Oracle® Governance, Risk and Compliance Intelligence

Implementation Guide

Release 3.0.2

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Oracle Governance, Risk and Compliance Intelligence Implementation Guide, Release 3.0.2

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Preface

Intended Audience

Welcome to Release 3.0.2 of the *Oracle Governance, Risk and Compliance Intelligence Implementation Guide.*

Oracle Governance, Risk and Compliance Intelligence (GRCI) Implementation Guide for Release 3.0.2 is intended for information technology personnel and privileged users responsible for installing and configuring the GRCI application.

See Related Information Sources on page viii for more Oracle E-Business Suite product information.

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Structure

Related Information Sources

Oracle Governance, Risk and Compliance Intelligence User's Guide for Release 3.0.2.

This guide provides information on how to use the Governance, Risk and Compliance Intelligence application.

Do Not Use Database Tools to Modify Oracle E-Business Suite Data

Oracle STRONGLY RECOMMENDS that you never use SQL*Plus, Oracle Data Browser, database triggers, or any other tool to modify Oracle E-Business Suite data unless otherwise instructed.

Oracle provides powerful tools you can use to create, store, change, retrieve, and maintain information in an Oracle database. But if you use Oracle tools such as SQL*Plus to modify Oracle E-Business Suite data, you risk destroying the integrity of your data and you lose the ability to audit changes to your data.

Because Oracle E-Business Suite tables are interrelated, any change you make using an Oracle E-Business Suite form can update many tables at once. But when you modify Oracle E-Business Suite data using anything other than Oracle E-Business Suite, you may change a row in one table without making corresponding changes in related tables. If your tables get out of synchronization with each other, you risk retrieving erroneous

information and you risk unpredictable results throughout Oracle E-Business Suite.

When you use Oracle E-Business Suite to modify your data, Oracle E-Business Suite automatically checks that your changes are valid. Oracle E-Business Suite also keeps track of who changes information. If you enter information into database tables using database tools, you may store invalid information. You also lose the ability to track who has changed your information because SQL*Plus and other database tools do not keep a record of changes.

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About Oracle Governance, Risk and Compliance Intelligence

Product Overview

Oracle Governance, Risk and Compliance Intelligence (also referred to as GRCI, GRI, or GRC Intelligence), Release 3.0.2, is an intelligence reporting application that extracts data from Oracle Governance, Risk and Compliance Controls (also referred to as GRCC), Release 8.6.0.

The Oracle Governance, Risk and Compliance Intelligence solution is designed to enhance your visibility into the organization's compliance readiness and responsiveness by providing out-of-the-box management reports relating to certification, controls, issues, risks, and testing diagnostics. By using Oracle Governance, Risk and Compliance Intelligence, you can drill from high-level to detailed information to effectively plan, model, report, and analyze GRCI activities. You can identify potential issues early and take informed and timely corrective actions.

About This Guide

This document explains how to install the Oracle Governance, Risk and Compliance Intelligence application. The information contained in this document is subject to change as the product technology evolves and as hardware, operating systems, and third-party software are created and modified. This document is intended for information technology personnel and authorized users responsible for installing and configuring the Oracle Governance, Risk and Compliance Intelligence, Release 3.0.2 application.

About Languages

The Oracle Governance, Risk and Compliance Intelligence, Release 3.0.2, is available in English for Oracle Governance, Risk and Compliance Controls, Release 8.6.0.

This product supports all localizations for the following eleven tier-1 languages:

- Chinese Traditional
- Chinese Standard
- Spanish
- French
- Japanese
- Portuguese (Brazilian)
- Korean
- German
- Italian
- Danish
- Dutch

Prerequisites

Before you use Oracle Governance, Risk and Compliance Intelligence, Release 3.0.2, you must:

- Install Oracle Database 11gR2

  Note: If Oracle Database 11gR2 has previously been installed, it is not necessary to reinstall.

- Oracle Data Integrator 11.1.1.3.0
- Install Oracle Business Intelligence Enterprise Edition 11.1.1.3.0
- Install the following application:
  - Oracle Governance, Risk and Compliance Controls 8.6.0
- GRCC Interface tables (tables with name starting as GRCC_DA_...) should be deployed in the same schema as the tables for data warehouse ('GRI' Schema).

Recommendation

It is recommended that the GRCC database installation and the GRCI data warehouse database that has 'GRI' schema be in the same network.

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Installing Oracle Governance, Risk and Compliance Intelligence 3.0.2

Overview

GRCI sources and extracts data from GRCC, and makes it available to users by storing it in staging tables and transforming it into a star schema. Users can then access the information using the out-of-the-box dashboards and reports. They can also, build their own dashboards and reports using OBI EE, if required.

GRCI Sourced from GRCC

- A tab called "Analytics Integration" is available on the "Application Configuration" screen. This captures the setup information related to the integration.

- **Analytics Integration Schemas**

  The analytics integration component of GRCC application uses two schemas to create necessary data for analysis by GRCI application. One schema (referred to as ag_access) stores GRCC specific data in tables prefixed with LAA_ and TMP_ and another schema (also referred to as gri or GRI) contains the staging tables used by GRCI ETL process. This gri schema contains all database objects used by the GRCI application.

- **Staging Tables Load**

  The gri schema contains the staging tables (prefixed with GRCC_DA), which act as an interface between GRCC and GRCI applications. These tables are populated when the user executes the Run process in GRCC application.

  > **Note:** Check the GRCC documentation for details on how to configure the application to connect to GRCI staging schema and load data into these staging tables.

The staging (GRCC_DA_) tables are loaded during every execution of a Run and data is updated in the staging tables in an update-else-insert fashion. Here are two examples:

1. If the entitlement description or entitlement status changes in GRCC, the GRCC data services component will pick up the changes during the next Run, and update the staging tables GRCC_DA_ENTITLEMENT and GRCC_DA_ENTITLEMENT_TL with the new values.

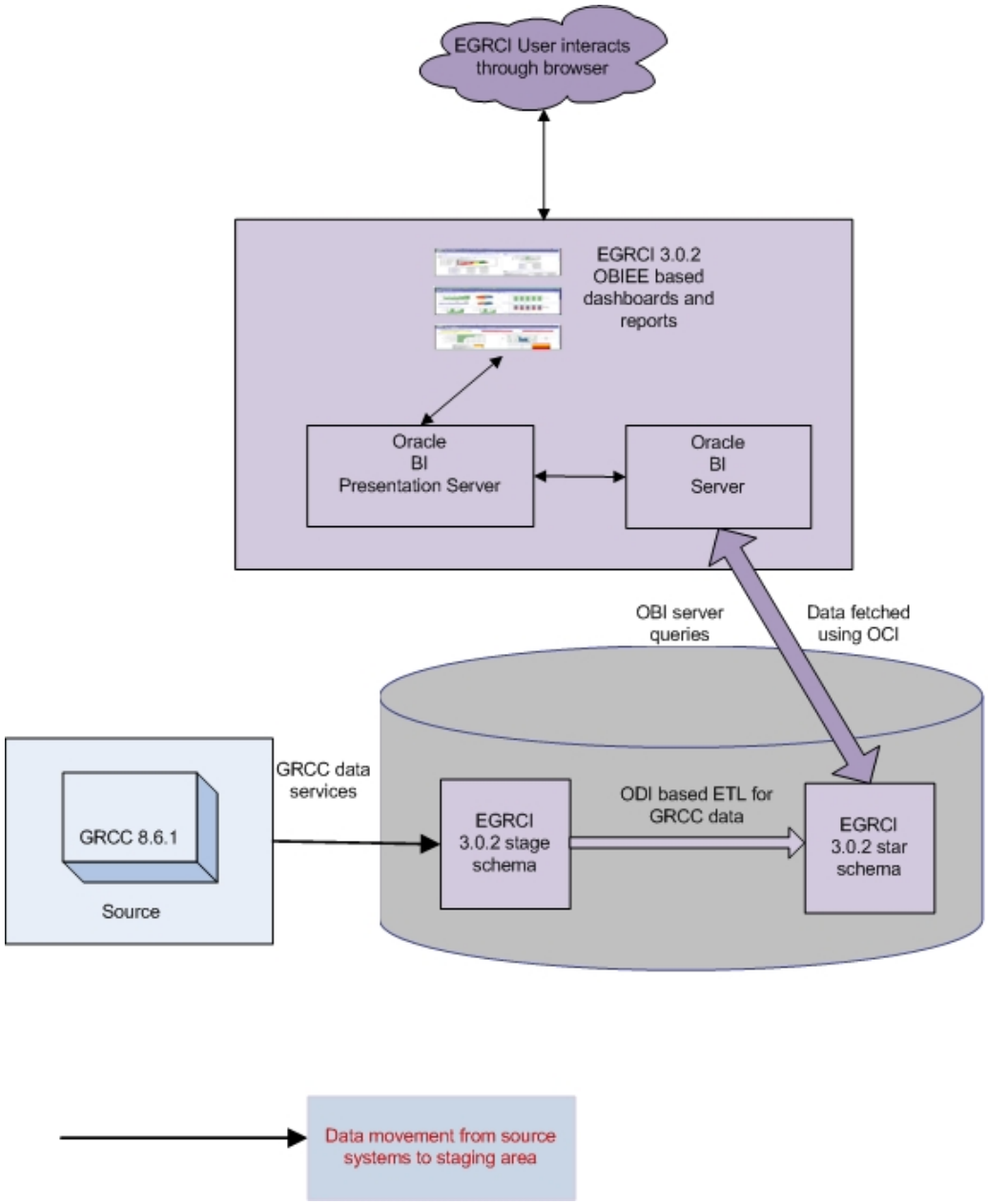
2. If the status of an Incident changes from Assigned to Resolved in GRCC, the GRCC data services component will pick up the changes during the next Run and update the staging table GRCC_DA_ISSUE.

- **GRCI Star Schema Tables Load**

  Data in the GRCI staging schema is refreshed during every execution of a Run in GRCC. So as a best practice it is recommended that GRCI administrator execute the ODI based ETL packages immediately after every successful execution of a Run (for ex: Run-1) in GRCC. This would refresh the content of GRCI star schema tables and users can visualize the latest values in OBIEE based dashboards and reports.

  In the GRCI staging area, information from the latest run overrides the information of the previous run.

  If the ETL packages are not executed after each run, the information for the run may be overwritten in GRCI staging tables. Such overwritten information will not get propagated to GRCI star schema tables.



This chapter covers the installation procedures for GRCI 3.0.2 when the source application is GRCC 8.6.0.

The following files are available:

- GRI_302_Common_Scripts.zip
- GRI_302_GRCC_Scripts.zip
- GRI_302_ODI.zip

- GRI_302_OBIEE.zip

Installation involves:

1. Executing Scripts: Creating the Data Model and populating the configuration data.
2. Installing ODI.
3. Installing OBIEE Reports.

Executing Scripts

Overview

This section describes how to execute scripts against the database using the batch file executing CallBatch, which in turn calls auto_load_scripts.bat or auto_load_scripts.sh.

The file GRI_302_Common_Scripts.zip contains the following files and folders:

1. ETL
2. Model
3. Seed_Translation_Data
4. auto_load_scripts.bat
5. auto_load_scripts.sh
6. ClassBatch.class
7. ConsoleEraser.class

The batch/shell file automates the entire script loading process to just one step. The batch/shell file accepts the location of the script file directory as an argument.

Preparation Steps for Executing Script

Perform these steps before you run the batch/shell file. Once setup correctly this can be used to run against multiple sources with minimal changes to the file.

1. Create a new schema/user for reporting schema.

   If you are staging a schema (where grcc_da_xxxx tables are populated) from GRCC is already available, use that schema; in that case, do not create the new schema, skip the following step a.

   a) create user gri identified by gri;

Note: Assign the following roles and right to the newly created user.

b) grant resource, connect to gri;

c) grant create view to gri;

d) grant unlimited tablespace to gri;

e) grant create table to gri;

f) grant Create procedure to gri.

2. Install SQLPlus on the machine where the batch/shell file will be run.

3. Download and Install xdk developer kit from the following location:

   http://www.oracle.com/technology/tech/xml/xdk/software/prod/xdk_java.html

   Download the Complete File xdk_java_9_2_0_6_0.tar.gz from the following location:

   http://www.oracle.com/technology/tech/xml/xdk/software/production10g/utilsoft.html

   Directions

   Install GNU gzip.

   Download the Oracle XDK for Java in .tar format.

   Extract the distribution package into a directory. (Ex: #gzip -dc xdk_java.tar | tar xvf -)

   The result should be the following files and directories:

   - /bin - xdk executables and utilities
   - /lib - directory for libraries
   - /xdk - top xdk directory
   - /xdk/demo - directory for demo files
   - /xdk/doc - directory for documentation
   - /xdk/admin - direcory for dband config files
   - /xdk/*html. - doc navigation files
   - /xdk/license.html - copy of license agreement

4. Provide the connection details in tnsnames.ora if SQL client is installed, or provide

TNS entry as described in example below.

Eg: DB_TNS=<host>:<port>/<service name>

5. Provide values for the following Environment variables in the batch/shell file. To edit the batch file open it with any text editor and update the values as follows.

Environmental Variable	Use	Default Value	.bat Example
USER_OPT	This variable is used to as an option for running the entire script (scripts and DLF) or only the DLF load.	1	**.bat :**SET USER_OPT=1 **.sh :**export USER_OPT=1;
DB_TNS	Used to provide the oracle TNS to connect to while running scripts using SQLPlus.	GRI	**.bat :**SET DB_TNS=DEV_230 **.sh :**export DB_TNS=DEV_230;
DB_USER	Used to provide the Oracle database user password.	GRI	**.bat :**SET DB_USER=gri **.sh :**export DB_USER=gri;
DB_HOST	This variable would be used by transx to load dlf files.	NA	**.bat :**SET DB_HOST=10.10.176 .132 **.sh :**export DB_HOST=10.10.176 .132;
DB_PORT	This variable is used to set the database port.	1521	**.bat :**SET DB_PORT=1521 **.sh :**export DB_PORT=1521;
DB_SID	This variable is used to set the database sid.	orcl	**.bat :**SET DB_SID=grci **.sh :**export DB_SID=grci;

JAVA_HOME	To set JAVA_HOME. Comment this line if already set.	NA	**.bat :**SET JAVA_HOME=C:\Program Files\Java\jdk1.5.0_16 **.sh :**export JAVA_HOME=/scratch/user/jdk1.6.0_14;
JDBCVER	To set the JDBC version of the JDBC files being used. (values 11 or 12)	12	**.bat :**SET JDBCVER=12 **.sh :**export JDBCVER=12;
INSTALL_ROOT	To set the xdk install root. "xdk" has the transx files required for dlf upload.	C:\xdk	**.bat :**SET INSTALL_ROOT=C:\xdk **.sh :**export INSTALL_ROOT=/scratch/user/Desktop/transx;
CLASSPATHJ	The location of the JDBC driver files (classes12.zip and nls_charset12.jar) and xdb_g.jar needs to be supplied here.	Default value specified in batch file.	
ORACLE_HOME	To set ORACLE_HOME. Comment if already set.	NA	**.bat :**SET ORACLE_HOME=C:\Apps\db\oracle102 **.sh :**export ORACLE_HOME=/scratch/user/product/11.1.0/db_1;

6. The database jdbc driver files should be available for transx to operate. The required files are xdb_g.jar (available as part of Oracle database server install), classes%JDBCVER%.zip and nls_charset%JDBCVER%.jar (JDBCVER being the JDBC version being used).

   The files nls_charset12.jar and classes12.zip are not part of Oracle 11g install.

Download classes12.zip and nls_charset12.jar from the following location on OTN:

http://www.oracle.com/technology/software/tech/java/sqlj_jdbc/htdocs/jdbc9201.html

Oracle9i 9.2.0.5 JDBC Drivers -> nls_charset12.jar

Oracle9i 9.2.0.8 JDBC Drivers -> classes12.zip

Update the CLASSPATHJ environment variable with the appropriate path for these two files.

The file xdb_g.jar, needs to be located on the machine and the CLASSPATHJ variable needs to be updated accordingly.

IMPORTANT:PATH and CLASSPATH do not need any changes if the other environment variables (INSTALL_ROOT, CLASSPATHJ, ORACLE_HOME and JAVA_HOME) have been set appropriately.

7. Once the required changes have been made in the batch/shell file, save and close the batch/shell file.

Execution Steps

Executing the scripts using CallBatch.

The steps to be followed to complete the execution are detailed below:

1. Unzip the file: GRI_302_GRCC_Scripts.zip

2. Open command prompt in Windows and shell in Linux and navigate to the location of the folder - GRI_302_Common_Scripts.

3. Set the classpath: for Windows : set classpath=.;%classpath%; for Linux : export CLASSPATH=.:$CLASSPATH;

4. Assign permissions in case of Linux (chmod 777 auto_load_scripts.sh).

5. Execute the command: java CallBatch;

   - a) Select Windows or Linux

   - b) After selecting Windows or Linux, you must provide a path for 'GRI_302_Common_Scripts'. Provide the path where the folder GRI_302_Common_Scripts are present. (.. for parent directory since we are already in the folder.)

   - c) Provide the path where the folder GRI_302_GRCC_Scripts are present. (.. for parent directory since we are already in the folder.)

- d) Enter the database password of the target schema

Important Information

The program execution results in the execution of auto_load_scripts.bat or auto_load_scripts.sh.

The file "Execution.log" created in the GRI_302_Common_Scripts folder captures the executing CallBatch message for review purposes.

Installing ODI Code

Setting up ODI Code and Importing ODI Code

The GRI_302_ODI_.zip contains the following files:

1. Scenarios
2. auto_load_odi.bat
3. auto_load_odi.sh
4. Master_Repository.zip

Important: Please do not unzip Master_Repository.zip as ODI utilizes this file in zip format.

Important: Set the value for Oracle database parameters PROCESSES, SESSIONS and TRANSACTIONS as shown below.

