Oracle Data Integrator Configuration for FLEXCUBE Information Server Oracle FLEXCUBE Universal Banking Release 12.2.0.0.0 [May] [2016]



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1. Oracle Data Integrator Configuration

1.1 Introduction

This document explains configuration of Oracle Data Integrator (ODI) for Flexcube Information Server in two steps, they are verification of prerequisite software installation and steps for ODI Configuration.

1.2 Verification of Prerequisite software and installation

Verification of prerequisite software and installation, involves the below steps:

- Verification of prerequisite software
- Verification of prerequisite installation
- ODI repository connection configuration and verification
- ODI agent configuration and verification

1.2.1 <u>Verification of prerequisite software</u>

Ensure the availability below prerequisite software:

- Oracle Data Integrator(ODI)
 - o ODI Designer
 - o ODI Master and Work Repositories
 - ODI JEE Agent installed
- Oracle Golden Gate (GG) installed in Flexcube and Operational Data store (ODS) Schema.

1.2.2 Verification of prerequisite installation

Ensure the installation/configuration of the below prerequisite software:

- Flexcube Information Server Utility
 - Run Flexcube Information Server Utility using Oracle Flexcube Universal Banking Installer . Refer document in path Installation/FLEXCUBE_UBS_Installation/Utilities/FLEXCUBE_Information_serve r.doc
 - This utility will ensure Operational Data Store(ODS) and Flexcube Information Server(FIS) Database is ready.
 - Note- Both ODS and FIS are on same schema.i.e one Reporting schema acting as ODS and FIS.

• Data Synchronization of Flexcube and ODS tables

 Get a dump of all data in ODS Tables from Flexcube to ODS Schema. The list of tables to be in sync can be got from <u>INSTALLER/SOURCE/config/Database/DDL_List_ODS.txt</u>



• Oracle Golden Gate(GG) param file configuration Update param file configuration and start Golden Gate.

| Database | Param File | Param File path | Deployment path |
|----------|------------|-----------------|--|
| Flexcube | Ext.prm | ODS/PARAM_FILES | scratch/db/db1212/product/12.1.0/oggcore_1/dirprm/ |
| ODS | REPL2.prm | ODS/PARAM_FILES | scratch/db/db1211/product/12.1.0/oggcore_1/dirprm/ |

1.2.3 ODI repository connection configuration and verification

Start ODI Designer by running the odi studio.exe file. Connect to the repository by clicking on the icon as indicated in the screen below:

| Eile | <u>E</u> dit | Vie | w s | earc | h | <u>o</u> di | Ιo | ols | Win | dow | Te | a <u>m</u> | <u>R</u> u | n | Help |) | | | |
|------|--------------|------|--------|------|-----|-------------|----|-----|-------|-----|----|------------|------------|---|------|----|-----|----------------|-----|
| 9 | 8 (| 3 | Ð | 54 | | • | ۲ | | 74 | 4 | | 4 | | | | | | | |
| Secu | rity | Top | pology | , | Op | erator | | Des | igner | × | | | | | | | | 🕐 Start Page 👋 | |
| 69 | | | | | | | | | | | | | | | | Å, |] | ~ | |
| 1 | h | Conn | ect to | o Re | pos | itory. | - | | | | | | | | | U) | Con | nect | DAT |
| | | | | | | | | | | | | | | | | | T | | |

This opens an empty Repository Connection Information Screen. Enter the login credentials,

Master and work repository details. Specify the repository connection information as in the below screen, click test to Test Connection and click

| Repository Conne | ction Information | | | | | |
|------------------|--|--|--|--|--|--|
| Oracle Data In | tegrator Connection | | | | | |
| Login Name: | SUP_1221 | | | | | |
| User: | SUPERVISOR | | | | | |
| Password: | •••••• | | | | | |
| Database Conr | nection (Master Repository) | | | | | |
| User: | DEVODI1221_ODI_REPO | | | | | |
| Password: | | | | | | |
| Driver List: | Oracle JDBC Driver 💌 🔍 | | | | | |
| Driver Name: | orade.jdbc.OradeDriver | | | | | |
| URL: | jdbc:orade:thin:@10.184.132.144:1522:FISDEV122 | | | | | |
| Work Reposito | pry | | | | | |
| O Master Re | pository Only | | | | | |
| Work Report | ository WORKREP Q | | | | | |
| Default Conne | ction | | | | | |
| Help | Test OK Cancel | | | | | |
| | | | | | | |



