

# **Oracle® Revenue Management and Billing Analytics**

Version 2.2.0.0.0

## **Functional Overview**

Revision 1.0

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## Oracle Revenue Management and Billing Analytics Functional Overview

E64024-02

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# Preface

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## About This Document

This guide describes the key features of Oracle Revenue Management and Billing Extractors and Schema and Oracle Revenue Management and Billing Analytics (ORMBA). The guide also lists and describes the technical requirements to use the product, the architecture, and the user interface.

Oracle Revenue Management and Billing Extractors and Schema is used to extract data from a source system, Oracle Revenue Management and Billing (ORMB), and to subsequently populate a set of star schemas that can be used for business intelligence and analytical purposes via Oracle Revenue Management and Billing Analytics.

## Intended Audience

This guide is intended for the following audience:

- End-users
- System Administrators
- Consulting Team
- Implementation Team
- Development Team

## Organization of the Document

The information in this document is organized into the following sections:

Section No.	Section Name	Description
Section 1	Oracle Revenue Management and Billing Analytics Architecture	Explains the architecture of ORMBA
Section 2	Oracle Revenue Management and Billing Extractors and Schema	Describes the key features of Oracle Revenue Management and Billing Extractors and Schema  It also explains how to perform various administration tasks from ORMBA user interface. In addition, it lists all fact and dimension tables used in Oracle Revenue Management and Billing Extractors and Schema.

## Related Documents

You can refer to the following documents for more information:

Document	Description
<i>Oracle Revenue Management and Billing Analytics Version Release Notes</i>	<p>Lists the features and architecture of Oracle Revenue Management and Billing Analytics</p> <p>It also lists the supported platforms, supported ORMB versions, and highlights known issues in this release.</p>
<i>Oracle Revenue Management and Billing Analytics Installation Guide</i>	<p>Lists the pre-requisites, supported platforms, and hardware and software requirements for installing the ORMBA application</p> <p>It also explains how to install the Oracle Revenue Management and Billing Analytics application.</p>
<i>Oracle Revenue Management and Billing Analytics Security Guide</i>	Describes how to configure security for Oracle Revenue Management and Billing Extractors and Schema and ORMBA

## Change Log

Revision	Last Update	Updated Section	Comments
1.0	June 2016		An overview of ORMBA Admin UI (v2.2.0.0.0)

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# 1. Oracle Revenue Management and Billing Analytics Architecture

This section explains the architecture of Oracle Revenue Management and Billing Analytics (ORMBA).

## 1.1 Logical Topology

Oracle Revenue Management and Billing Analytics (ORMBA) follow a layered architecture, which consists of the following four logical layers:

- Source
- Replication
- Transformation
- Presentation and Access

The Source layer represents the source system, which is Oracle Revenue Management and Billing (ORMB). Oracle Revenue Management and Billing Extractors and Schema delivers functionality of the Replication and Transformation layers. Oracle Revenue Management and Billing Analytics (ORMBA) delivers the functionality of the Presentation and Access layer.

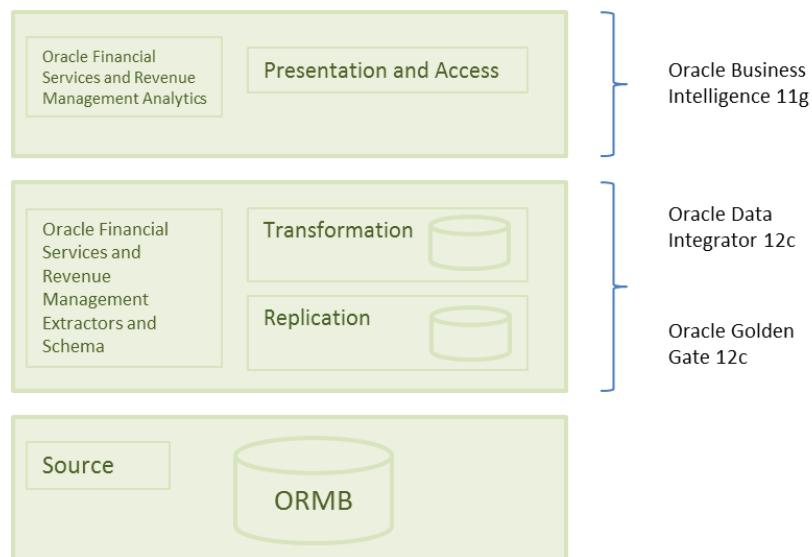


Figure 1: ORMB Analytics Topology

### 1.1.1 Replication Layer

The Replication layer houses the replication objects to which the changes to the data in the source system are replicated. The replication is non-intrusive and poses only minimal overhead without requiring any changes to the source system. The replication can be done in batch or in near real-time and is implemented using Oracle GoldenGate (OGG).

## 1.1.2 Transformation Layer

The Transformation layer is decomposed into the following layers:

- **Staging** – This layer represents the temporary staging area where the transformation, validations, enrichment, data cleansing and other mediation operations on the source data are executed for mapping the source to target objects. The mediation between source and target is implemented using Oracle Data Integrator (ODI).
- **Target** - This layer is the data mart where the 'stars' reside. The objects in this layer are dimensions, facts, materialized views.