Run the following commands as DBA user:

- alter system set PROCESSES=600 scope=SPFILE;
- alter system set TRANSACTIONS=700 scope=SPFILE;
- alter system set SESSIONS=600 scope=SPFILE; Restart the database instance for the changes to take effect.

The steps outlined below can be classified into 3 categories.

1. **Required for Master Repository Import: Steps 1 through 9**

   These steps would typically be performed only once during the life cycle of GRC product. If the master repository has already been created and the connections have been defined, the install starts from step 10 and the steps 1 to 9 can be ignored.

2. **Setup of odiparams.bat: Step 10**

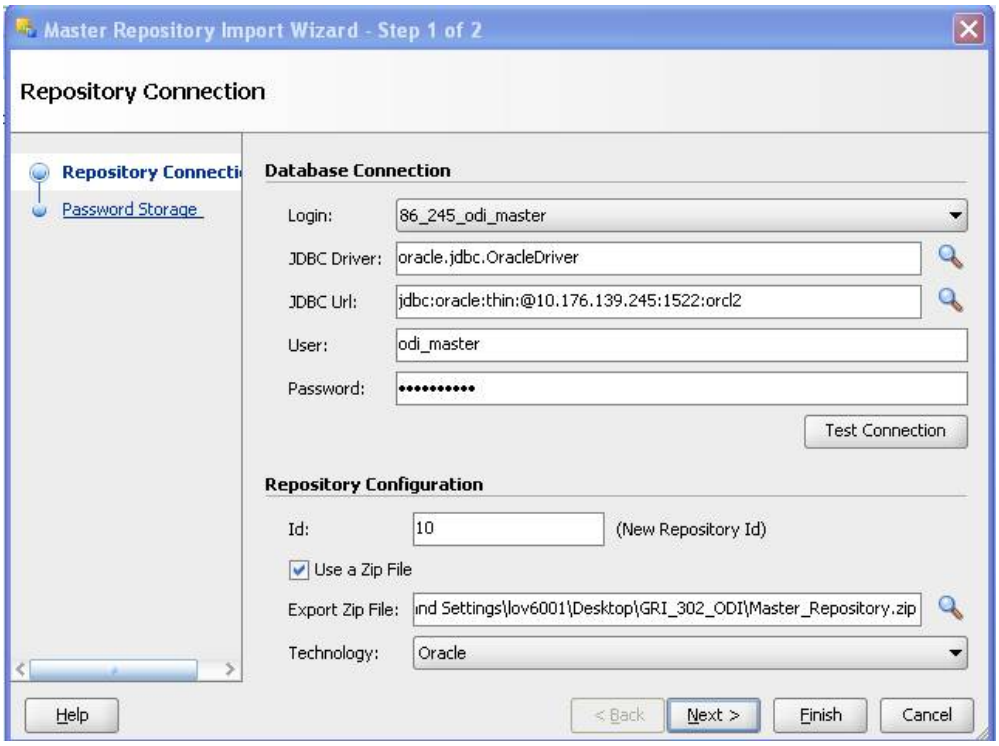
   This is a one time activity which involves setting the batch file and providing proper values for the environment variables used.

3. **Import Objects: Steps 11 through 13**

   These steps are required to import the various objects that would be part of the ODI code. Appropriate values for the variables needs to be specified while running the **auto_load_odi.bat / auto_load_odi.sh**.

Setting up ODI Code and Importing ODI Code: Steps 1 through 13

1. Install ODI.
2. Create a schema called gri_master.
3. From ODI 11g studio, File > New > Master Repository Import Wizard.
4. Provide appropriate values to connect to the database where the master repository needs to be imported as shown below.

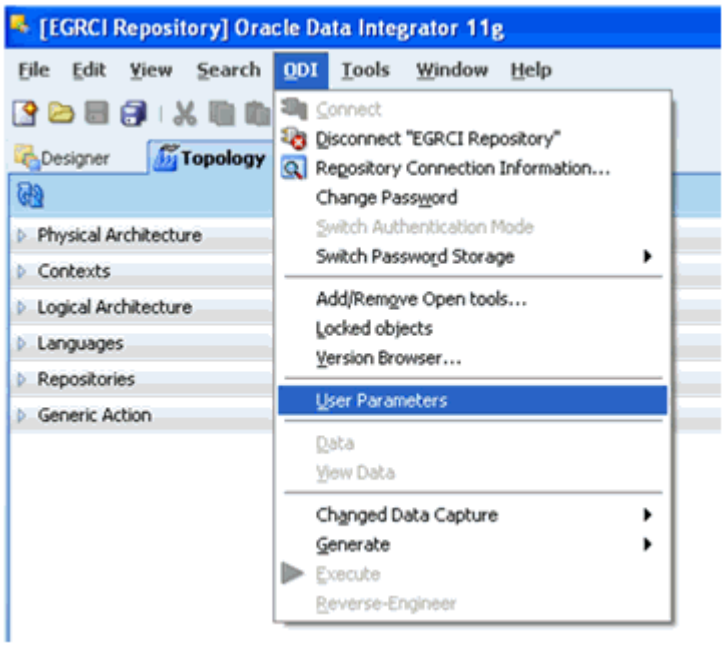


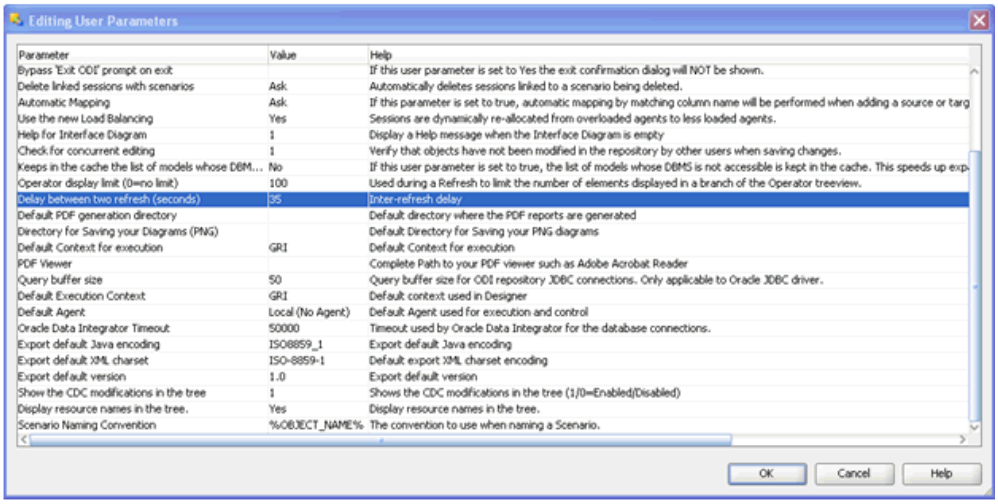
Select the appropriate Technology.

5. Provide a value of >10 for the ID and select "Use a Zip File" and provide the correct path of the Master_Repository.zip file, supplied as part of GRI_302_ODI.zip.

6. After the master repository import wizard finishes successfully, open ODI Topology Manager and "Update User Parameters".

Note: This is an important and mandatory step.

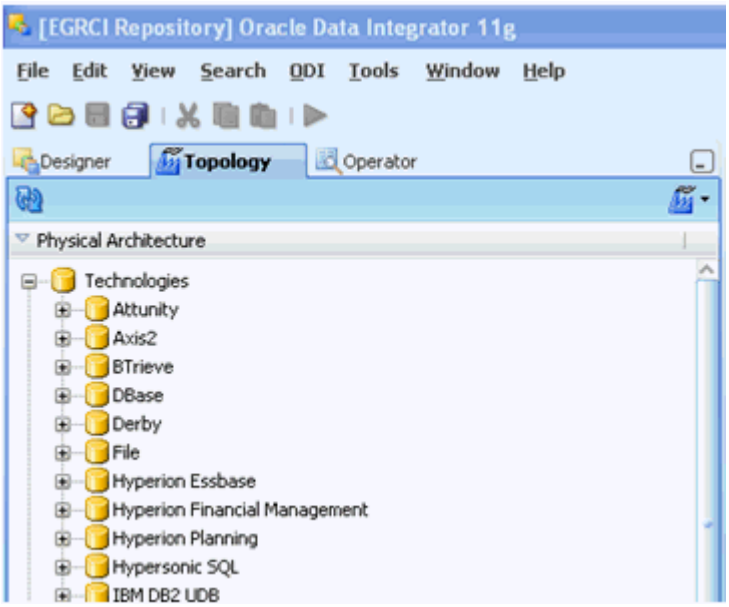




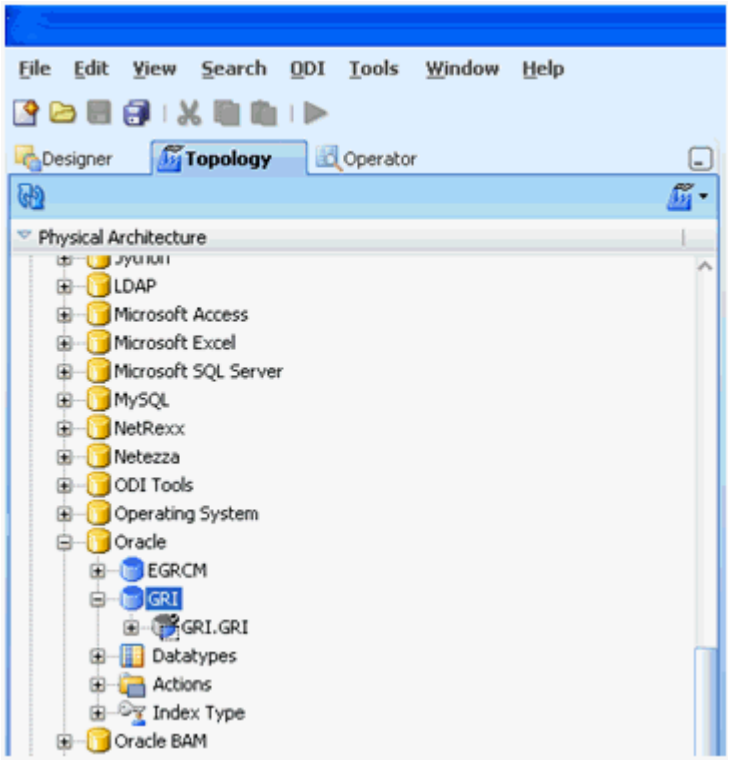
7. Provide JDBC Connection Details for database GRI 3.0.2.

   Important: Make sure that the data server names are not changed.

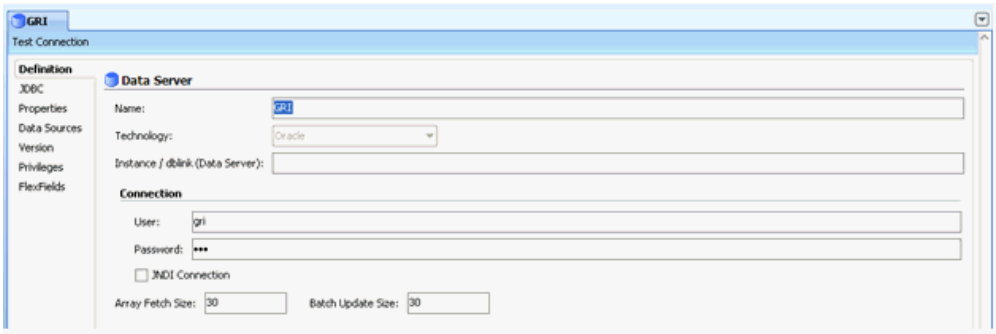
   Select the physical schemas that have to be mapped to these data servers.



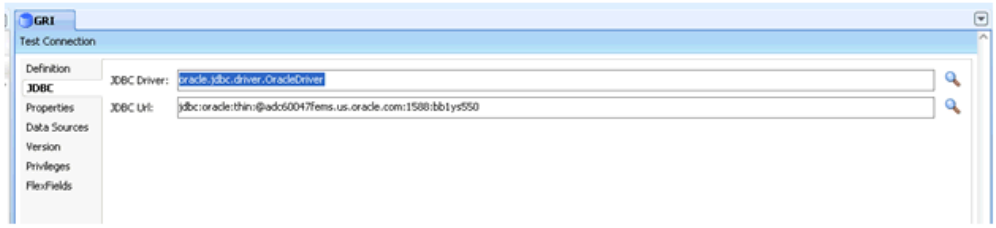
Edit the Oracle technology and provide database connection details for GRI data servers.



Double Click on GRI. Provide Connection > User and Password Details.

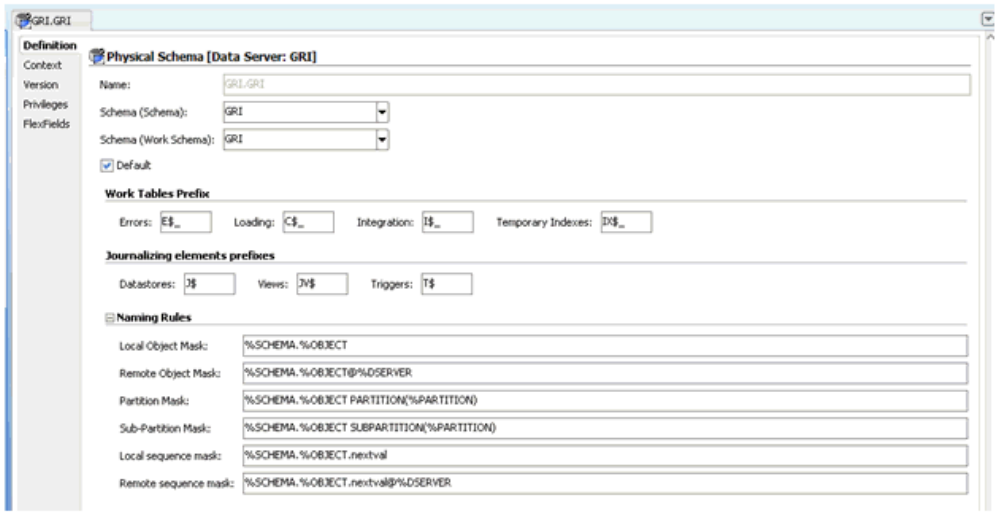


Change to JDBC Tab and modify JDBC URL with Hostname, Port# and SID.



Test Connection and Close.

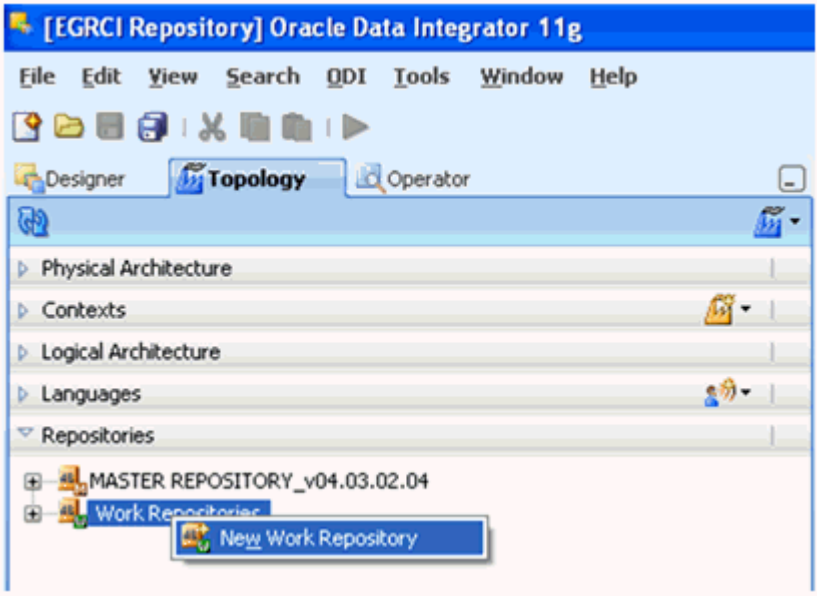
Double Click on Physical Schema "GRI.GRI" and make sure that the proper physical schemas have been selected, i.e. Schema and Work Schema. If it is not GRI change it to the correct schema.

