHC Documentation Library](#) **for Oracle Insurance Loss Modeller:**
  - For existing customers of Oracle Insurance Loss Modeller (OILM):
    - *OFS Insurance Accounting Analyzer 8.1.2.1.0 Installation Guide*
    - *OFS Insurance Accounting Analyzer 8.1.2.1.0 User Guide*
  - For new customers of Oracle Insurance Loss Modeller (OILM):
    - *OFS Insurance Accounting Analyzer 8.1.2.1.0 Release Notes*
    - *OFS Insurance Accounting Analyzer 8.1.2.1.0 Installation Guide*
    - *OFS Insurance Accounting Analyzer 8.1.2.1.0 User Guide*

- [OHC Documentation Library](#) for OFS AAI Application Pack:
  - *OFS Advanced Analytical Applications Infrastructure (OFS AAI) Application Pack Installation and Configuration Guide*
  - *OFS Analytical Applications Infrastructure User Guide*
  - *OFS Analytical Applications Infrastructure Administration Guide*
  - *Oracle Financial Services Analytical Applications Infrastructure Environment Check Utility Guide*
- **Additional Reference Documents:**
  - [OFSAA Licensing User Manua Release 8.1.2.0.0](#)
  - [OFS Analytical Applications 8.1.x Technology Matrix](#)
  - [OFS Analytical Applications Infrastructure Security Guide](#)
  - [Oracle Insurance Loss Modeller Security Guides Release 8.1.x](#)
  - [Oracle Financial Services Analytical Applications Infrastructure Cloning Guide](#)
  - [Oracle Insurance Loss Modeller Cloning Guide Release 8.1.x](#)
  - [OFSAAI FAQ Document](#)
  - Oracle Financial Services Data Foundation Technical Documents (MOS Doc ID: [2450653.1](#)). See the relevant version of the metadata sheet available in the MOS document (For CAS, see T2T Metadata Staging, and for SCD components, see SCD Metadata sheet).

## 1.3 Conventions

The following text conventions are used in this document.

**Table 1: Document Conventions**

Convention	Meaning
<b>boldface</b>	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 need to update specific 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.
<a href="#">Hyperlink</a>	Hyperlink type indicates links to external websites and internal document links.

## 1.4 Abbreviations

The following table lists the abbreviations used in this document.

**Table 2: Abbreviations**

Abbreviation	Meaning
DBA	Database Administrator
DDL	Data Definition Language
DEFQ	Data Entry Forms and Queries
DML	Data Manipulation Language
EAR	Enterprise Archive
EJB	Enterprise JavaBean
ERM	Enterprise Resource Management
FTP	File Transfer Protocol
HDFS	Hadoop Distributed File System
HTTPS	Hypertext Transfer Protocol Secure
J2C	J2EE Connector
J2EE	Java 2 Enterprise Edition
JCE	Java Cryptography Extension
JDBC	Java Database Connectivity
JDK	Java Development Kit
JNDI	Java Naming and Directory Interface
JRE	Java Runtime Environment
JVM	Java Virtual Machine
LDAP	Lightweight Directory Access Protocol
LHS	Left Hand Side
MFA	Multi-Factor Authentication
MOS	My Oracle Support
OFSA	Oracle Financial Services Analytical Applications
OFSAI	Oracle Financial Services Analytical Application Infrastructure
OFSAAI	Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack
OILM	Oracle Insurance Loss Modeller
OHC	Oracle Help Center
OLAP	On-Line Analytical Processing
OLH	Oracle Loader for Hadoop
ORAAH	Oracle R Advanced Analytics for Hadoop
OS	Operating System
RAM	Random Access Memory
RDBMS	Relational Database Management System
RHEL	Red Hat Enterprise Linux

Abbreviation	Meaning
SFTP	Secure File Transfer Protocol
SID	System Identifier
SSL	Secure Sockets Layer
TNS	Transparent Network Substrate
URL	Uniform Resource Locator
VM	Virtual Machine
WAR	Web Archive
XML	Extensible Markup Language



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## 2 Introduction to Oracle Insurance Loss Modeller

The application projects future cash flows based on the various actuarial methods. The output of the application is useful in different processes such as Capital Modeling, Business Planning, Reserving, AvE, IFRS17 computation, and so on.

