Installation Manual

Oracle Financial Services Basel Regulatory Capital Internal Ratings Based Approach Release 6.1.0.0.0

January 2014

Document Control

Version Number	Revision Date	Changes Done
Version 6.1	Created on August 2013	Document contents have been categorized to appropriate sections and structured considering all the 6.1 enhancements.
6.1 (6.0-6.1 Upgrade)	Revised on January 2014	Updated the 6.0-6.1 upgrade related information.
Created and Edited by: Sindhu/Swathi	Reviewed By : Aju/Ranjit	Approved by : Kumaran

Executive Summary

The document consists of all the installation, Pre and Post configuration procedures which have been structured considering all the 6.1 enhancements. You can find the latest copy of this document in OTN library which includes all the recent additions/revisions (if any) done till date.

Before you begin the installation, ensure that you have an access to Oracle Support Portal with the required login credentials to quickly notify us for any specific issues. You can obtain one by contacting Oracle Support.

Table of Contents

1. GETTING STARTED 3

1.1 ORACLE FINANCIAL SERVICES ANALYTICAL APPLICATIONS INFRASTRUCTURE OVERVIEW 3
1.2 ANALYTICAL APPLICATIONS OVERVIEW 3
1.3 AUDIENCE 3
1.4 SCOPE 3
1.5 ORGANIZATION OF THE MANUAL 3
1.6 CONVENTIONS USED IN THIS MANUAL 4

2. PRE-INSTALLATION CONFIGURATION 5

2.1 PREREQUISITES 5
2.2 ENVIRONMENT 5
2.3 GENERIC SOFTWARE 6
2.4 PREINSTALLATION ACTIVITIES 7
2.5 PRE-UPGRADE ACTIVITIES 9
2.6 KEY CONSIDERATIONS TO UPGRADE IN A CUSTOMIZED ENVIRONMENT: 15

3. INSTALLING THE APPLICATION 17

3.1 OFS BASEL REGULATORY CAPITAL IRB APPROACH RELEASE 6.1.0.0.0 INSTALLATION 17
3.1.1 Machine A – Product Application Layer 17
3.1.2 Machine B – Product Database Layer 34
3.1.3 Machine C – Product Web Layer 38
3.2 OFS BASEL REGULATORY CAPITAL IRB APPROACH RELEASE 6.1.0.0.0 INSTALLATION- SILENT MODE 41
3.3 POST INSTALLATION ACTIVITIES 42

1. Getting Started

1.1 Oracle Financial Services Analytical Applications Infrastructure Overview

Oracle Financial Services Analytical Application Infrastructure (OFSAAI) is an analytical application platform which has been architected to be multi-tiered and open-systems compliant. OFSAAI is fully web-enabled. It's a 100% thin-client, browser-based interface with zero foot print which dramatically reduces the cost of application deployment. All OFSAAI processes, including those related to business, are metadata-driven, thereby providing a high degree of operational and usage flexibility, and a single consistent view of information to all users.

OFSAAI product suite includes a rules-framework designer engine, Unified Metadata Manager which has a semantic layer of metadata abstraction that is common over both relational and OLAP repositories.

1.2 Analytical Applications Overview

Analytical Applications like Oracle Financial Services (OFS) Basel Regulatory Capital Internal Ratings Based (IRB) Approach are pre-packaged on OFSAAI and are ready to install. With Oracle Financial Services Basel Regulatory Capital IRB Approach application, Release 6.1.0.0.0, banks can now meet the requirements as stated in the Basel accord, by catering to multiple jurisdictions with a single application, thereby eliminating the need for multiple point applications from multiple software vendors.

1.3 Audience

This manual is meant for the OFSAAI Application System Administrator as they play an integral part in installing the Oracle Financial Services Analytical Applications.

1.4 Scope

The information contained in this document is intended to give you a quick exposure and an understanding of the installation procedures to:

- Install the Oracle Financial Services Basel Regulatory Capital IRB Approach v6.1.0.0.0.

The document also deals with the information related to the OFS Basel Regulatory Capital IRB Approach installation process and the topics are designed in the order of priority with related procedures to assist, configure, and manage the administrative tasks effectively.

1.5 Organization of the Manual

The Installation Manual is organized into the following chapters:

- **Preinstallation Configuration** section consists of the pre-configuration activities that are to be completed successfully for proper installation and functioning of the application.
- **Installing the Analytical Application** section details the steps to be followed during the installation.

- **Post Installation Activities** section details the steps that are required to be performed after the successful installation of the Oracle Financial Services Basel Regulatory Capital IRB Approach Release 6.1.0.0.0.

1.6 Conventions Used in this Manual

- References to sections or chapters in the manual are displayed in *Italics*.
- Screen names are displayed in the following manner:

  Introduction Screen

- Notes are displayed as follows:

Note: It is important that the password should be 6 characters long. If you do not adhere to this prerequisite, you will see a system message that reads Password must be at least 6 characters long.

2. Pre-installation Configuration

The list of pre-configurations required to install and run the Basel 6.1 on OFSAAI 7.3.2.2.0 Infrastructure is stated in this section. Further, the installation process requires certain environmental variables to be set prior to starting the installation. Ensure the following requirements are met before installation.

- Prerequisites
- Environment
- Generic Software
- Preinstallation Activities

2.1 Prerequisites

- Infrastructure version 7.3.2.2.0 should be installed. Refer to *OFSAAI Installation and Configuration Guide.*
- The following is applicable only for Upgrade.

  Apply the one-off patches for the following bugs:

  - BUG 17613799 - ATTRIBUTION ADVANCED APPROACH TASK1-(ATTRIBUTION_ANALYSIS_ADVANCE_APPR) FAILED

    One-Off Patch: - 17613799_GENERIC.zip

    Version - 6.0.0.0.2
  - BUG 17661251 - METADATA ISSUE FOR UNCOVERED MITIGANT, ATTRIBUTION ANALYSIS, LEASE RESIDUA

    One-Off Patch: - 17661251_GENERIC.zip

    Version - 6.0.0.0.3

2.2 Environment

Type	Description
OS	• Oracle Enterprise Linux(OEL) Server Release – 5.3 up to 5.8 (Carthage) - 64 bit • Red Hat Enterprise Linux(RHEL) Server Release – 5.3 up to 5.8 (Tikanga) – 64 bit
Infrastructure Web Server	• Oracle 11g R2 (11.2.0.2.0) JDBC driver (Oracle thin driver) • Sun JRE Standard Edition 1.6.0_25 – 64 bit • Sun JDK Standard Edition 1.6.0_25 – 64 bit • Apache Tomcat 7.0.19 pointing to JDK Standard Edition

Type	Description
	1.6.0_25 – (64 bit) • Websphere 7.0.0.17 with IBM Runtime, Java Technology JDK 1.6.0 (SR9 FP1) – 64 bit **NOTE** Any one of the above mentioned web servers (Websphere or Tomcat) installation is required based on the requirement.
Infrastructure Application Server	• Oracle Client 11g R2 (11.2.0.2.0) - 64 bit • Sun JRE Standard Edition 1.6.0_25 - 64 bit
Infrastructure Database Server	• Oracle Database Enterprise Edition Release 11.2.0.2.0 - 64 bit • Sun JRE Standard Edition 1.6.0_25 - 64 bit • Sun JDK Standard Edition 1.6.0_25 - 64 bit
Infrastructure Release version	OFSAAI 7.3.2.2.0
Patch details (if any)	On the base OFSAAI platform version 7.3, apply the latest patch set to upgrade to release 7.3.2.2.0.

2.3 Generic Software

Type	Description
Other Software	OFSAAI is certified on both OPEN LDAP 2.2.29+ and Oracle Internet Directory v11.1.1.3.0. Ensure that you have installed any one of the following for OFSAAI authentication purposes. **Note:** OPEN LDAP needs to be installed on Microsoft Windows machine only. Hummingbird **Exceed** 7.0 has to be installed on a Microsoft Windows machine as a simulator for remote installation. **Note:** Hummingbird Exceed is required for GUI Mode of installation.

Type	Description
Front End Access	Microsoft Internet Explorer 8/9 Microsoft Office 2007 Client Machines – Windows XP SP3/Windows 7 The screen resolutions supported are 1024*768 and 1280*1024 Adobe Reader 8.0 Java Plug-in 1.6.0_21 **Note:** • Ensure that Java Plug-in is enabled in the browser settings. • Enable caching of static content (static files, images, CSS, etc) for browser client. • Cookies should be disabled.

2.4 PreInstallation Activities

The following is the preinstallation checklist to ensure the readiness to start installing OFS Basel Regulatory Capital IRB Approach 6.1.0.0.0 Application:

- Customer should have an OFSAAI login user other than sysadmin or sysauth.
- If the infrastructure is installed on a multitier environment, then execute the following commands in the DB Layer terminal:

  ```
  chmod -R 777 < ftpshare folder >
  ```

- Navigate to the ftpshare folder and set the umask shown as follows to ensure that all the new files created have 666 file permissions.

  ```
  cd < ftpshare folder >
  umask 0000
  ```

- The config and atomic schema should be of two distinct oracle database users.
- Default and Temporary table space assigned to atomic schema user should be allocated with required space.
- The Information Domain schema makes use of the tables from the configuration schema. To create a new information domain, execute the file **<Infrastructure Database Layer Install Directory>/config_table_privileges_for_atomic_user.sql** from the Infrastructure config database before creating the new information domain. These Privileges should be given to the Production Schema (essentially all the Atomic schemas).
- Add an Atomic schema TNS entry to TNSNames.ora.
- The following grants must be given to atomic schema user:

```
grant create session to ATOMIC_USER
grant create view to ATOMIC_USER
grant create sequence to ATOMIC_USER
grant create table to ATOMIC_USER
grant create procedure to ATOMIC_USER
grant create any index  to ATOMIC_USER
grant create trigger to ATOMIC_USER
grant create synonym to ATOMIC_USER
grant debug connect session to ATOMIC_USER
grant debug any procedure to ATOMIC_USER
grant create any materialized view to ATOMIC_USER
```

- The following grants must be given from Config User to Atomic User:

```
grant select on PR2_OBJECT_TL to ATOMIC_USER
grant select on PR2_OBJECT_TYPES to ATOMIC_USER
grant select on PR2_RULE_B to ATOMIC_USER
grant select on PR2_RUN_B to ATOMIC_USER
```

- Update the server details if you are installing an OFSAAI product for the first time. Click **Server Details** under **System Configuration** in the LHS menu of the OFSAAI User Interface and update the Database Server, Application Server, and Web Server.
- Copy all the contents of the OFS Basel Regulatory Capital IRB Approach Release 6.1.0.0.0 installer download directory to the server location (including the DataModel directory). Provide read, write and execute permission to all the files present in this directory.
- Specify the log file path and name in the log4j.xml. Update the value attribute highlighted in the following xml:

```
<?xml version="1.0" encoding="UTF-8" ?>
<log4j:configuration
xmlns:log4j="http://jakarta.apache.org/log4j/">
<appender name="ConfigReveleusFileAppender"
class="org.apache.log4j.RollingFileAppender">
 <param name="file" value="/<installer components copied
directory>/installer.log"/>
 <param name="Append" value="true"/>
```

- Ensure the path given in the log4j.xml file has read, write or execute permission.
- Ensure FICServer is up and running before proceeding for installation.
- From SYS DBA grant select permission to config and atomic user for 'V_$PARAMETER' table.

```
grant select on V_$PARAMETER to CONFIG_USER;
grant select on V_$PARAMETER to ATOMIC_USER;
```

- Check for **`export LDR_CNTRL=MAXDATA=0x40000000`** in the .profile. If present then comment it, execute the .profile and then trigger the Setup.sh.
- For a multitier installation, check whether **Reveleus.SEC** file is present in **$FIC_HOME/conf in web layer**. If this file is not present in this path, then copy the file from **$FIC_HOME/conf in app layer** to **$FIC_HOME/conf in web layer**.
- For a single tier installation, the installer is required to be loaded only once on the machine that hosts all the OFSAAI tiers.

2.5 Pre-Upgrade Activities

This section is applicable only for users upgrading from OFS Basel Regulatory Capital IRB version 6.0.0.0.0 (Basel 6.0) to OFS Basel Regulatory Capital IRB version 6.1.0.0.0 (Basel 6.1).

Prior to the upgrade, data from the tables should be backed up and truncated. This is done by the installer as pre model upload activity. Any metadata defined on the dropped columns/tables should be deleted before the installation. This is done by the installer.

Back-up of Database schema and Files

- Back-up the existing config and atomic schema of the information domain that is upgraded. This can be used to restore the application, in case of any failures during upgrade.
- Back-up FTPSHARE and $FIC_HOME folders of the existing environment.

Pre-Model steps:

1) Delete scripts for specific metadata objects that have an impact on the columns being dropped by the application. This will be executed by the installer as a pre-model upload step.
2) Data backup scripts for the application related tables are executed as part of pre-model upload scripts. The data is deleted from the back up tables. The installer executes these scripts.
3) Drop all the tables which were created using scripts in Basel 6.0 and which are a part of the Basel 6.1 data model. Pre model scripts include drop statements for these tables.
4) Delete scripts for the metadata, which has been updated or deleted. This will be executed as part of the pre-model upload scripts.
5) Installer will ignore the ORA errors specific to “table already exists” and “table or view doesn’t exist” while executing the Pre-Model Scripts.

Upgrade from Basel 6.0

The following steps are applicable for customers upgrading from Basel 6.0. You need to perform these steps before proceeding with installation.

Database changes

1) Create a backup of the table rev_etl_mapping in the config schema.