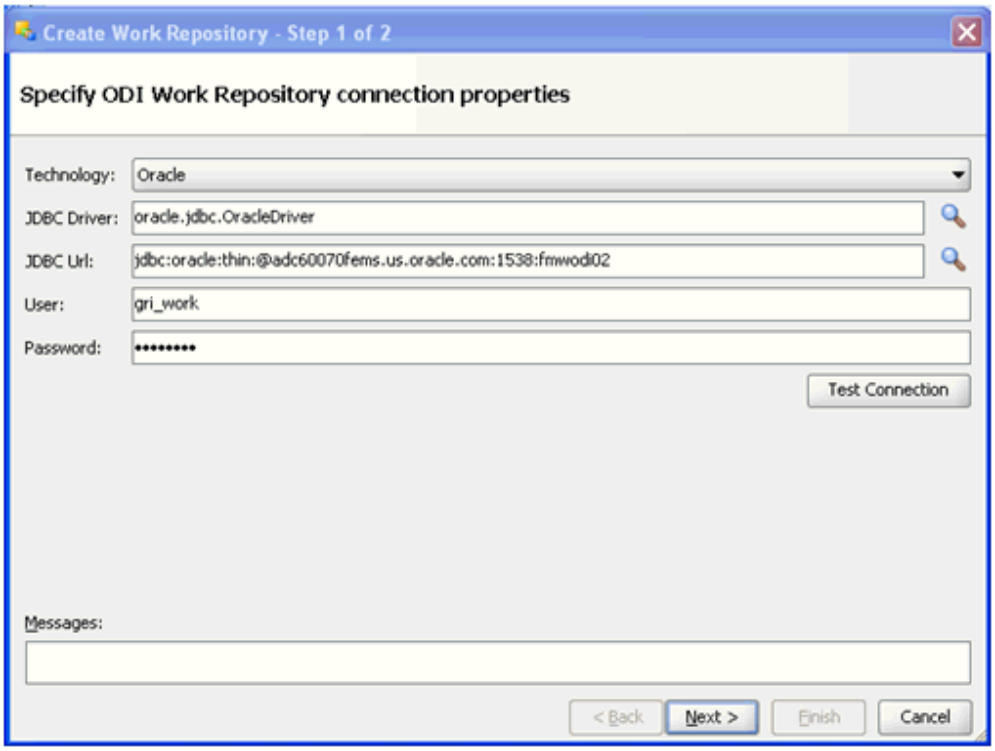


8. Create a schema called gri_work.

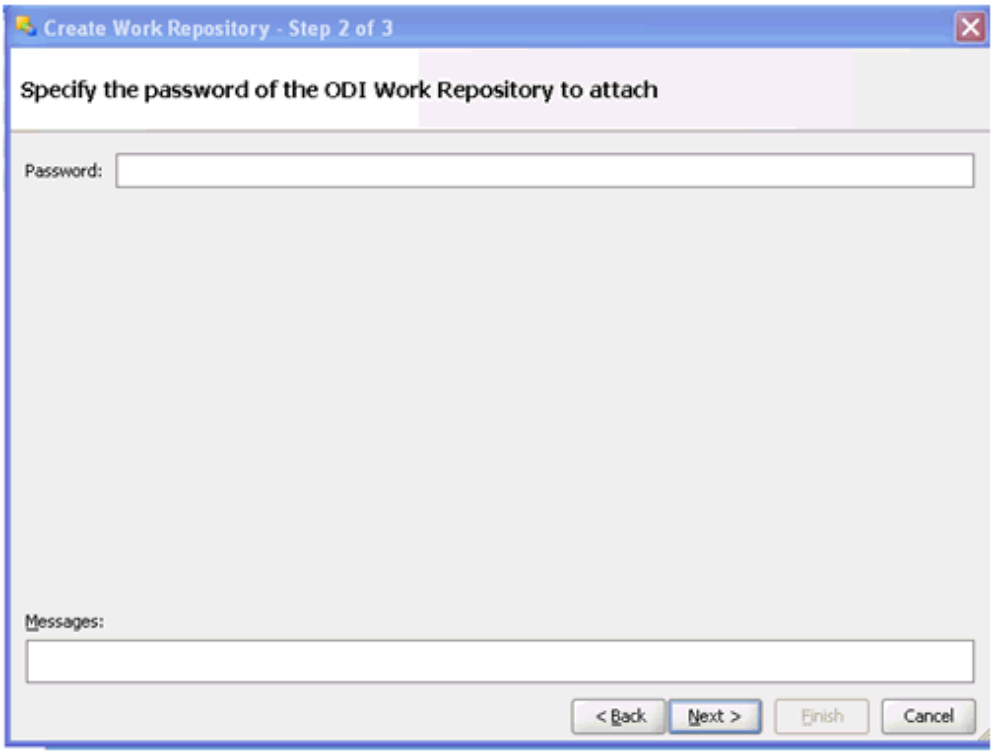
9. Open Topology manager and insert a work repository (Provide the database user created above in Step 8 in the JDBC connection details.).

Create the Work Repository with ID value greater than 10 (Not same as Master Repository ID) as shown in image below.

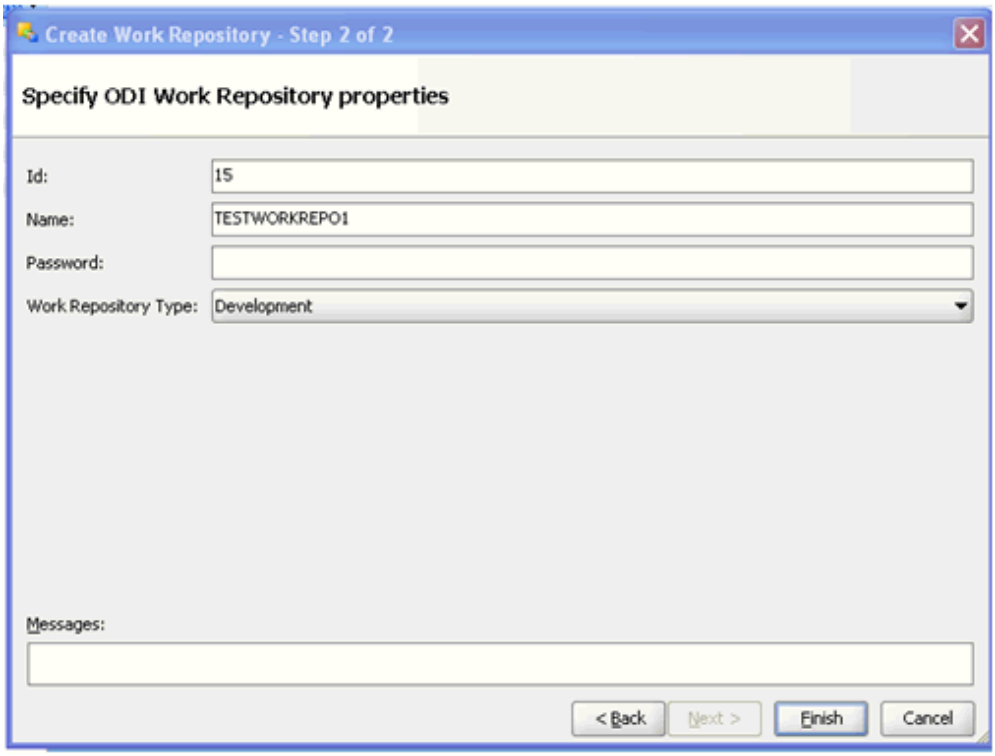




Test Connection and Click "Next".



You can leave it as blank or provide password if required.



Provide ID and Name.

Click "Finish".

10. Set up the odiparams.bat/odiparams.sh file.

    Depending on the OS being used to setup ODI selection of odiparams.sh or odiparams.bat needs to be made.

    odiparams.bat/odiparams.sh is available in ODI_HOME\bin (Windows) or ODI_HOME/bin (Linux).

    Locate the file and edit it using any text editor to update values for the following parameters:

Environment Value	Use	Example
ODI_SECU_DRIVER	This variable provides information about the driver which will be used for database connection. We would be using the JDBC drivers to connect to Oracle in most cases.	**.bat :** ODI_SECU_DRIVER=oracle.jdbc.driver.OracleDriver **.sh :** ODI_SECU_DRIVER=oracle.jdbc.driver.OracleDriver

ODI_SECU_URL	This is the driver URL to be used to connect to the database.	**.bat :set** ODI_SECU_URL=jdbc:oracle:thin:@DB:1521:orcl **.sh :** ODI_SECU_DRIVER=jdbc:oracl e:thin:@DB:1521:orcl
ODI_SECU_USER	The username of the master repository schema.	**.bat :set** ODI_SECU_USER=gri_mst **.sh :** ODI_SECU_USER=gri_mst
ODI_SECU_ENCODED_PASS	The encoded password for master repository database user. Steps to encode password described above. The password to be placed here needs to be encoded using ODI's encoding agent. 1. Encoding program path is <ODI_HOME> \agent\ bin (Windows) or ODI_HOME> /agent / bin (Linux) 2. Windows command: is "encode <PASSWORD>" 3. Linux command: is "./encode <PASSWORD>"	**.bat :** ODI_SECU_ENCODED_PASS=c6yHoUsvzzG6yG0wSeyqqqQb **.sh :** ODI_SECU_ENCODED_PASS=c6yHoUsvzzG6yG0wSeyqqqQb
ODI_SECU_WORK_REP	Name of the work repository.	**.bat :** ODI_SECU_WORK_REP=ODI_WRK_1 **.sh :** ODI_SECU_WORK_REP=ODI_WRK_1

ODI_USER	The ODI username.	**.bat :** ODI_USER=SUPERVISOR **.sh :** ODI_USER=SUPERVISOR
ODI_ENCODED_PASS	The encoded password for ODI user. This password is already set for SUPERVISOR password SUNOPSIS and requires no change if no additional ODI users have been created. The password to be placed here needs to be encoded using ODI's encoding agent. Navigate to <ODI_HOME> \agent\ bin (Windows) or <ODI_HOME> /agent/ bin (Linux) at command prompt (Windows) or terminal (Linux) and execute the following command: "encode <PASSWORD>" (Windows) or "./encode <PASSWORD>", here <PASSWORD> represents the actual password.	**.bat :set** ODI_ENCODED_PASS=LELKIELGLJMDLKMGHEHJDBGBGFDGGH **.sh :** ODI_ENCODED_PASS=LELKIELGLJMDLKMGHEHJDBGBGFDGGH

11. Loading the ODI environment.

    ODI_JAVA_HOMEneeds to be set for the shell script **auto_load_odi.sh**, this should point to the java home location.

    INSTALL_FILEis the location of the folder GRI_302_ODI for Windows or GRI_302_ODI for Linux

    ODI_HOMEis the location of ODI home where the file is to be executed.

12. **a) Using auto_load_odi.bat**

    Make sure that odiparams.bat has values set for all environment variables listed above in Step 10. Open a new command prompt and navigate to the folder having the file auto_load_odi.bat, execute the following command.

    C:\GRI_302_BIP_ODI> auto_load_odi.bat

) **b) Using auto_load_odi.sh** Make sure that **odiparams.sh** has values set for all environment variables listed above in Step 10. Open a new command prompt and

navigate to the folder having the file auto_load_odi.sh, execute the following command. Assign permissions to auto_load_odi.sh file(chmod 755 auto_load_odi.sh).

./auto_load_odi.sh

The successful completion of the process would end in the ODI objects (interfaces, packages, etc.) being imported correctly. To log the execution messages for review later.

./auto_load_odi.sh>/odi.log

13. Open "Operator" connecting to the master and work repository created above.

    "**GRI_MASTER_PKG Version 001**"

    Go to Scenarios tab, locate the files "**GRI_MASTER_PKG Version 001**"

    The execution can be monitored for the Operators Execution tab.

    IMPORTANTOn Triggering GRI_MASTER_PKG Version 001, a prompt for input values of pkg variables appears. The value for USER_ID can be supplied here, this USER ID will be populated into the WHO columns (CREATED_BY, LAST_UPDATED_BY and LAST_UPDATE_LOGIN) that are part of each GRI table. This is an informational field, providing value for USER_ID is optional.

Installing OBIEE Reports

The following files are available in the GRI_302_OBIEE.zip download:

> **Note:** This is required for OBIEE reports/dashboards.

- GRCDiagnostic.zip
- GRCDWebcat.zip
- productmessages.xml
- common.css
- login.css

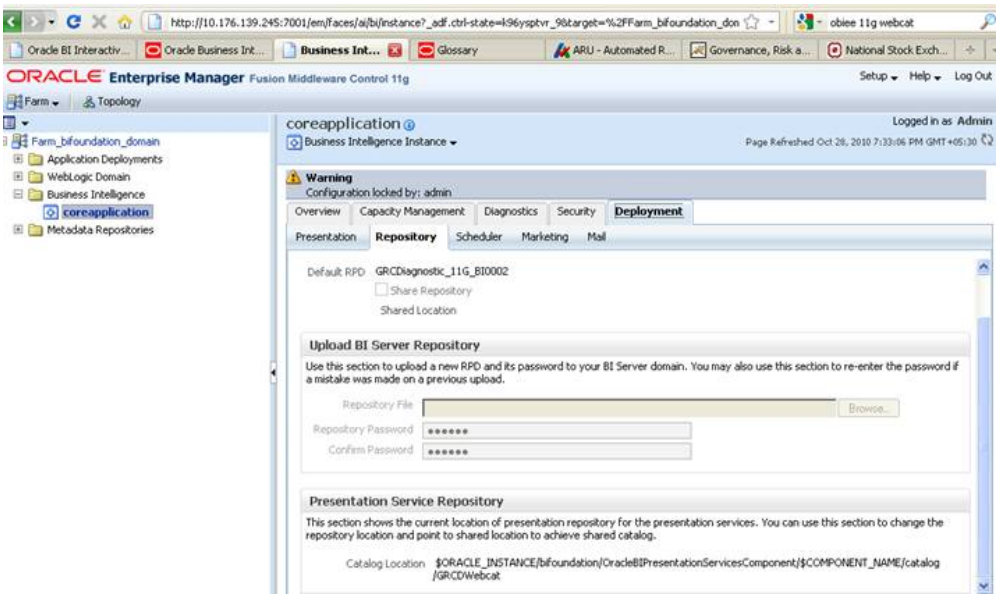
These files contain the repository, web-catalog and the files to be used for branding the product. The files will be used in the steps below to install the repository and reports-dashboards respectively.

1. After you successfully install OBIEE, extract the delivered zip file GRCDiagnostic.zip. Place the GRCDiagnostic.rpd file in the F:\Home\instances\instance1\bifoundation\OracleBIServerComponent\coreappl

ication_obis1\repository folder.

2. Place the GRCDWebcat.zip file in the F:\Home\instances\instance1\bifoundation\OracleBIServerComponent\coreapplication_obis1\catalog folder and unzip the file. The GRCDWebcat folder now appears in the Catalog folder.

3. After uploading GRCDiagnostic.rpd and providing the path for GRCDWebcat, you click on (B) Apply followed by the (B) Active Changes. Go to OBIEE 11G WEBLOGIC admin console, Farm_bifoundation_domain --> Business Intelligence --> coreapplication --> Deployment tab --> Repository tab --> Click on "lock and edit", use the Upload BI Server Repository to upload the GRCDiagnostic.rpd; Use the Presentation Service Repository to point the location of GRCDWebcat folder.



4. Create the TNS entry to point to your GRCI schema in Oracle home directory; E.g: F:\Home\Oracle_BI1

5. Open the GRCDiagnostic.rpd in the Oracle BI Administration Tool and go to the Variable Manager under the Manage > Variables menu.

6. Update the GRI_DSN variable with the name of the TNS entry name.

7. Update the GRI_USER_ID with the database user ID.

8. Open the properties window for 'GRC Diagnostics > GRCI Connection Pool' in the Physical layer and provide the password for GRCI schema.

9. Save the changes in the Oracle BI Administration Tool.

10. Place the files delivered as part of GRI_302_OBIEE.zip as mentioned below:

    - File "**productmessages.xml**" Place this file at <MiddlewareHome>\Oracle_BI1\bifoundation\web\msgdb\l_en\messages\productmessages.xml.

    - File "**common.css**" Place this file at: <MiddlewareHome>\user_projects\domains\bifoundation_domain\servers\<BI_SERVER>\tmp_WL_user\analytics_11.1.1\7dezjl\war\res\sk_blafp\b_mozilla_4\rtl\common.css**and at** <MiddlewareHome>\user_projects\domains\bifoundation_domain\servers\<BI_SERVER>\tmp_WL_user\analytics_11.1.1\7dezjl\war\res\sk_blafp\b_mozilla_4\common.css.

    - File "**login.css**" Place this file at: <MiddlewareHome>\user_projects\domains\bifoundation_domain\servers\<BI_SERVER>\tmp_WL_user\analytics_11.1.1\7dezjl\war\res\sk_blafp\login\login.css**and at** <MiddlewareHome>\user_projects\domains\bifoundation_domain\servers\<BI_SERVER>\tmp_WL_user\analytics_11.1.1\7dezjl\war\res\sk_blafp\login\rtl\login.css.

11. Restart the Oracle BI Services.

12. Log into the OBIEE using this URL: http://<localhost>:<TCPport>/analytics, where <localhost> is the name of the machine or the IP address where OBIEE is installed, and <TCPport> is the Web Site TCP Port number.

13. The OBIEE login page loads.

14. The installation is now complete.

A

ETL Execution

This appendix covers the following topics:

- Execution Sequence for GRCC
- ETL Execution for GRCC
- Execute a Scenario

Execution Sequence for GRCC

Order of Execution for the ETL:

The following packages are placed into a single package **GRI_MASTER_EGRC_PKG**.

1. GRI_DIMENSIONS_PKG
2. GRI_BRIDGE_TABLES_PKG
3. GRI_FACTS_PKG

The order for execution of the **GRI_DIMENSIONS_PKG** is as follows:

1. GRI_INSTANCE_PKG
2. GRI_GENERIC_DIM_PKG
3. GRCD_USER_MAIN_PKG
4. GRI_POLICY_PKG
5. GRI_ENTITLEMENT_PKG
6. GRI_ACCESS_POINT_PKG
7. GRI_APPS_USER_PKG

8. GRI_D_PATH_EXCLUSION_PKG
9. GRI_D_ROLE_PKG

> **Note:** Steps 4-8 may be run independent of each other, but the rest should be run in numeric order.

The following packages present in the **GRI_BRIDGE_TABLES_PKG**. They should be run after the loading of all the dimensions. The bridge tables can be run independent of each other.

1. GRI_D_ROLE_USER_BG_PKG
2. GRI_D_POLICY_GENERIC_DIM__BG_PKG
3. GRI_POLICY_DETAIL_BG_PKG
4. GRI_D_ENTLMNT_GENERIC_DIM_BG_PKG
5. GRI_D_ENTITLEMENT_AP_BG_PKG
6. GRI_D_USER_ACCESS_BG_PKG

The **GRI_FACTS_PKG** contains the following packages for loading the incidents and they should be loaded in the following order and only after the loading of the dimensions and bridge tables.

1. GRI_F_INCIDENT_ALL_PKG
2. GRI_F_INCIDENT_ACCESS_PKG
3. GRI_D_INCIDENT_TAG_BG_PKG
4. GRI_D_INCIDENT_PARTICIPANT_BG
5. GRI_F_CONDITION_ALL_PKG
6. GRI_F_TCG_INCIDENT_PKG
7. GRI_A_TCG_CNTRL_LABELS_PKG
8. GRI_D_CONTROL_PARTICIPANT_BG_PKG
9. LOAD_DYNAMIC_ATTR_NAMES

ETL Execution for GRCC

In the ODI Operator module, (N) Scenarios; the user can then locate the following master package scenario: GRI_MASTER_PKG Version 001.

The fact, dimension and bridge tables related scenarios are found using the same navigation as above.

