# Oracle® Fusion Middleware

Administering Oracle Real-Time Integration Business Insight 12*c* Release (12.2.1)

E67627-01

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Documentation, for application users with various user roles, that provides information about various administrative tasks that need to be performed in Oracle Real-Time Integration Business Insight and how to perform those tasks.



Oracle Fusion Middleware Administering Oracle Real-Time Integration Business Insight, 12c Release (12.2.1)

E67627-01

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# **Preface**

The *Oracle Real-Time Integration Business Insight Administrator's Guide* provides details about the administrative tasks that an Insight Administrator needs to perform in the Oracle Real-Time Integration Business Insight product.

#### **Audience**

This book is intended for the users with an *Administrator* role who use the Oracle Real-Time Integration Business Insight application for their business needs.

It is assumed that you have basic knowledge of the following:

- Oracle WebLogic Server console
- What is running on the WebLogic Servers
- Oracle Business Intelligence Publisher (BI Publisher).

For more information, see Adding Users/Groups to Pre-defined Roles.

# **Related Documents**

For more information, see these Oracle Resources:

- Understanding Oracle Real-Time Integration Business Insight
- Using Oracle Real-Time Integration Business Insight.

#### **Conventions**

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

# **Overview**

Oracle Real-Time Integration Business Insight provides a web-based feature to allow to business users to:

- Model business concepts easily
- Map to implementation naturally
- Monitor business progress immediately
- Efficiently monitor workflow and runtime through
  - Zero development effort
  - Minimal impact to runtime
- Access advanced analytics through exposed star-schema
- Access bundled reporting capabilities.

### 1.1 Introduction to Insight

Oracle Real-Time Integration Business Insight (also known as *Insight*) puts business users in control by allowing them to model, collect and monitor business-level metrics without reliance on the Information Technology personnel.

The *Insight Administrator* needs to perform certain tasks for the application to function properly:

- Create users and assign them appropriate role privileges
- Set up connections to SOA or Service Bus Servers
- Configure and set up the reporting functionality.

#### 1.2 Understanding Users and Their Roles

Oracle Real-Time Integration Business Insight has a variety of user personas. Each user has a defined set of roles and the areas of the application the user can access varies based on the permissions attached to the user role.

The following user personas are available and have an application role associated with each:

- InsightBusinessUser
  - Thinks in business terms like:
    - Process Milestones

- Business Facts
- ◆ Service levels.
- InsightIntegrationArchitect
  - Understands implementation of:
    - Software Architecture
    - Process Topology
    - Application Structure.
- InsightExecutive
  - Has access to dashboards. Can:
    - ◆ Create dashboards
    - ◆ Edit dashboards
    - View dashboards.
- InsightAdmin
  - Super user with all privileges in the application. Can create users and assign role permissions provided this user has the appropriate permissions and privileges in Oracle WebLogic and Oracle Enterprise Manager consoles:
    - ◆ Create users and assign role permissions
    - ◆ Configure reports
    - Create and manage data connections.
- InsightModelCreator
  - Has role privileges to:
    - ◆ Create models
    - ◆ Edit models
    - ♦ View models.

This user is the owner of the model.

- InsightConnectionCreator
  - Has role permissions to:
    - Create connections to servers
    - ◆ Edit connections
    - ◆ Delete connections
    - ◆ Test and configure connections.

Only users with *InsightAdmin* or *InsightConnectionCreator* role privileges can manage the connections.

The *InsightAdmin* user has the privileges to create as many users as required and to assign the users with appropriate role permissions, provided this user also has the appropriate permissions and privileges on the Oracle WebLogic Server and Oracle Enterprise Manager consoles. In general, it is common for a user to have multiple role privileges. For example, a user Karl can be *InsightAdmin*, *InsightModelCreator*, and *InsightIntegrationArchitect* as well. The number of users and their role permissions are governed by the business need.

For more information, see Adding Users/Groups to Pre-defined Roles.