The overall application is segregated into two parts; the Landing Page and the Projection Page. The Landing Page is a dashboard that summarizes the Key Performance Indicators such as GWP, Exposure, Losses, Loss Ratios, Major Drivers, Incurred Loss Frequency and severity, etc. with an option to customize and view them at Business Unit, Line of Business, Product, Sub Product, and further coverage levels.

The Projection Page facilitates the working space for the Projection Calculation under various approaches such as Chain Ladder, BF, etc. at Business Unit, Line of Business, Product, Sub Product, and further coverage levels.

## 3 Oracle Insurance Loss Modeller (OILM) Release 8.1.2.1.0

Oracle Insurance Loss Modeller v8.1.2.1.0 Maintenance Level (ML) release includes all the bug fixes and minor enhancements since the previous release v8.1.2.0.0.

### 3.1 Pre Installation Requirements

The prerequisites are as follows:

- The minimum patch set level must be 8.1.2.0.0.
- Update the OFSAA 8.1.1.x Java 8 Instance to Java 11. For more information on updating the Java instance, see the OFS AAI Installation Guide.

For more information on the OFS AAI requirements, see OFS Advanced Analytical Applications Infrastructure Application Pack 8.1.2.0.0 Release Notes in [OHC Documentation Library](#).

### 3.2 Installing this Maintenance Level Release

To install this ML release, follow these steps:

1. Login to [My Oracle Support](#) and search for **34327606** under the **Patches & Updates** tab.
2. Download the Erwin data model patch **34327617**.
3. Download the *OFSAA 8.1.2.1.0 OILM* archive file and copy it to your OFSAA server in Binary mode.

#### NOTE

There are different archive files for different operating systems such as Solaris, and RHEL/OEL.

4. Stop all the OFSAAI services. For more information, see the Start/Stop Infrastructure Services section in [Oracle Insurance Loss Modeller Installation Guide Release 8.1.2.0.0](#).
5. Login to the OFSAA server as a non-root user and navigate to the `$FIC_HOME` folder.
6. Assign WRITE permission to the file/folders such as common scripts, EXEWebService, ficapp, ficweb, and find them in the `$FIC_HOME` folder by executing the command:
 

```
chmod -R 775 *
```
7. If you have to Unzip utility, skip to the next step or download the Unzip utility (OS-specific) and copy it in Binary mode to the directory that is included in your PATH variable, typically `$HOME` path or directory in which you have copied the 8.1.2.1.0 ML.
  - Uncompress the unzip installer file using the command:
 

```
uncompress unzip -a OFS_OILM_8.1.2.1.0_<OS>.zip
```

**NOTE**

If you notice an error message "*uncompress: not found [No such file or directory]*" when the package is not installed, contact your UNIX administrator.

8. Give EXECUTE permission to the utility by using the command:

```
chmod 755 unzip_<os>
```

9. Extract the contents of the 8.1.2.1.0 ML archive file by using either of the following commands:

```
unzip <name of the file to be unzipped>
```

10. Update the configuration file `params.conf` File present in the `OFS_OILM_PACK/appsLibConfig/conf` Folder before triggering the installation. The update instructions are present in this file itself.

In case of customized Data Model upload, then update the `params.conf` file present in the `OFS_OILM_PACK/appsLibConfig/conf` Folder accordingly.

11. Give EXECUTE permission to the ML patch installer script. Navigate to the `OFS_AAI` directory and execute the command:

```
chmod 755 OFSAAIUpdate.sh
```

12. Execute the following command:

```
./OFSAAIUpdate.sh
```

13. Verify if the ML is applied successfully by checking the log files generated in `OFS_OILM_PACK/OFS_OILM/logs` Directories. You must also verify the Data Model Logs, the path can be found in the `silent.props` file. You can ignore ORA-00001 and ORA-02292 in the log file. In case of any other errors, contact [My Oracle Support](#).

14. After successful installation of the ML, perform the following steps:

- Clear the application cache. Navigate to the following path depending on the configured web application server and delete the files.
  - **Tomcat:** <Tomcat installation folder>/work/Catalina/localhost/<Application name>/org/apache/jsp
  - **Weblogic:** <Weblogic installation location>/domains/<Domain name>/servers/<Server name>/tmp/\_WL\_user/<Application name>
  - **Websphere:** <Websphere installation directory>/AppServer/profiles/<Profile name>/temp/<Node name>/server1/<Application name>/<.war file name>

15. Delete the existing EAR/WAR file available in the folder `$FIC_HOME/ficweb`.
16. Generate the application EAR/WAR file and redeploy the application onto your configured web application server. For more information on generating and deploying the EAR/ WAR File, see [Create and Deploy the EAR or WAR Files](#) in OFS AAI Release 8.1.2.0.0 Installation and Configuration Guide.
17. Restart all the OFSAAI services. For more information, refer to the [Start/Stop Infrastructure Services](#) Section in OFS AAI Release 8.1.2.0.0 Installation and Configuration Guide.