There are three ETL Execution options for GRCC:

Option 1:

1. Execute GRI_MASTER_PKG Version 001 Scenario.
2. This action triggers all the scenarios required to load the entire star schema.

Option 2:

Important: Execute the scenarios in the following order.

1. GRI_DIMENSIONS_PKG Version 001 – this scenario will load all the dimension tables.
2. GRI_BRIDGE_TABLES_PKG Version 001 – this scenario will load all the bridge tables.
3. GRI_FACTS_PKG Version 001 – this scenario will load all the fact tables.

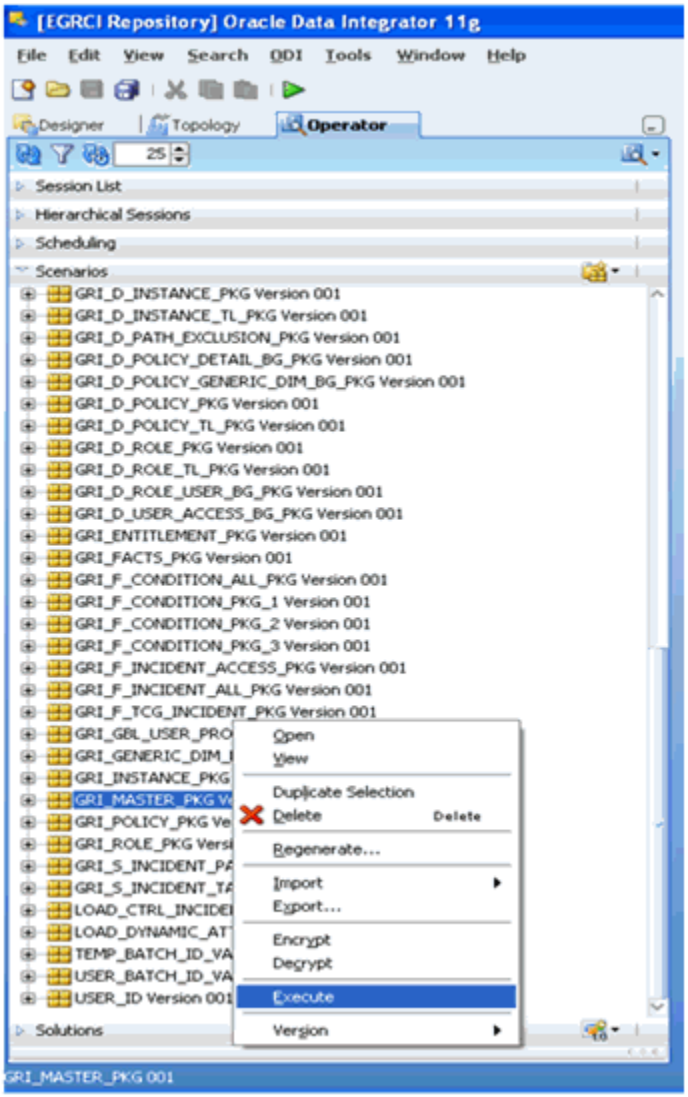
Option 3:

Run individual table level scenarios, in the same order as in **Option 2**.

Execute a Scenario

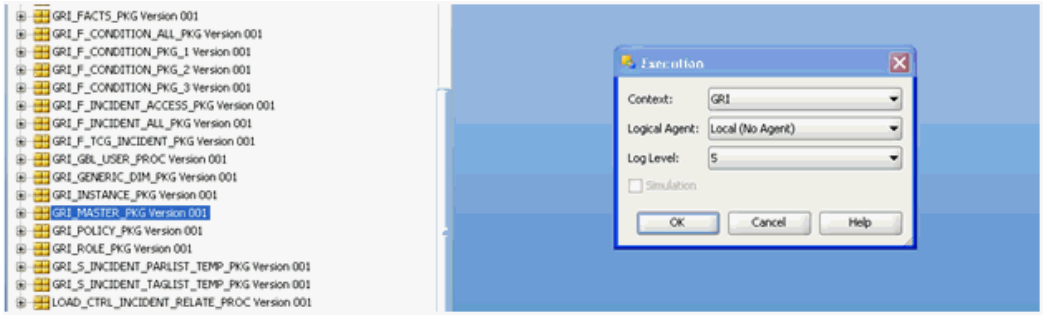
In order to execute a scenario, navigate to the ODI Designer and locate the required scenario to execute.

Right click on that scenario, and then click Execute as shown below:



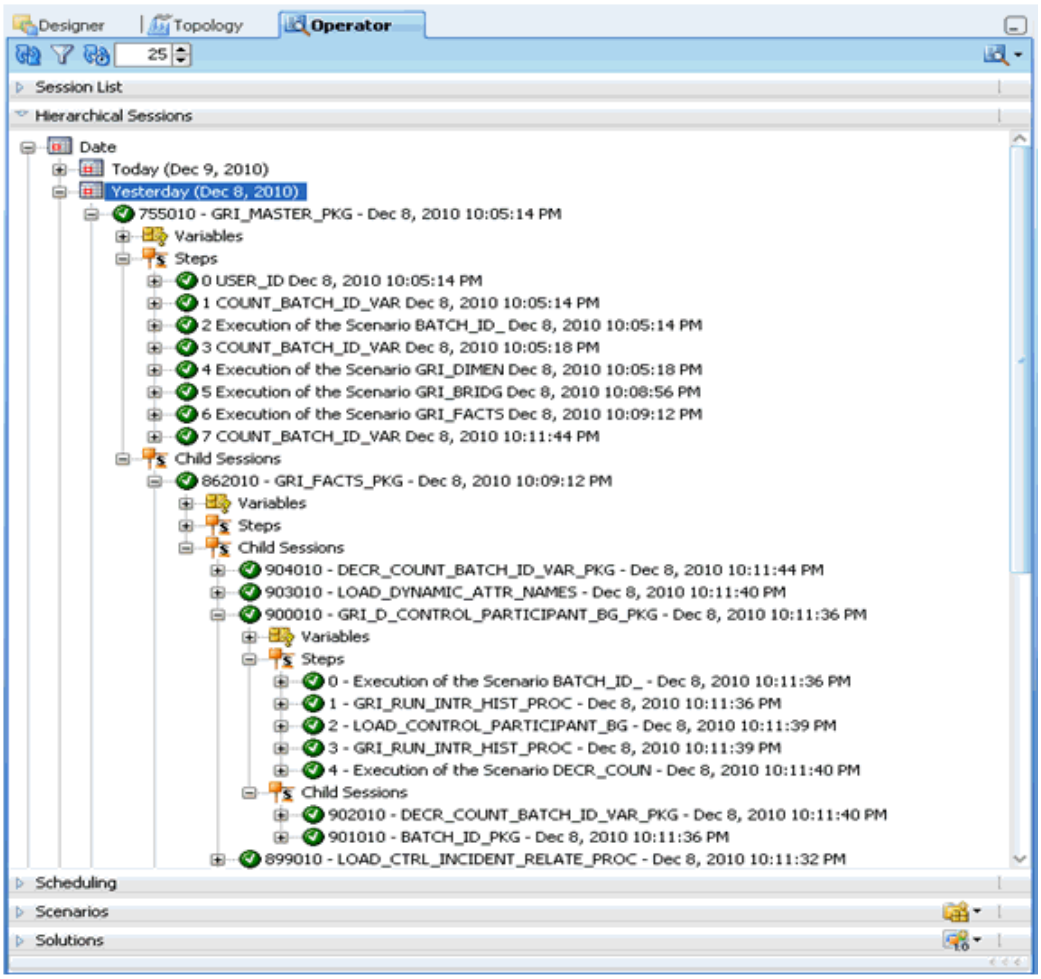
In the Execution window, select the context that was created as part of the ODI Code installation.

Click OK. This starts a session for the executed scenario.



The status of a session and its corresponding steps and tasks can be checked in, in the ODI Operator module.

In case of a higher-level package, such as one encapsulating multiple child packages, the status for each child package session can also be monitored.



Verify that the scenario has run successfully. The result of each task execution can be viewed in the Execution tab of Session Task window.

Verify the number of rows processed as part of each task in the session.

> **Note:** Please refer to the Oracle Data Integrator User's Guide for more detail on using the ODI Designer and ODI Operator modules.

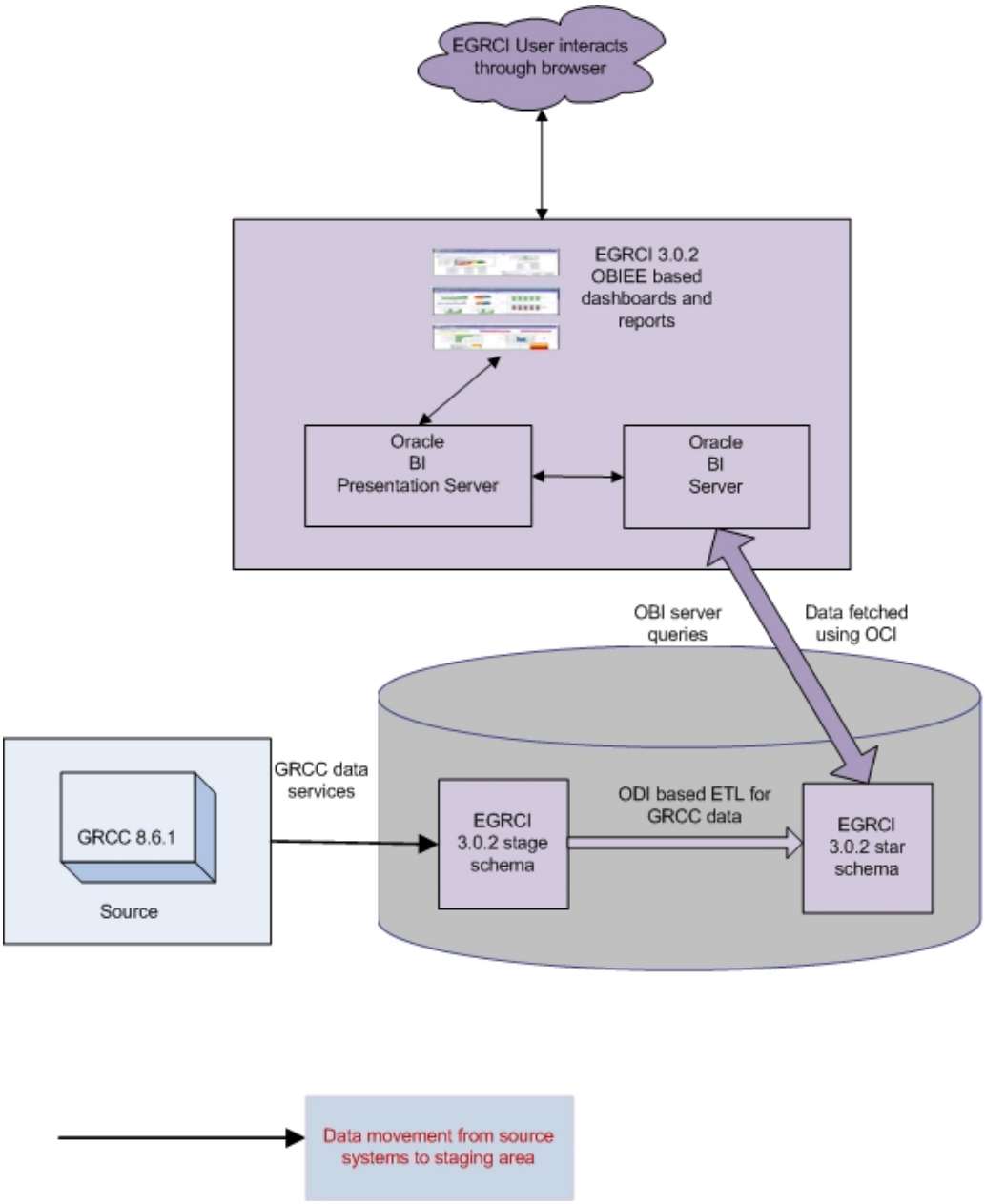
B

Data Flow

This appendix covers the following topics:

- Data Flow Diagram

Data Flow Diagram



C

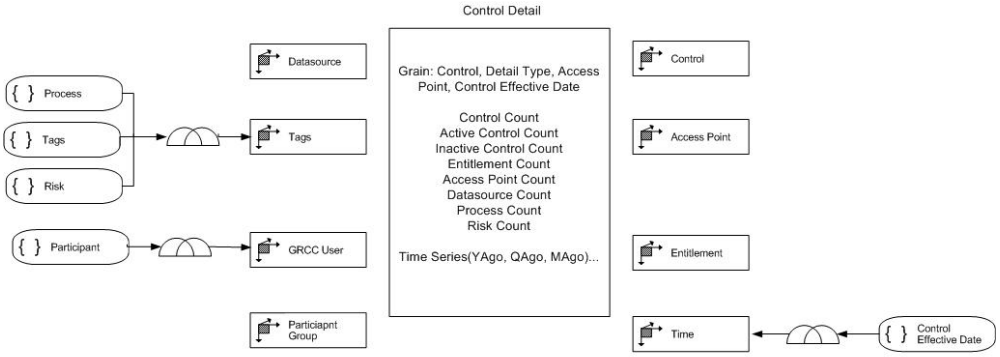
Logical and Physical Models

This appendix covers the following topics:

- GRCI 3.0.2 - GRCC 8.6.1 Logical Model
- GRCI 3.0.2 - GRCC 8.6.1 Physical Model

GRCI 3.0.2 - GRCC 8.6.1 Logical Model

- **Control Detail**

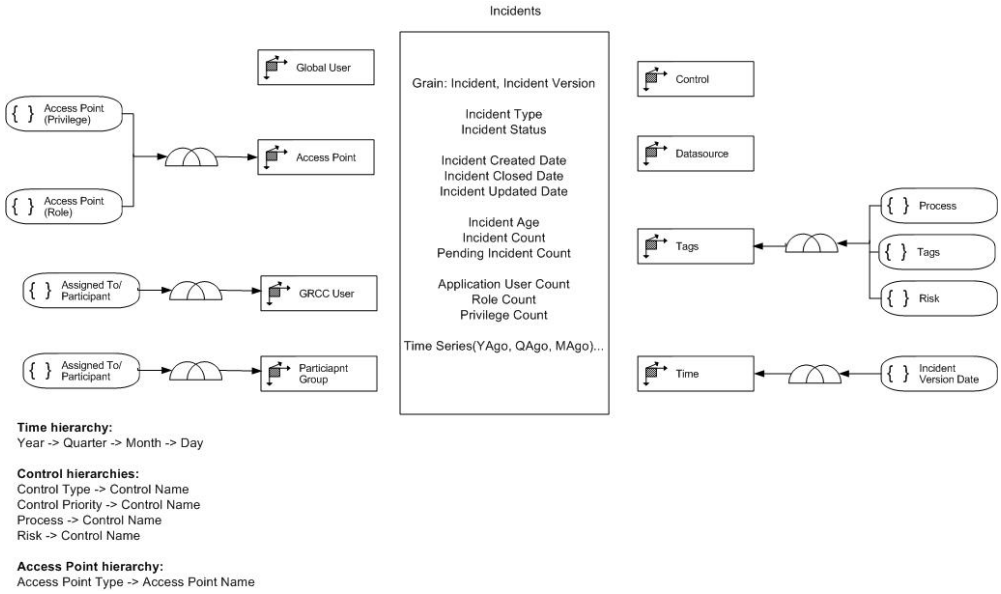


Time hierarchy:
Year -> Quarter -> Month -> Day

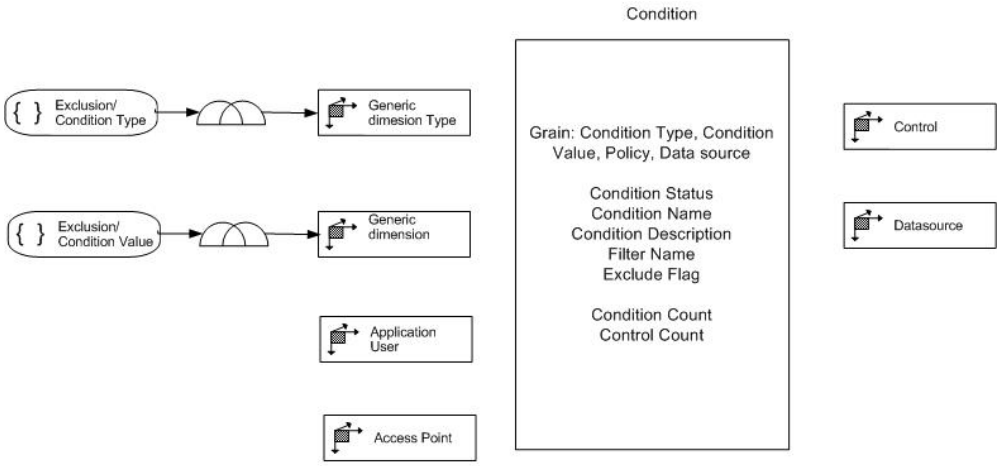
Control hierarchies:
Control Type -> Control Name
Control Priority -> Control Name
Process -> Control Name
Risk -> Control Name

Access Point hierarchy:
Access Point Type -> Access Point Name

- **Incidents**


Incidents
Global User
Access Point (Privilege)
Access Point
Access Point (Role)
Assigned To/ Participant
GRCC User
Assigned To/ Participant
Particiapnt Group
Grain: Incident, Incident Version
Incident Type
Incident Status
Incident Created Date
Incident Closed Date
Incident Updated Date
Incident Age
Incident Count
Pending Incident Count
Application User Count
Role Count
Privilege Count
Time Series(YAgo, QAgo, MAgo)...
Control
Datasource
Tags
Process
Tags
Risk
Time
Incident Version Date
Time hierarchy:
Year -> Quarter -> Month -> Day
Control hierarchies:
Control Type -> Control Name
Control Priority -> Control Name
Process -> Control Name
Risk -> Control Name
Access Point hierarchy:
Access Point Type -> Access Point Name