The login credentials entered above need to be entered every time we login to ODI as below,

Click Connect to repository and enter the login credentials and click **OK**. A confirmation is displayed on successful login. Next time whenever we open ODI Designer, it would display ODI Login screen as below:

| Oracle Data Ir | itegrator Login |
|----------------|--------------------|
| Login Name: | SUP_1221 🗸 🕂 🖉 🗐 🗙 |
| User: | SUPERVISOR |
| Password: | |
| | |
| Help | OK Cancel |

1.2.4 ODI agent connection configuration and verification

Create an agent by right click on Agents under Topology \rightarrow Physical Architecture \rightarrow Agents and select New Agent and give the agent details. To confirm if the agent is working fine, click **Test** button at the top of the OracleDIAgent.

| Designer C | perator Topology × S | ecurity | | |
|---|--|---------------------------|------------------------------|-------|
| 62 | | | | |
| Physical Archi | tecture | | | |
| E- Contender E- Contender Accentender Accentender I I I I I I I I I I I I I | ogies <u>N</u> ew Agent New <u>O</u> ozie Engine Expand | _ | | |
| | Collapse | | | |
| () | mport Physical Agent | | | |
| Start Page × View Schedule Up Definition | OracleDIAgent | Server Template Apply Set | tings | |
| Datasources | Name | OradeDIAgent | | |
| Load balancing Version | Host: | 10.184.133.202 | Port: | 15101 |
| Privileges Web application context: | | | Protocol: | |
| Flexifields | Maximum number of sessions: Maximum number of threads: | 1000 | Maximum threads per session: | 0 |
| | Session Blueprint Cache N | 1anagement | | |
| | Maximum cache entries: | 100 | | |
| | Unused Blueprint Lifetime (| Sec): 600 | | |



Similarly under Topology \rightarrow Logical Architecture \rightarrow Agents , right click on Agents and select New Logical Agent and enter details and save it.

| Designer Operator | Topol × Security 🗉 | 3 Start Page | e × 🛍 OracleDIAgent 🐣 | |
|--|----------------------|--------------|-----------------------|-----------------|
| 62 | <u> -</u> | Definition | | |
| H Physical Architecture | | Privileges | | |
| | <u>í</u> - | | Name: OracleDIAgent | |
| 🖃 Logical Architecture | | | Context | Physical Agents |
| ₽ () Technologies = (1) Agents (1) OracleDIAgent | | | Global | OracleDIAgent |

1.3 Steps for ODI Configuration

ODI configuration involves the below steps:

- Smart import
- Topology-Physical architecture configuration
- Journalized tables creation
- UDF Maintenance in ODS
- Load Initial data in FIS
- Running of packages

1.3.1 Smart Import

Proceed with the smart import by the following

| | | Choose an action to perform |
|---|--|---|
| De × Ope Top I | Sec = (?) Start Page × | Smart Import Import the Master Repository Import the Work Repository Import the Topology Import the Topology |
| Load Plans and Scenarios debal Objects Labels | Edit Release Tag Default Designer Context | Import the Logical Topology Import the Execution Environment Import the Log Import Security Settings |
| | Release Notes | Description Import selectively objects exported using the Smart Export. |
| | Training Resources | Help OK Cancel |

🔏 Import Selection

steps:

Select the Import→Smart Import from the action to perform dialogue box

Give the SmartExport.xml file path in the File Selection and click NEXT.



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Note - SmartExport.xml is in path /FIS-REPORTING/FIS-Reporting-Infra/ODI/Projects/FIS/Project

| 💑 Smart Import - Step 1 o | ıf 3 | | | | | | | | × |
|---|--|---|---|----------------------|--------------|----------------|--------------------|------------------|------------------|
| File Selection | | | | | | | | | |
| File Selection Import Actions Summary | This wizard will select a Respor File Selection: Response file: | guide you throug nse File to preset [C:\Oracle\Middli | h the process of im al fields. wware\Oracle_Hom | porting objects into | o Oracle Dat | a Integrator | To replay a previo | ous Smart Import | wizard execution |
| Help | | | | | | < <u>B</u> ack | <u>N</u> ext > | Einish | Cancel |

This would start importing all the files.

| Please wait | |
|---|---------|
| Matching Import Objects | |
| | - |
| Checking matches for Logical Schema GG_D_IN | |
| | |
| | Cancel |
| | |

On confirmation of smart import, proceed with the below steps.