## 3.3 Post Installation Configurations

This section provides information on the post-installation configurations.

### 3.3.1 Configure Server.xml for Tomcat 9x

Perform the following step to configure `server.xml` for Tomcat9x:

Edit the `server.xml` File that is present under the `$TOMCAT_DIRECTORY/conf/` Directory with the following changes that is required for Connection Pooling.

```
<Context path="/" $CONTEXTNAME$ " docBase=" $APP_DEPLOYED_PATH$ "
debug="0" reloadable="true" crossContext="true">
<Resource auth="Container" name="jdbc/ $INFODOM_NAME$"
type="javax.sql.DataSource"
driverClassName="oracle.jdbc.driver.OracleDriver" username="
$ATOMICSCHEMA_USERNAME$" password="$ATOMICSCHEMA_PASSWORD$"
url="$JDBC_CONNECTION_URL"
maxTotal="300" maxIdle="30" maxWaitMillis="10000"
removeAbandonedOnBorrow="true" removeAbandonedTimeout="60"
logAbandoned="true"/>
</Context>
```

For more information, refer to the **Define JDBC Connection Pooling** Section in the [OFS AAI Installation Guide](#).

### 3.3.2 Configure the OILM Configuration Tables

Perform the following steps to configure the OILM Configuration Tables.

1. In the Atomic Schema, populate the **FSI\_OILM\_CONFIGURATION\_DETAILS** Table as tabulated:

**Table 3: Details to be added in the FSI\_OILM\_CONFIGURATION\_DETAILS Table**

SI No	Column Name	Parameters
1	OBJECT_ID	The serial number. Example: 1, 2,3 for every row.
2	APP_ID	The default value is OFS_OILM.

SI No	Column Name	Parameters
3	USER_ID	The application username. Example: OILMUSER and SYSTEM must be given as default users.
4	DIMENSION_MAP_KEY	By default, the SYSTEM and USERID must be inserted with a different DIMENSION_MAP_KEY. Example: Only Numeric values such as 1,2,3.
5	TRIANGLE_DECIMAL	For the Triangle decimal column, the mandatory value should be between the ranges of 1 to 6.

This table is used to map different dimension's **DIMENSION\_MAP\_KEY** for the respective application user

**Figure 1: An example of the FSI\_OILM\_CONFIGURATION\_DETAILS Table**

OBJECT_ID	APP_ID	USER_ID	DIMENSION_MAP_KEY	TRIANGLE_DECIMAL
1	OFS_OILM	OILMUSER	1	6
2	OFS_OILM	SYSTEM	2	6

2. Populate **FSI\_OILM\_CONF\_DIMENSION\_MAPPING** as tabulated. Note that all users that are using the same Dimension mapping and Triangle decimal will use the same **APP\_ID (OFS\_OILM)** and **USER\_ID (SYSTEM)**.

**Table 4: Details to be added in the FSI\_OILM\_CONF\_DIMENSION\_MAPPING Table**

SI No	Column Name	Parameters
1	DIMENSION_MAP_KEY	The serial number. Example: 1, 2,3 for every row.
2	DIMENSION_NAME	By default for each application user, the first dimension must be the Legal Entity The User can map 10 dimensions, including the Legal Entity Dimension, out of 20 Dimensions available in the OILM Application. The list of Dimension can be referred to from the REV_DIMENSIONS_TL Seeded Data Table.

SI No	Column Name	Parameters
3	ORDER_ID	For the selected 10 Dimensions, the first dimension must always be Legal Entity and the DIMENSION_MAP_KEY must be 1.