- **Conditions**

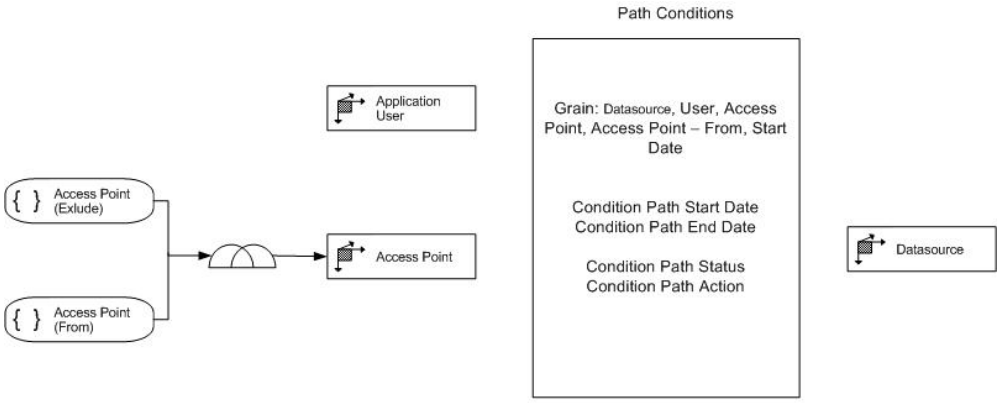


Time hierarchy:
Year -> Quarter -> Month -> Day

Control hierarchies:
Control Type -> Control Name
Control Priority -> Control Name
Process -> Control Name
Risk -> Control Name

Access Point hierarchy:
Access Point Type -> Access Point Name

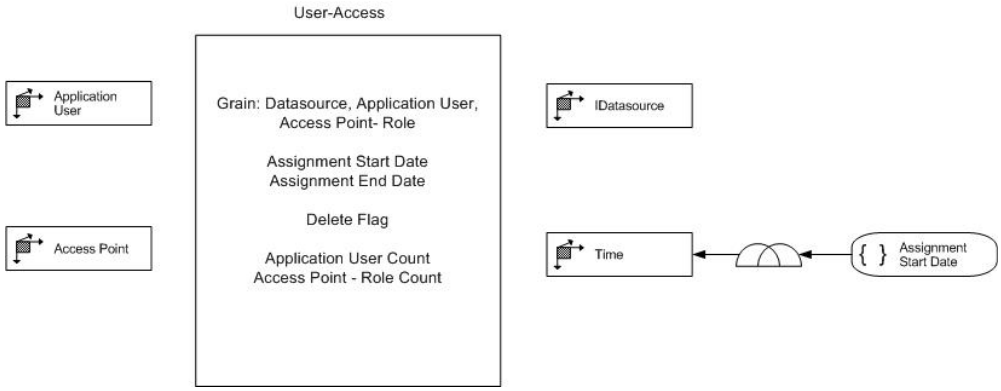
- **Path Conditions**



Control hierarchies:
Control Type -> Control Name
Control Priority -> Control Name
Process -> Control Name
Risk -> Control Name

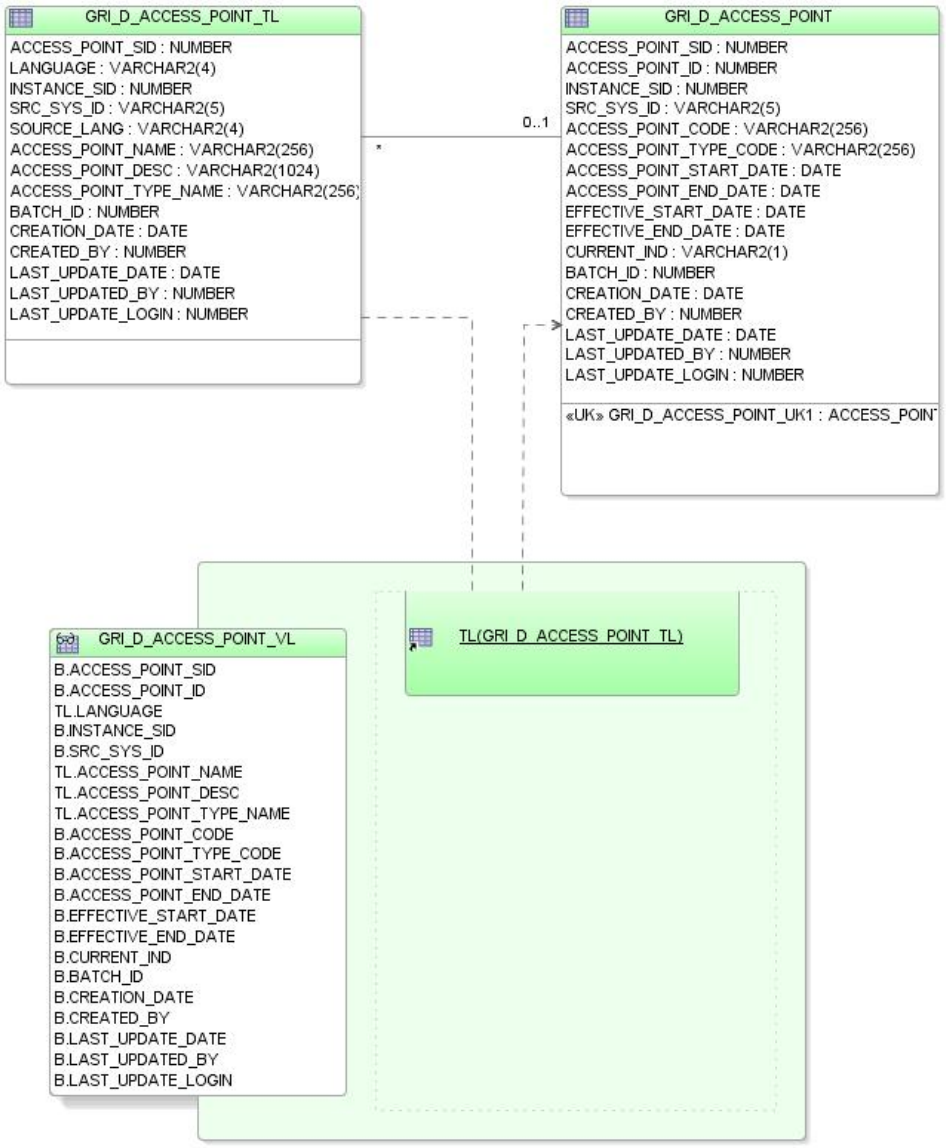
Access Point hierarchy:
Access Point Type -> Access Point Name

- **User Access**

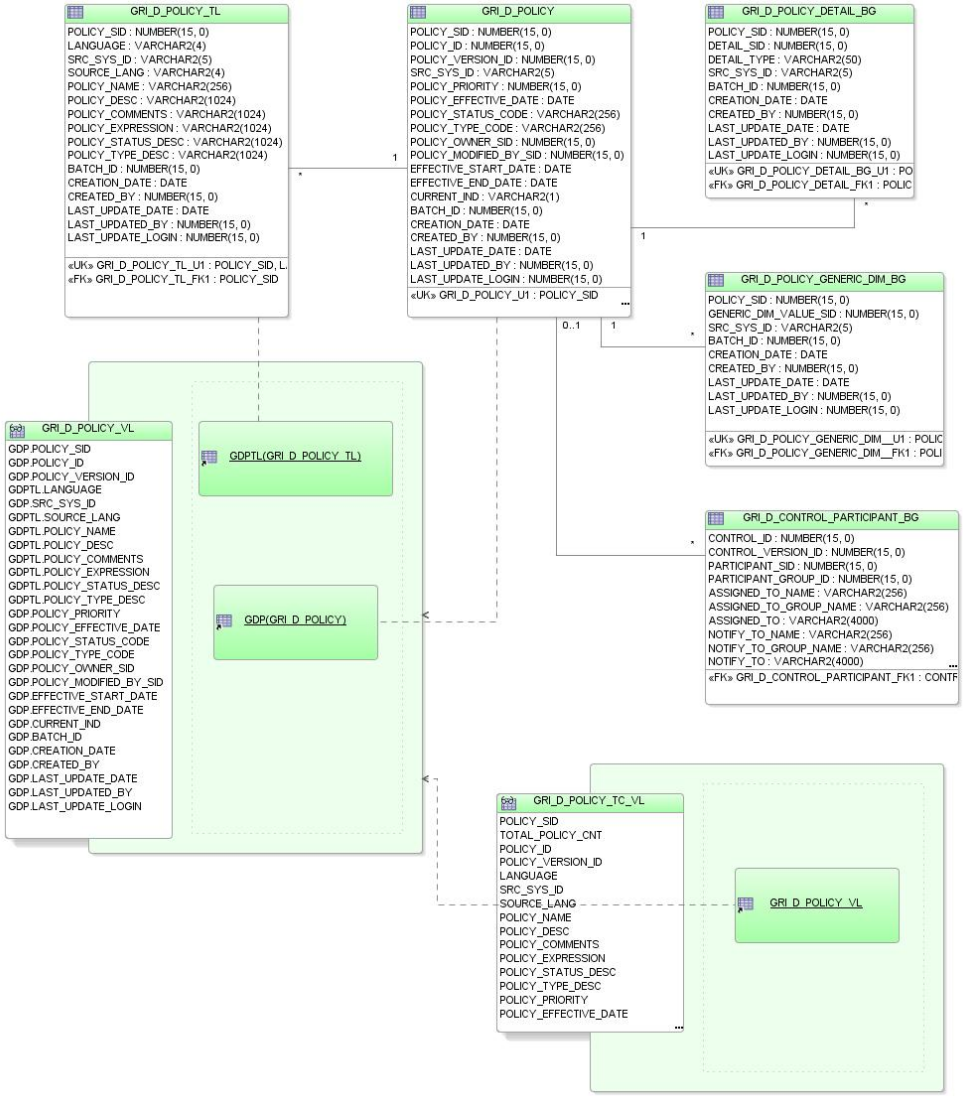


GRCI 3.0.2 - GRCC 8.6.1 Physical Model

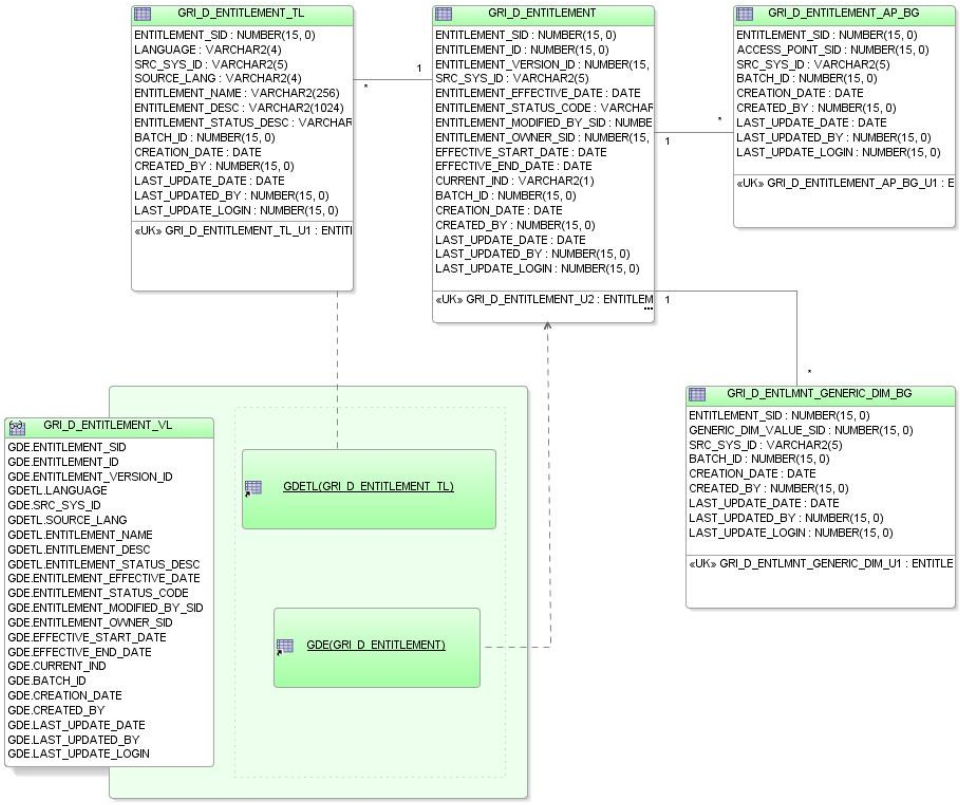
- **Access Point**


GRI_D_ACCESS_POINT_TL
ACCESS_POINT_SID : NUMBER
LANGUAGE : VARCHAR2(4)
INSTANCE_SID : NUMBER
SRC_SYS_ID : VARCHAR2(5)
SOURCE_LANG : VARCHAR2(4)
ACCESS_POINT_NAME : VARCHAR2(256)
ACCESS_POINT_DESC : VARCHAR2(1024)
ACCESS_POINT_TYPE_NAME : VARCHAR2(256)
BATCH_ID : NUMBER
CREATION_DATE : DATE
CREATED_BY : NUMBER
LAST_UPDATE_DATE : DATE
LAST_UPDATED_BY : NUMBER
LAST_UPDATE_LOGIN : NUMBER
0..1
*
GRI_D_ACCESS_POINT
ACCESS_POINT_SID : NUMBER
ACCESS_POINT_ID : NUMBER
INSTANCE_SID : NUMBER
SRC_SYS_ID : VARCHAR2(5)
ACCESS_POINT_CODE : VARCHAR2(256)
ACCESS_POINT_TYPE_CODE : VARCHAR2(256)
ACCESS_POINT_START_DATE : DATE
ACCESS_POINT_END_DATE : DATE
EFFECTIVE_START_DATE : DATE
EFFECTIVE_END_DATE : DATE
CURRENT_IND : VARCHAR2(1)
BATCH_ID : NUMBER
CREATION_DATE : DATE
CREATED_BY : NUMBER
LAST_UPDATE_DATE : DATE
LAST_UPDATED_BY : NUMBER
LAST_UPDATE_LOGIN : NUMBER
«UK» GRI_D_ACCESS_POINT_UK1 : ACCESS_POIN
GRI_D_ACCESS_POINT_VL
B.ACCESS_POINT_SID
B.ACCESS_POINT_ID
TL.LANGUAGE
B.INSTANCE_SID
B.SRC_SYS_ID
TL.ACCESS_POINT_NAME
TL.ACCESS_POINT_DESC
TL.ACCESS_POINT_TYPE_NAME
B.ACCESS_POINT_CODE
B.ACCESS_POINT_TYPE_CODE
B.ACCESS_POINT_START_DATE
B.ACCESS_POINT_END_DATE
B.EFFECTIVE_START_DATE
B.EFFECTIVE_END_DATE
B.CURRENT_IND
B.BATCH_ID
B.CREATION_DATE
B.CREATED_BY
B.LAST_UPDATE_DATE
B.LAST_UPDATED_BY
B.LAST_UPDATE_LOGIN
TL(GRI_D_ACCESS_POINT_TL)