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# Adding Users/Groups to Pre-defined Roles

Before you can add users/groups to pre-defined roles, you need to:

- Create Users. See http://docs.oracle.com/html/E24401\_02/taskhelp/security/ DefineUsers.html for detailed instructions.
- **2.** Associate Users with Groups. See http://docs.oracle.com/html/E24401\_02/taskhelp/security/ManageUsersAndGroups.html for detailed instructions.
- **3.** Create Groups. See http://docs.oracle.com/html/E24401\_02/taskhelp/security/DefineGroups.html for detailed information.

Oracle Real-Time Integration Business Insight provides six pre-defined roles along with the installation. A *Role* is the group of users designed at the enterprise level and typically used to assign a privilege or permission. A role can also contain other roles as members. Application role is the set of privileges or permissions a user or a group of users has within the application.

If you need to edit/create roles, you must have Admin access to the Oracle Enterprise Manager Fusion Middleware Console.

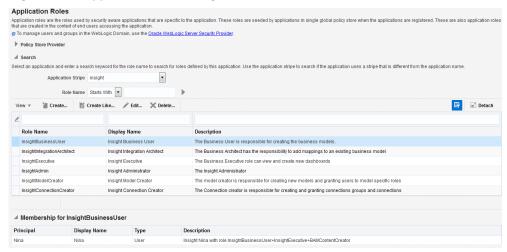
#### **Editing Users Associated with a Role**

To add/delete users or groups associated with an existing role:

- 1. Log in to the *Oracle Enterprise Manager* console as an administrator.
- 2. Go to WebLogic Domain > Security > Application Roles.

The **Application Roles** page opens.

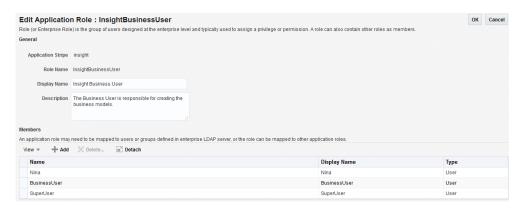
Figure 2-1 Application Roles Page



- **3.** Select *Insight* as the **Application Stripe**.
- 4. Click the arrow against the Role Name field to populate all the existing roles.
- **5.** Select the role to which you want to add/delete users and click **Edit**.

The **Edit Application Role** page opens.

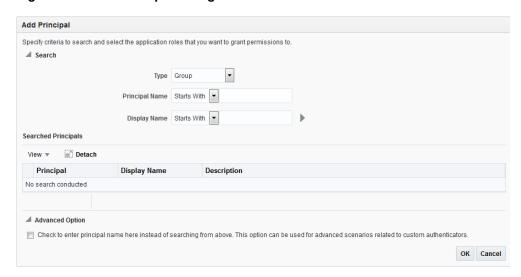
Figure 2-2 Edit Application Role Page



- **6.** Edit the **Display Name** and **Description** if required.
- 7. Click Add.

The Add Principal dialog opens.

Figure 2-3 Add Principal Dialog



- **8.** Select **Application Role**, **Group** or **User** as the **Type**. If you select Group, all the users in that group will be affected.
- Search for the user or the group based on the Principal Name or the Display Name.
- **10.** Select the check box under the **Advanced Options** to enter principal name instead of searching.
  - **a.** Enter a **Principal Name**. This is a mandatory field.

**b.** Enter a **Display Name**.

#### **11.** Click **OK**.

The selected role permission is edited.

**Important:** Any user who needs permission to access the consoles and the dashboards must be associated with the **BAMContentCreator** group. For detailed instructions about associating users with groups, see <a href="http://">http://</a> docs.oracle.com/html/E24401\_02/taskhelp/security/ AddUsersToGroup.html.

For instructions about deleting groups and users, see <a href="http://docs.oracle.com/">http://docs.oracle.com/</a> html/E24401\_02/taskhelp/security/ManageUsersAndGroups.html.