## 1.1.3 Presentation and Access Layer

The Presentation and Access layer represents the presentation and reporting services which display the 'stars' to BI users in the form of rich and attractive dashboards, charts, and reports. The presentation layer is implemented using Oracle Business Intelligence Enterprise Edition (OBIEE), which has comprehensive enterprise reporting capabilities and supports ad-hoc as well as multi-dimensional analytical capabilities.

## 2. Oracle Revenue Management and Billing Extractors and Schema

This section describes the key features of Oracle Revenue Management and Billing Extractors and Schema whose purpose is to extract and transform the data into target ‘stars’ that can be used to drive reports and answer business questions from the data within the Oracle Revenue Management and Billing source system.

### 2.1 Data Integration Overview

Data Integration can be decomposed into Data Replication and Data Transformation.

Data Replication, implemented via Oracle GoldenGate, is responsible for replicating changes in source system tables to a copy in the Replication Layer as well as adding the relevant journaling columns to reflect the replication pattern (History, Overwrite, Effective Date) to support type1 and type2 SCD (slow changing dimensions) in the ‘stars’.

Data Transformation moves the data from the replica to the target fact and dimensions via a set of interfaces implemented in Oracle Data Integrator.

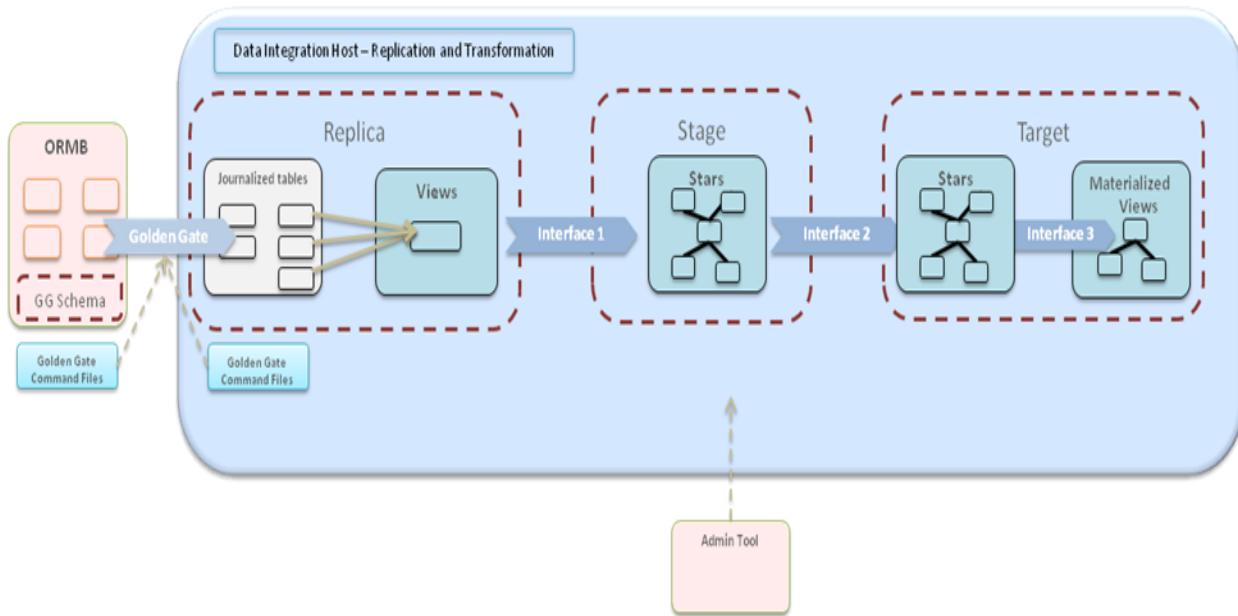


Figure 2: Data Integration

### 2.2 ORMBA Administration User Interface

This section lists and explains how to perform various administration tasks from Oracle Revenue Management and Billing Analytics user interface.

## 2.2.1 Overview

The Oracle Revenue Management and Billing Analytics Administration UI allows administrator to configure settings that control how the ORMBA data load processes work. Navigate to the administration URL and log on using valid credentials.



Figure 3: ORMB Analytics Welcome Page

Once you log on to the application successfully, you will see the Landing page.