- **Control**



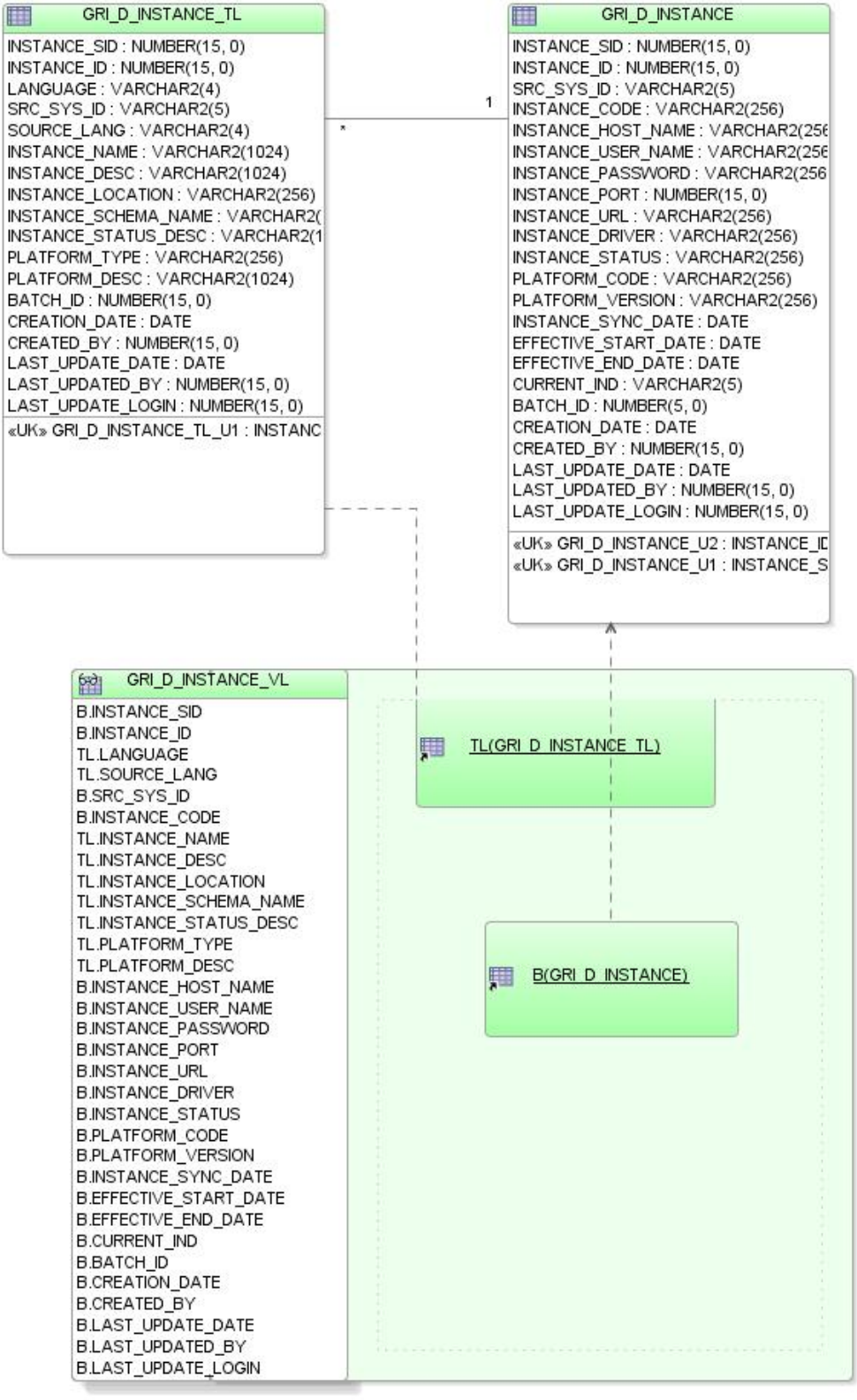
- **Entitlement**



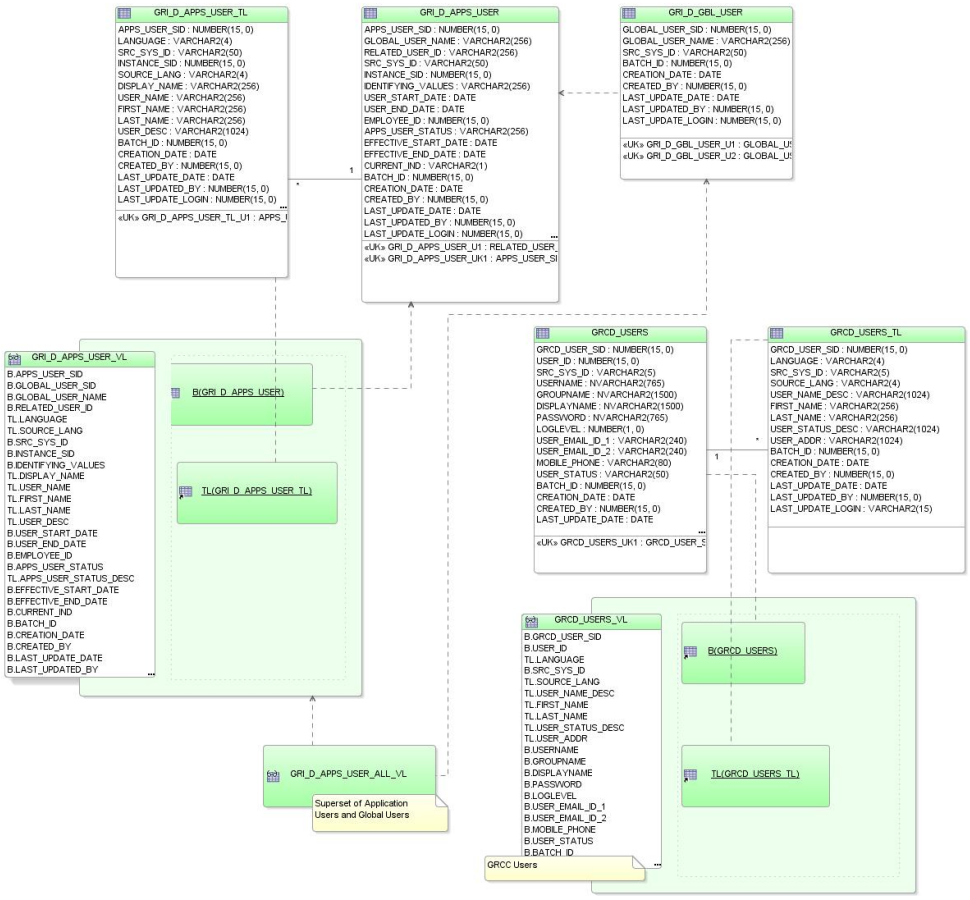
- **Generic Dimension**


GRI_D_GENERIC_DIM_TL
GENERIC_DIM_SID : NUMBER(15, 0)
LANGUAGE : VARCHAR2(4)
SRC_SYS_ID : VARCHAR2(5)
SOURCE_LANG : VARCHAR2(4)
GENERIC_DIM_NAME : VARCHAR2(256)
GENERIC_DIM_DESC : VARCHAR2(1024)
GENERIC_DIM_STATUS_DESC : VARCHAR
BATCH_ID : NUMBER(15, 0)
CREATION_DATE : DATE
CREATED_BY : NUMBER(15, 0)
LAST_UPDATE_DATE : DATE
LAST_UPDATED_BY : NUMBER(15, 0)
LAST_UPDATE_LOGIN : NUMBER(15, 0)
«UK» GRI_D_GENERIC_DIM_TL_U1 : GENE
GRI_D_GENERIC_DIM
GENERIC_DIM_SID : NUMBER(15, 0)
GENERIC_DIM_ID : NUMBER(15, 0)
SRC_SYS_ID : VARCHAR2(5)
GENERIC_DIM_TYPE_CODE : VARCHAR2(
GENERIC_DIM_STATUS_CODE : VARCHAF
INSTANCE_SID : NUMBER(15, 0)
EFFECTIVE_START_DATE : DATE
EFFECTIVE_END_DATE : DATE
CURRENT_IND : VARCHAR2(1)
BATCH_ID : NUMBER(15, 0)
CREATION_DATE : DATE
CREATED_BY : NUMBER(15, 0)
LAST_UPDATE_DATE : DATE
LAST_UPDATED_BY : NUMBER(15, 0)
LAST_UPDATE_LOGIN : NUMBER(15, 0)
«UK» GRI_D_GENERIC_DIM_U1 : GENERIC_
«UK» GRI_D_GENERIC_DIM_U2 : GENERIC_
GRI_D_GENERIC_DIM_VAL
GENERIC_DIM_VAL_SID : NUMBER(15, 0)
GENERIC_DIM_SID : NUMBER(15, 0)
GENERIC_DIM_VAL_ID : NUMBER(15, 0)
SRC_SYS_ID : VARCHAR2(5)
GENERIC_DIM_VAL_STATUS_CODE : VAR
EFFECTIVE_START_DATE : DATE
EFFECTIVE_END_DATE : DATE
CURRENT_IND : VARCHAR2(1)
BATCH_ID : NUMBER(15, 0)
CREATION_DATE : DATE
CREATED_BY : NUMBER(15, 0)
LAST_UPDATE_DATE : DATE
LAST_UPDATED_BY : NUMBER(15, 0)
LAST_UPDATE_LOGIN : NUMBER(15, 0)
«UK» GRI_D_GENERIC_DIM_VAL_U2 : GEN
«UK» GRI_D_GENERIC_DIM_VAL_U1 : GEN
GRI_D_GENERIC_DIM_VAL_TL
GENERIC_DIM_VAL_SID : NUMBER(15, 0)
LANGUAGE : VARCHAR2(4)
SRC_SYS_ID : VARCHAR2(5)
SOURCE_LANG : VARCHAR2(4)
GENERIC_DIM_VAL_NAME : VARCHAR2(256)
GENERIC_DIM_VAL_STATUS_DESC : VARCH
BATCH_ID : NUMBER(15, 0)
CREATION_DATE : DATE
CREATED_BY : NUMBER(15, 0)
LAST_UPDATE_DATE : DATE
LAST_UPDATED_BY : NUMBER(15, 0)
LAST_UPDATE_LOGIN : NUMBER(15, 0)
«UK» GRI_D_GENERIC_DIM_VAL_TL_U1 : GE
«FK» GRI_D_GENERIC_DIM_VAL_TL__FK1 : C
0..1
*
1
GRI_D_GENERIC_DIM_VL
B.GENERIC_DIM_SID
B.GENERIC_DIM_ID
TL.LANGUAGE
B.SRC_SYS_ID
TL.SOURCE_LANG
B.GENERIC_DIM_TYPE_CODE
TL.GENERIC_DIM_NAME
TL.GENERIC_DIM_DESC
B.GENERIC_DIM_STATUS_CODE
TL.GENERIC_DIM_STATUS_DESC
B.INSTANCE_SID
B.EFFECTIVE_START_DATE
B.EFFECTIVE_END_DATE
B.CURRENT_IND
B.BATCH_ID
B.CREATION_DATE
B.CREATED_BY
B.LAST_UPDATE_DATE
B.LAST_UPDATED_BY
B.LAST_UPDATE_LOGIN
TL(GRI_D_GENERIC_DIM_TL)
B(GRI_D_GENERIC_DIM)
GRI_D_GENERIC_DIM_VAL_VL
B.GENERIC_DIM_VAL_SID
B.GENERIC_DIM_SID
B.GENERIC_DIM_VAL_ID
TL.LANGUAGE
B.SRC_SYS_ID
TL.SOURCE_LANG
TL.GENERIC_DIM_VAL_NAME
B.GENERIC_DIM_VAL_STATUS_CODE
TL.GENERIC_DIM_VAL_STATUS_DESC
B.EFFECTIVE_START_DATE
B.EFFECTIVE_END_DATE
B.CURRENT_IND
B.BATCH_ID
B.CREATION_DATE
B.CREATED_BY
B.LAST_UPDATE_DATE
B.LAST_UPDATED_BY
B.LAST_UPDATE_LOGIN
B(GRI_D_GENERIC_DIM_VAL)
TL(GRI_D_GENERIC_DIM_VAL_TL)
Type as Business Process
GRI_D_GENERIC_DIM_VAL_BP_VL
Type as Risk
GRI_D_GENERIC_DIM_VAL_RISK_VL

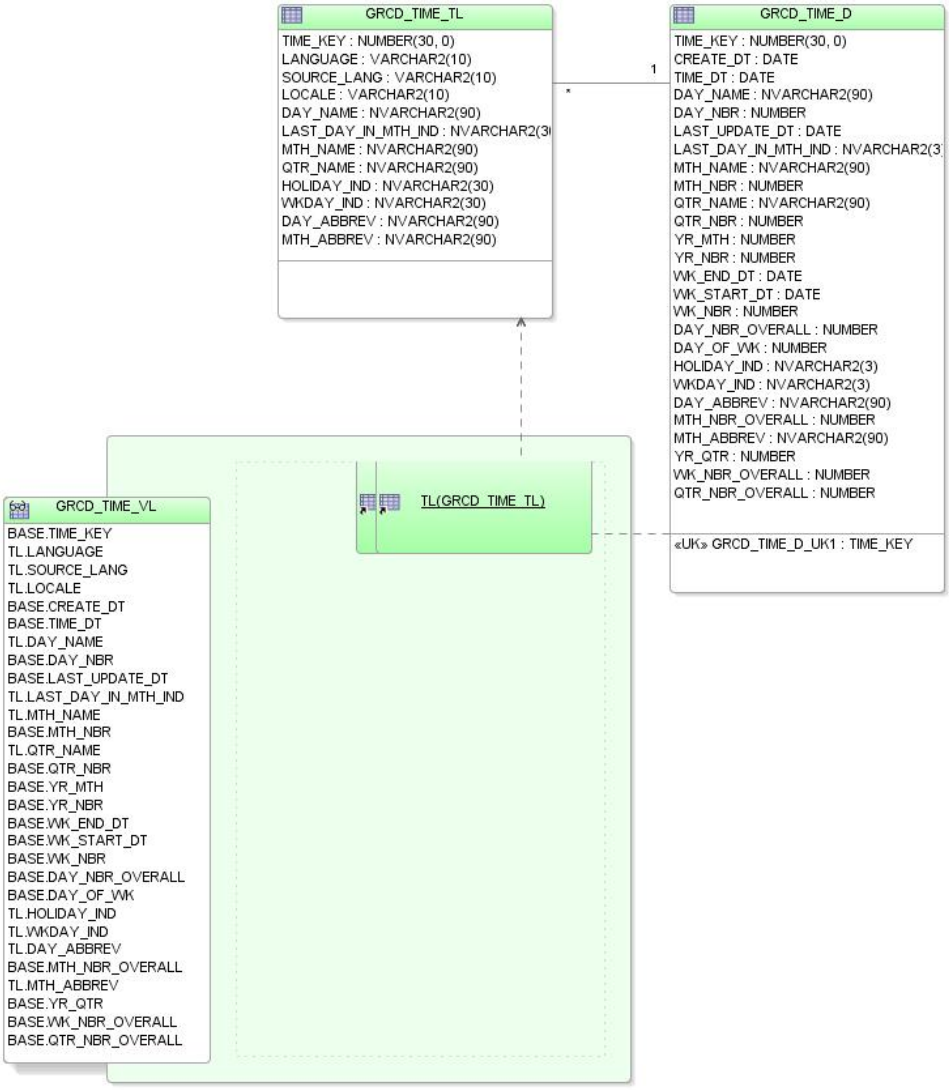
- **Data Source**


GRI_D_INSTANCE_TL
INSTANCE_SID : NUMBER(15, 0)
INSTANCE_ID : NUMBER(15, 0)
LANGUAGE : VARCHAR2(4)
SRC_SYS_ID : VARCHAR2(5)
SOURCE_LANG : VARCHAR2(4)
INSTANCE_NAME : VARCHAR2(1024)
INSTANCE_DESC : VARCHAR2(1024)
INSTANCE_LOCATION : VARCHAR2(256)
INSTANCE_SCHEMA_NAME : VARCHAR2(
INSTANCE_STATUS_DESC : VARCHAR2(1
PLATFORM_TYPE : VARCHAR2(256)
PLATFORM_DESC : VARCHAR2(1024)
BATCH_ID : NUMBER(15, 0)
CREATION_DATE : DATE
CREATED_BY : NUMBER(15, 0)
LAST_UPDATE_DATE : DATE
LAST_UPDATED_BY : NUMBER(15, 0)
LAST_UPDATE_LOGIN : NUMBER(15, 0)
«UK» GRI_D_INSTANCE_TL_U1 : INSTANC
1
*
GRI_D_INSTANCE
INSTANCE_SID : NUMBER(15, 0)
INSTANCE_ID : NUMBER(15, 0)
SRC_SYS_ID : VARCHAR2(5)
INSTANCE_CODE : VARCHAR2(256)
INSTANCE_HOST_NAME : VARCHAR2(256
INSTANCE_USER_NAME : VARCHAR2(256
INSTANCE_PASSWORD : VARCHAR2(256
INSTANCE_PORT : NUMBER(15, 0)
INSTANCE_URL : VARCHAR2(256)
INSTANCE_DRIVER : VARCHAR2(256)
INSTANCE_STATUS : VARCHAR2(256)
PLATFORM_CODE : VARCHAR2(256)
PLATFORM_VERSION : VARCHAR2(256)
INSTANCE_SYNC_DATE : DATE
EFFECTIVE_START_DATE : DATE
EFFECTIVE_END_DATE : DATE
CURRENT_IND : VARCHAR2(5)
BATCH_ID : NUMBER(5, 0)
CREATION_DATE : DATE
CREATED_BY : NUMBER(15, 0)
LAST_UPDATE_DATE : DATE
LAST_UPDATED_BY : NUMBER(15, 0)
LAST_UPDATE_LOGIN : NUMBER(15, 0)
«UK» GRI_D_INSTANCE_U2 : INSTANCE_ID
«UK» GRI_D_INSTANCE_U1 : INSTANCE_S
GRI_D_INSTANCE_VL
B.INSTANCE_SID
B.INSTANCE_ID
TL.LANGUAGE
TL.SOURCE_LANG
B.SRC_SYS_ID
B.INSTANCE_CODE
TL.INSTANCE_NAME
TL.INSTANCE_DESC
TL.INSTANCE_LOCATION
TL.INSTANCE_SCHEMA_NAME
TL.INSTANCE_STATUS_DESC
TL.PLATFORM_TYPE
TL.PLATFORM_DESC
B.INSTANCE_HOST_NAME
B.INSTANCE_USER_NAME
B.INSTANCE_PASSWORD
B.INSTANCE_PORT
B.INSTANCE_URL
B.INSTANCE_DRIVER
B.INSTANCE_STATUS
B.PLATFORM_CODE
B.PLATFORM_VERSION
B.INSTANCE_SYNC_DATE
B.EFFECTIVE_START_DATE
B.EFFECTIVE_END_DATE
B.CURRENT_IND
B.BATCH_ID
B.CREATION_DATE
B.CREATED_BY
B.LAST_UPDATE_DATE
B.LAST_UPDATED_BY
B.LAST_UPDATE_LOGIN
TL(GRI_D_INSTANCE_TL)
B(GRI_D_INSTANCE)