   Create table rev_etl_mapping_60 as select * from rev_etl_mapping;

2) Execute the following scripts in the Config Schema. Data into this table is related to mapping information.

```
delete from rev_etl_mapping;
commit;
```

3) The below scripts have to be executed in Config Schema:

```
ALTER TABLE PR2_RULE_MAP DISABLE CONSTRAINT FK_PR2_RULE_MAP_1
/
ALTER TABLE PR2_RULE_OBJECT DISABLE CONSTRAINT
FK_PR2_RULE_OBJECT_1
/
ALTER TABLE PR2_RULE_QUERY DISABLE CONSTRAINT FK_PR2_RULE_QUERY_1
/
ALTER TABLE PR2_RUN_OBJECT DISABLE CONSTRAINT FK_PR2_RUN_OBJECT_1
/
ALTER TABLE PR2_RUN_OBJECT_PARAMETER DISABLE CONSTRAINT
FK_PR2_RUN_OBJECT_PARAMETER_1
/
ALTER TABLE PR2_RUN_OBJECT_MEMBER DISABLE CONSTRAINT
FK_PR2_RUN_OBJECT_MEMBER_1
/
ALTER TABLE PR2_RUN_MAP DISABLE CONSTRAINT FK_PR2_RUN_MAP_1
/
ALTER TABLE PR2_RUN_EXECUTION_B DISABLE CONSTRAINT
FK_PR2_RUN_EXECUTION_B_1
/
```

T2T changes

The existing T2Ts will be replaced during upgrade installation. Hence, take a backup of existing T2Ts.

The T2T definitions are present in the following folders:
<FTPSHARE_PATH>/STAGE
<FTPSHARE_PATH>/<INFODOM>/erwin/sources

Following are the new T2T Definitions in Basel 6.1:

- CAPITAL_ACCT_HEAD_PHASE_IN_INCLUSION_DATA_POP
- CAPITAL_STD_MAPPING_STD_ACCT_HEAD_DATA_POP_LEVERAGE_RATIO
- FCT_SCP_DATA_POPULATION_IRB
- GUARANTEES_DATA_POPULATION_SEC
- INV_EQT_EXPOSURE_DATA_CREATION
- INVSTMNT_IN_HEDGE_FND_PRIVTE_EQTY_INVSTMNT_FIRMS_STD_ACCT_HEAD_DATA_POP
- MSR_FV_MIN_REMNNG_DED_AMT_POST_AGGT_DED_STD_ACCT_HEAD_DATA_POP
- PHASE_IN_INCLUSION_STANDARD_ACCT_HEAD_DATA_POP
- PLACED_COLLATERALS_DATA_CREATION
- POST_PHASE_IN_INCLUSION_STANDARD_ACCT_HEAD_DATA_POP
- PREVIOUS_MONTH_SUPP_LEVERAGE_RATIO_STD_ACCT_HEAD_POP
- REFERENCE_ENTITY_RISK_PARAM_POPULATION

- RESEC_STRADDLED_TRANCHE_POP
- RESIDUAL_EXP_DATA_CREATION
- SFT_UNDERLYING_EXPOSURES_DATA_POPULATION
- STD_ACCT_HEAD_COMP_GROUP_DATA_POP
- STD_ACCT_HEAD_COMP_GROUP_MAP_DATA_POP
- STD_ACCT_HEAD_THRESHOLD_TREATMENT_DATA_POP
- SUPP_LEVERAGE_RATIO_PREVIOUS_MONTH_DATA_POPULATION
- SUPP_LEVERAGE_RATIO_SECOND_PREVIOUS_MONTH_DATA_POPULATION
- SURPLUS_CAPITAL_EQUITY_EXP_POP_IRB
- SURPLUS_CAPITAL_EQUITY_EXP_POP_STD
- SURPLUS_CAPITAL_EXPOSURE_CREATION_IRB
- SURPLUS_CAPITAL_EXPOSURE_CREATION_STD
- USA_BASEL_III_AOCI_STANDARD_ACCT_HEAD_DATA_POP
- USA_BASEL_III_CAPITAL_ACCT_HEAD_THRESHOLD_TREATMENT_DATA_POP
- USA_BASEL_III_CAPITAL_STD_ACCT_HEAD_POP
- USA_BASEL_III_CAPITAL_STD_ACCT_HEAD_POP_LEVERAGE_RATIO
- USA_BASEL_III_INSIGNFCNT_INVST_IN_NON_REG_CONSL_ENTITY_DATA_POP
- USA_BASEL_III_MINORITY_INTEREST_DATA_POP
- USA_BASEL_III_SIGNIFCNT_INVST_IN_NON_REG_CONSL_ENTITY_DATA_POP
- USA_BASEL_III_STANDARD_ACCT_HEAD_PHASE_IN_TREATMENT_DATA_POP
- USA_BASEL_III_STD_ACCT_HEAD_THRESHOLD_TREATMENT_DATA_POP
- USA_FCT_CAP_CONS_RATIO_POP
- USA_GRT_EXPOSURE_DATA_CREATION
- USA_NETTABLE_POOL_OTC_POPULATION_LEVERAGE_RATIO
- USA_REQ_CNTR_CYC_BUFFER_POP

Following are the modified T2Ts:

- ATTRIBUTION_ANALYSIS_SIMPLE_APPR
- AGGREGATE_THRESHOLD_DED_STD_ACCT_HEAD_DATA_POP
- BCB_MARKET_RISK_EXPOSURES_FROM_MRVAR
- BCB_MKT_RISK_CAPITAL_CHRG_FOREX
- BCB_MKT_RISK_SPECIFIC_CHARGE_EQ
- BILLS_EXPOSURE_DATA_CREATION
- CALC_STD_ACCT_HEAD_POP
- CAPITAL_ACCT_HEAD_PHASE_IN_TREATMENT_DATA_POP
- CAPITAL_STANDARD_MAPPING_STANDARD_ACCT_HEAD_DATA_POP
- CAPITAL_STD_ACCT_HEAD_POP
- CAPITAL_STD_ACCT_HEAD_POP_BCB
- CARDS_EXPOSURE_DATA_CREATION
- COUNTERPARTY_EXPOSURE_POPULATION
- CR_RISK_POSITION_MAPPING_POPULATION
- CREDIT_DERIVATIVES_DATA_POPULATION
- CREDIT_DERIVATIVES_DATA_POPULATION_NON_SEC
- CREDIT_DERIVATIVES_DATA_POPULATION_SEC
- DF_CREDIT_DERIVATIVES_DATA_POPULATION
- DF_EQUITY_EXPOSURE_DATA_CREATION
- DF_FUT_EXPOSURE_DATA_CREATION

- DF_GRT_EXPOSURE_DATA_CREATION
- DF_INV_EXPOSURE_DATA_CREATION
- DF_LC_EXPOSURE_DATA_CREATION
- DF_LEASES_EXPOSURE_DATA_CREATION
- DF_LOAN_EXPOSURE_DATA_CREATION
- DF_OPT_EXPOSURE_DATA_CREATION
- DF_REPO_EXPOSURE_DATA_CREATION
- DF_SWAPS_EXPOSURE_DATA_CREATION
- DIM_EXP_NON_SEC_INSIGNFCNT_INVST_DED_DATA_CREATION
- DIM_EXP_NON_SEC_INSIGNFCNT_INVST_RWA_DATA_CREATION
- DIM_EXP_NON_SEC_SIGNIFICANT_INVST_DED_DATA_CREATION
- DIM_EXP_NON_SEC_SIGNIFICANT_INVST_RWA_DATA_CREATION
- DIM_EXPOSURES_MKT_RISK_INSIG_INVST_RWA_DATA_CREATION
- DIM_EXPOSURES_MKT_RISK_SIG_INVST_RWA_DATA_CREATION
- ENTITY_INFO_DATA_POP
- ENTITY_SHR_HLD_PERCENT_POP
- EQUITY_EXP_DATA_POPULATION
- EQUITY_EXP_INSIGNIFICANT_INVST_DATA_CREATION
- EQUITY_EXP_LP_DATA_POPULATION
- EQUITY_EXP_SIGNIFICANT_INVST_DATA_CREATION
- FCT_COUNTERPARTY_EXPOSURE_POPULATION
- FCT_SFT_UNDERLYING_DATA_POPULATION
- FCT_SOLD_CDP_DATA_POPULATION
- FUT_EXPOSURE_DATA_CREATION
- GL_CAPITAL_ACCT_HEAD_POPULATION
- GRT_EXPOSURE_DATA_CREATION
- IFSB_MKT_RISK_CAP_CHARGE_COMDTY
- IFSB_MKT_RISK_CAPITAL_CHARGE_INVENTORY
- IFSB_MKT_RISK_GEN_CHARGE_EQUITY
- IFSB_MKT_RISK_SIM_APP_COMDTY
- IFSB_MKT_RISK_SPEC_CHARGE_SUKUK_EQ
- IFSB_MKT_RISK_TB_POP_MAT_APP_COMDTY
- IJARAH_EXPOSURE_DATA_CREATION
- IND_MKT_SPECIFIC_CHARGE_IR_EQ
- IND_MR_TB_POP_DURATION_SIMPLE_APPR
- IND_SUB_EXPOSURES_NON_SEC
- INSIGNFCNT_INVST_DED_STD_ACCT_HEAD_DATA_POP
- INSIGNFCNT_INVST_IN_NON_REG_CONSL_ENTITY_DATA_POP
- INV_EXPOSURE_DATA_CREATION
- ISTISNA_EXPOSURE_DATA_CREATION
- LC_EXPOSURE_DATA_CREATION
- LEASE_RESIDUAL_DATA_CREATION
- LEASES_EXPOSURE_DATA_CREATION

- LOAN_EXPOSURE_DATA_CREATION
- MARKET_RISK_EXPOSURES_FROM_MRVAR
- MINORITY_INTEREST_STANDARD_ACCT_HEAD_DATA_POP
- MITIGANT_DATA_POPULATION
- MKT_RISK_BANK_INSTR_POSITIONS_POP
- MKT_RISK_BSKT_UNDERLYING_POPULATION
- MKT_RISK_CAPITAL_CHARGE_COMDTY
- MKT_RISK_CR_DPLUS_OPTION_GOLD
- MKT_RISK_EXPOSURES_INSIG_INVST_DED_DATA_CREATION
- MKT_RISK_EXPOSURES_INSIG_INVST_RWA_DATA_CREATION
- MKT_RISK_EXPOSURES_SIG_INVST_DED_DATA_CREATION
- MKT_RISK_EXPOSURES_SIG_INVST_RWA_DATA_CREATION
- MKT_RISK_FOREX_POPULATION
- MKT_RISK_GEN_RISK_CHARGE_EQUITY
- MKT_RISK_GEN_RISK_CHARGE_EQUITY_IND
- MKT_RISK_GR_DPLUS_OPTION_EQUITY
- MKT_RISK_GR_DPLUS_OPTION_FOREX
- MKT_RISK_SIM_APP_COMDTY
- MKT_RISK_SIM_APP_OPTION
- MKT_RISK_SIM_COMDTY_DPLUS_COMDTY_OPT
- MKT_RISK_SPECIFIC_CHARGE_IR_EQ
- MKT_RISK_SR_DPLUS_EQ_OPTION
- MKT_RISK_SR_DPLUS_IR_OPTION
- MM_EXPOSURE_DATA_CREATION
- MUDARABAH_EXPOSURE_DATA_CREATION
- MURABAHAH_EXPOSURE_DATA_CREATION
- MUSHARAKAH_EXPOSURE_DATA_CREATION
- NET_POOL_SUB_EXPOSURES
- NET_POOL_SUB_EXPOSURES_USA_SCP
- NETTABLE_POOL_MARGIN_LENDING_POPULATION
- NETTABLE_POOL_OTC_POPULATION
- NETTABLE_POOL_OTC_POPULATION_OTHERS
- NETTABLE_POOL_REPO_POPULATION
- NON_REG_INVST_SUB_EXPOSURES_DATA_POP
- NON_SEC_EQUITY_DATA_POPULATION
- NON_SEC_EXP_INSIGNFCNT_INVST_DED_DATA_CREATION
- NON_SEC_EXP_INSIGNIFCNT_INVST_RWA_DATA_CREATION
- NON_SEC_EXP_SIGNFICANT_INVST_DED_DATA_CREATION
- NON_SEC_EXP_SIGNFICANT_INVST_RWA_DATA_CREATION
- OD_EXPOSURE_DATA_CREATION
- OPS_RISK_BASIC_INDICATOR_DATA_POPULATION
- OPS_RISK_DATA_POPULATION
- OPT_EXPOSURE_DATA_CREATION

- OTHER_DEDUCTIONS_PHASE_IN_TREATMENT_DATA_POP
- PARTY_FINANCIALS_DATA_POP
- REGULATORY_ADJUSTMENT_STANDARD_ACCT_HEAD_DATA_POP
- REGULATORY_INVST_DEDUCTION_STD_ACCT_HEAD_DATA_POP
- REPO_EXPOSURE_DATA_CREATION
- SALAM_EXPOSURE_DATA_CREATION
- SEC_EXP_DATA_POPULATION
- SEC_STRADDLED_TRANCHE_POP
- SIGNIFCNT_INVST_DED_STD_ACCT_HEAD_DATA_POP
- SIGNIFCNT_INVST_IN_NON_REG_CONSL_ENTITY_DATA_POP
- SINGLE_NAME_CDS_HEDGE_POPULATION
- SINGLE_NAME_CDS_MITIGANT_CREATION
- SOLD_CREDIT_PROTECTION_DATA_POPULATION_SEC
- STANDARD_ACCT_HEAD_PHASE_IN_TREATMENT_DATA_POP
- STD_CAPITAL_ACCT_HEAD_POP
- SUB_EXP_DOUBLE_DEFAULT_POP
- SUB_EXP_DOUBLE_MITIGANT_POP
- SUB_EXP_MINCOL_POPULATION
- SUB_EXP_PASTDUE_INELIGIBLE_POP
- SUB_EXP_PASTDUE_POPULATION
- SUB_EXPOSURES_NON_SEC
- SUB_EXPOSURES_NON_SEC_USA_SCP
- SUB_EXPOSURES_POP_DIL_RISK
- SUB_EXPOSURES_SEC
- SUKUK_EXPOSURE_DATA_CREATION
- SWAPS_EXPOSURE_DATA_CREATION
- SWAPS_SEC_EXPOSURE_DATA_POPULATION
- THRESHOLD_DEDUCTION_STD_ACCT_HEAD_DATA_POP
- TRANCHE_DATA_POPULATION
- UNDERLYING_EXPOSURES_DATA_POPULATION
- USA_EQUITY_INV_FUND_DATA_POPULATION
- USA_NETTABLE_POOL_REPO_POPULATION
- USA_UNDERLYING_DATA_POPULATION

If any customizations were done on the earlier T2T's, then it needs to be done again on these T2T definitions.