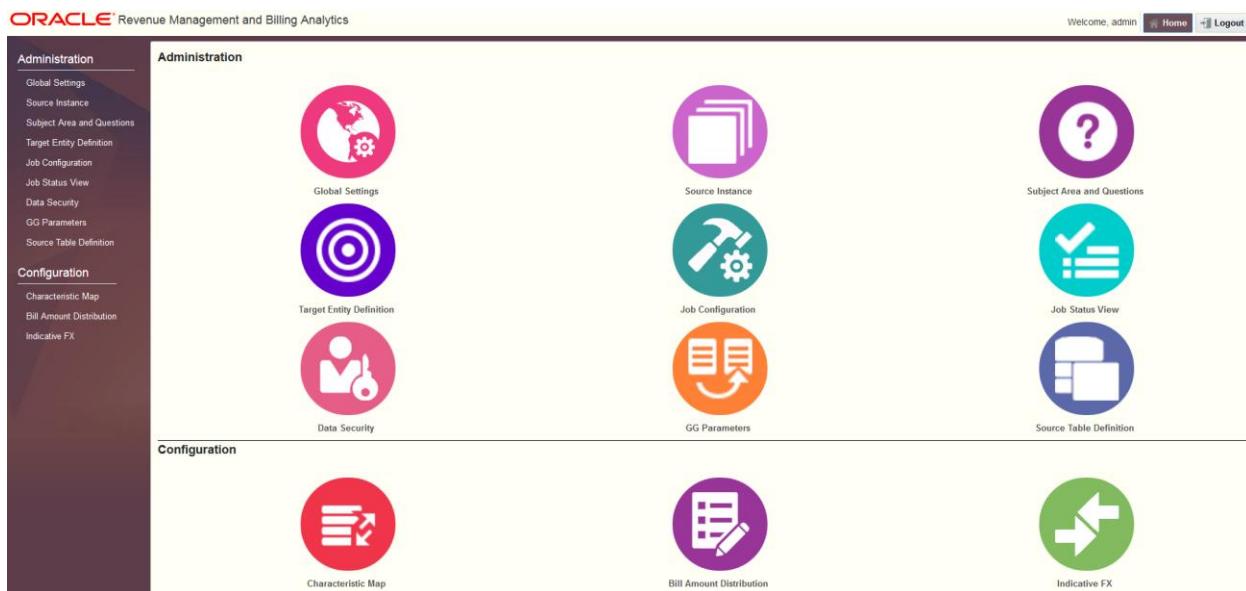


Figure 4: ORMB Analytics Home Page

There are two main sections in the administration UI:

- Administration
- Configuration

Administration section helps the user to define a source instance and map it until the data warehouse. The Configuration section helps you to do configurations that will enhance the data flown from the source system.

## 2.2.2 Global Settings

Global Settings apply to all entities and affect the behavior of the system as a whole. ORMBA basic setup is complete only when these configurations are set up correctly.

Log on to the Administration UI, and click on the **Global Settings** link under the Administration menu. The Global Settings page appears.

Global Settings

Description	Value
Version of the Product	2.2.0.0
Name of the Product	ORMBA
Language	ENG
Date from which all ETL jobs will be configured to start the initial load	01-Jan-2000
Threshold value to consider for parallel loading for high volume table	9999999999
Number of days for which the logs would be retained	7
Corporate Currency, used in dashboards for cross divisional analysis	USD
Time of the day upto which all changes from the source will be loaded by the ETL jobs	12:00:00
Identifier for Global Division	GLB
Prefix for identifying manual files from file name	MANL
Represents the number of rankings to be displayed in the result of any bottom ranking analysis	10
Represents the number of rankings to be displayed in the result of any top ranking analysis	10
Average value for a transaction in corporate currency - used in unrealized revenue computation	1
Number of days for which job execution status can be viewed	15
Maximum number of MV interfaces which can run in parallel	16
Database Edition Type - Mention the type of the Oracle Database, whether it is Standard Edition(SE) or Enterprise Edition(EE)	EE
Enable Partition	Yes
Enable modeling feature	Yes
Enable data level security in dashboards	No
Date from which all ETL jobs will be configured to end the initial load	17-Feb-2016
End point of simulation webservice	<a href="http://mum00abm:8001/ormbas/resources/">http://mum00abm:8001/ormbas/resources/</a>
Batch size for each commit in incremental load merge	10000
Threshold for bill amount.	1000
End point of apply back webservice	<a href="http://mum00abm:8001/ormbas/resources/">http://mum00abm:8001/ormbas/resources/</a>

Figure 5: Global Settings Page

The current settings and their default values are:

Description	Value	Editable (Y/N)
Version of the Product	2.1.0.0.0	N
Name of the Product	ORMBA	N
Language	ENG	Y
Date from which all ETL jobs will be configured to start the initial load	01-Jan-2000	Y
Threshold value to consider for parallel loading for high volume table	10000	Y
Number of days for which the logs would be retained	7	Y
Corporate Currency, used in dashboards for cross divisional analysis	USD	Y

Description	Value	Editable (Y/N)
Time of the day upto which all changes from the source will be loaded by the ETL jobs	23:59:59	Y
Identifier for Global Division	GLB	N
Prefix for identifying manual files from file name	MANL	Y
Represents the number of rankings to be displayed in the result of any bottom ranking analysis	10	Y
Represents the number of rankings to be displayed in the result of any top ranking analysis	10	Y
Average value for a transaction in corporate currency - used in unrealized revenue computation	1	Y
Number of days for which job execution status can be viewed	15	Y
Maximum number of MV interfaces which can run in parallel	16	Y
Database Edition Type - Mention the type of the Oracle Database, whether it is Standard Edition(SE) or Enterprise Edition(EE)	SE	Y
Enable Partition	Y	N
Enable modeling feature	Y	Y
Enable data level security in dashboards	Y	Y
Date from which all ETL jobs will be configured to end the initial load	12-Nov-2015	Y
End point of simulation webservice	http:	Y
Batch size for each commit in incremental load merge	10000	Y
End point of apply back webservice	http:	Y

### 2.2.3 Source Instance

You can use the Source Instance page to view details of an existing source system instance as well as to configure a new source instance. You can add up to a maximum of nine source instances.