1.3.2 Topology- Physical architecture configuration

Under Topology we have to update the Physical Architecture of Oracle and Oracle Golden Gate



1.3.2.1 Oracle

Under the Topology \rightarrow Physical Architecture \rightarrow Oracle \rightarrow FIS \rightarrow Definition, update the Data Server Instance / dblink with connection user and password for the source schema.

| Designer Operator Topology × Security | | 3 Start Page × 🕒 Oracle × 🛢 FIS × | |
|---|-------------|--|---|
| @ | <u>- 10</u> | Test Connection | 1 |
| ⊒ Physical Architecture | | Definition | |
| B 3 MS Topic XML B 3 Java Beanshell B 3 JavaScript B 3 Microsoft Access B Microsoft SQL Server B Microsoft SQL Server B Microsoft SQL Server B Microsoft SQL Server B Microsoft SQL Server | | JOBC Onta Server On Connect/Disconnext Name: Datasources Instance / dbink (Data Server): Version Filexfields Elexfields DeVFISI221 Password: Password: | |
| | Ţ | Array Fetch Size: 30 Batch Update Size: 30 Degree of Parallelism for Target: 1 | |
| ± Contexts | • | | |
| - Logical Architecture | _ | | |
| OWB Runtime Repository Operating System | - | | |

Then go to the JDBC and update the driver details of the source schema and test the connection

| Test Connection | | | |
|--------------------------------------|------------------|---|--|
| Definition JDBC | JDBC Driver: | oracle.jdbc.OracleDriver | |
| On Connect/Disconnect Datasources | JDBC URL: | jdbc:oracle:thin:@10.184.132.144:1522:FISOEV122 | |
| Version Privileges | Properties | | |
| Flexfields | | + × | |
| | Key | Value | |
| Information Succe | essful Connectio | on | |
| | | OK | |
| | | | |
| Physical Agent: | Local (No Agen | k) • | |
| | | | |

Inside the Topology \rightarrow Physical Architecture \rightarrow Oracle \rightarrow FIS \rightarrow FIS.DEVFIS1221,update the Schema and Work Schema . Check or otherwise update the Work Tables Prefix as:

Errors: E\$_<?=vSess?>

Loading: C\$_<?=vSess?>

Integration : I\$_<?=vSess?>



| 3 Start Page | × 🧰 MDL_OD5 × 🚰 FIS.DEVFIS1221 | * 🔀 005.DEVF151221 - |
|--------------------------|-------------------------------------|---|
| Definition Context | Physical Schema [Data Server: FIS |] |
| Version | Name: FIS.DEVFIS1221 | |
| Privileges Flexfields | Schema (Schema): DEVFIS1221 | |
| | Schema (Work Schema): DEVFIS1221 | |
| | 🖌 Default | |
| | Work Tables Prefix | |
| | Errors: =vSess?> Loading: C\$_< | <pre>K?=V' Integration: =VSess?> Temporary Indexes: IX\$</pre> |
| | Journalizing elements prefixes | |
| | Datastores: J\$ Views: JV | \$ Triggers: T\$ |
| | Naming Rules | |
| | Character Encoding: | BASE38 |
| | Local Object Mask: | %5CHEMA.%OBJECT |
| | Remote Object Mask: | %SCHEMA.%OBJECT@%DSERVER |
| | Partition Mask: | %5CHEMA.%OBJECT PARTITION(%PARTITION) |
| | Sub-Partition Mask: | %5CHEMA.%OBJECT SUBPARTITION(%PARTITION) |
| | Local Sequence Mask: | %5CHEMA,%OBJECT.nextval |
| | Remote Sequence Mask: | %5CHEMA.%OBJECT.nextval@%D5ERVER |
| | Local Sequence Current Value Mask: | %SCHEMA.%OBJECT.currval |
| | Remote Sequence Current Value Mask: | %SCHEMA.%OBJECT.currval@%DSERVER |

Similarly under Topology \rightarrow Physical Architecture \rightarrow Oracle \rightarrow ODS \rightarrow Definition, update the destination schema details in the Instance/dblink(data server), connection User and Password.