Data model changes

If Data model is not customized, following steps will be done by the upgrade installer:

1) Basel Regulatory Capital IRB 6.1.0.0.0 sliced data model is uploaded in “Sliced Model Upload” mode.

2) Execute the Config and atomic scripts.

3) Replace XMLs, executables and other components.

If data model is customized, it is suggested to:

1) Open both customized and out of box models using ERwin Data Modeler tool.

2) Go to "Tools" and select "Complete Compare".

3) In the Compare window, select the existing Basel Data model on Left Model.

4) Select the extracted Basel Data model on Right Model.

5) In "Type Selection" check "Subject Area".

6) In "Advanced" option, un-check ALL except "Auto Close Database/Script Models" and click “Compare”.

7) Resolve Differences Screen by applying all the changes mentioned in the Basel_Datamodel-6.0-6.1_changes.xls file.

8) These are the changes from Basel 6.0 to Basel 6.1 upgrade.

9) Click "Finish" and Close

10) Save the file as XML in "AllFusion Repository Format".

    Example: basel_adv_Datamodel.xml

The list of tables that are backed up and restored can be found in **Backup_restore.xlsx**.

Backup_restore.xlsx

Basel_Datamodel-6.0 -6.1_Changes.xls

The metadata and the PR2 objects that were available in Basel 6.0 and not used in any segments of Basel 6.1 are deleted during the pre upgrade process.

2.6 Key considerations to upgrade in a customized environment:

1) As part of pre-model scripts, if there is any column dropped in the new out of box model, the associated metadata will be deleted.

2) In cases of addition to primary key / not null column additions, data of the tables will be backed up and deleted.

3) As a part of upgrade process, if there is a change in out of box metadata / rule, it will be overwritten. If there are any customization done on top the out of box metadata / rule, changes will be lost during the upgrade

4) As part of upgrade process, any T2T modified in the new version, will over write the T2T xmls available in the T2T source. So, any customization done will be lost.

5) If there was any addition / change in the out of box seeded data, which clashes with the primary key of the new version, there will be conflict of the data due to unique constraints. This may lead to the application not working properly.

6) All DB objects modified will be over written with the new code. Any customization will be lost.

7) As part of data migration, only the columns which are available as part of the out of box data model will be migrated. Others will not be restored.

3. Installing the Application

3.1 OFS Basel Regulatory Capital IRB Approach Release 6.1.0.0.0 Installation

The OFSAAI comprises of components that are installed in Web, Application and Database layer. Hence, if you have installed OFSAAI Release 7.3.2.2.0 in a multitier architecture, the Oracle Financial Services Basel Regulatory Capital IRB Approach Release 6.1.0.0.0 installer must be loaded on each of the machines that host the Oracle Financial Services Analytical Applications Infrastructure tier.

This section describes the installation process in which the three product setup components with the product are installed on separate machines as follows:

Machine A is used to install the product Application Layer components

Machine B is used to install product Database Layer components

Machine C is used to install product Web Layer components

Note:

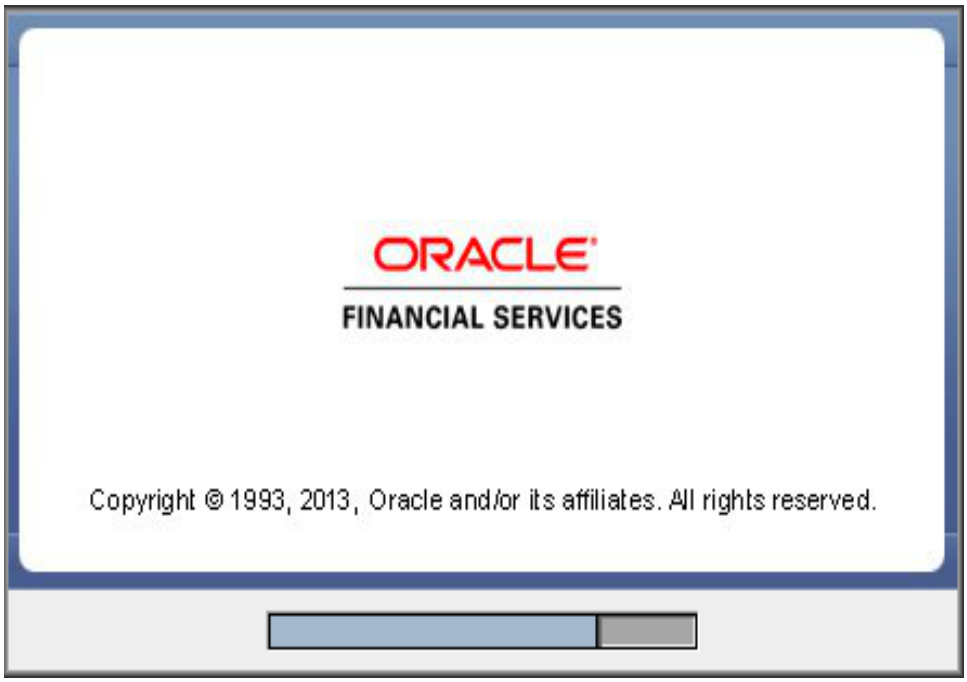
This section holds applicable if OFSAAI v7.3.2.2.0 is installed on Oracle 11g on separate machines A, B and C respectively.

For Silent Installation, refer to the section Silent Mode.

3.1.1 Machine A – Product Application Layer

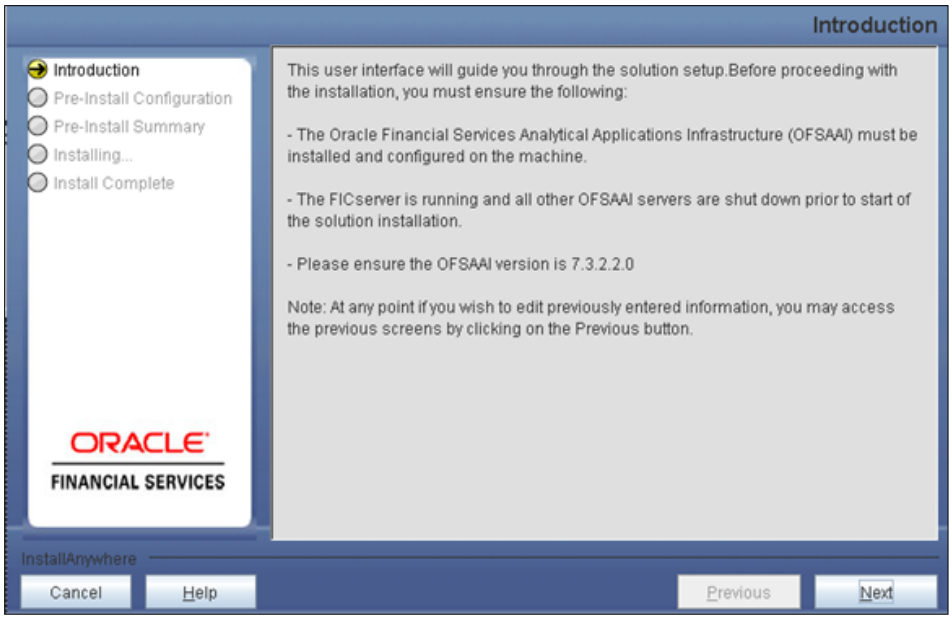
Step 1

To begin with the OFS Basel Regulatory Capital IRB Approach Release 6.1.0.0.0 installation, execute **Setup.sh** with the parameter GUI (GUI Installation) or SILENT (for Silent installation).



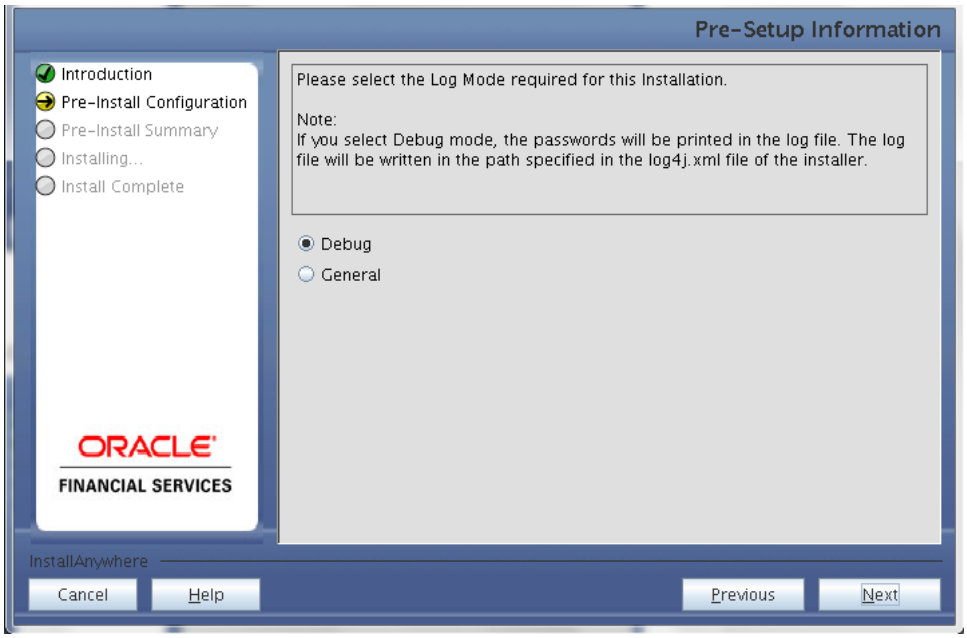
Step 2

On loading the installer, the **Introduction** screen displays the prerequisites for installation. Ensure that these prerequisites are met before proceeding.



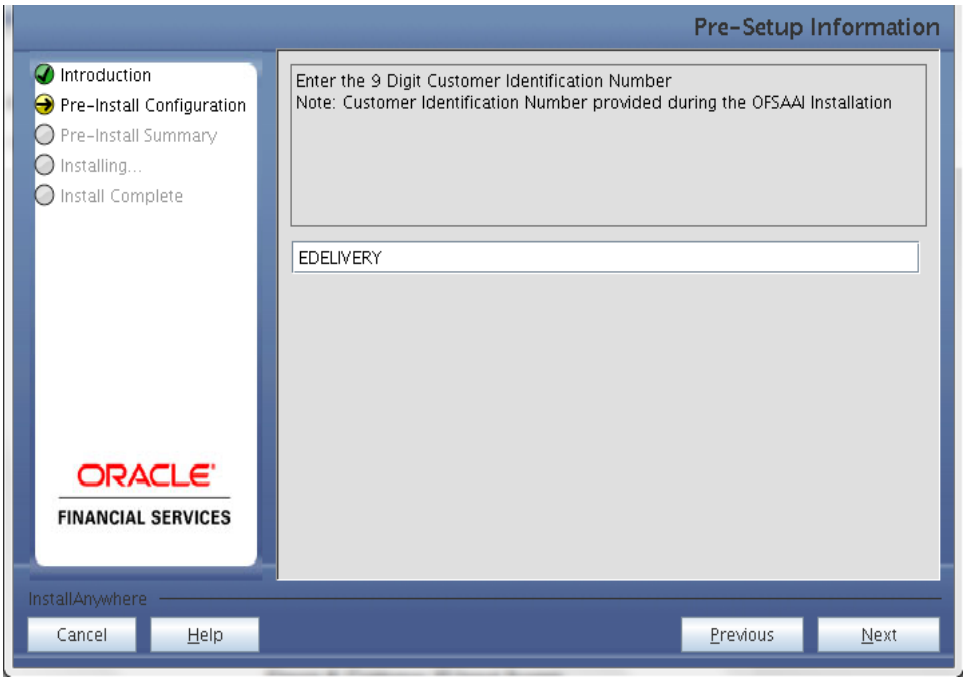
Step 3

Choose the log mode for this installer. The **Debug** and **General** mode information will be printed in the log file specified in the log4j.xml file of the installer.



Step 4

Enter the Customer Identification Number and click **Next** to continue.