Source Instance
[Save](#)
[Cancel](#)

Source	Revenue Management and Billing				
Instance	1				
Description *	ORMBA Instance1				
Drillback URL *	http://				

**Parameters**

[View](#) ▾
[Detach](#)

Description	Name	Value	Mandatory	Data Type	Data Format
Characteristic of Distribution ID to be used for type of charge (eg:- fee, tax etc)	DST_CHAR_CODE	INS FEE	Yes	String	
Characteristic values corresponding to the bill charges	DST_BILL_LINES	A/R FEE	Yes	String	Comma Separated
Characteristic values corresponding to the tax charges	DST_TAX_LINES	A/R TAX ,BK - TAX	Yes	String	Comma Separated
Date from which all ETL jobs for the specific product instance will be configured to start t...	BM_EXTRACT_START_DT	01-JAN-2000	Yes	Date	DD-MON-YYYY
Identifier for parent child relationship in Customer Hierarchy	CUST_HIER_FLAG	PARENT	Yes	String	
Service quantities to be excluded from modeling	EXCLUDE_SQ_CODES	DAYS ,BIL_HOLD	Yes	String	Comma Separated
Date from which all ETL jobs for the specific product instance will be configured to end th...	BM_EXTRACT_END_DT	01-MAY-2016	Yes	Date	DD-MON-YYYY
Currency conversion algorithm to be used.	CURR_ALGORITHM	C1_CURALG	Yes	String	

Figure 6: Source Instance Page

Field	Purpose
Source	Name of the source system
Instance	Instance number. You can configure up to nine source instances.
Description	Description of the source system
Context Code	Combination of Source and Instance
Drillback URL	ORMB application URL
Instance Environment ID	Unique ID of the environment stored in ORMB tables.
Instance Version	Version of Source System instance
Status	Whether the source system is Active or not
GG Configuration Details	<p>Click to view the GoldenGate configuration details of the Source system and the respective Replication database. The details available are:</p> <ul style="list-style-type: none"> <li>• DB Host</li> <li>• DB Port</li> <li>• DB SID</li> <li>• DB Home</li> <li>• GG Home</li> </ul> <p>This button appears when the source instance is active and you open the page in Edit mode.</p>

### Parameters group box

The Parameters group box lists the default parameters available. You can edit the values as required.

Parameter	Value
Characteristic of Distribution ID to be used for type of charge (eg:- fee, tax etc)	INS FEE
Characteristic values corresponding to the bill charges	A/R FEE
Characteristic values corresponding to the tax charges	A/R TAX, BK - TAX
Date from which all ETL jobs for the specific product instance will be configured to start the initial load	01-Jan-2000
Identifier for parent child relationship in Customer Hierarchy	PARENT
Service Quantities to be excluded from Modeling	DAYS, BIL_HOLD
Date from which all ETL jobs for the specific product instance will be configured to end the initial load	01-MAY-2016
Currency conversion algorithm to be used	C1_CURALG
Total number of groups, used as maximum number of subpartitions	8
Interval for month-wise partition in replication tables	12
Algorithm used for writeoff	C1-PDOV-WTBS
Threshold for bill amount	1000
Threshold for a low volume table	10000
Threshold for a medium volume table	1000000
Threshold for a high volume table	999999999999999

**Note:** The first three parameters of the above list decide how the revenue and tax lines are distinguished. The first parameter decides which characteristic field (e.g. FEE\_TYPE) of Distribution ID is used for distinguishing between tax and fee; whereas the second and third parameters defines the values of FEE\_TYPE field that demarcates it as a bill line (e.g.: FEE for service charge, MIN for Minimum fees, FIXED for fixed charges) or a tax line (e.g. ST for state tax, FT for Federal Tax).

Characteristic of Distribution ID to be used for type of charge (eg:- fee, tax etc)	DST_CHAR_CODE	FEE_TYPE	Yes
Characteristic values corresponding to the bill charges	DST_BILL_LINES	FEE,MIN,FIXED	Yes
Characteristic values corresponding to the tax charges	DST_TAX_LINES	ST,FT	Yes

### 2.2.4 Subject Area and Questions

You can use the Subject area and the Questions page to create a new subject area and associate it to a replication group. While creating a new subject area, you can also create and associate one or more questions to the subject area. The questions can be related to Business or Operations. Currently, the details configured in this page are for information purpose only.

## 2.2.5 Target Entity Definition

The Target Entity Definition page lets you update attributes of the target entities. The entities can be Facts, Dimensions, Materialized Views (MViews) or Temporary Tables.

**Note:** While defining the target entity name, make sure that the entity name is same as the table name. Additionally, the ODI package name you give here should be the exact name of the package in ODI.