| 🕐 Start Page 💉 📴 Oracle | 🛛 🗢 🍞 FIS 🔺 🔵 ODS 🐣 |
|---|---|
| Test Connection | |
| Definition JDBC On Connect/Disconnect Datasources Version Privileges Flexfields | Data Server Name: ODS Instance / dblink (Data Server): :OL = TCP)(HOST = 10.184.132.144)(PORT = 1522)))(CONNECT_DATA =(SERVICE_NAME = FISDEV122))) Connection User: DEVFIS1221 Password: ••••••••• JNDI Connection Instance for the size: Array Fetch Size: 30 Batch Update Size: |

Update the JDBC driver details under Topology \rightarrow Physical Architecture \rightarrow Oracle \rightarrow ODS and test the connection for the destination schema



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Inside the Topology \rightarrow Physical Architecture \rightarrow Oracle \rightarrow FIS \rightarrow FIS.DEVFIS1221,update the Schema and Work Schema . Check or otherwise update the work tables prefix as :

Errors: E\$_<?=vSess?>

Loading: C\$_<?=vSess?>

Integration : I\$_<?=vSess?>

| 🕐 Start Page | e × 🔚 MDL_ODS 💉 🎇 FIS.DEVFIS1221 | × 🦉 OD5.DEVF151221 × | | | | |
|--------------------------|--|--|--|--|--|--|
| Definition | 📽 Physical Schema [Data Server: ODS] | | | | | |
| Context Version | | | | | | |
| Privileges Flexfields | Schema (Schema): DEVFIS1221 | | | | | |
| | ✓ Default | | | | | |
| | Work Tables Prefix | | | | | |
| | Errors: =vSess?> Loading: =vSess?> Integration: =vSess?> Temporary Indexes: IX\$ | | | | | |
| | Journalizing elements prefixes | | | | | |
| | Datastores: J\$ Views: JV\$ Triggers: T\$ | | | | | |
| | □ Naming Rules | | | | | |
| | Character Encoding: | BASE38 | | | | |
| | Local Object Mask: | %SCHEMA.%OBJECT | | | | |
| | Remote Object Mask: | %SCHEMA:%OBJECT@%DSERVER %SCHEMA:%OBJECT PARTITION(%PARTITION) | | | | |
| | Partition Mask: | | | | | |
| | Sub-Partition Mask: | %SCHEMA.%OBJECT SUBPARTITION(%PARTITION) | | | | |
| | Local Sequence Mask: | %SCHEMA.%OBJECT.nextval | | | | |
| | Remote Sequence Mask: | %SCHEMA.%OBJECT.nextval@%DSERVER | | | | |
| | Local Sequence Current Value Mask: | %SCHEMA.%OBJECT.currval | | | | |
| | Remote Sequence Current Value Mask: | %SCHEMA.%OBJECT.currval@%DSERVER | | | | |



1.3.2.2 Oracle Golden Gate

Update the golden gate source details under the

Topology → Physical Architecture → Oracle GoldenGate → OGG_SOURCE.

Update the Host, RMI port, Manager Port, JMX User, Password and Installation Path.

| 3 Start Page 🛛 🔘 OGG_SOURCE 🐣 |
|---|
| Test Connection |
| JAgent OGG_SOURCE Version Privileges Flexfields GoldenGate JAgent Server Host: 10.184.155.17 RMI Port: 5559 Manager Port: 5555 JMX User: jmxuser Password: •••••• Installation Path: /scratch/db/db 1212/product/12.1.0/oggcore_1 |
| |

And also update the GG_CAP,GG_C_IN Capture Process Properties .

| 🕐 Start Page 🔺 🤘 | Oracle 🛛 🔵 FIS 🔺 🍞 C | DS × 📴 GG_CAP × |
|--|---|---|
| Process Definition Context Version Privileges Flexfields | Process Type: Capture Name: GG_CAP Capture Process Prope Trail File Path: Remote Trail File Path: Trail File Size: Report Fetch Report Count Frequency: | erties /scratch/db/db1212/product/12.1.0/oggcore_1/dirdat/oc /scratch/db/db1212/product/12.1.0/oggcore_1/dirdat/op 100 MB |
| | Select a parameter: | ALLOCFILES |



| 🕄 Start Page 🛛 🧓 |) MDL_DD5 × 🔀 GG_CAP × 🔀 GG_C_IN × | | | | |
|--------------------------|---|--|--|--|--|
| Process Definition | Presses Times Contract w | | | | |
| Context | Process type: | | | | |
| Version | Name: GG_C_IN | | | | |
| Privileges Flexfields | Capture Process Properties | | | | |
| | Trail File Path: //scratch/db/db1212/product/12.1.0/oggcore_1/dirdat/oc | | | | |
| | Remote Trail File Path: //scratch/db/db1212/product/12.1.0/oggcore_1/dirdat/op | | | | |
| | Trail File Size: 100 MB | | | | |
| | Report Fetch | | | | |
| | Report Count Frequency; <a> <l< th=""></l<> | | | | |
| | 🖃 Additional Options | | | | |
| | Select a parameter: ALLOCFILES | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Similarly update the GoldenGate JAgent Target Server details under