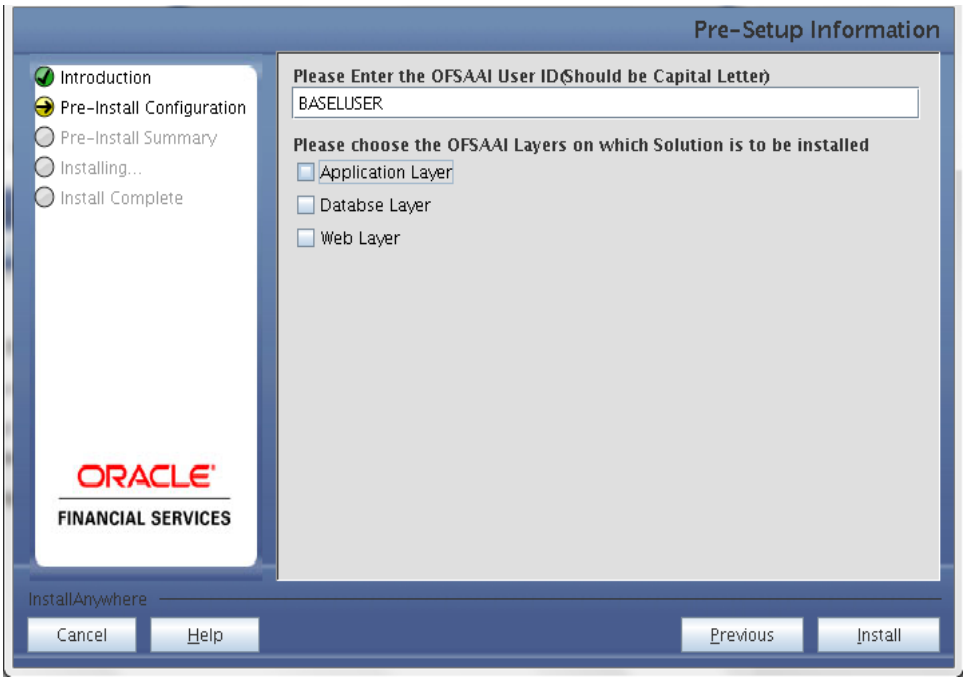


Step 5

In the next screen enter the OFSAAI User ID.

Select the appropriate OFSAAI layer that has been installed on the machine.

Example: **Application Layer**

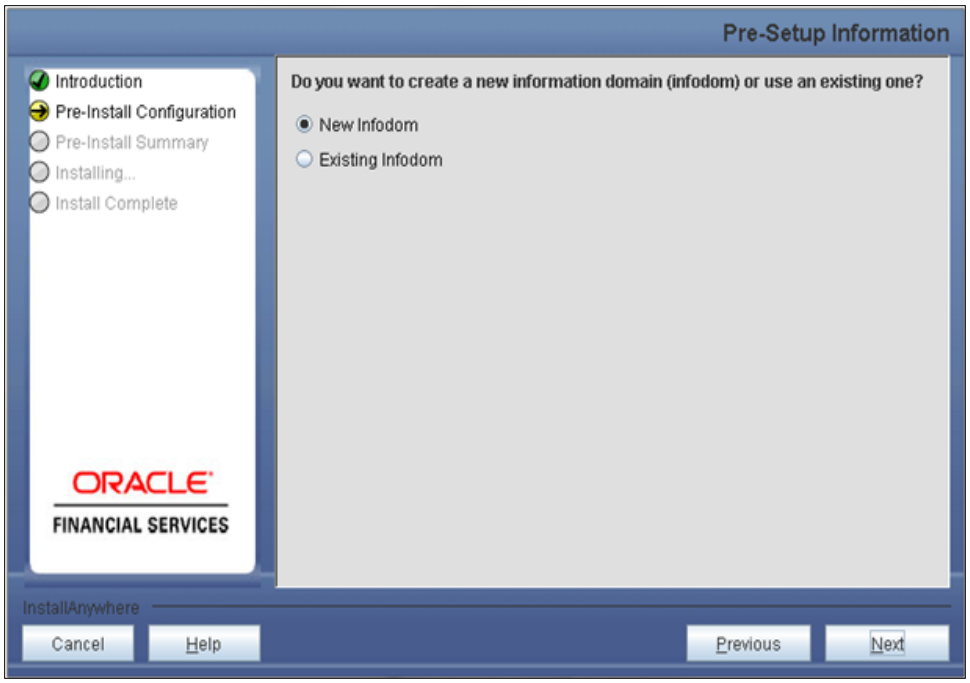


Note:

- Create the User in Infrastructure which was specified during installation process, if it does not exist.
- For a single-tier OFSAAI Release 7.3.2.2.0 installation, you must select Application Layer, Database Layer and Web layer.
- For a multitier OFSAAI Release 7.3.2.2.0 installation, select the corresponding layer installed on the machine.

Step 6

This screen seeks infromation on whether a new Information Domain has to be created or the existing Information Domain is to be used for installation. Choose the required option.



Click **Next** to continue. If **New Information Domain** is selected then go to **Step 7** or else go to **Step 8**.

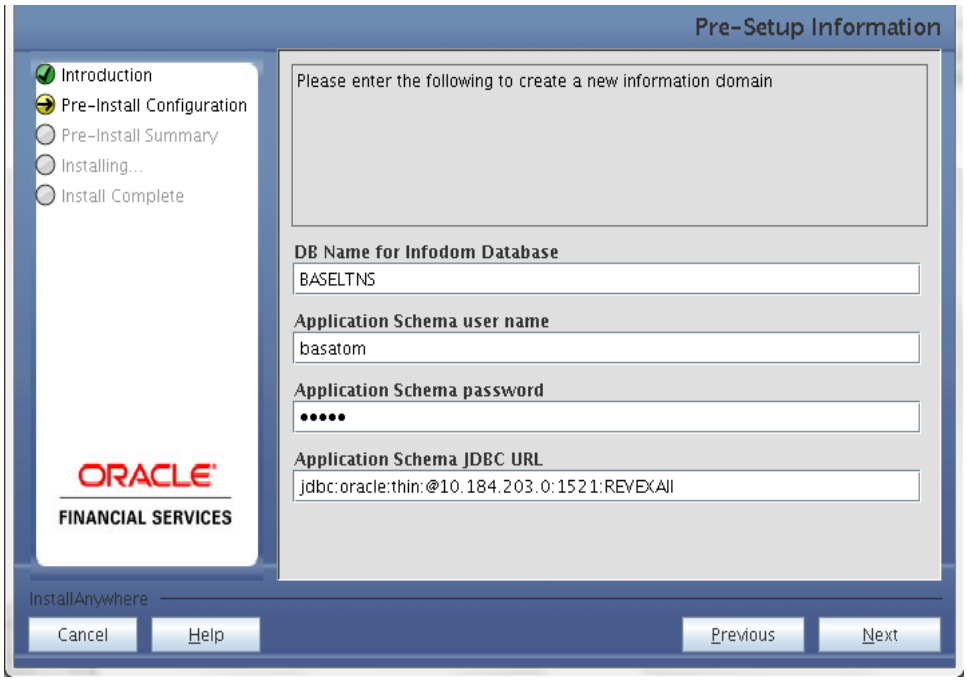
Step 7

If the option **New Information Domain** is selected then update the following to create information domain:

Step 7-i:

- Specify a Database Name for the new information domain. Make a TNS entry with the Database Name specified in the tnsname.ora file in the oracle server.
- Enter the newly created application schema user name, password, and JDBC URL in the relevant fields.

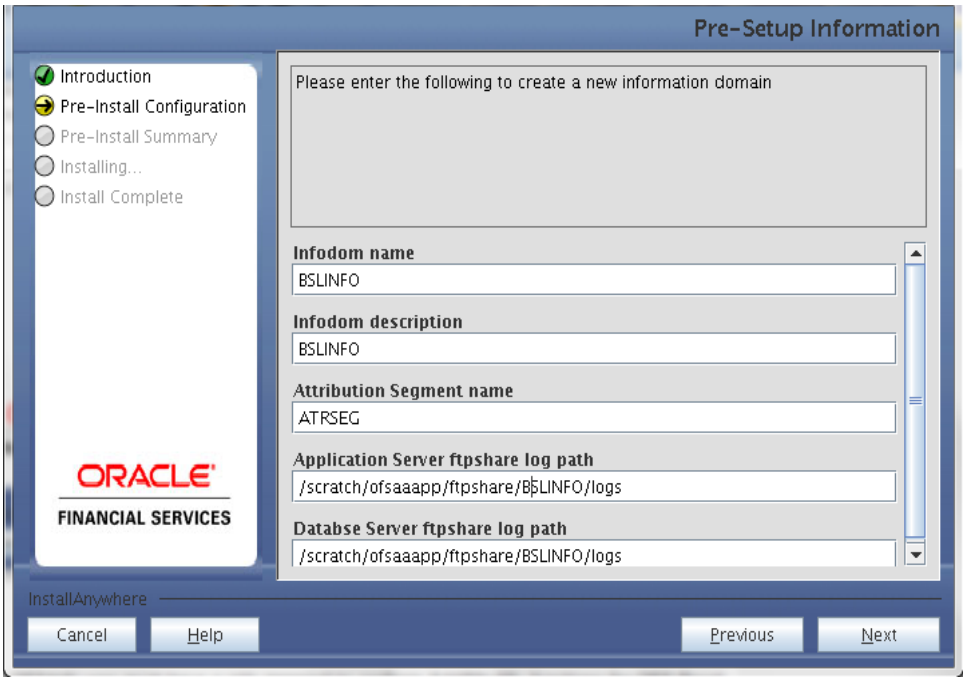
Click **Next** to continue.



Step 7-ii

In the next screen enter the following details:

- Specify the name and description of the new information domain to be created.
- Specify a segment name to be created.
- Specify the application server and database server log path for information domain maintenance (to be created).



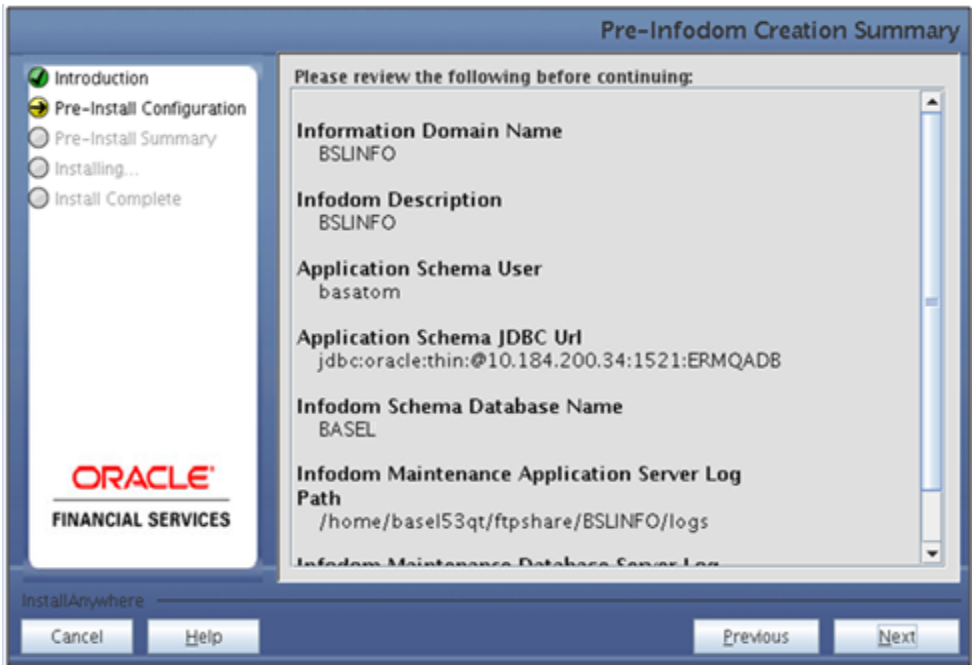
Note:

The OFSAAI user must have a role mapped to perform Add/Modify functions for OFS Basel Regulatory Capital IRB Approach metadata.

Click **Next** to continue. Check and verify all the details before proceeding to Step 7- iii.

Step 7-iii

Click **Next** to continue with the creation of information domain.

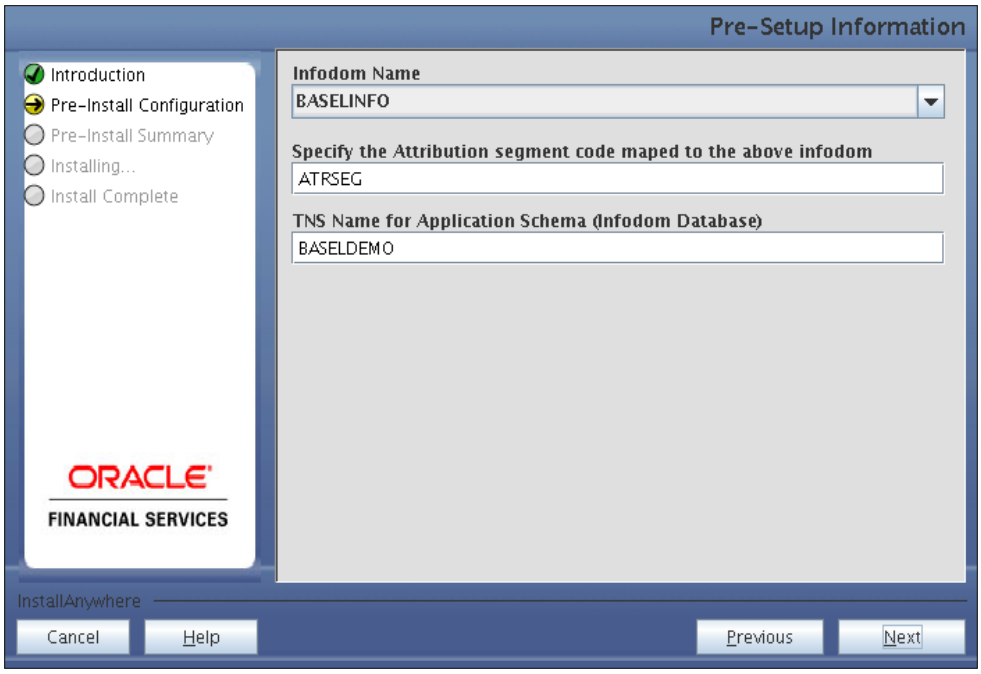


Step 8

If the option **Existing Information Domain** was selected then update the following details in the screen prompt that is displayed:

Step 8-i

- Select the Information Domain name
- Enter segment code.
- Enter the application schema's TNS name.