### Target Entity Definition

Entity Name *	<input type="text"/>
Entity Type	<input type="text"/>
Entity Sub Type *	<input type="text"/>
Subject Area	<input type="text"/>
ODI Package Name *	<input type="text"/>
Stage Retention (Days)	<input type="text" value="10"/>
Warehouse Retention (Months)	<input type="text" value="0"/>
User Extension Procedure	<input type="text"/>
User Extension Procedure (Post Job)	<input type="text"/>
Characteristic Entity	<input type="text"/>

### Scheduler Configuration

Start Date *	<input type="text" value="yyyy-MM-dd HH:mm:ss"/> 	Maximum Retry *	<input type="text" value="0"/>
Schedule Type *	<input type="text" value="Incremental Load"/>	Retry Interval (Minutes) *	<input type="text" value="0"/>
Slice Duration Frequency *	<input type="text" value="Day(s)"/>	Analyze Table Flag *	<input type="text"/>
Slice Duration *	<input type="text" value="1"/>	Daily Sync Flag *	<input type="text"/>
Maximum Parallel Count *	<input type="text" value="1"/>		

Figure 7: Target Entity Definition Page

Field	Purpose
Entity Name	Target table name
Entity Type	Type of entity: <ul style="list-style-type: none"> <li>• Fact</li> <li>• Dimension</li> <li>• Materialized View</li> <li>• Temporary Table</li> </ul>

Field	Purpose
Entity Sub Type	<p>If the entity is a fact or dimension, you need to select a sub type too.</p> <p>For a fact, the possible sub types are:</p> <ul style="list-style-type: none"> <li>• Regular Fact</li> <li>• Accumulating Fact</li> <li>• Snapshot Fact</li> <li>• Factless Fact</li> </ul> <p>For a dimension, the possible sub types are:</p> <ul style="list-style-type: none"> <li>• Slow changing dimension Type I</li> <li>• Slow changing dimension Type II</li> </ul>
Subject Area	<p>Subject area pertaining to the entity:</p> <ul style="list-style-type: none"> <li>• Financial Transaction</li> <li>• Financial Transaction General Ledger</li> <li>• Pricing</li> <li>• Payment Tender</li> <li>• Payment</li> <li>• Service Agreement</li> <li>• Transaction</li> <li>• To-Do</li> </ul>
ODI Package Name	The ODI package to be executed for this entity
Stage Retention (Days)	Number of days for which data is retained in the Staging schema. The default value of this field is <b>10</b> .
User Extension Procedure	User extension procedure to be executed with the job
User Extension Procedure (Post Job)	User extension to be executed after the job is executed
Characteristic Entity	Select the characteristic code applicable for the entity.

#### Scheduler Configuration group box

Field	Purpose
Start Date	Schedule start date
Schedule Type	<p>Modes of data loading:</p> <ul style="list-style-type: none"> <li>• <b>Incremental Load</b> – Data loading occurs as per a schedule, defined using Slice Duration and Slice Duration Frequency fields.</li> <li>• <b>One Time Load</b> – Data loading occurs only once.</li> </ul>

Field	Purpose
Slice Duration Frequency	Different entities have differing data distribution and load processing requirements. This attribute controls the measure of duration between two slices. It can be: <ul style="list-style-type: none"> <li>• Year(s)</li> <li>• Hour(s)</li> <li>• Minute(s)</li> <li>• Quarter(s)</li> <li>• Month(s)</li> <li>• Week(s)</li> <li>• Day(s)</li> </ul>
Slice Duration	Number of years/hours/minutes/quarters/months/weeks/days (based on the value selected in Slice Duration Frequency field) in which the data loading must occur.
Maximum Parallel Count	For efficiency in data load, it is recommended to execute multiple instances of a job; with each instance working on a different data set. This attribute controls how many parallel executions can be spawned for data loading.  Based on this count, the entire data set is divided into equal slices and the slices are executed in parallel.
Maximum Retry	Number of times system should attempt retry, in case of job failure. Once this limit is reached and the job is still failing, it will not be retried.
Retry Interval (Minutes)	In case of job failure, system attempts to retry the execution and this attribute controls the interval between successive retries.
Analyze Table Flag	Whether Analyze Table needs to be executed or not.
Daily Sync Flag	Whether to synchronize daily or not.

## 2.2.6 Job Configuration

You can configure the data load jobs using the Job Configuration page. The page also allows you to provide configuration information to populate the target entities for each instance.

## Job Configuration

Description	Account Dimension
Instance Number	1
Target Entity	BD_ACCT
Package Name	
Slice Start Time	2000-01-01 00:00:00 
Enabled *	No 
User Extension Procedure	
User Extension Procedure (Post Job)	
Execution Sequence	

## Dependencies

View ▾	 Add	 Delete	»
Parent Job - Entity Name			
Customer Dimension BD_CUST			

Figure 8: Job Configuration Page

Field	Purpose
Description	Job description
Instance Number	Source system instance
Target Entity	Target entity against which the job is configured
Package Name	The ODI package to be executed against this job. This will override the package specified against the target entity.
Slice Start Time	Date and time on which the job execution should start
Enabled	Job is enabled or not
User Extension Procedure	Name of the custom procedure to be executed with the job
User Extension Procedure (Post Job)	Name of the custom procedure to be execution <b>after</b> the job runs
Execution Sequence	Enter the sequence of the job. This enables prioritization of jobs.
Parent Job – Entity Name	Parent job on which the job is dependent, along with the entity's name

## 2.2.7 Job Status View

The Job Status View page is used to track the execution of the ELT jobs. The page has three tabs, each depicting a different view of the job status. The three status views are:

- Job Execution Status
- Jobs Ready for Execution
- Jobs Waiting for Execution

### Job Execution Status tab

The Job Execution Status tab lists all jobs that are completed. There will be an entry against each round of job execution, along with the status.