## **Data Connections**

Oracle Real-Time Integration Business Insight provides the ability for business users to create an abstract model of an application, and then map that model to implementation on various Oracle Fusion Middleware technologies such as SOA Suite and Service Bus. Mapped models can then be activated and the system observes the application for business activity. Both mapping and runtime extraction of metrics is done using connections. Data connections allow the system to communicate with a runtime engine, and must be configured with appropriate location and authentication information. These integrations are hosted on various technologies such as SOA and Service Bus.

A user with the role permissions of an *InsightAdmin* or an *InsightConnectionCreator* have the privilege to create and manage connections. For more information about data connections, see Working with Data Connections in *Using Oracle Real-Time Integration Business Insight*.

### 3.1 Creating a Data Connection

Only users with the role  ${\it InsightConnectionCreator/InsightAdmin}$  can create connections.

To create a data connection:

- 1. Click the **Administration** tab or the navigational shortcut on the **Home** page.
  - The **Data Connections** page opens.
- 2. Click Create Connection.

The **Create Connection** dialog opens.

- **3.** Enter the following details:
  - **a.** Name: an appropriate name for the connection
  - **b. Description**: enter a suitable description for the connection
  - **c. Type**: select the type of connection, SOA or Service Bus
  - d. Host Name: the host name for the connection

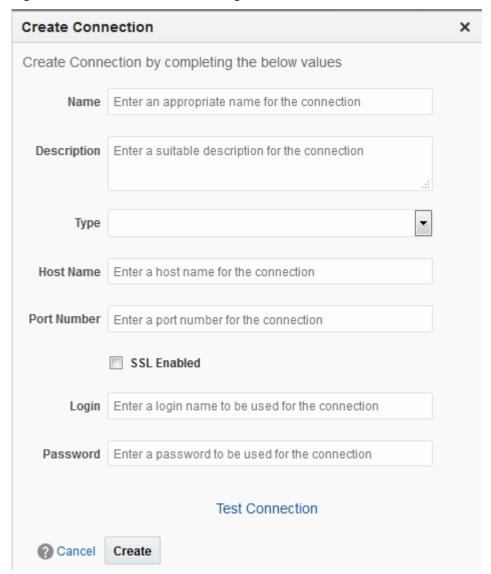
**Note:** You can create a connection to a SOA Suite Server or Service Bus running within the same domain or on a different domain. The SOA Suite / Service bus Insight Agents should be running on the SOA Suite/Service bus servers for the insight data connections to connect to them .Also note that this version of Insight does not support multiple instances of Insight that are mapped to a single agent.

- e. Port Number: an appropriate port number for the connection
- f. Select SSL Enabled if you want the connection to be enabled with SSL.
- **g.** Login: the user name to be used for the connection
- **h. Password**: the password to be used for the connection
- **4.** Click **Test Connection** to test if a successful connection is established to the Server with the provided parameters.

If the connection is established successfully, you see a **Configured** message. For more information, see Testing a Data Connection.

5. Click Create.

Figure 3-1 Create Connection Dialog



After a connection is created, there are 3 states a connection can be in.

Draft state if the connection has not been testes yet

- Configured state if the connection has been tested either while creating or editing it, and the test has passed
- *Disconnected* state if the connection has been tested either while creating or editing it, and the test has failed.

## 3.2 Editing a Data Connection

Only users with the role <code>InsightConnectionCreator/InsightAdmin</code> can edit/update connections.

To edit a connection:

- Click the Administration tab or the navigational shortcut on the Home page.
   The Data Connections page opens.
- **2.** Click the **Edit** icon (the pencil icon) next to the connection you want to edit.

Figure 3-2 Edit Connection



The **Edit Connection** dialog opens.

**Edit Connection** × Edit Connection by updating the below values SOAConnection Name Description SOAConnection SOA Type **Host Name** slc03spf.us.oracle.com Port Number 7001 SSL Enabled weblogic Password Configured Retest Connection Cancel Save

Figure 3-3 Edit Connection Dialog

**3.** Click **Retest Connection** to test the connection with the changes you have made.

The connection state changes to **Configured** if the test passes or **Disconnected** if the test fails.

**4.** Make the required updates and click **Save**.

The data connection is edited with the changes you made.