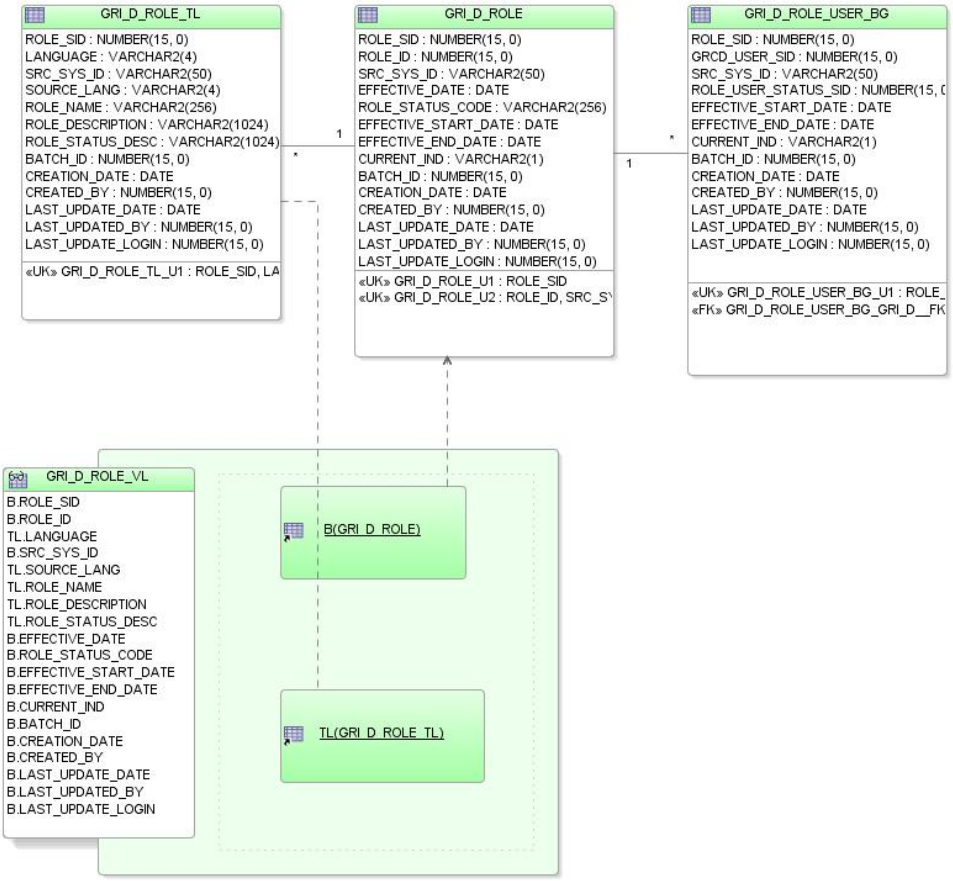
- **User**


GRI_D_APPS_USER_TL
APPS_USER_SID : NUMBER(15, 0)
LANGUAGE : VARCHAR2(4)
SRC_SYS_ID : VARCHAR2(50)
INSTANCE_SID : NUMBER(15, 0)
SOURCE_LANG : VARCHAR2(4)
DISPLAY_NAME : VARCHAR2(256)
USER_NAME : VARCHAR2(256)
FIRST_NAME : VARCHAR2(256)
LAST_NAME : VARCHAR2(256)
USER_DESC : VARCHAR2(1024)
BATCH_ID : NUMBER(15, 0)
CREATION_DATE : DATE
CREATED_BY : NUMBER(15, 0)
LAST_UPDATE_DATE : DATE
LAST_UPDATED_BY : NUMBER(15, 0)
LAST_UPDATE_LOGIN : NUMBER(15, 0)
«UK» GRI_D_APPS_USER_TL_U1 : APPS_
GRI_D_APPS_USER
APPS_USER_SID : NUMBER(15, 0)
GLOBAL_USER_NAME : VARCHAR2(256)
RELATED_USER_ID : VARCHAR2(256)
SRC_SYS_ID : VARCHAR2(50)
INSTANCE_SID : NUMBER(15, 0)
IDENTIFYING_VALUES : VARCHAR2(256)
USER_START_DATE : DATE
USER_END_DATE : DATE
EMPLOYEE_ID : NUMBER(15, 0)
APPS_USER_STATUS : VARCHAR2(256)
EFFECTIVE_START_DATE : DATE
EFFECTIVE_END_DATE : DATE
CURRENT_IND : VARCHAR2(1)
BATCH_ID : NUMBER(15, 0)
CREATION_DATE : DATE
CREATED_BY : NUMBER(15, 0)
LAST_UPDATE_DATE : DATE
LAST_UPDATED_BY : NUMBER(15, 0)
LAST_UPDATE_LOGIN : NUMBER(15, 0)
«UK» GRI_D_APPS_USER_U1 : RELATED_USER_
«UK» GRI_D_APPS_USER_UK1 : APPS_USER_SI
GRI_D_GBL_USER
GLOBAL_USER_SID : NUMBER(15, 0)
GLOBAL_USER_NAME : VARCHAR2(256)
SRC_SYS_ID : VARCHAR2(50)
BATCH_ID : NUMBER(15, 0)
CREATION_DATE : DATE
CREATED_BY : NUMBER(15, 0)
LAST_UPDATE_DATE : DATE
LAST_UPDATED_BY : NUMBER(15, 0)
LAST_UPDATE_LOGIN : NUMBER(15, 0)
«UK» GRI_D_GBL_USER_U1 : GLOBAL_U
«UK» GRI_D_GBL_USER_U2 : GLOBAL_U
GRI_D_APPS_USER_VL
B.APPS_USER_SID
B.GLOBAL_USER_SID
B.GLOBAL_USER_NAME
B.RELATED_USER_ID
TL.LANGUAGE
TL.SOURCE_LANG
B.SRC_SYS_ID
B.INSTANCE_SID
B.IDENTIFYING_VALUES
TL.DISPLAY_NAME
TL.USER_NAME
TL.FIRST_NAME
TL.LAST_NAME
TL.USER_DESC
B.USER_START_DATE
B.USER_END_DATE
B.EMPLOYEE_ID
B.APPS_USER_STATUS
TL.APPS_USER_STATUS_DESC
B.EFFECTIVE_START_DATE
B.EFFECTIVE_END_DATE
B.CURRENT_IND
B.BATCH_ID
B.CREATION_DATE
B.CREATED_BY
B.LAST_UPDATE_DATE
B.LAST_UPDATED_BY
B(GRI_D_APPS_USER)
TL(GRI_D_APPS_USER_TL)
GRI_D_APPS_USER_ALL_VL
Superset of Application Users and Global Users
GRCD_USERS
GRCD_USER_SID : NUMBER(15, 0)
USER_ID : NUMBER(15, 0)
SRC_SYS_ID : VARCHAR2(5)
USERNAME : NVARCHAR2(765)
GROUPNAME : NVARCHAR2(1500)
DISPLAYNAME : NVARCHAR2(1500)
PASSWORD : NVARCHAR2(765)
LOGLEVEL : NUMBER(1, 0)
USER_EMAIL_ID_1 : VARCHAR2(240)
USER_EMAIL_ID_2 : VARCHAR2(240)
MOBILE_PHONE : VARCHAR2(80)
USER_STATUS : VARCHAR2(50)
BATCH_ID : NUMBER(15, 0)
CREATION_DATE : DATE
CREATED_BY : NUMBER(15, 0)
LAST_UPDATE_DATE : DATE
«UK» GRCD_USERS_UK1 : GRCD_USER_S
GRCD_USERS_TL
GRCD_USER_SID : NUMBER(15, 0)
LANGUAGE : VARCHAR2(4)
SRC_SYS_ID : VARCHAR2(5)
SOURCE_LANG : VARCHAR2(4)
USER_NAME_DESC : VARCHAR2(1024)
FIRST_NAME : VARCHAR2(256)
LAST_NAME : VARCHAR2(256)
USER_STATUS_DESC : VARCHAR2(1024)
USER_ADDR : VARCHAR2(1024)
BATCH_ID : NUMBER(15, 0)
CREATION_DATE : DATE
CREATED_BY : NUMBER(15, 0)
LAST_UPDATE_DATE : DATE
LAST_UPDATED_BY : NUMBER(15, 0)
LAST_UPDATE_LOGIN : VARCHAR2(15)
GRCD_USERS_VL
B.GRCD_USER_SID
B.USER_ID
TL.LANGUAGE
B.SRC_SYS_ID
TL.SOURCE_LANG
TL.USER_NAME_DESC
TL.FIRST_NAME
TL.LAST_NAME
TL.USER_STATUS_DESC
TL.USER_ADDR
B.USERNAME
B.GROUPNAME
B.DISPLAYNAME
B.PASSWORD
B.LOGLEVEL
B.USER_EMAIL_ID_1
B.USER_EMAIL_ID_2
B.MOBILE_PHONE
B.USER_STATUS
B.BATCH_ID
GRCC Users
B(GRCD_USERS)
TL(GRCD_USERS_TL)

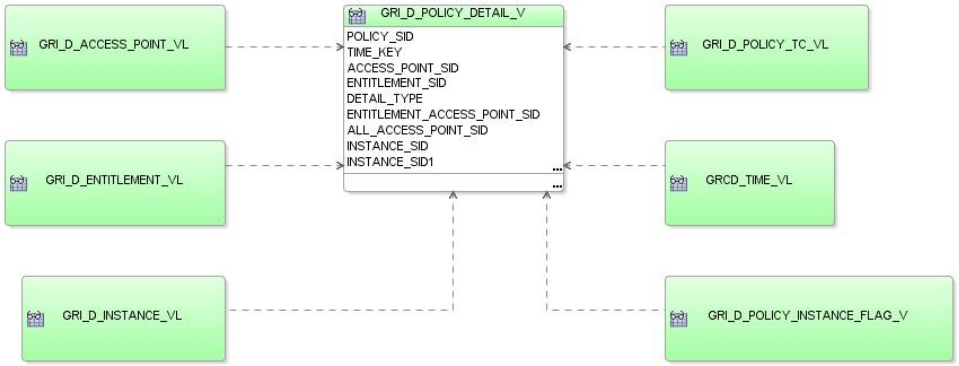
- **Time**


GRCD_TIME_TL
TIME_KEY : NUMBER(30, 0)
LANGUAGE : VARCHAR2(10)
SOURCE_LANG : VARCHAR2(10)
LOCALE : VARCHAR2(10)
DAY_NAME : NVARCHAR2(90)
LAST_DAY_IN_MTH_IND : NVARCHAR2(3
MTH_NAME : NVARCHAR2(90)
QTR_NAME : NVARCHAR2(90)
HOLIDAY_IND : NVARCHAR2(30)
WKDAY_IND : NVARCHAR2(30)
DAY_ABBREV : NVARCHAR2(90)
MTH_ABBREV : NVARCHAR2(90)
1
*
GRCD_TIME_D
TIME_KEY : NUMBER(30, 0)
CREATE_DT : DATE
TIME_DT : DATE
DAY_NAME : NVARCHAR2(90)
DAY_NBR : NUMBER
LAST_UPDATE_DT : DATE
LAST_DAY_IN_MTH_IND : NVARCHAR2(3
MTH_NAME : NVARCHAR2(90)
MTH_NBR : NUMBER
QTR_NAME : NVARCHAR2(90)
QTR_NBR : NUMBER
YR_MTH : NUMBER
YR_NBR : NUMBER
WK_END_DT : DATE
WK_START_DT : DATE
WK_NBR : NUMBER
DAY_NBR_OVERALL : NUMBER
DAY_OF_WK : NUMBER
HOLIDAY_IND : NVARCHAR2(3)
WKDAY_IND : NVARCHAR2(3)
DAY_ABBREV : NVARCHAR2(90)
MTH_NBR_OVERALL : NUMBER
MTH_ABBREV : NVARCHAR2(90)
YR_QTR : NUMBER
WK_NBR_OVERALL : NUMBER
QTR_NBR_OVERALL : NUMBER
«UK» GRCD_TIME_D_UK1 : TIME_KEY
TL(GRCD_TIME_TL)
GRCD_TIME_VL
BASE.TIME_KEY
TL.LANGUAGE
TL.SOURCE_LANG
TL.LOCALE
BASE.CREATE_DT
BASE.TIME_DT
TL.DAY_NAME
BASE.DAY_NBR
BASE.LAST_UPDATE_DT
TL.LAST_DAY_IN_MTH_IND
TL.MTH_NAME
BASE.MTH_NBR
TL.QTR_NAME
BASE.QTR_NBR
BASE.YR_MTH
BASE.YR_NBR
BASE.WK_END_DT
BASE.WK_START_DT
BASE.WK_NBR
BASE.DAY_NBR_OVERALL
BASE.DAY_OF_WK
TL.HOLIDAY_IND
TL.WKDAY_IND
TL.DAY_ABBREV
BASE.MTH_NBR_OVERALL
TL.MTH_ABBREV
BASE.YR_QTR
BASE.WK_NBR_OVERALL
BASE.QTR_NBR_OVERALL

