

JD Edwards EnterpriseOne Tools

Embedded Business Intelligence for JD Edwards EnterpriseOne

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This document provides instructions for using Form Design Aid to create forms with BI controls. It also describes how to access the Oracle BI Application Server through a URL task on a JD Edwards EnterpriseOne menu, and how to set up a connection to the Oracle BI Application Server.

1 Understanding JD Edwards EnterpriseOne Business Intelligence Integration

This section contains the following topics:

- [Section 1.1, "Oracle Business Intelligence"](#)
- [Section 1.2, "Oracle Business Intelligence Applications"](#)
- [Section 1.3, "Embedded Oracle Business Intelligence for JD Edwards EnterpriseOne"](#)

1.1 Oracle Business Intelligence

Typically, organizations track and store large amounts of data about products, customers, prices, contacts, activities, assets, opportunities, employees, and other elements. This data is often spread across multiple databases in different locations with different versions of database software.

After the data has been organized and analyzed, it can provide an organization with the metrics to measure the state of its business. This data can also present key indicators of changes in market trends and in employee, customer, and partner behavior. Oracle Business Intelligence (Oracle BI) helps end users obtain, view, and analyze the data.

1.2 Oracle Business Intelligence Applications

Oracle BI Applications is a prebuilt business intelligence solution.

Oracle BI Applications supports Oracle sources, such as Oracle E-Business Suite Applications, Oracle's Siebel Applications, Oracle's PeopleSoft Applications, Oracle's JD Edwards Applications, and non-Oracle sources, such as SAP Applications. If you already own one of the above applications, you can purchase Oracle Business Intelligence Enterprise Edition and Oracle BI Applications to work with the application.

Oracle BI Applications also provides complete support for enterprise data, including financial, supply chain, workforce, and procurement and spend sources. These

enterprise applications typically source from both Oracle data sources, such as Oracle EBS and PeopleSoft and non-Oracle data sources, such as SAP.

1.3 Embedded Oracle Business Intelligence for JD Edwards EnterpriseOne

This solution embeds Oracle BI Applications in JD Edwards EnterpriseOne applications. Using this solution, customers can embed Oracle BI reports, such as Financial Analytics reports, directly on JD Edwards EnterpriseOne application screens.

The embedded Oracle BI for JD Edwards EnterpriseOne integration provides a new, native JD Edwards EnterpriseOne control called "Business Intelligence (BI) Control". This control is made available in Form Design Aid. Customers can place this control on a JD Edwards EnterpriseOne form. Using this control, you can retrieve and display Oracle BI reports. Users can also interact with the Oracle BI report using data that is available on the JD Edwards EnterpriseOne form.

When implementing a JD Edwards EnterpriseOne Business Intelligence Integration, follow these steps:

1. Install the latest update of JD Edwards EnterpriseOne Tools.
2. Install the latest version of Oracle BI Enterprise Edition and the Oracle BI Applications adapter for JD Edwards EnterpriseOne.

Please see the JD Edwards EnterpriseOne MTR page on My Oracle Support for supported versions.

3. Set up Oracle BI Enterprise Edition user groups and security.
4. Set up the JD Edwards EnterpriseOne user and roles.
5. Set up mappings between the JD Edwards EnterpriseOne user and roles to the Oracle BI Enterprise Edition user.
6. Customize or create Oracle BI Enterprise Edition reports.
7. Customize or create JD Edwards EnterpriseOne applications to display the Oracle BI Enterprise Edition reports created.

2 Configuring a BI Connection

This section contains the following topics:

- [Section 2.1, "Understanding the BI Connection"](#)
- [Section 2.2, "Adding a BI Connection Template"](#)
- [Section 2.3, "Creating a BI Connection"](#)

2.1 Understanding the BI Connection

All of the BI reports are located on the Oracle BI Application Server. In order to connect to the Oracle BI Application Server, one or more BI connections must be created for the users. Before you can create BI connections, you must create a BI connection template.

A BI connection defines how the system connects to the Oracle BI Application Server for any given JD Edwards EnterpriseOne user. A BI connection includes information about the server, the port of the Oracle BI Application Server, the Oracle BI user and password used to establish the connection, and the root folder (optional). A BI connection can be added for any valid JD Edwards EnterpriseOne user, role, or

*PUBLIC. They represent 3 different levels of mapping. An administrator can create just one BI configuration for *PUBLIC to cover all of the JD Edwards EnterpriseOne users, or can create multiple BI connection records to perform mapping at various levels. If multiple BI connection records are created, the system uses the following rules:

- The system uses the most specific BI connection configuration (user>role>public).
- When the user logs in with a role of *All, the system prioritizes all roles of the user based on the role sequence.