## 3.3 Testing a Data Connection

Testing a data connection verifies that the credentials entered are valid and the connection can be used for implementation mappings in new models. Only users with the role <code>InsightConnectionCreator/InsightAdmin</code> can test connections.

To test a data connection:

1. Click the **Administration** tab or the navigational shortcut on the **Home** page.

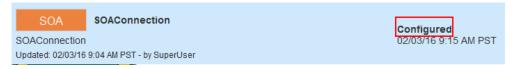
The **Data Connections** page opens.

**2.** Click the **Test Connection** icon against the connection you want to test.

The state of the connection changes to **Configured** if the test passes. Else the state changes to **Disconnected** if the test fails. The test may fail because of either of the following reasons:

- the provided credentials are incorrect
- the Server referred to in the connection is unavailable.

Figure 3-4 Connection Tested



**3.** Click **Test All** on the **Data Connections** page to test all the connections at a time.

**Note:** You cannot test the connections with the **Test All** button if the connections are in *Draft* state.

#### 3.4 Deleting a Data Connection

To delete a data connection:

- Click the Administration tab or the navigational shortcut on the Home page.
   The Data Connections page opens.
- 2. Click the **Delete Connection** icon against the connection you want to delete.

The **Delete Connection** icon will be enabled only if the data connection is in a:

- Disconnected state
- Draft state
- Configured state but not used in any active model.

**Note:** You cannot delete a data connection if it is being used in an activated model.

Figure 3-5 Delete Icon for a Data Connection



The selected data connection is deleted.

# Reports

Only a user with role permission of *InsightAdministrator* can configure the reports in Oracle Real-Time integration Business Insight application. Users with *InsightExecutive* and *InsightModelCreator* privileges can view the reports.

If the reports are not configured, you see the following error message on the **Reports** page.

#### Figure 4-1 Reports Not Configured

Reports are unavailable The Reports page has not been configured. Please contact your administrator.

# **4.1 Configuring Reports**

To configure reports:

- 1. Install BI Publisher 11.1.1.7 and apply patch set 5. See http://docs.oracle.com/middleware/1221/core/BIEIG/toc.htm.
- **2.** Apply the Oracle Automated Release Updates (ARU) patch to BI Publisher from http://aru.us.oracle.com:8080/ARU/ViewPatchRequest/process\_form.

This patch is required for the graphs to render when viewing HTML reports.

- 3. Log in to BI Publisher as a user with administrative permissions. The URL for BI Publisher looks like: The URL for BI Publisher is of the format: http://<hostname>:<port>/xmlpserver/ and the default port is 9704.
- **4.** Navigate to **Administration** > **Runtime Configuration** > **Properties**.
- **5.** Enable the following flags under **HTML** section.
  - **a.** Embed images and charts in HTML for offline viewing: *True*.
  - **b.** Use SVG for charts: *True*.
- **6.** Navigate to **Administration** > **Data Sources** > **JDBC Connection**.
  - **a.** Click **Add Data Source** and enter the following values:
    - Data Source Name: Insight
    - Driver Type: Oracle 11g
    - Database Driver Class: oracle.jdbc.OracleDriver
    - Connection String: jdbc:oracle:thin:@<hostname>:<port>:<sid>

- User name: <RCU\_PREFIX>\_soainfra
- Password: password specified in RCU when creating users.
- **b.** Add a **Clarifier** with the following values:
  - values: the username and password for schemas created by RCU during installation

A clarifier is essential as RCU will be run for BI Publisher and any SOA or OSB that Insight integrates to.

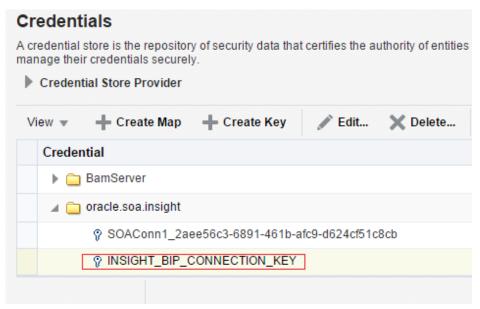
A database connection to the Insight database in BI Publisher is created.