 $\textsf{Topology} \textbf{\rightarrow} \textsf{Physical Architecture} \textbf{\rightarrow} \textsf{Oracle GoldenGate} \textbf{\rightarrow} \textsf{OGG}_\textsf{Target}$

along with the details in the GG_D_IN and REPL delivery process properties

| 🕐 Start Pag | je 🛛 🕞 Oracle 🔺 🐧 | FIS × 🕽 ODS × 🕤 OGG_SOURCE × 😋 OGG_TARGET 🐣 |
|---|---|---|
| Test Connec | tion | |
| JAgent Version Privileges Flexfields | Name: OGG_TARGET GoldenGate JAg Host: RMI Port: Manager Port: JMX User: Password: | ent Server ofss220041 5559 5555 imxuser •••••• |
| | Installation Path: | /scratch/db/db1211/product/12.1.0/oggcore_1 |



| 🕐 Start Page 🔺 🕞 | GG_D_IN 🐣 🔁 REPL 🗵 | | | | |
|---|--|---|--|--|--|
| Process Definition | Process Type: Delivery | | | | |
| Context | Nores Type: Delivery | | | | |
| Privileges | Name: <u>33_0_1N</u> | | | | |
| Flexfields | Delivery Process Properties | | | | |
| | Trail File Path: | /scratch/db/db1211/product/12.1.0/oggcore_1/dirdat/op | | | |
| | Discard File Path: | /scratch/db/db1211/product/12.1.0/oggcore_1/dirpt/ | | | |
| | Definition File Path: | /scratch/db/db1211/product/12.1.0/oggcore_1/dirdef/ | | | |
| | Report Detail | | | | |
| | Report Count Frequency: | <undefined></undefined> | | | |
| | Additional Options | | | | |
| | Select a parameter: | ALLOCFILES - Add | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 🗿 Start Page 💉 🥊 | GG_D_IN 💉 🕞 REPL | ×- | | | |
| 3) Start Page × 🕞 Process Definition | | * | | | |
| 3 Start Page × Process Definition Context | GG_D_IN GG_D_IN | ×. | | | |
| Start Page × Process Definition Context Version | GG_D_IN × PREPL Process Type: Delivery Name: REPL | × | | | |
| Start Page × Process Definition Context Version Privileges Start Page | GG_D_IN | roperties | | | |
| Start Page Process Definition Context Version Privileges Flexfields | GG_D_IN × REPL Process Type: Delivery Name: REPL Delivery Process P Trail File Path: | roperties //scratch/db/db1211/product/12.1.0/oggcore 1/dirdat/op | | | |
| Start Page Territory Start Page Territory Context Version Privileges Flexfields | GG_D_IN × REPL Process Type: Delivery Name: REPL Delivery Process P Trail File Path: | roperties //scratch/db/db1211/product/12.1.0/oggcore_1/dirdat/op //scratch/db/db1211/product/12.1.0/oggcore_1/dirdat/op | | | |
| 3 Start Page × Process Definition Context Version Privileges Flexfields | GG_D_IN × REPL Process Type: Delivery Name: EEPL Delivery Process P Trail File Path: Discard File Path: | <pre>roperties /scratch/db/db1211/product/12.1.0/oggcore_1/dirdat/op /scratch/db/db1211/product/12.1.0/oggcore_1/dirrpt/</pre> | | | |
| Start Page Terminian Start Page Terminian Context Version Privileges Flexfields | GG_D_IN | <pre>roperties /scratch/db/db1211/product/12.1.0/oggcore_1/dirdat/op /scratch/db/db1211/product/12.1.0/oggcore_1/dirrpt/ /scratch/db/db1211/product/12.1.0/oggcore_1/dirdef/</pre> | | | |
| Start Page Terminian Start Page Terminian Context Version Privileges Flexfields | GG_D_IN Process Type: Delivery Name: Delivery Process P Trail File Path: Discard File Path: Definition File Path: Report Detail | <pre> roperties /scratch/db/db1211/product/12.1.0/oggcore_1/dirdat/op /scratch/db/db1211/product/12.1.0/oggcore_1/dirrpt/ /scratch/db/db1211/product/12.1.0/oggcore_1/dirdef/ </pre> | | | |
| Start Page Terminian Start Page Terminian Context Version Privileges Flexfields | GG_D_IN Process Type: Delivery Name: EEP Delivery Process P Trail File Path: Discard File Path: Definition File Path: Report Detail Report Count Freque | <pre>roperties /scratch/db/db1211/product/12.1.0/oggcore_1/dirdat/op /scratch/db/db1211/product/12.1.0/oggcore_1/dirdef/ /scratch/db/db1211/product/12.1.0/oggcore_1/dirdef/ ency: </pre> | | | |
| Start Page Start Page Tocess Definition Context Version Privileges Flexfields | GG_D_IN Process Type: Delivery Name: Delivery Process P Trail File Path: Discard File Path: Definition File Path: Report Detail Report Count Freque Additional Onti | | | | |
| 3 Start Page X | GG_D_IN | <pre> roperties /scratch/db/db1211/product/12.1.0/oggcore_1/dirdat/op /scratch/db/db1211/product/12.1.0/oggcore_1/dirdef/ /scratch/db/db1211/product/12.1.0/oggcore_1/dirdef/ ency: cundefined> </pre> | | | |
| 3 Start Page X | GG_D_IN GG_D_IN Frocess Type: Delivery Name: Delivery Process P Trail File Path: Discard File Path: Definition File Path: Geport Detail Report Detail Report Count Freque GAdditional Opti Select a parameter | roperties /scratch/db/db1211/product/12.1.0/oggcore_1/dirdat/op /scratch/db/db1211/product/12.1.0/oggcore_1/dirrpt/ /scratch/db/db1211/product/12.1.0/oggcore_1/dirdef/ ency: | | | |
| 3 Start Page X | GG_D_IN Process Type: Delivery Name: Delivery Process P Trail File Path: Discard File Path: Definition File Path: Report Detail Report Count Freque Additional Opti Select a paramet | <pre>roperties /scratch/db/db1211/product/12.1.0/oggcore_1/dirdat/op /scratch/db/db1211/product/12.1.0/oggcore_1/dirpt/ /scratch/db/db1211/product/12.1.0/oggcore_1/dirdef/ ency: cundefined> Add ency: ALLOCFILES Add</pre> | | | |