2.2 Adding a BI Connection Template

To add a BI connection template:

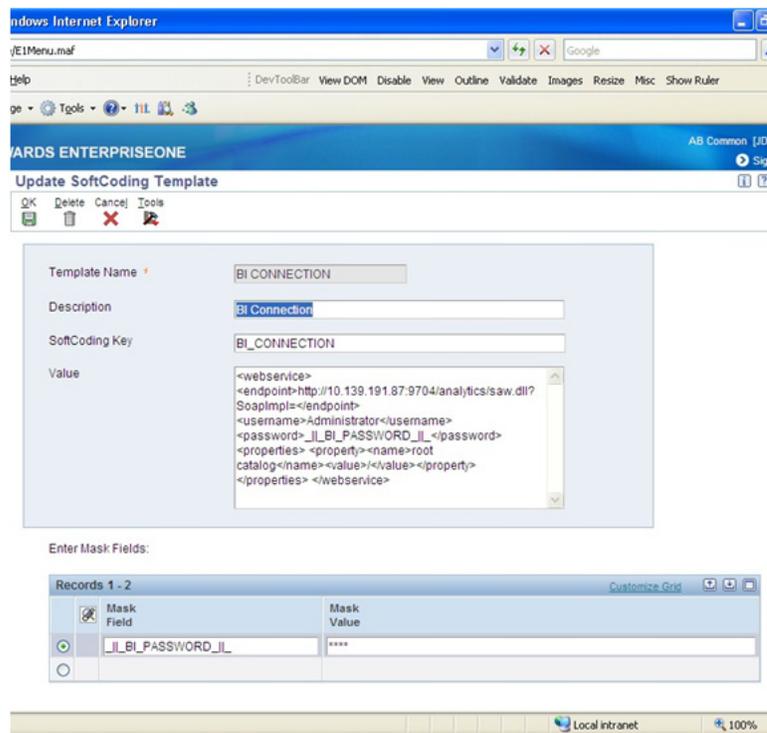
1. Access the P953000 application.
2. Select Add.
3. Enter the following information:

Field	Value
Template Name	BI CONNECTION
Description	BI Connection
SoftCoding Key	BI_CONNECTION
Value	<pre> <webservice> <endpoint> http://server:port/analytics/saw.dll?SoapImpl=</endpoint> <username>username</username> <password>_ _BI_PASSWORD_ _</password> <properties> <property><name>root catalog</name><value>root catalog folder</value></property> </properties> </webservice> </pre> <p>To complete this field, please see Section 2.2.1, "Softcoding Value Guidelines."</p>

Important! The value for SoftCoding Key must be BI_CONNECTION. You cannot use any other value for this field.

4. Enter the Mask Fields in the grid (for example, BI_PASSWORD).
5. Click OK to save the template.

Figure 1 Update Softcoding Template Form



2.2.1 Softcoding Value Guidelines

When creating the BI connection template, use the following guidelines to ensure valid softcoding value parameters.

2.2.1.1 Http Address The http address must follow this format with a valid Oracle BI Application Server name or IP address and port number:

http://<server>:<port>/analytics/saw.dll?SoapImpl=

If you are running JD Edwards EnterpriseOne Tools release prior to 8.98 Update 3, <port> is mandatory in the above http address even if you are using the default port.

2.2.1.2 Username The user name must be a valid Oracle BI user name.

2.2.1.3 _||_BI_PASSWORD_||_ The administrator has two ways to supply the password for the Oracle BI user. He or she can:

- Use a placeholder parameter (masked parameter) in the softcoding value and assign the value to the parameter in the grid. The above example used a placeholder parameter called "BI_PASSWORD" and defined the BI_PASSWORD variable in the grid. The "_||_" prefix and postfix are markers for placeholder variables.

When used this way, the value will be encrypted before it is saved into the database and is masked for future display.

- Use plain text directly in the softcoding value.