- 7. Click Create BI Publisher Users to create users with appropriate permissions to create and configure reports in Insight. For more information, see Adding Users/Groups to Pre-defined Roles.
- **8.** Click **Upload** to upload the Insight out-of-the-box reports in the BI Publisher.
  - **a.** Download the file **soa/reports/Oracle\_Integration\_Insight\_Reports.xdrz** from the ORACLE\_HOME on the WebLogic server.
  - **b.** Navigate to **Catalog**.
  - c. Click Shared Folder.
  - d. Click Upload Resource and upload the
     Oracle\_Integration\_Insight\_Reports.xdrz file (the file you downloaded in step a).

A  ${\bf Catalog}$  folder within Shared Folders/Oracle Integration Insight Reports is created.

- **9.** Enter the user credentials for the BI Publisher users.
  - **a.** Navigate to **Security** > **Credentials** in the Enterprise Manager Fusion Manager Control.

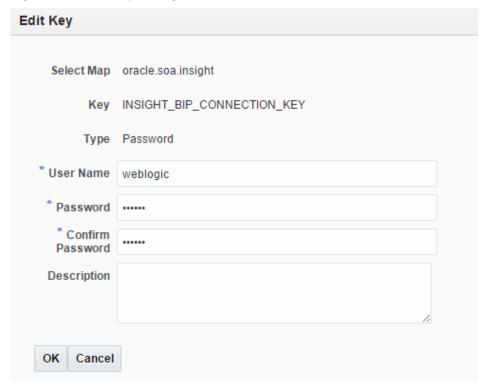
Figure 4-2 Enterprise Manager Fusion Middleware Control Credentials Screen



- b. Expand oracle.soa.insight and select INSIGHT\_BIP\_CONNECTION\_KEY. If oracle.soa.insight does not exist, click Create Map to create it, and then create the key INSIGHT\_BIP\_CONNECTION\_KEY using Create Key.
- **c.** Click **Edit** to enter or edit the user name and password. These credentials are for the BI Publisher.

The Edit Key Dialog opens. Enter the following details:

Figure 4-3 Edit Key Dialog



- i. User Name: enter the user name you want to use to log in to BI Publisher. This is a mandatory field.
- **ii. Password**: enter a password to log in to BI Publisher. This is a mandatory field.
- **iii. Confirm Password**: re-enter the password you entered in the above step. This is a mandatory field.
- **iv. Description**: enter a suitable description for the key. This is an optional field.
- v. Click OK.
- 10. Navigate to the InsightConfigBean in System MBean Browser.

Figure 4-4 ConfigMBean:InsightConfigBean



The BiUserServerName field is unused and the BiServerPassword contains INSIGHT\_BIP\_CONNECTION\_KEY, which is the default value.

- 11. Create a connection to the BI Publisher server by updating the MBean in Insight.
  - **a.** Login to Oracle Enterprise Manager Fusion Middleware Control console in the Insight domain.
  - b. Navigate to WebLogic Domain > System MBean Browser
  - c. Open MBean Browser.
  - d. Expand the InsightConfigBean. The attributes are:
    - BiServerPassword The CSF Password Credential Key for the BI Publisher Server. The key should be INSIGHT\_BIP\_CONNECTION\_KEY as created in the Credential Store.
    - BiServerUrl URL of the BI Publisher Server. Enter a value similar to http://<host:port>/. Do not forget to include the port number in the URL. The integration will automatically append xmlpserver/ to the end of this URL, so only the protocol, host and port are included
    - BiServerUsername this attribute is not used.

The Reports are configured.

The configuration must be validated by logging in to the Insight application. You will see reports when you navigate to **Reports**. The reports will start generating the data when you have created and activated models.