1.3.3 Journalized tables creation

Journalized Tables Creation involves few Steps

- (i) Verification of MDL_ODS properties
- (ii) Verify/Add Subscriber
- (iii) Add tables to CDC
- (iv) Start Journal
- (v) Add journal Tables in GG parameter files

1.3.3.1 Verification of MDL ODS properties

Select MDL_ODS in Models \rightarrow FIS \rightarrow MDL_ODS,

- Definition : Logical Schema MDL_ODS is selected and verify details are as per below screenshot
- Journalizing : Knowledge Module(KM) should be set to JKM Oracle to Oracle Consistent(OGG Online).FIS and other parameters are defined as per below screenshot.



| | <u>".</u> - | Reverse Engineer 🔗 Check | Model Generate and Deploy Data Services | 5 | | |
|---|-------------|--|--|---|---|-------------------------------|
| ojects odels ∰FIS ∰ ∰MDL_FIS ∰ ∰MDL_OOS | ing • | Definition Reverse Engineer Selective Reverse-Engineering Control Journalizing Journalized Tables Services Markers Memo Version Privileges | Journalizing Mode: O Consistent Set Journalizing KM Knowledge Module: IKM Oracle to O GoldenGate Process Select Capture Process: Delivery Process: Initial Load Capture Process: Thitial Load Capture Process: | Simple Oracle Consistent (OGG O tion GG_CAP GG_DEL GG_C_JN GC_C_D_N | nline).FIS | Create Create Create |
| | | | Option ONLINE VALIDATE LOCAL_TEMP_DIR NS_PPLV_PROCESS SRC_SETUP_OGG_PROCESSES STG_SETUP_OGG_PROCESSES COMPATIBLE CHECKPOINT_TABLE_NAME ENABLE_ODI_COC USE_OGG_FOR_INIT CLUSTER_DATABASE_INSTANCES CHARSET_ENCODING USE_QUALIFY_CONNECTION_TO_ | Valu | e fault>:false fault>: = java<br fault>:1 fault>:1 fault>:true fault>:true fault>:true fault>:true fault>:false fault>:Gault>:Gault>:false fault>:Gault>:Gault>:false fault>:false | lang.System.getProperty(']ava |

Check the Group Name value in CHKPT table. This table is internally used by Golden Gate to create Window Ids.