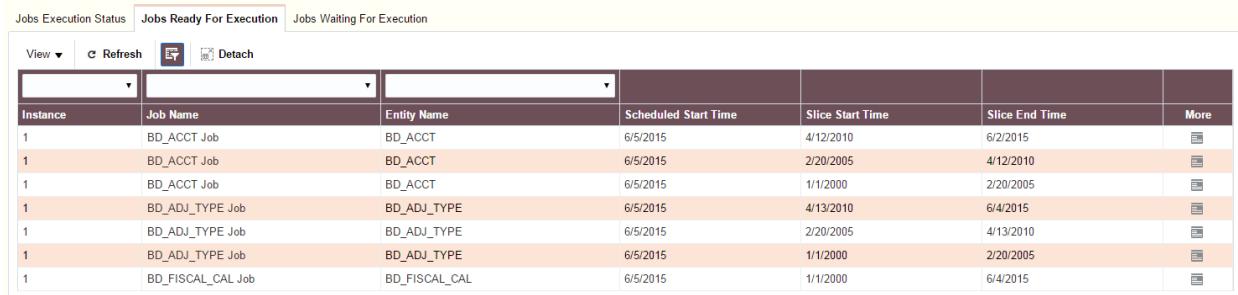
Field	Purpose
Instance	Instance of the job that has completed
Job Name	Name of the completed job
Entity Name	Name of the corresponding entity
Scheduled Start Time	Start time of the job's schedule
Session Start Time	Time at which the job started execution
Session End Time	Time at which the job finished execution
Status	Current status of the job. The values are: Abandoned, Done, Error, Running, Submitted, Reprocessed, and Pending. In case of 'Error' status, you can click the status and view the error details.
More	Displays details of the job

Jobs Execution Status							
Jobs Ready For Execution							
Jobs Waiting For Execution							
View	Refresh	Detach					
Instance	Job Name	Entity Name	Scheduled Start Time	Session Start Time	Session End Time	Status	More
1	BD_FISCAL_CAL Job	BD_FISCAL_CAL	6/5/2015	6/5/2015	6/5/2015	Done	
1	BD_ADJ_TYPE Job	BD_ADJ_TYPE	6/5/2015	6/5/2015	6/5/2015	Done	
1	BF_ADJUSTMENT Job	BF_ADJUSTMENT	6/5/2015	6/5/2015	6/5/2015	Done	
1	BD_FISCAL_CAL Job	BD_FISCAL_CAL	6/5/2015	6/5/2015	6/5/2015	Done	
1	BD_ADJ_TYPE Job	BD_ADJ_TYPE	6/5/2015	6/5/2015	6/5/2015	Done	
1	BD_ADJ_TYPE Job	BD_ADJ_TYPE	6/5/2015	6/5/2015	6/5/2015	Done	
1	BD_ADJ_TYPE Job	BD_ADJ_TYPE	6/5/2015	6/5/2015	6/5/2015	Done	
1	BD_ADJ_TYPE Job	BD_ADJ_TYPE	6/5/2015	6/5/2015	6/5/2015	Done	
1	BD_ADJ_TYPE Job	BD_ADJ_TYPE	6/5/2015	6/5/2015	6/5/2015	Done	

Figure 9: Job Execution Status

### Jobs Ready For Execution tab

Jobs Ready For Execution tab lists the jobs that are ready for execution.



Instance	Job Name	Entity Name	Scheduled Start Time	Slice Start Time	Slice End Time	More
1	BD_ACCT Job	BD_ACCT	6/5/2015	4/12/2010	6/2/2015	
1	BD_ACCT Job	BD_ACCT	6/5/2015	2/20/2005	4/12/2010	
1	BD_ACCT Job	BD_ACCT	6/5/2015	1/1/2000	2/20/2005	
1	BD_ADJ_TYPE Job	BD_ADJ_TYPE	6/5/2015	4/13/2010	6/4/2015	
1	BD_ADJ_TYPE Job	BD_ADJ_TYPE	6/5/2015	2/20/2005	4/13/2010	
1	BD_ADJ_TYPE Job	BD_ADJ_TYPE	6/5/2015	1/1/2000	2/20/2005	
1	BD_FISCAL_CAL Job	BD_FISCAL_CAL	6/5/2015	1/1/2000	6/4/2015	

Figure 10: Jobs Ready For Execution

### Jobs Waiting For Execution tab

Jobs Waiting For Execution tab lists jobs that are waiting in the execution queue.



Instance	Entity Name	Reason	Slice Start Time	Slice End Time	More
1	BD_TXN_UDD4	Entity is deactivated	5/8/2015	6/5/2015	
1	BD_TXN_UDD5	Entity is deactivated	5/8/2015	6/5/2015	
1	BD_USER	Entity is deactivated	5/25/2015	6/5/2015	
1	BF_FEED	Entity is deactivated	5/8/2015	1/1/2000	
1	BF_GL	Entity is deactivated	5/11/2015	1/1/2000	
1	BF_PAYMENT	Entity is deactivated	5/8/2015	1/1/2000	
1	BF_PAY_EXCP	Entity is deactivated	5/13/2015	1/1/2000	
1	BF_PAY_TNDR	Entity is deactivated	5/8/2015	1/1/2000	
1	BF_PRICE	Entity is deactivated	5/8/2015	1/1/2000	
1	BF_SA	Entity is deactivated	5/9/2015	1/1/2000	
1	BF_TD	Entity is deactivated	5/14/2015	1/1/2000	

Figure 11: Jobs Waiting For Execution

## 2.2.8 Data Security

ORMBA handles data from different source systems, as well as different divisions. It is imperative to restrict the data access to relevant sources or divisions, at a user level. You can restrict a user's data access at the following levels:

- All data pertaining to one or more divisions
- All data pertaining to one or more source systems
- All data pertaining to a combination of division(s) and source system(s)

By default, data level security is disabled for an installation. You can enable data level security for an installation using the Global Settings page of ORMBA Administration UI. To do this, change the value of **Enable data level security in dashboards** parameter from N to Y.