2.2.1.4 Root Catalog The root catalog provides the default entry point folder when an application designer launches the BI catalog in FDA. It is also the default folder for a

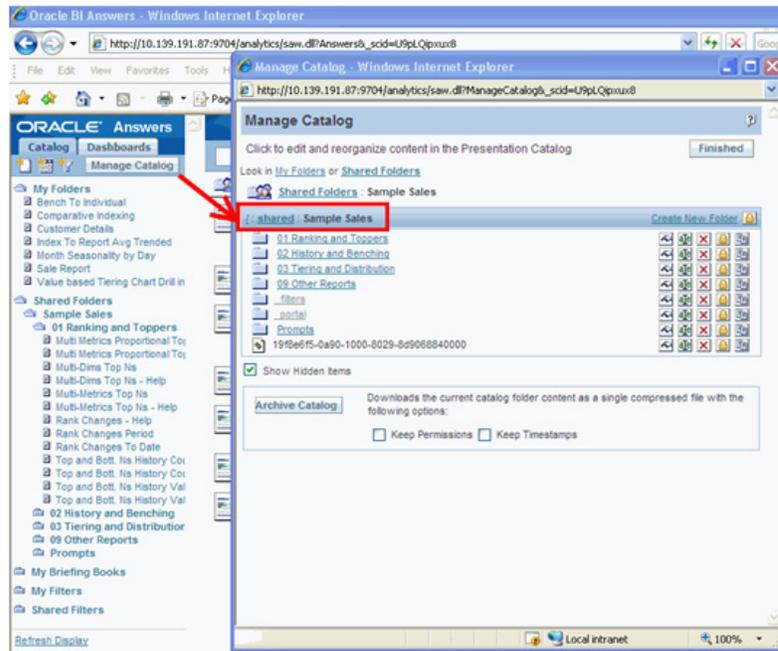
BI control. By default, this folder could be the root folder "/" in the template. However, for security reasons, accessing the BI catalog at the root level may not be allowed in production. The administrator should use a more specific path instead (for example, /users/user1).

Important!: Within the <property> tags, the <name> must be "root catalog" because this is the hard-coded name within the system. If you use another name, the system will ignore it. Only the <value> element is configurable.

There are two ways to define the root catalog:

- "Log into the Oracle BI Application Server and click on the Catalog tab and then the Manage Catalog button. On the Manage Catalog window, you will see the navigation link start from root folder "/". Drill up or down by clicking on the parent or child links. Once you find the folder location that you want to use as the root catalog for the JD Edwards EnterpriseOne end user, manually enter the folder path (for example, /shared/Sample Sales) as the soft coding value for root catalog. The path is case sensitive. Make sure that you type the exact folder path. If the path is misspelled, JD Edwards EnterpriseOne will fail to open the path. If you need to change the value for the root catalog, you have to correct the value in P954000 and restart the JAS server in order to clean up the cached information.

Figure 2 Manage Catalog Form



- The second approach can help you avoid typographical errors. You can use value "/" for initial testing, if the mapped Oracle BI user has the permission to access the root folder. Once this is working, launch FDA and use the Launch BI Catalog menu or manually type in the following URL in your JD Edwards EnterpriseOne browser session:

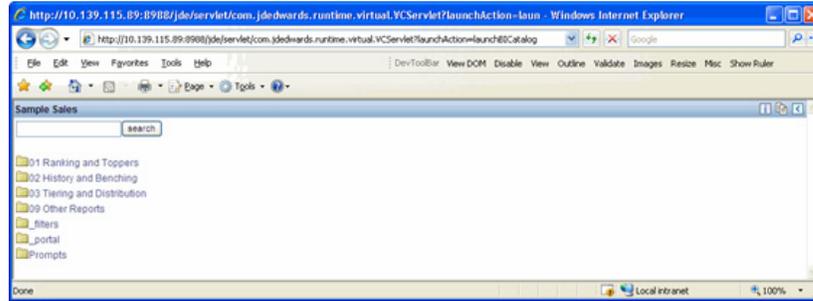
```

http://<jas
server>:<port>/jde/servlet/com.jdedwards.runtime.virtual.VCServlet?launchAction
=launchBICatalog

```

The root catalog will appear in a new browser. Drill into any subfolder and use the Copy icon on the BI toolbar to copy the path into the clipboard and paste it into the soft coding value for root catalog.