If Group name value is REPL1 then the NB_APPLY_PROCESS value should be 1.

If Group name value is REPL2 then the NB_APPLY_PROCESS value should be 2.

ODI may not allow changing the value directly in MDL_ODS→Journalizing tab, then change in JKM screen as mentioned below, and then come change in Model details.

To change in JKM go to Knowledge Modules \rightarrow Journalizing(JKM) \rightarrow JKM Oracle to Oracle Consistent(OGG Online)

In that under Options Tab update the value of NB_APPLY_PROCESS.

| Designer × Topology Operator | 👼 JKM Oracle to Ora | ade Consistent (OGG Online) | ×. | | | |
|---|---|---|---|--|----------------------|---|
| 🚯 🚜 v | Definition Tasks | | | Q |) 🖷 🖶 🔶 - | 🗙 ᢙ 🌢 ⇔ ې 🔆 👱 Ⅲ• |
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| → Models | Overview | JSE_QUALIFY_CONNECTION_ | T(Boolean | False | | Use qualify connection to staging |
| B- B B MDL_FIS B B MDL_COS | NB_APPLY_PROCES | SS - Properties | | | | × |
| | Name: Type: Default Value: | NB_APPLY_PROCESS Value 2 | | | | |



1.3.3.2 Verify/Add Subscriber

- Right click on MDL_ODS -> Changed Data Capture -> Subscriber ->Subscribe...
- > Check if the entry SUB_FIS is available in Subscriber list in the current context.
- > If not available please add a subscriber.



To add a subscriber enter "SUB_FIS" in "List of Subscribers to Add" box and click the plus symbol and click OK. Then "Sub_FIS" would be listed in Subscriber list in the current context box.

| Subscriber list in the current context: | List of Subscribers to Add: SUB_FIS | ≪ iubsc |
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| ubscriber list in the current contacts | List of Subscribers to Add | | |
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Note – After adding Subscriber it puts an entry in Table "SNP_CDC_SUBS" for

CDC_Subscriber= ' SUB_FIS'. Please ensure it is available.

1.3.3.3 Add tables to CDC

To add tables for Change Data Capture, Right click on MDL_ODS and select

Changed Data Capture -> Add to CDC. It would list all the Journalized tables inside the Journalized Tables tab of MDL_ODS $\ .$





| 🔁 Reverse Engineer 🛛 🖋 Check | Generate and Deploy Data Services | |
|-------------------------------|-----------------------------------|-------------|
| Definition | | |
| Reverse Engineer | | ☆ ↓ × by 60 |
| Selective Reverse-Engineering | Order Table Name | |
| | 0 CLTB_ACCOUNT_APPS_MASTER | |
| Control | 0 GLTM_GLMASTER | |
| Journalizing | 0 STTM_BRANCH | |
| Journalized Tables | 0 ICTB_ENTRIES_HISTORY | |
| Services | 0 CSTM_PRODUCT | |
| | 0 STTM_ACCOUNT_CLASS | |
| Markers | 0 STTM_PERIOD_CODES | |
| Memo | 0 STTM_LCL_HOLIDAY | |
| Version | 0 STTM_CUST_PERSONAL | |
| Privileges | 0 GLTB_GL_BAL | |
| | 0 STTM_AC_STAT_CHANGE | |
| Hexheids | 0 CLTB_EVENT_ENTRIES | |
| | 0 CLTB_ACCOUNT_SCHEDULES | |
| | 0 CLTM_PRODUCT_COMPONENTS | |
| | 0 GETM_LIAB_CUST | |
| | 0 CSTM_FUNCTION_USERDEF_FIELDS | |
| | 0 FBTB_PRODUCT | |
| | 0 LDTM_PRODUCT_MASTER | |
| | 0 BCTM_PRODUCT_MASTER | |
| | 0 LCTM_PRODUCT_DEFINITION | |
| | 0 CYTM_CCY_DEFN_MASTER | |
| | 0 STTM_CUST_ACCOUNT_LINKAGES | |
| | 0 STTM_CUSTOMER | |
| | 0 STTM_CUST_ACCOUNT | |
| | 0 ICTM_PR_INT | |
| | 0 ICTM RULE FRM | |
| | 0 ICTM_ACC | |
| | 0 ICTM_TD_DETAILS | |
| | 0 ICTM_ACC_PR | |
| | 0 STTM_DATES | |
| | 0 STTM BANK | |