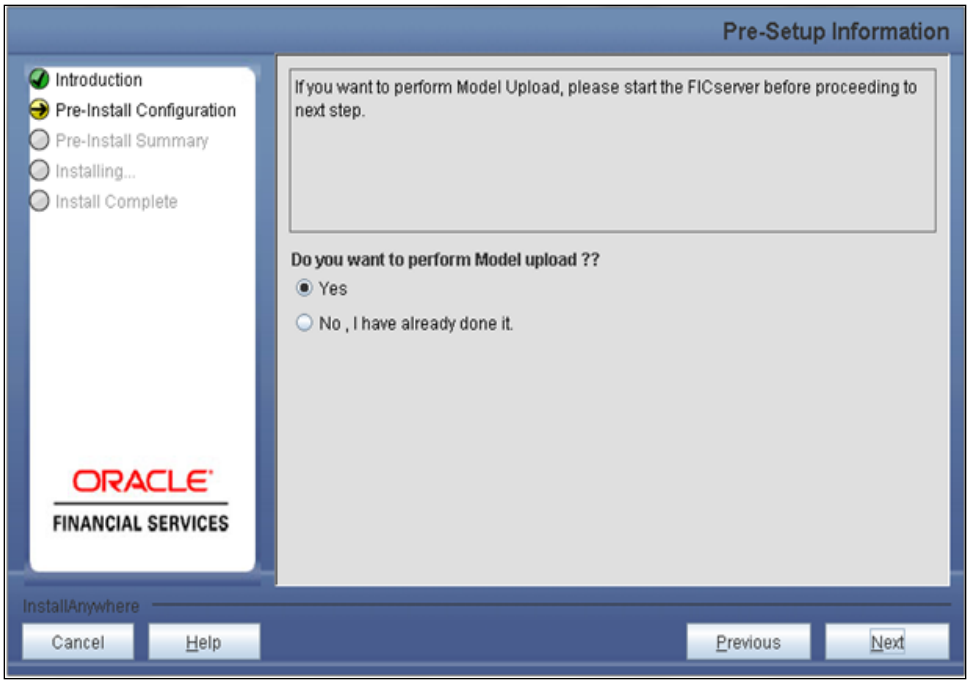


Click **Next** to continue

Step 9

OFS Basel Regulatory Capital IRB Appraoch Release 6.1.0.0.0 IRB data model is packaged as part of the application installer and is installed as a part of the following steps, if required.

In the the following screen, opt for Model Upload process through the installer.



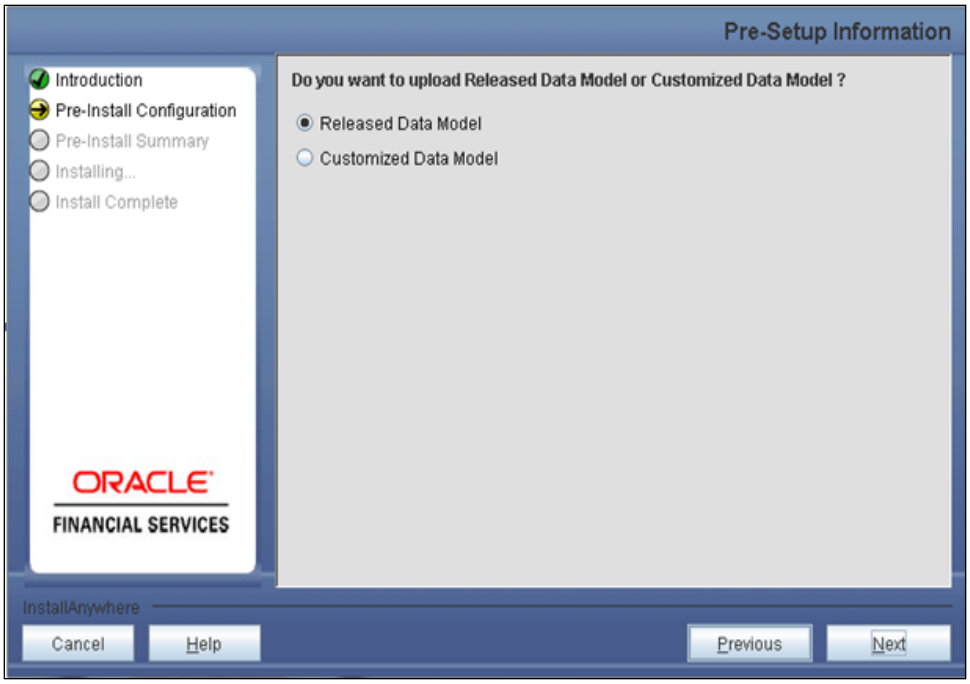
Note:

- Click **Yes** if you want to perform data model upload.
- Clicking **No** implies that the OFS Basel Regulatory Capital IRB Approach model is already uploaded. Click **Next** to proceed further.

If you select **No** go to **Step 12** or else go to **Step 10**.

Step – 10

In the following screen choose **Released Datamodel** or **Customized Datamodel** to be uploaded.



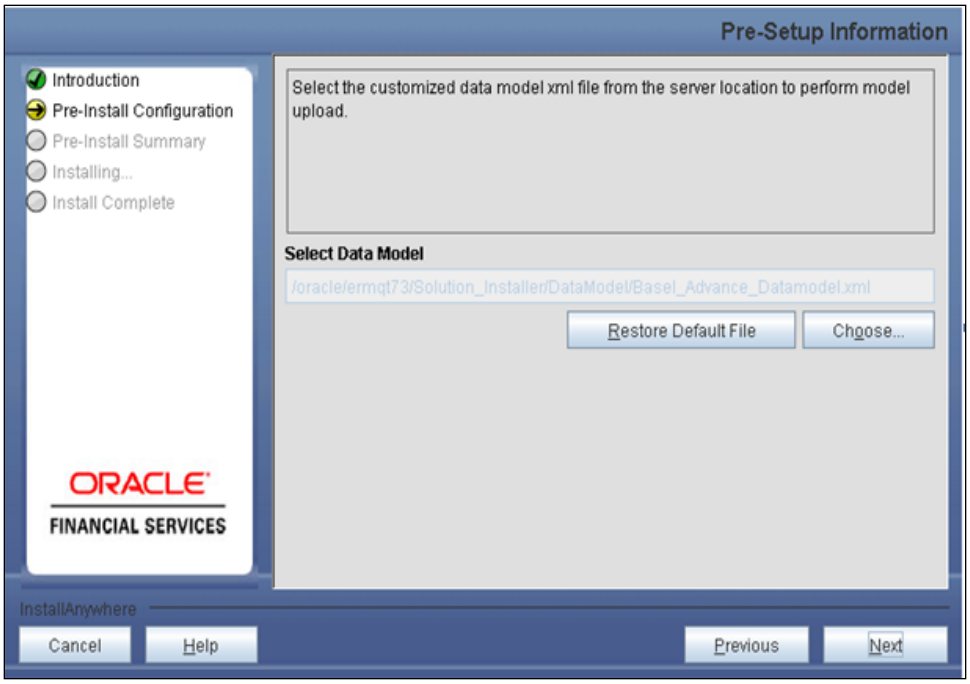
If **Released Data Model** option is selected, then, the installer uploads the Oracle Financial Services Basel Regulatory Capital IRB Approach Release 6.1.0.0.0 IRB data model. If **Released Data Model** is selected go to **Step 12** or else go to **Step 11**.

If **Customized Data Model** option is selected, then, the installer allows you to select the data model.

Click **Next** to proceed.

Step – 11

If the **Customized Data Model** is selected then the following screen is displayed where you can select the customized data model located in your machine.

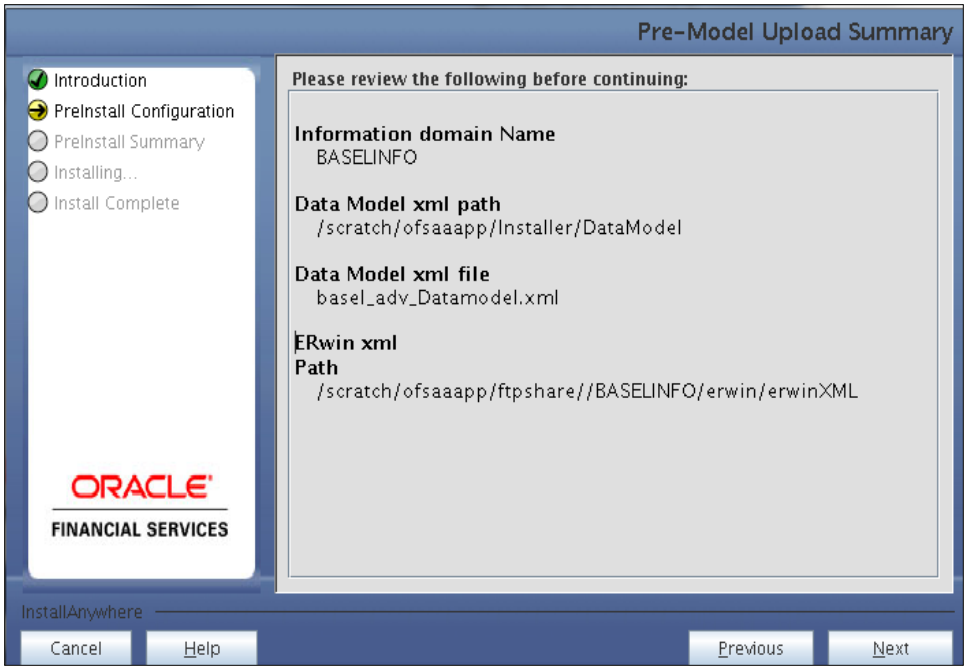


Note:

- The data model .XML file should be available in the server. If the installation is being performed on an existing information domain, the data model selected in this screen should be merged with the data model that was previously uploaded in the information domain.
- If the installation is performed on a new information domain, data model that is either customized or merged with other data models can be selected in this screen prompt.

Step – 12

The following screen displays the summary of the uploaded data model:



1. Verify the details before proceeding to the next step.
2. Click **Next** to proceed with model upload.

The time taken to upload the data model is dependent on the size of the data model and available physical memory in the environment. You cannot proceed further without the successful completion of the data model upload. Also, this step cannot be rolled back.

If the model upload fails, then a pop-up message with relevant errors and the log file path is displayed. Review the errors and take relevant action. After resolution, navigate to the previous screen and proceed with the steps mentioned above.

Note:

Some of the common errors are:

- Insufficient heap memory on the client machine.

  Possible reason/resolution:

  The java memory settings mentioned in .profile should be increased.

- Error while getting the Erwin File path.

  Possible reason/resolution:

  Restart the FICServer.

- Error in Upload Operation

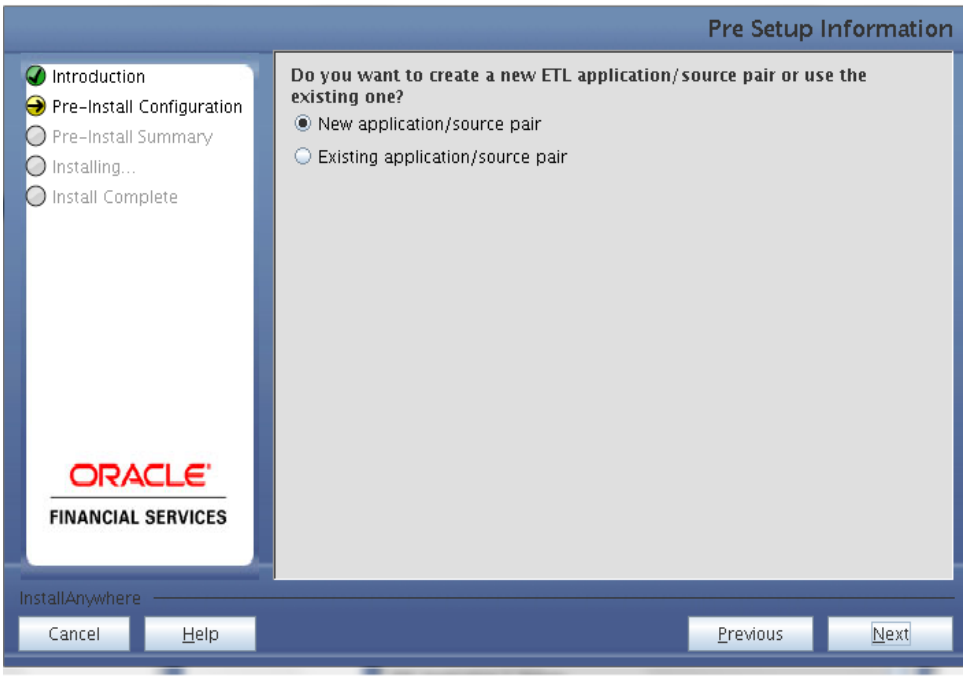
  Possible reason/resolution:

FAILED WHILE SUPER CATEGORY - SUB CATEGORY RELATIONS HANDLINGDELETING.

Incorrect Erwin.xsl file version in $FIC_APP_HOME/common/FICServer/conf directory.

Step 13

In the following screen, select New application/source pair or select Existing application/source pair. If the option Existing application/source pair is selected then goto step 13-ii. Else goto step 13-i.



Step 13-i

In the next screen specify all the details required for application and source creation. Click **Next** to proceed. Clicking **Next** creates application and source within OFSAAI. Source model will also be generated. This process might take some time to process depending on the number of entities or attributes in the atomic schema. This step cannot be rolled back.