This table is used to map different dimension's for the respective application user

**Figure 2: An example of the FSI\_OILM\_CONF\_DIMENSION\_MAPPING Table**

DIMENSION_MAP_KEY	DIMENSION_NAME	ORDER...
1	1 Legal Entity	1
2	1 Business Unit	2
3	1 Line of Business	3
4	1 Products	4
5	1 Sub Product	5
6	1 Coverage	6
7	1 Region or Cluster	7
8	1 Zone	8
9	1 Development	9
10	1 Producing Country	10

**Figure 3: An example of the REV\_DIMENSIONS\_TL Table**

DIMENSION_ID	DIMENSION_NAME	DESCRIPTION	LAST_MODIFIED_BY	LAST_MODIFIED_DATE	CREATED_BY	CREATION_DATE
1	2001 Legal Entity	Legal Entity	SYSADMIN	12-NOV-21 4:29:58.141255000 AM	SYSADMIN	12-NOV-21 4:29:58.141
2	2002 Products	Products	SYSADMIN	12-NOV-21 4:29:58.166612000 AM	SYSADMIN	12-NOV-21 4:29:58.166
3	2003 Line of Business	Line of Business	SYSADMIN	12-NOV-21 4:29:58.183002000 AM	SYSADMIN	12-NOV-21 4:29:58.183
4	2004 Business Unit	Business Unit	SYSADMIN	12-NOV-21 4:29:58.194569000 AM	SYSADMIN	12-NOV-21 4:29:58.194
5	2005 Sub Product	Sub Product	SYSADMIN	12-NOV-21 4:29:58.219875000 AM	SYSADMIN	12-NOV-21 4:29:58.219
6	2006 Coverage	Coverage	SYSADMIN	12-NOV-21 4:29:58.248227000 AM	SYSADMIN	12-NOV-21 4:29:58.248
7	2007 Region or Cluster	Region or Cluster	SYSADMIN	12-NOV-21 4:29:58.260843000 AM	SYSADMIN	12-NOV-21 4:29:58.260
8	2008 Development	Development	SYSADMIN	12-NOV-21 4:29:58.298585000 AM	SYSADMIN	12-NOV-21 4:29:58.298
9	2009 Loss Type	Loss Type	SYSADMIN	12-NOV-21 4:29:58.343817000 AM	SYSADMIN	12-NOV-21 4:29:58.343
10	2010 Zone	Zone	SYSADMIN	12-NOV-21 4:29:58.358140000 AM	SYSADMIN	12-NOV-21 4:29:58.358
11	2011 Producing Country	Producing Country	SYSADMIN	12-NOV-21 4:29:58.372442000 AM	SYSADMIN	12-NOV-21 4:29:58.372
12	2012 Source or Agent or Broker	Source or Agent or Broker	SYSADMIN	12-NOV-21 4:29:58.391762000 AM	SYSADMIN	12-NOV-21 4:29:58.391
13	2013 Claim Manager	Claim Manager	SYSADMIN	12-NOV-21 4:29:58.413774000 AM	SYSADMIN	12-NOV-21 4:29:58.413
14	2014 UnderWriter	UnderWriter	SYSADMIN	12-NOV-21 4:29:58.426127000 AM	SYSADMIN	12-NOV-21 4:29:58.426
15	2015 Segment	Segment	SYSADMIN	12-NOV-21 4:29:58.437737000 AM	SYSADMIN	12-NOV-21 4:29:58.437
16	2016 Primary or Excess Layer	Primary or Excess Layer	SYSADMIN	12-NOV-21 4:29:58.466943000 AM	SYSADMIN	12-NOV-21 4:29:58.466
17	2017 Co Insurance Share	Co Insurance Share	SYSADMIN	12-NOV-21 4:29:58.483484000 AM	SYSADMIN	12-NOV-21 4:29:58.483
18	2018 Lead Follower	Lead Follower	SYSADMIN	12-NOV-21 4:29:58.495071000 AM	SYSADMIN	12-NOV-21 4:29:58.495
19	2019 Reinsurance	Reinsurance	SYSADMIN	12-NOV-21 4:29:58.506535000 AM	SYSADMIN	12-NOV-21 4:29:58.506
20	2020 Currency	Currency	SYSADMIN	12-NOV-21 4:29:58.531959000 AM	SYSADMIN	12-NOV-21 4:29:58.531

### 3.3.3 Configure the Large Loss Threshold

In the Atomic Schema, the user can configure or modify the Large Loss Threshold by using the `get_LargeLossIndicator` Function. The default threshold value is `500000`.

## OFSAA Support

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