Now remove all the Tables starting with CDC_* by selecting the Cross symbol (Remove from CDC)

Note- Tables starting with CDC_* are temporary tables created in the ODS schema. This step is very essential as if we forget to remove those tables; it would create critical issues with journalizing.





1.3.3.4 Creation of journalized tables

Journal Tables are created using Start Journal feature, by Right click on MDL_ODS -> Changed Data Capture -> Start Journal.



Then update Journal Tables in Golden gate param file REPL_ODS.prm from REPL2_OnlyJournal.txt in path "/ODS/PARAM_FILES"

1.3.4 UDF Maintenance in ODS

Ensure param value in CSTB_ODS_PARAM and field number of UDFs maintained in Flexcube are in sync.

| PARAM_NAME | PARAM_VALUE | PARAM_DESCRIPTION | KEY_ID |
|-------------------------|-------------|------------------------------|--------|
| LOAN_INDUSTRY | 3 | UDF Number for Loan Industry | 4 |
| LOAN_TYPE_UDF_NO | 2 | Udf Number for Loan Type | 2 |
| CUSTOMER_SEGMENT_UDF_NO | 1 | Udf Number for Segment Type | 1 |

Note-

In Flexcube run the below queries to get the Field number SELECT FIELD_NO FROM CLTM_PRODUCT_UDF WHERE FIELD_NAME IN ('LOAN_TYPE','LOAN_INDUSTRY') SELECT FIELD_NUM FROM CSTM_FUNCTION_UDF_FIELDS_MAP WHERE FUNCTION_ID='STDCIF'



1.3.5 Load Initial Data in FIS

Check if all the tables starting with FCT_ and DIM_ are empty otherwise truncate them and run the LOAD_DIM and LOAD_FCT under Designer \rightarrow Load Plans and Scenarios. This will load the Dimension and all Fact Tables, except GL Balance table (FCT_GL). The FCT_GL table will be populated at End of Financial Input (EOFI).

Note*- If GL Balances has to be manually updated please run LOAD_FCT_GL load plan @ EOFI.



1.3.6 Running the Package

The below screenshot depicts the step to run a package /Mapping/Load Plan.

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| | B Frowledge Modules | | Construction of the second sec | Help | OK Cancel |



Press the Play button on the menu bar and select the OracleDIAgent.

Run package **PKG_INTEGRATED** (under CDC-Transformation).Ensure that you change the Subscriber and CDC Set Under OdiWaitForLogData. CDC Set name can be Obtained by querying Table SNP CDC SET.



1.4 **OBIEE Configuration**

While installing OBIEE, make sure that either one of the Bank Scorecard -3 or Islamic Bank Scorecard exists according to the Site requirement. So in-order to remove the scorecard, just remove the .atr and the respective scorecard folder from the OBIEE server (in path similar to below path):

/scratch/app/obi117/instances/instance1/bifoundation/OracleBIPresentationServicesComponent/c oreapplication_obips1/catalog/SampleAppLite/root/shared/flexcube+information+server/_portal



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1.5 Intermediate Release and Import of Objects

➢ Incase the load plan stops in any intermediate steps ,right click on the stopped sessions under operator → Load Plan Executions→Agent→ OracleDIAgent

right click on the stoped session and Restart

In the Intermediate Release of objects, ensure that both the Designer and the Scenario components are been imported properly with the change.

Follow the below steps to import the individual mappings.



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Follow the below step to import the individual scenarios.





To re-generate existing scenario, Select the scenario, right click and select "Regenerate". This regenerates the scenario to be in sync with the mapping.



1.6 **Technical Specification**

> ODI Studio Memory configuration :

We have to set a minimum heap size to 4GB.We can set it in odi.conf file which is placed in path similar to

/scratch/app/fmw122/Oracle/odi/studio/bin, as "AddVMOption -Xmx4g"

> ODI Work Repository :

It should have a minimum of 15 GB tablespace.



ORACLE

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