Figure 3 Launch BI Catalog Form



2.3 Creating a BI Connection

To create a BI connection:

1. Access the P954000 application.
2. Select Add.
3. Enter the following:

Field	Value
User/Role	Enter the JD Edwards EnterpriseOne user, role, or *PUBLIC.
Environment Name	Enter the JD Edwards EnterpriseOne environment for which you are creating this BI connection.
Template Name	BI CONNECTION
Soft Coding Key	BI_CONNECTION

4. Click the Populate Soft Coding Value button to populate the Soft Coding Description and Soft Coding Value fields with the information from the BI CONNECTION template.
5. If desired, change the username and root catalog within the Soft Coding Value field for your connection.
6. Enter the Mask Value for any Mask Fields (for example, enter a value for the BI_PASSWORD)
7. Click OK to save the record.

3 Using Oracle BI Enterprise Edition Security with Embedded Oracle BI for JD Edwards EnterpriseOne

Currently, Oracle BI Enterprise Edition users are set up separately from JD Edwards EnterpriseOne users. Within JD Edwards EnterpriseOne, a system administrator can set up different securities to control a user's access to certain applications or functionality.

Oracle BI Enterprise Edition has various granularities of security at the folder, report, and data level, which are not provided by JD Edwards EnterpriseOne. JD Edwards EnterpriseOne only controls how to map a user to the Oracle BI user defined by the soft coding values.

When a JD Edwards EnterpriseOne user is viewing an embedded BI control, the system uses the mapped Oracle BI Enterprise Edition user account to set up the connection and authentication with the Oracle BI Application Server. Any security setup for that Oracle BI Enterprise Edition user will be enforced by the Oracle BI Application Server. For example, the user could navigate from an assigned root folder to another subfolder or could navigate to a dashboard from an action link on a report. It is the administrator's responsibility to protect the sensitive objects and data on the Oracle BI Application Server by using the access control list provided by Oracle BI Application Server. This protection is highly recommended.

For more information on setting up access control for BI catalog items, see *Oracle Business Intelligence Presentation Services Administration Guide*.

4 Adding a BI Control in Form Design Aid

This section contains the following topics:

- [Section 4.1, "Prerequisites"](#)
- [Section 4.2, "Embedded BI Control Overview"](#)
- [Section 4.3, "Launching the BI Catalog"](#)
- [Section 4.4, "Adding a BI Control"](#)
- [Section 4.5, "Working with BI Control System Functions"](#)

4.1 Prerequisites

You should verify that the BI connection is configured correctly before beginning your development. If the BI connection is configured properly for your current login user, login role, and environment, you should be able to launch the root BI catalog from Form Design Aid (FDA). Otherwise, you will receive an error message.

See Also:

- [Section 2, "Configuring a BI Connection."](#)
- [Section 4.3, "Launching the BI Catalog."](#)

4.2 Embedded BI Control Overview

A BI control is an FDA control that can be placed on a JD Edwards EnterpriseOne form to retrieve data and graphics, known as reports, from the Oracle BI Application Server. BI controls can be put on the form header or tab page of any JD Edwards EnterpriseOne form type except the Message Form. BI controls may be displayed in

either embedded mode or maximized mode. In embedded mode, the BI control is displayed within a JD Edwards EnterpriseOne form and is resized with the form. In maximized mode, the BI control is displayed alone in a browser window with or without scrollbars.

BI controls provide a great way to incorporate Oracle BI reports in JD Edwards EnterpriseOne applications. For example, you might include a BI control in the Account Balance Inquiry application so that a collection manager who is reviewing a customer can easily see the Top 10 customers by credit limit percentage used. The BI control allows the credit manager to drill down into the report and get the information that he needs.

You can also point a BI control to a folder. By doing this, you give the users access to a selection of reports within that folder from the JD Edwards EnterpriseOne application.

A BI control is comprised of the following elements:

Element	Description
Displayed Title	Displays the title of the BI control.
Maximize Button	Displays the BI control in maximized mode.
Go Back Button	Goes back to the previous view of the BI control.
Copy Button	Only available to the application designer. Copies the path of the current report or folder in the BI control to the clipboard for pasting later.
Information Button	Only available to the application designer. Displays the information page view of the current report or folder in the BI control.
Content Pane	<p>Contains one of the following views:</p> <ul style="list-style-type: none"> ■ End User Views: <ul style="list-style-type: none"> ■ Report View ■ Folder Content View ■ Error View ■ Designer Views: <ul style="list-style-type: none"> ■ Search Result View ■ Report Information View ■ Folder Information View ■ Error View

This table describes the content pane views for the BI control:

Content Pane View	Description
Report View	Contains the Oracle BI report from the Oracle BI Application Server.
Folder Content View	Contains a search field and an object list in a folder.
Search Result View	Contains either a report list or an empty report list.