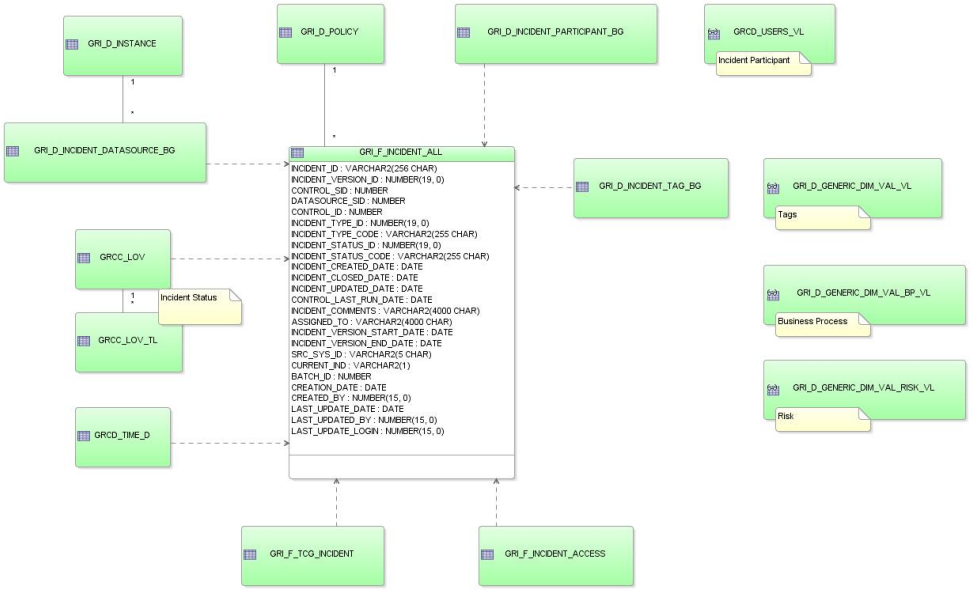
- **GRCC Role**



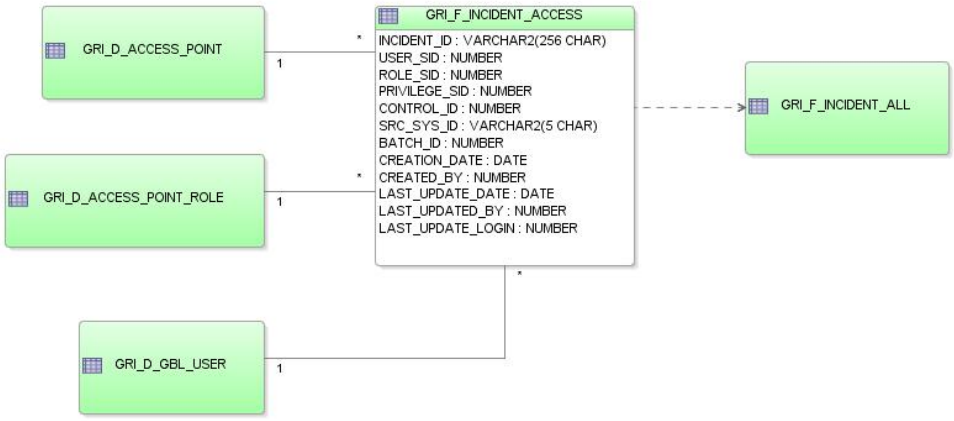
- **Control Detail Star**



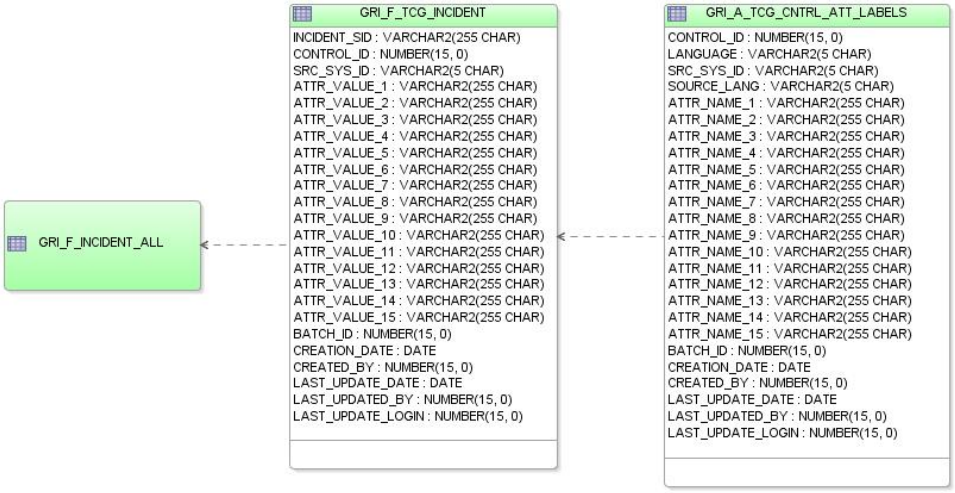
- **Incidents - All Star**



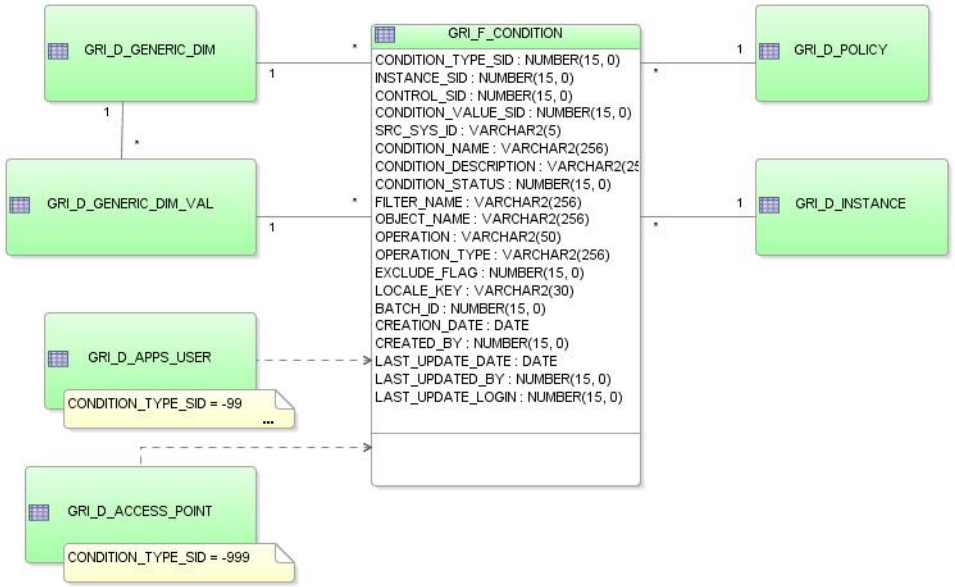
- **Incident Access**



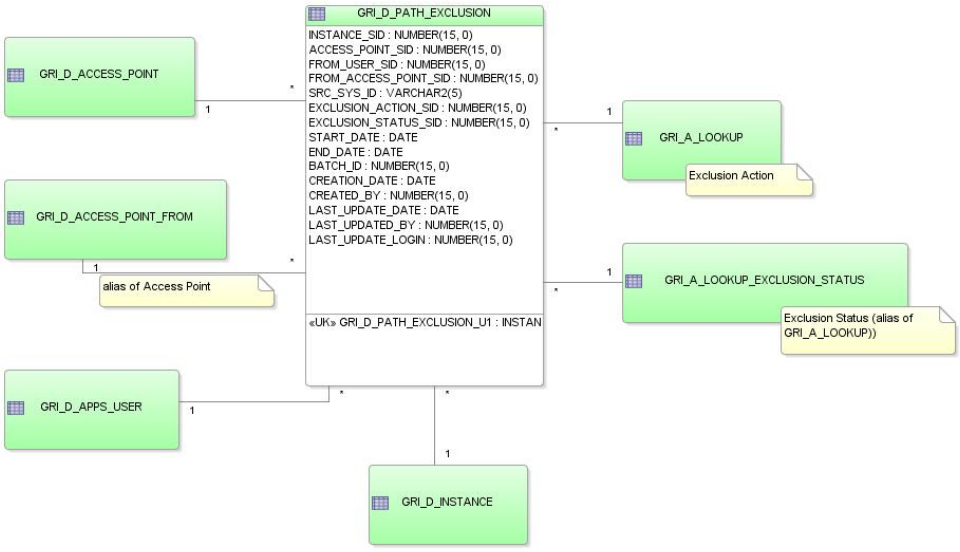
- **Incident Transaction**



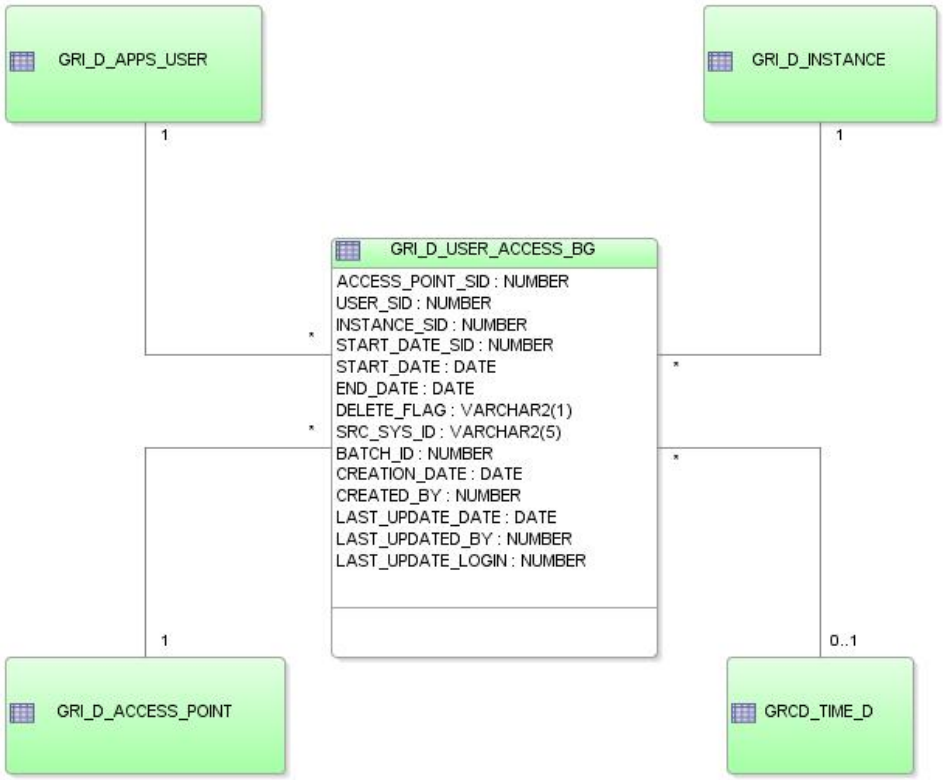
- **Conditions Star**



- **Path Conditions Star**



- **User Access Star**


GRI_D_APPS_USER
GRI_D_INSTANCE
GRI_D_USER_ACCESS_BG
ACCESS_POINT_SID : NUMBER
USER_SID : NUMBER
INSTANCE_SID : NUMBER
START_DATE_SID : NUMBER
START_DATE : DATE
END_DATE : DATE
DELETE_FLAG : VARCHAR2(1)
SRC_SYS_ID : VARCHAR2(5)
BATCH_ID : NUMBER
CREATION_DATE : DATE
CREATED_BY : NUMBER
LAST_UPDATE_DATE : DATE
LAST_UPDATED_BY : NUMBER
LAST_UPDATE_LOGIN : NUMBER
1
1
*
*
*
*
1
0..1
GRI_D_ACCESS_POINT
GRCD_TIME_D

D

Lineage for GRCC 8.6.0

This appendix covers the following topics:

- GRCI 3.0.2 - GRCC 8.6.0, Data Lineage DIMENSIONS Table
- GRCI 3.0.2 - GRCC 8.6.0, Data Lineage BRIDGES Table
- GRCI 3.0.2 - GRCC 8.6.0, Data Lineage FACTS Table

GRCI 3.0.2 - GRCC 8.6.0, Data Lineage DIMENSIONS Table

The following table illustrates lineage of **Dimensions** used in GRCI. It contains the GRCC 8.6.0 source table name that loads the GRCI **dimensions**, the sql scripts file name, and the file that contains the load procedure.

It is important to note that all these packages are invoked from GRI_MASTER_PKG.

Common Table Values

The following parameters have common values for all rows in this table.

- **Master Package:** GRI_MASTER_PKG

Dimensions Package : GRI_DIMENSIONS_PKG

SI NO.	Source Table Name	Target Table Name	Load Type	Master Package	Dimension/Bridge Table Package	Package Name	Sub-Package Name	Interface Name
1	GRCC_DA_INSTANCE	GRI_D_INSTANCE	ODI	GRI_MASTER_PKG	GRI_DIMENSIONS_PKG	GRI_INSTANCE_PKG	GRI_D_INSTANCE_PKG	GRI_D_INSTANCE_INTR
2	GRCC_DA_INSTANCE_TL	GRI_D_INSTANCE_TL	ODI	GRI_MASTER_PKG	GRI_DIMENSIONS_PKG	GRI_INSTANCE_PKG	GRI_D_INSTANCE_TL_PKG	GRI_D_INSTANCE_TL_INTR
3	GRCC_DA_GENERIC_DIM	GRI_D_GENERIC_DIM	ODI	GRI_MASTER_PKG	GRI_DIMENSIONS_PKG	GRI_GENERIC_DIM_PKG	GRI_D_GENERIC_DIM_PKG	GRI_D_GENERIC_DIM_INTR
4	GRCC_DA_GENERIC_DIM_TL	GRI_D_GENERIC_DIM_TL	ODI	GRI_MASTER_PKG	GRI_DIMENSIONS_PKG	GRI_GENERIC_DIM_PKG	GRI_D_GENERIC_DIM_TL_PKG	GRI_D_GENERIC_DIM_TL_INTR
5	GRCC_DA_GENERIC_DIM_VAL	GRI_D_GENERIC_DIM_VAL	ODI	GRI_MASTER_PKG	GRI_DIMENSIONS_PKG	GRI_GENERIC_DIM_PKG	GRI_D_GENERIC_DIM_VAL_PKG	GRI_D_GENERIC_DIM_VAL_INTR
6	GRCC_DA_GENERIC_DIM_VAL_TL	GRI_D_GENERIC_DIM_VAL_TL	ODI	GRI_MASTER_PKG	GRI_DIMENSIONS_PKG	GRI_GENERIC_DIM_PKG	GRI_D_GENERIC_DIM_VAL_TL_PKG	GRI_D_GENERIC_DIM_VAL_TL_INTR
7	GRCC_DA_AG_USER	GRCD_USERS	ODI	GRI_MASTER_PKG	GRI_DIMENSIONS_PKG	GRCD_USER_MAIN_PKG	GRCD_USER_PKG	GRCD_USER_INTR
8	GRCC_DA_AG_USER_TL	GRCD_USERS_TL	ODI	GRI_MASTER_PKG	GRI_DIMENSIONS_PKG	GRCD_USER_MAIN_PKG	GRCD_USER_TL_PKG	GRCD_USER_TL_INTR
9	GRI_S_AG_APPS_USER	GRI_D_GBL_USER	ODI	GRI_MASTER_PKG	GRI_MASTER_PKG	GRI_APPS_USER_PKG	GRI_D_APPS_USER_PKG	GRI_GBL_USER_PROC
10	GRCC_DA_CONTROL	GR_D_POLICY	ODI	GRI_MASTER_PKG	GRI_DIMENSIONS_PKG	GRI_POLICY_PKG	GRI_D_POLICY_PKG	GRI_D_POLICY_INTR
11	GRCC_DA_CONTROL_TL	GR_D_POLICY_TL	ODI	GRI_MASTER_PKG	GRI_DIMENSIONS_PKG	GRI_POLICY_PKG	GRI_D_POLICY_TL_PKG	GRI_D_POLICY_TL_INTR
12	GRCC_DA_ENTITLEMENT	GRI_D_ENTITLEMENT	ODI	GRI_MASTER_PKG	GRI_DIMENSIONS_PKG	GRI_ENTITLEMENT_PKG	GRI_D_ENTITLEMENT_PKG	GRI_D_ENTITLEMENT_INTR
13	GRCC_DA_ENTITLEMENT_TL	GRI_D_ENTITLEMENT_TL	ODI	GRI_MASTER_PKG	GRI_DIMENSIONS_PKG	GRI_ENTITLEMENT_PKG	GRI_D_ENTITLEMENT_TL_PKG	GRI_D_ENTITLEMENT_TL_INTR
14	GRCC_DA_ACCESS_POINT	GRI_D_ACCESS_POINT	ODI	GRI_MASTER_PKG	GRI_DIMENSIONS_PKG	GRI_ACCESS_POINT_PKG	GRI_D_ACCESS_POINT_PKG	GRI_D_ACCESS_POINT_INTR
15	GRCC_DA_ACCESS_POINT_TL	GRI_D_ACCESS_POINT_TL	ODI	GRI_MASTER_PKG	GRI_DIMENSIONS_PKG	GRI_ACCESS_POINT_PKG	GRI_D_ACCESS_POINT_TL_PKG	GRI_D_ACCESS_POINT_TL_INTR
16	GRCC_DA_AG_APPS_USER	GRI_D_APPS_USER	ODI	GRI_MASTER_PKG	GRI_DIMENSIONS_PKG	GRI_APPS_USER_PKG	GRI_D_APPS_USER_PKG	GRI_D_APPS_USER_INTR
17	GRCC_DA_AG_APPS_USER_TL	GRI_D_APPS_USER_TL	ODI	GRI_MASTER_PKG	GRI_DIMENSIONS_PKG	GRI_APPS_USER_PKG	GRI_D_APPS_USER_TL_PKG	GRI_D_APPS_USER_TL_INTR
18	GRI_S_AG_ROLE	GRI_D_ROLE	ODI	GRI_MASTER_PKG	GRI_DIMENSIONS_PKG	GRI_ROLE_PKG	GRI_D_ROLE_PKG	GRI_D_ROLE_INTR
19	GRI_S_AG_ROLE_TL	GRI_D_ROLE_TL	ODI	GRI_MASTER_PKG	GRI_DIMENSIONS_PKG	GRI_ROLE_PKG	GRI_D_ROLE_TL_PKG	GRI_D_ROLE_TL_INTR
20	GRCC_DA_PATH_EXCLUSION	GRI_D_PATH_EXCLUSION	ODI	GRI_MASTER_PKG	GRI_DIMENSIONS_PKG	GRI_EXCLUSION_PKG	GRI_D_PATH_EXCLUSION_PKG	GRI_D_PATH_EXCLUSION_INTR

GRCI 3.0.2 - GRCC 8.6.0, Data Lineage BRIDGES Table

The following table illustrates lineage of **Bridges** used in GRCI. It contains the GRCC

8.6.0 source table name that loads the GRCI **bridges**, the sql scripts file name, and the file that contains the load procedure.

The following parameters have common values for all rows in this table.

Common Table Values

The following parameters have common values for all rows in this table.

- **Master Package:** GRI_MASTER_PKG

Bridges Table Package : GRI_BRIDGE_TABLES_PKG

Sl NO.	Source Table Name	Target Table Name	Load Type	Master Package	Dimension/Bridge Table Package	Package Name	Interface Name
1	GRCC_DA_AG_ROLE_USER_BG	GRI_D_ROLE_USER_BG	ODI	GRI_MASTER_PKG	GRI_BRIDGE_TABLES_PK	GRI_D_ROLE_USER_BG_PKG	GRI_D_ROLE_USER_BG_INTR
2	GRI_S_POLICY_GENERIC_DIM_BG	GRI_D_POLICY_GENERIC_DIM_B	ODI	GRI_MASTER_PKG	GRI_BRIDGE_TABLES_PK	GRI_D_POLICY_GENERIC_DIM_BG_PK	GRI_D_POLICY_GENERIC_DIM_BG_INTR
3	GRI_S_POLICY_DETAIL_BG	GRI_D_POLICY_DETAIL_BG	ODI	GRI_MASTER_PKG	GRI_BRIDGE_TABLES_PK	GRI_D_POLICY_DETAIL_BG_PKG	GRI_D_POLICY_DETAIL_BG_INTR
4	GRCC_DA_ENTLMNT_GENERIC_DIM_BG	GRI_D_ENTLMNT_GENERIC_DIM	ODI	GRI_MASTER_PKG	GRI_BRIDGE_TABLES_PK	GRI_D_ENTLMNT_GENERIC_DIM_BG	GRI_D_ENTLMNT_GENERIC_DIM_BG_INTR
5	GRCC_DA_ENTITLEMENT_AP_BG	GRI_D_ENTITLEMENT_AP_BG	ODI	GRI_MASTER_PKG	GRI_BRIDGE_TABLES_PK	GRI_D_ENTITLEMENT_AP_BG_PKG	GRI_D_ENTITLEMENT_AP_BG_INTR
6	GRI_S_USER_ACCESS_BG GRI_D_ACCESS_POINT	GRI_D_USER_ACCESS_BG	ODI	GRI_MASTER_PKG	GRI_BRIDGE_TABLES_PK	GRI_D_USER_ACCESS_BG_PKG	GRI_D_USER_ACCESS_BG_INTR
7	GRCC_DA_ISSUE GRI_D_GENERIC_DIM_VAL GRI_D_GENERIC_DIM	GRI_D_INCIDENT_TAG_BG	ODI	GRI_MASTER_PKG	GRI_FACTS_PKG	GRI_D_INCIDENT_TAG_BG_PKG	LOAD_INCIDENT_TAG_BG_PROC
8	GRCC_DA_ISSUE GRCD_USERS, GRCD_USERS_TL GRCC_DA_CONTROL_OBSERVER GRCC_DA_PARTICIPANT, GRCC_DA_PARTICIPANT_TL	GRI_D_INCIDENT_PARTICIPANT	ODI	GRI_MASTER_PKG	GRI_FACTS_PKG	GRI_D_INCIDENT_PARTICIPANT_BG_	LOAD_INCIDENT_PARTICIPANT_BG_PROC
9	GRCC_DA_CONTROL_OBSERVER GRCD_USERS	GRI_D_CONTROL_PARTICIPANT	ODI	GRI_MASTER_PKG	GRI_FACTS_PKG	GRI_D_CONTROL_PARTICIPANT_BG_	LOAD_CONTROL_PARTICIPANT_BG

GRCI 3.0.2 - GRCC 8.6.0, Data Lineage FACTS Table

The following table contains the GRCI staging table name that loads the GRCI **fact** tables, and the package that loads the target GRCI fact table.

> **Note:** It is important to note that all these packages are invoked from the fact package GRI_FACTS_PKG, which in turn is invoked from GRI_MASTER_PKG.

Common Table Values

The following parameters have common values for all rows in this table.

- **Load Type:** ODI
- **Master Package:** GRI_MASTER_PKG
- **Fact Package** GRI_FACTS_PKG

Facts Package: GRI_FACTS_PKG

Sl NO.	Source Table Name	Target Table Name	Load Type	Master Package	Fact Package	Package Name	Interface Name
1	GRCC_DA_ISSUE_ATTR_VALUE	GRI_F_TCG_INCIDENT	ODI	GRI_MASTER_PKG	GRI_FACTS_PKG	GRI_F_TCG_INCIDENT_PKG	GRI_F_TCG_INCIDENT_INTR
2	GRCC_DA_ISSUE GRI_D_POLICY	GRI_F_INCIDENT_ALL	ODI	GRI_MASTER_PKG	GRI_FACTS_PKG	GRI_F_INCIDENT_ALL_PKG	GRI_F_INCIDENT_ALL_INTR
3	GRCC_DA_ISSUE GRI_D_APPS_USER GRI_D_ACCESS_POINT	GRI_F_INCIDENT_ACCESS	ODI	GRI_MASTER_PKG	GRI_FACTS_PKG	GRI_F_INCIDENT_ACCESS_PKG	GRI_F_INCIDENT_ACCESS_INTR
4	GRI_D_GENERIC_DIM_VAL_VL GRCC_DA_CONDITION GRI_D_POLICY GRI_D_ACCESS_POINT_VL GRI_D_APPS_USER_V	GRI_F_CONDITION	ODI	GRI_MASTER_PKG	GRI_FACTS_PKG	GRI_F_CONDITION_PKG	GRI_F_CONDITION_INTR1 GRI_F_CONDITION_INTR2 GRI_F_CONDITION_INTR3

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