Creation of the ETL applications

ETL Application 1 mapped to BASELSOL

ETL Application 2 mapped to Attribution_Analysis

ETL Application 3 mapped to Common

Creation of ETL data sources

ETL Source 1 mapped to BASEL_SRC

ETL Source 2 mapped to Attribution_SRC

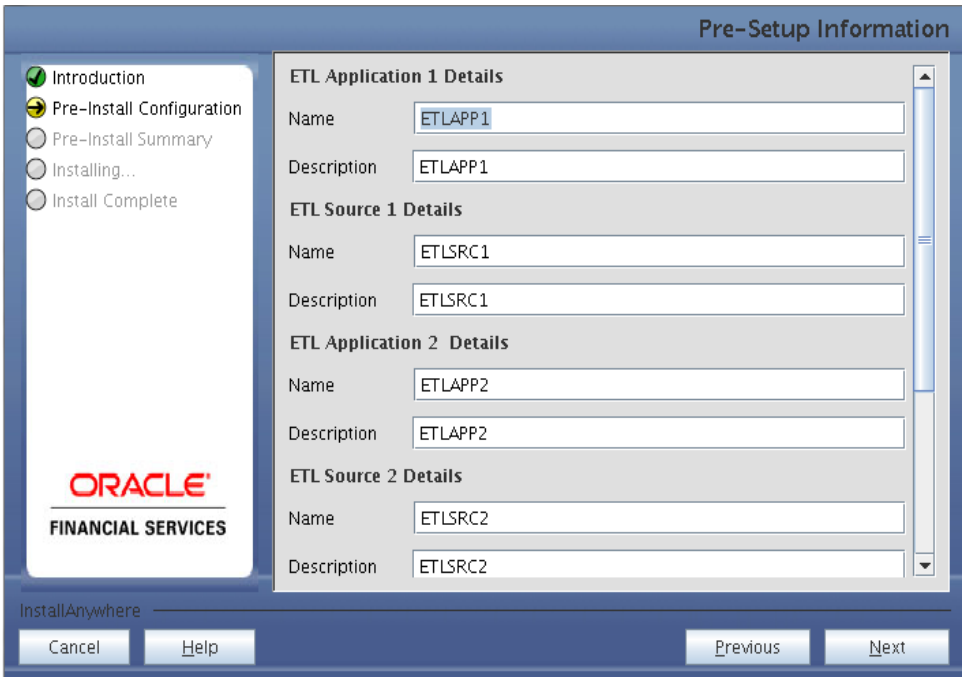
ETL Source 3 mapped to Common

Mapping of the data sources

ETL Application 1 mapped to ETL Source 1

ETL Application 2 mapped to ETL Source 2

ETL Application 3 mapped to ETL Source 3

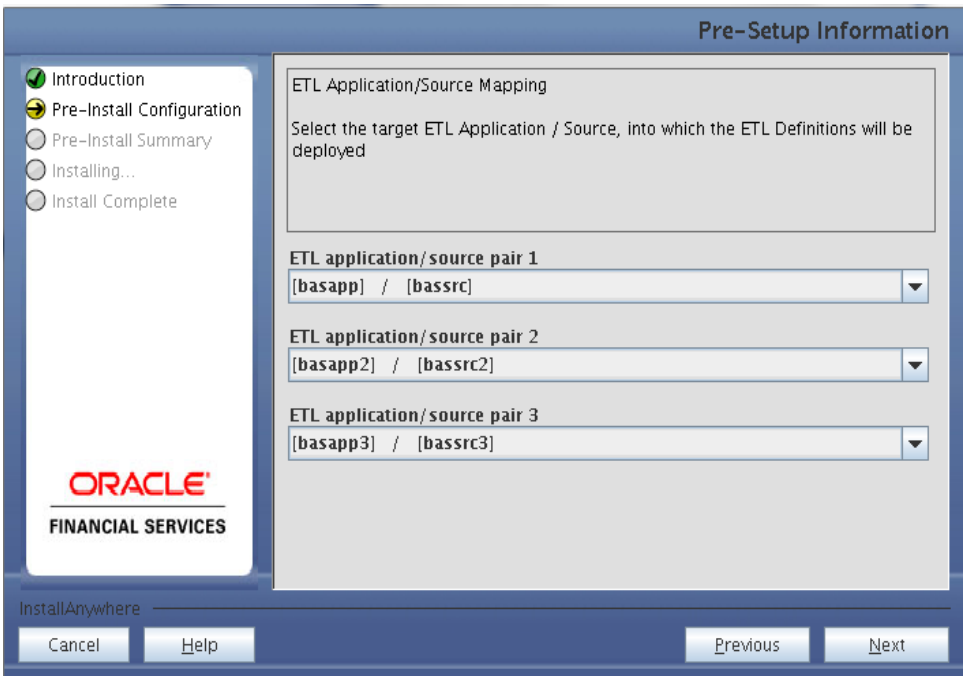


Note:

ETL Source is created pointing to the information domain (atomic schema) that is specified during the installation.

Step 13-ii

If Existing application/source pair is selected then the following panel is displayed prompting to select app/source pair from the list of pairs already present. Select the desired ETL application/source pair into which ETL definitions will be deployed. Click **Next** to proceed.

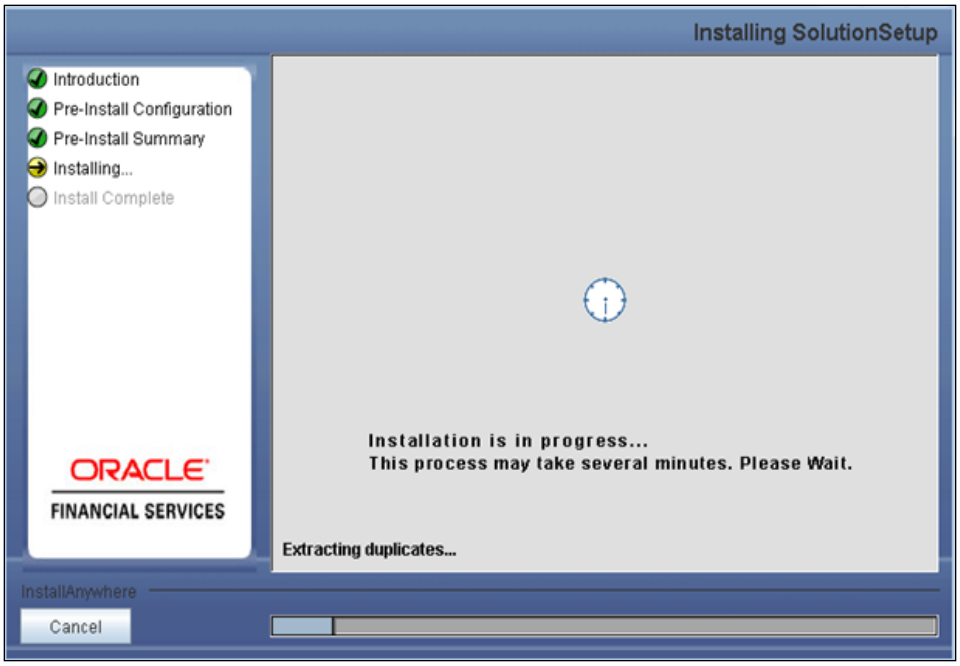


Step 14

This screen displays all a preinstallation summary. Verify all details and click **Install** to proceed.

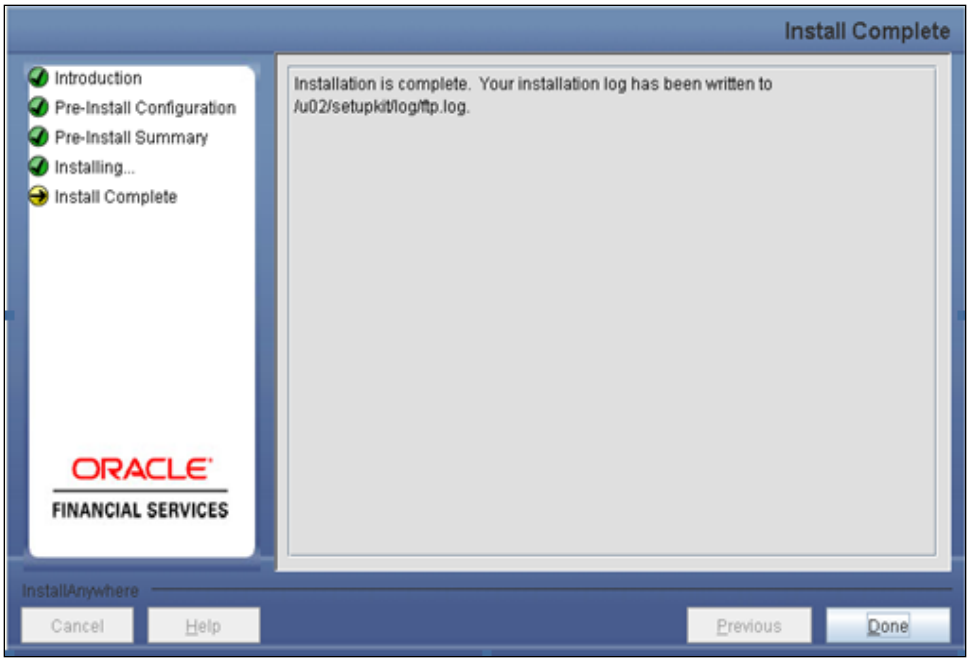
Step 15

This screen displays the installation process. The installation needs to be completed to proceed further.



Step 16

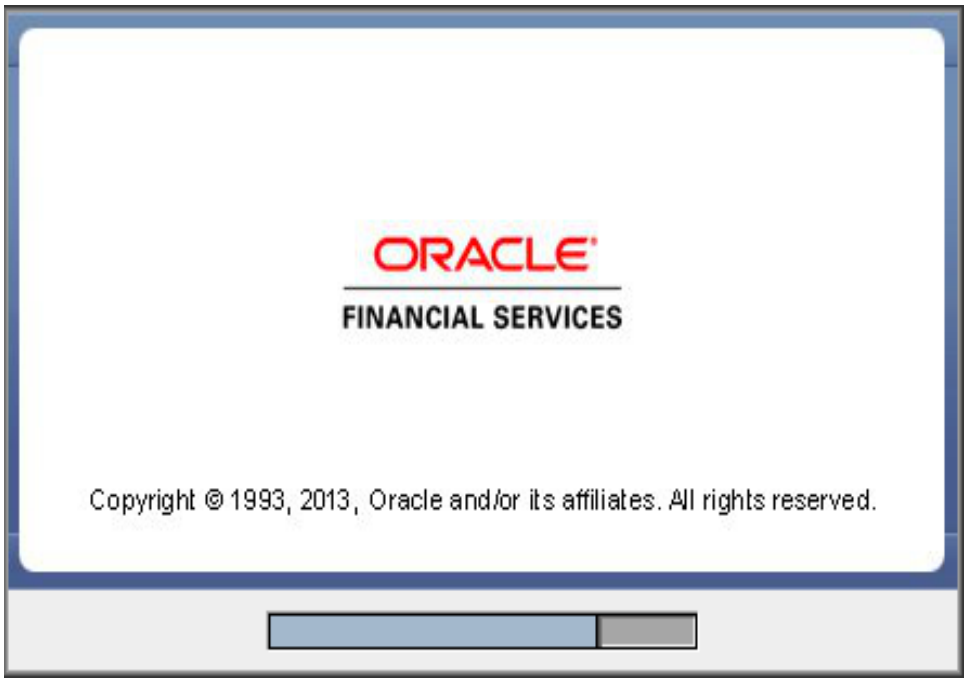
The following screen displays the completion of installation of the OFS Basel Regulatory Capital IRB Approach Release 6.1.0.0.0 Setup. Click **Done** to exit.



3.1.2 Machine B – Product Database Layer

Step 1

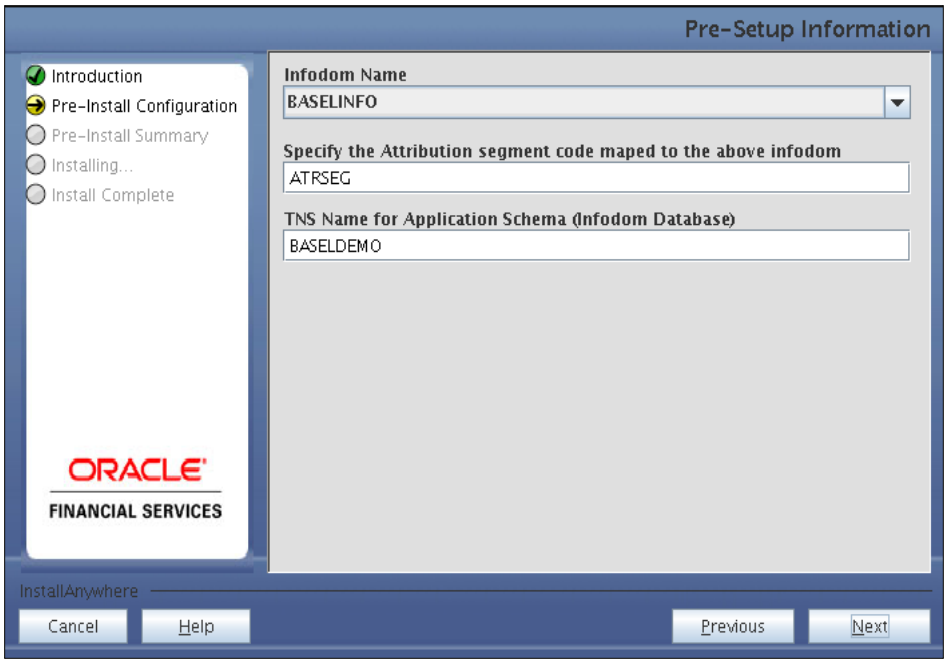
To begin with the Oracle Financial Services Basel Regulatory Capital IRB approach Release 6.1.0.0.0 installation, execute **Setup.sh** with the parameter GUI (GUI Installation) or SILENT (for Silent installation).