The Data Level Security page in ORMBA Administration UI allows you to configure the data access at a user level. Against each user, you need to configure the division and/or source system to which the user should have access. If a user requires access to data from multiple source systems or divisions, you need to add multiple entries against the same user. The data level access is granted for a period of time, at the end of which the access is automatically revoked.

**Note:** If you do not define data security for a user in this page, they will not have access to any of the data in the system.

### Data Security

The screenshot shows a configuration page for 'Data Security'. It includes the following fields:

- User:** A search input field with a magnifying glass icon.
- Data Source Indicator:** A search input field with a magnifying glass icon.
- Division:** A dropdown menu.
- From Date:** A date input field with a calendar icon.
- To Date:** A date input field with a calendar icon.

Figure 12: Data security

Field	Purpose
User	Select the user for whom the data level security is being configured.
Data Source Indicator	Select the source instance from which the user can access data.
Division	Select the division for which the user needs data access.
From Date and To Date	Select the period for which this definition is applicable.

**An example scenario:**

User	Division	Data Source Indicator	From Date	To Date
John	SBCSD	67474	2015-09-16	2016-09-15

As per the above configuration, John has access to data from division *SBCSD* and data source *67474*, from 16 September 2015 to 15 September 2016. After this date, he will not have access to any of the data.

**Note:** If you add a new source system or division to the installation, it is important that you review the configurations on this page and if needed, update the user-level security attributes to include the newly added source system or division. Similarly, when you create a new user, provide the required access to the user by adding a configuration in this page.

## 2.2.9 GG Parameters

You can use the GG Parameters page to configure the Oracle GoldenGate replication parameters. You can configure parameters at both table-level and replication group-level.

### Golden Gate Parameter Configuration

The screenshot shows the 'Golden Gate Parameter Configuration' page. It includes the following fields:

- Product:** Revenue Management and Billing (selected in a dropdown)
- Instance Number:** 1 (selected in a dropdown)
- Replication Group:** (dropdown)
- Table Name:** (dropdown)
- Param Code:** (dropdown with magnifying glass icon)
- Param Value:** (text input)
- Param Scope:** (dropdown)

Figure 13: GG Parameters Page

Field	Purpose
Product	Product name
Instance Number	Source system instance
Replication group	Select the replication group for which you are defining the replication parameter.
Table Name	Select the database table for which you are defining the replication parameter. The list of tables available here is filtered based on the replication group selected.

Field	Purpose																																																																													
	<p>Select the parameter for replication. Depending upon the level at which you are creating the definition, the list of parameters available varies:</p> <ul style="list-style-type: none"> <li>At table level:</li> </ul> <table border="1"> <thead> <tr> <th></th> <th>Param Code</th> <th>Param Syntax</th> <th>Value Required</th> <th>Param Type</th> <th>Param Scope</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>THREADRANGE()</td> <td>Yes</td> <td>Table</td> <td>Replicat</td> </tr> <tr> <td>2</td> <td>IGNOREUPDAT...</td> <td>No</td> <td>Table</td> <td>Both</td> </tr> <tr> <td>3</td> <td>IGNORETRUNC...</td> <td>No</td> <td>Table</td> <td>Both</td> </tr> <tr> <td>4</td> <td>IGNOREDELETE...</td> <td>No</td> <td>Table</td> <td>Both</td> </tr> <tr> <td>5</td> <td>IGNOREINSERTS</td> <td>No</td> <td>Table</td> <td>Both</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>At replication group level:</li> </ul> <table border="1"> <thead> <tr> <th></th> <th>Param Code</th> <th>Param Syntax</th> <th>Value Required</th> <th>Param Type</th> <th>Param Scope</th> </tr> </thead> <tbody> <tr> <td>6</td> <td>COMPRESSDE...</td> <td>No</td> <td>Global</td> <td>Replicat</td> </tr> <tr> <td>7</td> <td>COMPRESSUP...</td> <td>No</td> <td>Global</td> <td>Replicat</td> </tr> <tr> <td>8</td> <td>GROUPTRANS...</td> <td>Yes</td> <td>Global</td> <td>Replicat</td> </tr> <tr> <td>9</td> <td>MAXSQLSTATE...</td> <td>Yes</td> <td>Global</td> <td>Replicat</td> </tr> <tr> <td>10</td> <td>MAXTRANSOPS</td> <td>Yes</td> <td>Global</td> <td>Replicat</td> </tr> <tr> <td>11</td> <td>NUMFILES</td> <td>Yes</td> <td>Global</td> <td>Both</td> </tr> <tr> <td>12</td> <td>TRIMSPACES</td> <td>No</td> <td>Global</td> <td>Both</td> </tr> <tr> <td>13</td> <td>NOTRIMSPACES</td> <td>No</td> <td>Global</td> <td>Both</td> </tr> </tbody> </table>		Param Code	Param Syntax	Value Required	Param Type	Param Scope	1	THREADRANGE()	Yes	Table	Replicat	2	IGNOREUPDAT...	No	Table	Both	3	IGNORETRUNC...	No	Table	Both	4	IGNOREDELETE...	No	Table	Both	5	IGNOREINSERTS	No	Table	Both		Param Code	Param Syntax	Value Required	Param Type	Param Scope	6	COMPRESSDE...	No	Global	Replicat	7	COMPRESSUP...	No	Global	Replicat	8	GROUPTRANS...	Yes	Global	Replicat	9	MAXSQLSTATE...	Yes	Global	Replicat	10	MAXTRANSOPS	Yes	Global	Replicat	11	NUMFILES	Yes	Global	Both	12	TRIMSPACES	No	Global	Both	13	NOTRIMSPACES	No	Global	Both
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Param Value	If the parameter requires value, enter the value here.																																																																													
Param Scope	Select the scope of replication parameter as either <b>Replicat</b> or <b>Extract</b> . This field is available only if the Param Scope of the selected parameter is <b>Both</b> .																																																																													