## 4.2 Understanding Out-of-the-Box Reports

When the administrator configures the reports, the following reports are available outof-the-box:

- **1.** *Most Recent Milestone* report provides information about instances based on the most recent milestone passed.
- 2. Milestone Performance report focuses on all milestones over the lifetime of instances tied to a given model. The elapsed time between a milestone and the following milestone will be aggregated together into an average to identify how long instances are taking to progress and identify hotspots.
- **3.** *Instances* report focuses on the Instances of a particular Insight Model. The report can show the Summary or Detail views.
- **4.** Exception Instances in Error Status report provides information tracked about the identified error milestones. The instances which have reached an error milestone most recently are reported.
- **5.** *Exception Stuck Instances* report provides information tracked about the milestones with a currently executing duration exceeding the Threshold (seconds). Only open instances are included in the report.

For more information about Reports, see *Working with Reports* in *Using Oracle Real-Time Integration Business Insight*.

### 4.3 Adding Custom Reports

Oracle Real-Time Integration Business Insight provides you an option to add custom reports.

To add custom reports:

- 1. Log into BI Publisher as an administrator.
- **2.** Navigate to **Catalog**.
- 3. Navigate to Shared Folders/Oracle Integration Insight Reports.
- **4.** Locate the folder provided by the Insight out-of-the-box distribution named **Custom Reports**.
- **5.** Create and copy a report into this folder.
  - **a.** Create a report using BI Publisher by querying the JDBC data source named **Insight**.
  - **b.** Parameters are limited to types Menu, Date, and Text.
  - c. The report will be available immediately within Oracle Real-Time Integration Business Insight console. Hence, it is recommended to build the report in another folder and copy only the validated report to Custom Reports folder when the report runs as expected.
- **6.** Refresh the **Reports** page in Oracle Real-Time Integration Business Insight console.

The new custom report now appears below the out-of-the-box reports.

# **Purging**

The metrics collected as part of Insight need to be purged based on a configuration to maintain database growth and application performance. The data for Insight is stored in the *Insight Event Store* and in the Business Activity Monitoring Data Objects created for each of the Insight activated models. Data in these two sources needs to be purged periodically based on configuration provided through the **ConfigMBean** of Insight.

### 5.1 InsightConfigMBean Parameters

The following configurable parameters will be made are available as part of the **InsightConfigMbean**. The mBean is as follows:

com.oracle.procmon.engine.management.mbeans.impl:name=InsightCon
figBean,type=ConfigMBean,Application=insight

#### **Parameters**

The details of the parameters are described below:

- BAMMetricsRetentionPeriod this parameter controls the retention period of the metrics captured as part of BAM Data Objects . The default value is 90 days. Once the attribute is updated, the retention period of BAM Data Objects of all activated models gets updated with the same value. A value of 0 signifies that the metrics will be retained indefinitely and never be purged.
- EventStoreRetentionPeriod this parameter controls the retention period of the raw events captured. The default value is -1, which implies that table data will be purged immediately once they are processed and metrics published in BAM. A value of 0 implies that data will not be purged. A change in value of this attributes needs a server restart for the purge job to take effect.

#### 5.2 Purging Events Captured in Event Store

Insight events generated by agents are persistent in the database tables A purge job runs to purge data based on the EventStoreRetentionPeriod attribute in InsightConfigMbean attribute comparing the CREATION\_DATE column. The default value is -1, which means the purge job will always be running in background and deletes events once they are processed. Once a non-zero value is configured in the mBean, a server restart is required for the purge job to pick up the configured value. Any events older than the retention period (comparing CREATION\_DATE column will be deleted.

You can purge only successful events.

### 5.3 Purging Metrics Captured in BAM Data Objects

During activation of a model, BAM Data Objects specific to the model get created. To purge the metrics captured in these Data Objects, you need to leverage the BAM data retention feature. Based on the BAMMetricsRetentionPeriod in the InsightConfigMbean, the retention period of the data in these Data Objects will be set. The default value is 90. BAM internal jobs will take care of purging of metrics created beyond the retention period. A nightly job takes care of the purging, the time of running the purge job is done through the BAM configuration. An update of InsightConfigMBean attribute results in immediate update of the retention period of all activated model Data Objects. The BAM metrics are a global configuration and not model specific.