Repeat **Step 2 - Step 5** as mentioned in Machine A – Product Application Layer.

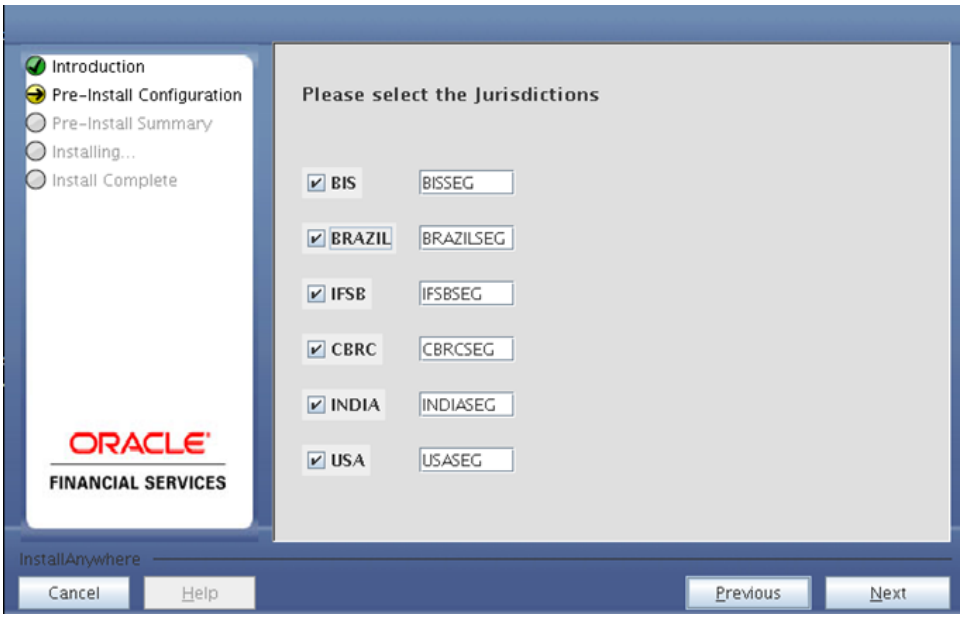
Step 6

Select the information domain from the drop down list present in the setup. Enter segment code and enter the application schema's TNS name in the following screen prompt.



Step 7

Select the relevant jurisdiction.



Refer to the following cases to gain more clarity on updating of jurisdictions.

- Case i : User has selected one or more jurisdiction(s) except BIS.

  You have to specify segments for selected jurisdiction(s) and BIS as well, even though BIS was not selected. However, scripts will be executed for the selected jurisdiction(s) from the scripts list in fsapps-scripts.xml under the tag <for-infodom> with attribute “jurisdiction” value selected for installation (not for BIS).

- Case ii : User has selected jurisdiction BIS only

  In this case you have to specify segments under BIS only. Scripts will be executed only for BIS jurisdiction from the scripts list in fsapps-scripts.xml under the tag <for-infodom> with attribute “jurisdiction” value BIS.

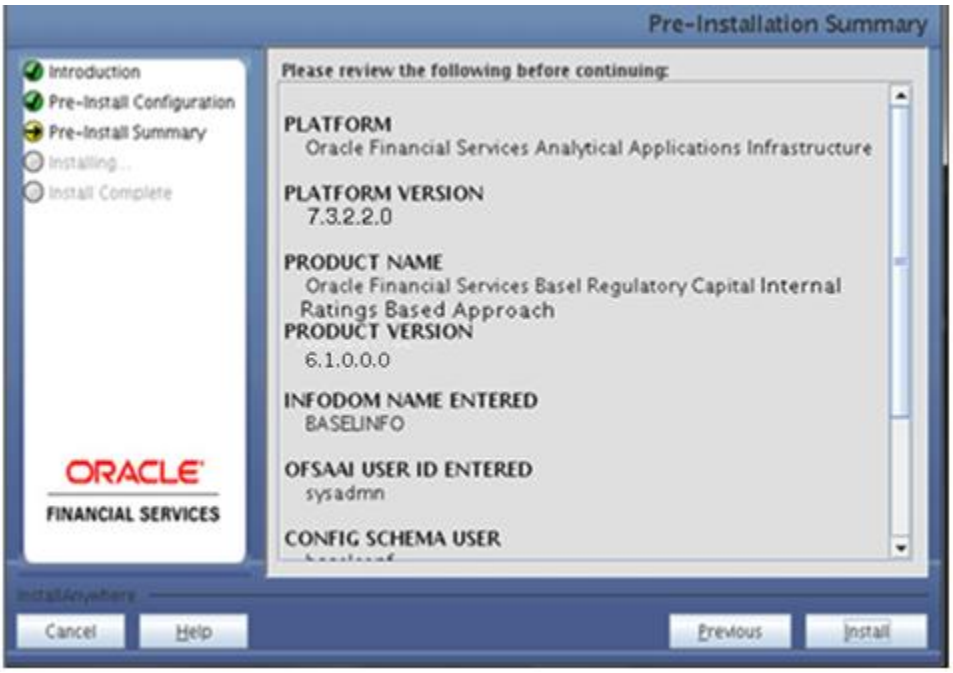
- Case iii: User goes for re-installation for different jurisdiction(s)

  The installer will display the panel with installed jurisdiction(s) segment already mapped as following.

Step 8

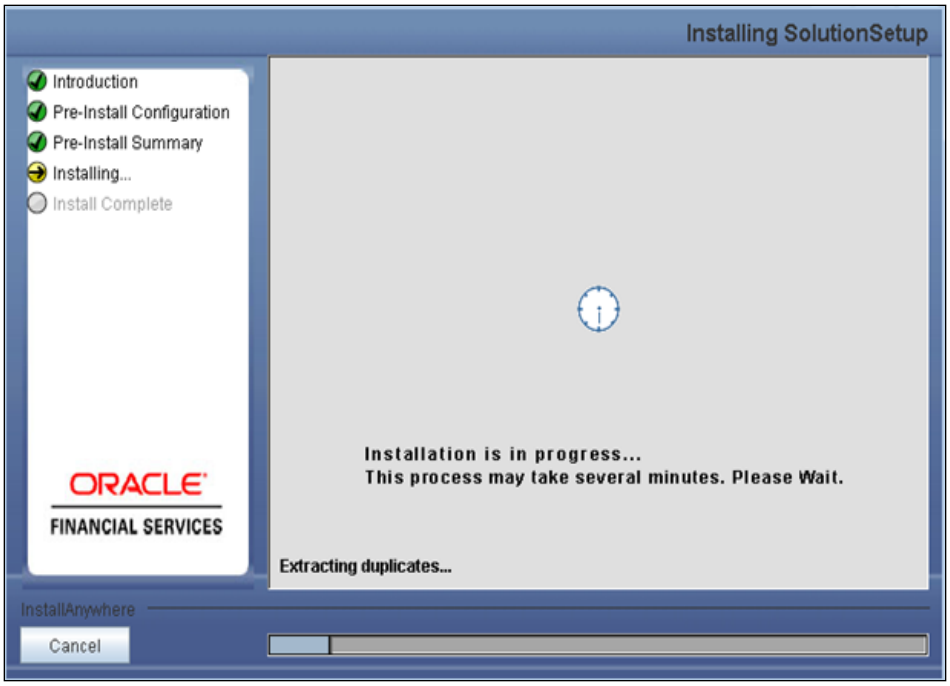
This screen summarizes the preinstallation details. Verify all the details and proceed.

Click **Install** to proceed.



Step 9

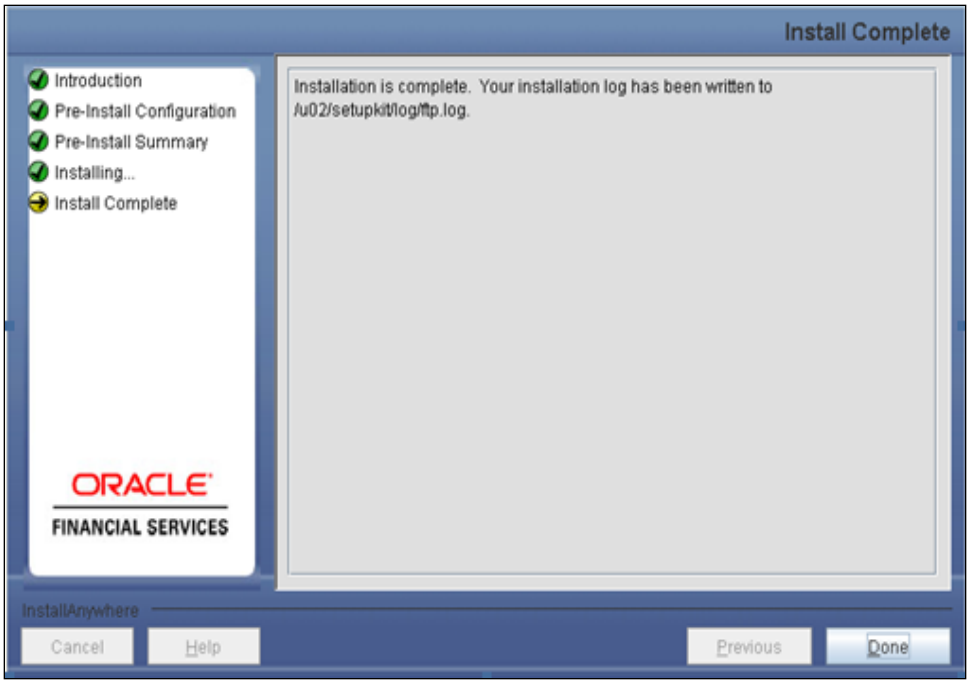
This screen prompt displays the installation process. Wait till the installation is complete.



Step 10

The following screen prompt displays the completion of installation of the Oracle Financial Services Basel Regulatory Capital IRB Approach Release 6.1.0.0.0 setup.

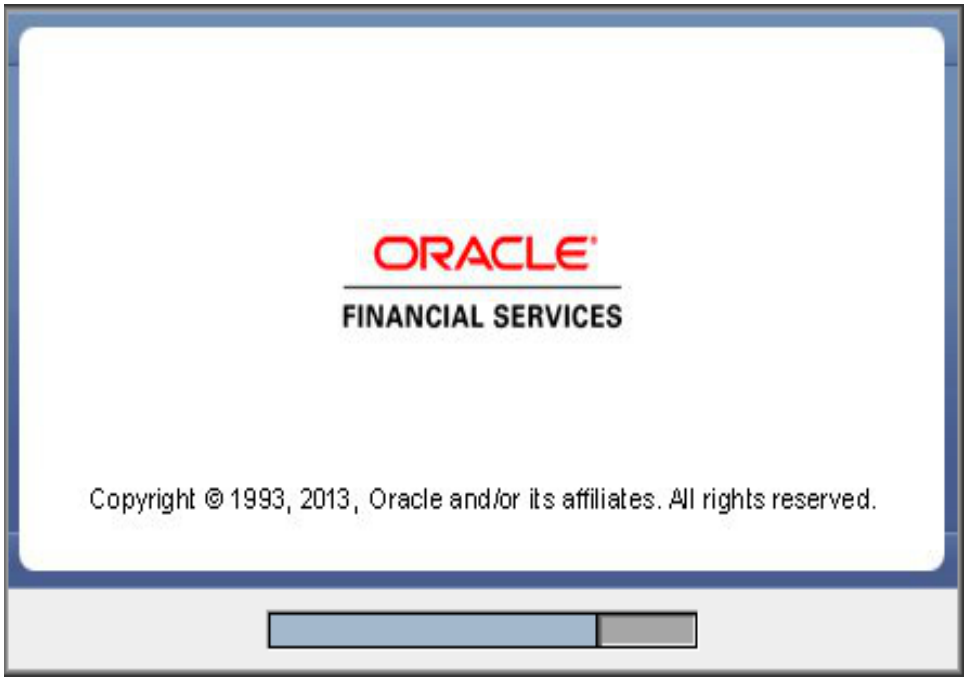
Click **Done** to exit.



3.1.3 Machine C – Product Web Layer

Step 1

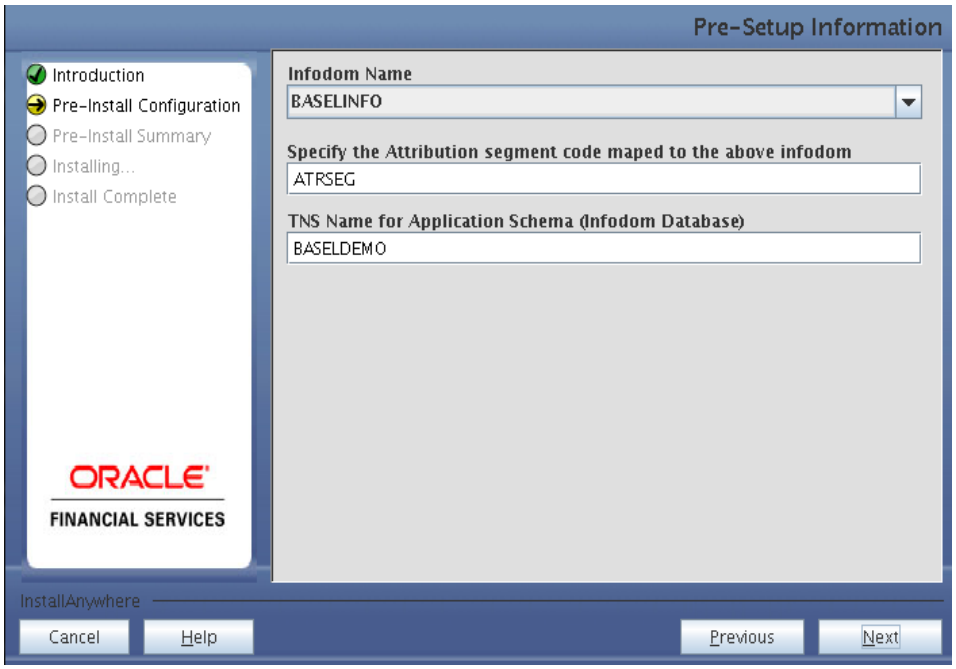
To begin with the Oracle Financial Services Basel Regulatory Capital IRB Approach Release 6.1.0.0.0 installation, execute **Setup.sh** with the parameter GUI (GUI Installation) or SILENT (for Silent installation).