## 2.2.10 Source Table Definition

You can use the Source Table Definition page to define the source system tables.

### Source Table Definition

Source	*	Revenue Management and Billing
Instance	*	1
Table Name	*	
History Type	*	
Effective Date Column		
Replication Flag	No	
Purge Flag	No	
Replication Retention Days	10	
Replication Group	*	

Figure 14: Source Table Definition Page

Field	Purpose
Source	Name of source system
InstanceNum	Source system instance
Table Name	Source system database table being added
History Type	Whether the history of the table needs to be retained or not: <ul style="list-style-type: none"> <li><b>History:</b> Log of source table changes will be stored.</li> <li><b>Override:</b> Changes to the tables override the previous values.</li> <li><b>Effective Date:</b> Changes are retained based on an effective date.</li> </ul>
Effective Date Column	Enter the source table column that holds the effective date for maintaining history.
Replication Flag	Whether the table needs to be replicated or not
Purge Flag	Whether the data needs to be purged from the replication instance or not
Replication Retention Days	Number of days for which system retains the data in replication
Replication Group	Replication group under which the source table is defined

## 2.2.11 Characteristic Map

Characteristics fields are one of the extensible features available in ORMB. To make this information available in ORMBA, you can configure this information in the Characteristic Map page of the Administration UI. ORMBA offers 25 characteristic data fields that you can configure against an entity, as per the business requirement. During the data load process, the load job will look for characteristic mapping and if configured, uses it to enhance the data being loaded to the warehouse.

**Characteristic Map**

User can map upto 25 characteristics from source table to the target

View ▾		Create	Edit	Delete	Detach
<div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> <input type="text"/> </div> <div style="background-color: #666; color: white; padding: 2px 5px; margin-bottom: 5px;"> <b>Entity Name</b> </div> <div style="background-color: #f0f0f0; padding: 2px 5px;"> BD_ACCT </div>					
View ▾		Detach			
Mapping Field	Characteristic Code				
Characteristic 1	BILLDAYS				
Characteristic 2	BILLTYPE				
Characteristic 3	CISDIVIS				
Characteristic 4	TAXSTATE				
Characteristic 5	No Mapping				
Characteristic 6	No Mapping				
Characteristic 7	No Mapping				
Characteristic 8	No Mapping				
Characteristic 9	No Mapping				
Characteristic 10	No Mapping				
Characteristic 11	No Mapping				
Characteristic 12	No Mapping				
Characteristic 13	No Mapping				

Figure 15: Characteristic Map Page

## 2.2.12 Bill Amount Distribution

You can split the charges in a bill up to ten components for analysis, based on its type. For e.g. tax line in a bill can be split into Federal tax, State tax etc.

### Bill Amount Distribution

View ▾		Detach		
Source Distribution ID	Mapping Description	Mapped Distribution ID	Mapped GL Account	
A/R FEE ; A/R FEEY	Amount 1	A/R FEE		
A/P - TAX ; A/R TAX	Amount 2	A/R TAX		
	Amount 3			
	Amount 4			

Figure 16: Bill Amount Distribution Page

### 2.2.13 Indicative FX

The Oracle Revenue Management and Billing Analytics Dashboards present various amounts like revenue, tax, etc in a single currency (corporate currency) wherever multiple divisions are in context. Administration UI provides a facility to specify an indicative FX (exchange rate) from a division currency to the corporate currency. In case of installations where you deal with multiple divisions handling multiple currencies, you can define the exchange rates for each currency. While rendering any analysis that involves multiple divisions, the dashboard converts currency based on the indicative FX configured against the corporate currency.

### Indicative FX

From Currency *	<input type="text"/>
To Currency *	<input type="text"/>
Multiplier *	<input type="text"/>

Figure 17: Indicative FX Page

Field	Purpose
From Currency	The corporate currency from which you convert, as defined in the Global Settings page
To Currency	Division currency to which you want to convert
Multiplier	Indicative exchange rate to be applied during currency conversion

**Note:** This is applicable only when there is a single warehouse serving different ORMB installations that use different currencies.