Content Pane View	Description
Report Information View	Only available to the application designer. Contains the report path, a list of filterable columns, the SQL statement of the report, and the owner of the report.
Folder Information View	Only available to the application designer. Contains the report catalog path and owner of the folder.
Error View	Contains error messages for the BI control that were captured by the system.

4.3 Launching the BI Catalog

The BI catalog provides access to the list of Oracle BI reports from the Oracle BI Application Server. A user may only see a subset of these reports based on the security settings. Upon launching the BI catalog, he sees an entry point folder. This folder is assigned to the user by the administrator through the Root Catalog setting in the BI connection. From that entry point, the user can access all of the reports within that folder and its subfolders.

Before beginning development, launch the BI catalog to verify that your connection to the Oracle BI Application Server is set up properly.

To launch the BI catalog:

1. Within FDA, select Preview.
2. Select Launch BI Catalog.
If the catalog launches successfully, then your connection is valid.
3. During development, you can drill down into the appropriate folders to find the report that you would like to use for your BI control.
4. While in the BI catalog, use the copy button to copy the path of the current report or folder in the BI control to the clipboard for pasting into a system function later.

See Also:

- [Section 4.5, "Working with BI Control System Functions."](#)

4.4 Adding a BI Control

When you add a BI control to a form in FDA, you specify a report or folder path for that BI control. You can put multiple BI controls on one form. You can add BI controls to the form header or tab page of any JD Edwards EnterpriseOne form type except the Message Form. You cannot add BI controls to the grid on any form. If desired, you can put multiple BI controls on a form header or place them on separate tab pages.

To add a BI control with a static report or folder path:

1. Within FDA, select the BI Control button, place the control on your form, and resize it as needed.
2. Select Preview, and then select Launch BI Catalog.
3. Drill down through the folders to select the folder or report that you would like the BI control to display.
4. Click the Copy button in the upper right-hand corner.
5. In FDA, select your newly added BI control and right-click.

6. Select Properties.
7. Paste the copied path into the Path field.
8. Enter a display title, if desired.
9. To preview your form, select Preview and then Run. Your selected report or folder should appear on your form.

4.5 Working with BI Control System Functions

This section provides an overview of BI control system functions and describes how to use a BI control system function.

4.5.1 Understanding BI Control System Functions

You can add FDA controls or add event rules to existing controls on the form so that the end user can change the data displayed by the BI control. For example, a push button can add or remove filters on the data or change the path to display a different set of data or report. System functions are used to manipulate the BI control. These system functions can be found within the BI Control Functions folder.

The following table contains the system functions used to manipulate the BI control.

System Function	Description
Set BI Path	Call this system function to change the BI path so that the BI control displays a different report or folder. Required parameters are the BI Control and the Path.
Set BI Display Title	Call this system function to change the displayed title for the BI control. Use this system function with the other system functions so that the title represents the actual report or filtered data displayed in the content pane. For example, if you use Set BI Path to change the report from 'Monthly Sales by Customer' to 'Top 10 Customers,' then the title of the report should reflect that as well. Required parameters are the BI Control and Display Title.
Add BI Filter	Call this system function to add a filter to the report so that the BI control displays a subset of the data. You can add multiple filters in the ER for one FDA control. The required parameters are BI Control, Filter Column, Operator, and Filter Value.
Remove All BI Filters	Call this system function to remove all filters currently on a BI control. The only required parameter is the BI Control.

4.5.1.1 Usage Tips for BI Control System Functions When using BI control system functions, keep these points in mind:

- When using multiple system functions, call them in the following order: Set BI Path, Set BI Display Title, Add BI Filter.
- The path is not impacted by any change of the filters or display titles.
- Filters added through the system function do not persist after the path is changed.
- Filters added through the system function do persist if the displayed title is changed.