Repeat **Step 2 - Step 5** as mentioned in Machine A – Product Application Layer

Step 6

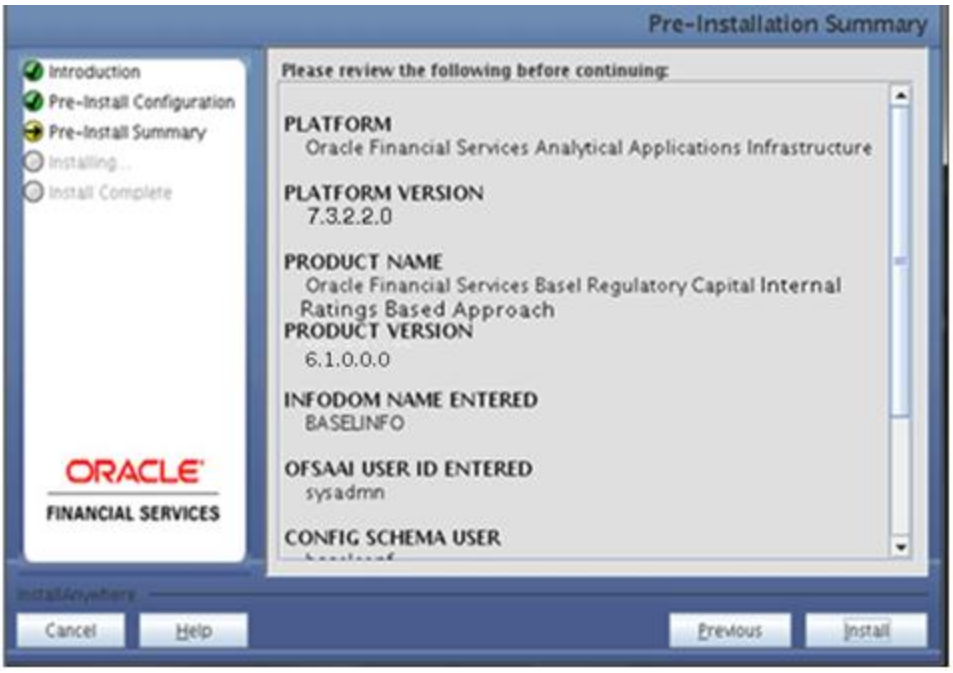
Select the Information Domain from list of Information Domains present in the setup, enter segment code and enter the application schema's TNS name in the following screen prompt.



Step 7

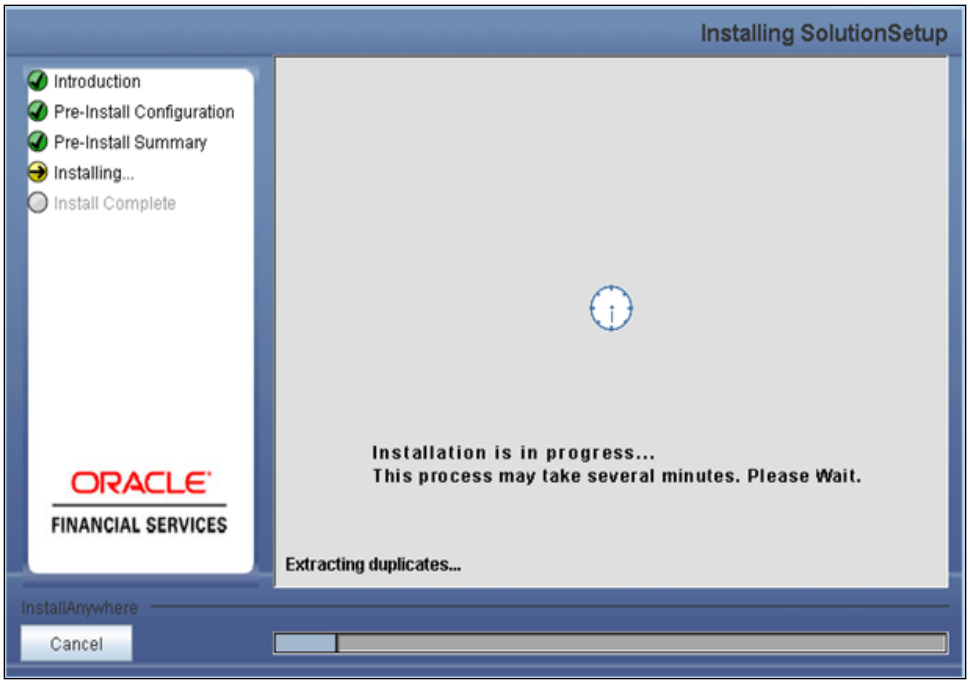
This screen prompt summarizes the preinstallation details. Verify all the details and proceed.

Click **Install** to proceed.



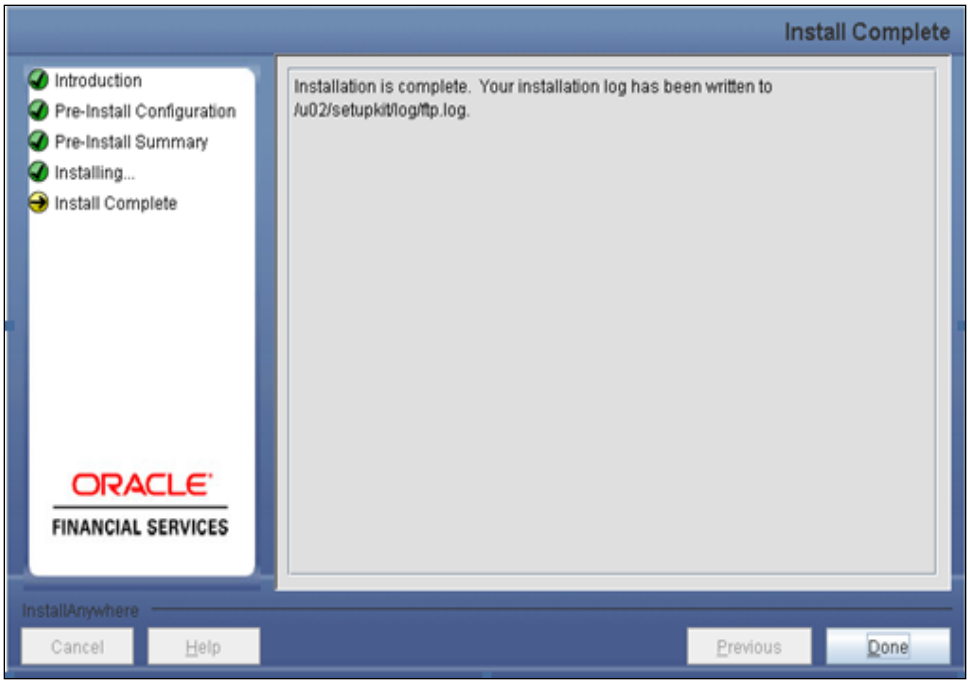
Step 8

This screen prompt displays the installation process. Wait till the installation is complete.



Step 9

The following screen prompt displays the completion of installation of the OFS Basel Regulatory Capital IRB Approach, Release 6.1.0.0.0 setup. Click **Done** to exit.



3.2 OFS Basel Regulatory Capital IRB Approach Release 6.1.0.0.0 Installation- Silent Mode

Silent installation is achieved through a properties file [silent.props] that must be updated with proper values, before attempting to install using the silent mode.

- Copy the setup.sh, setup.bin, ValidatePropsFile.jar, Log4j.xml, DataModel directory and silent.props to the layer(s) in which the installation has to be done.
- Edit the file silent.props and specify the parameters as per the requirements.
- Execute Setup.sh with command line argument as SILENT, that is, **Setup.sh SILENT**, to start the installer

The following table lists all the properties that need to be specified:

Silent.Props.xlsx

Note:

Ignore the following errors in the log:

- ORA-00942: table or view does not exist
- ORA-00001: unique constraint (<ATOMIC_USER>.PK_REV_BIHIER) violated
- ORA-00955 name is already used by an existing object

- "ORA-00001: unique constraint violated".

3.3 Post Installation Activities

OFSAAI Server Memory Configuration

The OFSAAI Application Server is started using reveleusstartup.sh. This file can be edited for setting customized memory settings, garbage collector settings depending on the available hardware configuration. You are requested to contact OFSAAI Support at https://flexsupp.oracle.com/ for guidance in altering the memory settings.

Once the installation of Oracle Financial Services Basel Regulatory Capital IRB Approach Release 6.1.0.0.0 Application is completed, refer to the following activities:

- The following tag should be added manually in web.xml if not already present in web.xml:

```
<resource-ref>
<description>DB Connection <Infodom_Name></description>
<res-ref-name>jdbc/<infodom_name></res-ref-name>
<res-type>javax.sql.DataSource</res-type>
<res-auth>Container</res-auth>
</resource-ref>
```

- Create a connection pool in the Information Domain. *For more information refer to the OFSAAI 7.3.2.2.0 platform installation manual.*
- Map the Roles to the User Group in the Front End manually. *For more information refer to OFS Basel Regulatory Capital IRB Approach Admin Guide.*
- Map the domain segment names to a User Group manually. To do so, click **Security Management** from the LHS of the OFSAAI front end, then click **User Group Domain Map** option and map the required Information Domain – segment to the User Group.
- Check for `export` **`LDR_CNTRL=MAXDATA=0x40000000`** in the .profile. If already commented as per pre-installation activity then uncomment it.
- Add the following tag manually in $FIC_WEB_HOME/webroot/WEB-INF/web.xml if not present:
    - <url-pattern>/basel/*</url-pattern> to filter-mapping tag corresponding to the filter struts2 and struts-cleanup.
- Create and deploy the war/ear file into webserver. For more information on deploying the war file refer to the OFSAAI v7.3.2.2.0 *Installation manual.*
- Start all OFSAAI Servers.
    - FICAPP
    - Web server
    - Iccserver
    - Router

- AM
- Messageserver

- Refer *Start Infrastructure* section in the *OFSAAI Installation and Configuration Guide* for assistance in starting the servers.
- Recompile all the functions, procedures and views.
- Re-save other metadata and all the Hierarchies after populating the set up data and executing the SCD batch.
- The below scripts has to be enabled (only for upgrade activity):

```
ALTER TABLE PR2_RULE_MAP ENABLE CONSTRAINT FK_PR2_RULE_MAP_1
/
ALTER TABLE PR2_RULE_OBJECT ENABLE CONSTRAINT FK_PR2_RULE_OBJECT_1
/
ALTER TABLE PR2_RULE_QUERY ENABLE CONSTRAINT FK_PR2_RULE_QUERY_1
/
ALTER TABLE PR2_RUN_OBJECT ENABLE CONSTRAINT FK_PR2_RUN_OBJECT_1
/
ALTER TABLE PR2_RUN_OBJECT_PARAMETER ENABLE CONSTRAINT
FK_PR2_RUN_OBJECT_PARAMETER_1
/
ALTER TABLE PR2_RUN_OBJECT_MEMBER ENABLE CONSTRAINT
FK_PR2_RUN_OBJECT_MEMBER_1
/
ALTER TABLE PR2_RUN_MAP ENABLE CONSTRAINT FK_PR2_RUN_MAP_1
/
ALTER TABLE PR2_RUN_EXECUTION_B ENABLE CONSTRAINT
FK_PR2_RUN_EXECUTION_B_1
/
```

- The log for resaving hierarchies can be found under $FIC_APP_HOME/common/FICServer/logs/ResaveLog.log

The Oracle Financial Services Basel Regulatory Capital IRB Approach Release 6.1.0.0.0 application is now ready to be used.

For more information regarding Data Migration Activities, see *OFS_Basel_Regulatory_Capital_IRB_Upgrade6.0.0.0.0_6.1.0.0.0_Data_Migration_Guide.docx*.

If you encounter any problems during setup, contact OFSAA Support at https://flexsupp.oracle.com/.

Installation Manual
January 2014
Oracle Financial Services Basel Regulatory Capital IRB Approach V6.1.0.0.0

Oracle Corporation
World Headquarters
500 Oracle Parkway
Redwood Shores, CA 94065
U.S.A.

Worldwide Inquiries:
Phone: +1.650.506.7000
Fax: +1.650.506.7200
http://www.oracle.com/us/industries/financial-services/index.html
Copyright © 2013 Oracle Financial Services Software Limited. All rights reserved.

No part of this work may be reproduced, stored in a retrieval system, adopted or transmitted in any form or by any means, electronic, mechanical, photographic, graphic, optic recording or otherwise, translated in any language or computer language, without the prior written permission of Oracle Financial Services Software Limited.

Due care has been taken to make this Installation Manual and accompanying software package as accurate as possible. However, Oracle Financial Services Software Limited makes no representation or warranties with respect to the contents hereof and shall not be responsible for any loss or damage caused to the user by the direct or indirect use of this Installation Manual and the accompanying Software System. Furthermore, Oracle Financial Services Software Limited reserves the right to alter, modify or otherwise change in any manner the content hereof, without obligation of Oracle Financial Services Software Limited to notify any person of such revision or changes.

All company and product names are trademarks of the respective companies with which they are associated.