- The displayed title, whether defined as a static property of the BI control or changed through the system function, persists if the path or the filters are changed.
- The system function has a higher priority than the static property for both path and display title.
- If a BI control displays a list of folders (folder view), the "Add BI Filter" and "Remove All BI Filters" system functions do nothing.
- Be cautious of unusually long display titles. The title is truncated based on the actual width of the BI control during runtime. Also, a very long title may cause problems with the BI control in Microsoft Internet Explorer due to the 2K URL size limitation of Microsoft Internet Explorer.
- The Report Information page displays not only the filterable column information, but also the SQL statement executed on the Oracle BI Application Server for the report. This information can be used to see which filters were actually set by the ER or to see what the default filters for the report are.
- Oracle BI reports may have optional title sections created in Oracle BI Answers. However, the title is static and defined at design time so it may not accurately reflect the filtered runtime information on the report. This problem is resolved by the Set BI Display Title system function. This function provides a flexible and changeable title for the BI control at runtime.

For more information regarding Oracle BI Answers, see *Oracle Business Intelligence Answers, Delivers, and Interactive Dashboards User Guide*.

4.5.2 Using a BI Control System Function

To use a BI control system function:

1. Within FDA, create a new FDA control or use an existing control.
2. If setting the BI path, complete the following actions:
 - a. Select Launch BI Catalog.
 - b. Find and select the report or folder to which you would like to point.
 - c. Click the Copy button in the upper right-hand corner.
 - d. Close the BI catalog.
 - e. Right-click on your FDA control and select Event Rules.
 - f. Select System Functions, BI Control Functions, Set BI Path.
 - g. Select the BI control for the BI Control parameter.
 - h. Paste the copied path in the Path parameter.
 - i. Click Save.
3. If setting the BI display title, complete the following actions:
 - a. Right-click on your FDA control and select Event Rules.
 - b. Select System Functions, BI Control Functions, Set BI Display Title.
 - c. Select the BI control for the BI Control parameter.
 - d. Enter the Display Title parameter.
 - e. Click Save.

4. If adding a BI filter, complete the following actions:
 - a. Select Preview, and then Run, to view the report presented by the BI control.

Note: You can also access the report through the BI catalog, but selecting Run provides faster access.

- b. Click the Information button in the upper right-hand corner.
 - c. Select the Copy button next to the Filter Column that you would like to use.
 - d. Close the BI catalog.
 - e. Right-click on your FDA control and select Event Rules.
 - f. Select System Functions, BI Control Functions, Add BI Filter.
 - g. Select the BI control for the BI Control parameter.
 - h. Paste the filter column into the Filter Column parameter.
 - i. Complete the Operator and Filter Value parameters.
 - j. Click Save.
 - k. If you would like to add more than one filter, repeat these steps.
5. If removing all BI filters, complete the following actions:
 - a. Right-click on your FDA control and select Event Rules.
 - b. Select System Functions, BI Control Functions, Remove All BI Filters.
 - c. Select the BI control for the BI Control parameter.
 - d. Click Save.

5 Adding a URL Link to the Oracle BI Application Server on a JD Edwards EnterpriseOne Menu

This section contains the following topics:

- [Section 5.1, "Understanding URL Tasks for BI"](#)
- [Section 5.2, "Creating a URL Task"](#)

5.1 Understanding URL Tasks for BI

In some instances, you might need your users to access Oracle BI Enterprise Edition reports directly from a JD Edwards EnterpriseOne task view or menu. To provide this access, you create a URL menu task.

JD Edwards EnterpriseOne tasks reside in the Task Master table (F9000). You can create a new task directly in the JD Edwards EnterpriseOne Solution Explorer by inserting a new task in a task view menu. You define the task using the Task Revisions form. When you create a task, you automatically create a relationship between the new child task and the parent task under which you inserted the new task.

When you create the task, you can specify a URL that points to:

- The Oracle BI Application Server

- The "Launch BI Catalog" action on the JD Edwards EnterpriseOne HTML Web Server

If the URL points to the Oracle BI Application Server, when the user clicks on this task, a new browser will open, connecting to the Oracle BI Application Server URL that is specified. The user will be prompted for the Oracle BI Application Server login information.

If the URL points to the JD Edwards EnterpriseOne HTML Web Server, then this server is used to connect to the Oracle BI Application Server. This option is only available with tools release 8.98 update 1 and later, and you must use the following specification. For example, if you have a JD Edwards EnterpriseOne HTML Web Server instance running at localhost:8988, specify the URL as:

```
http://localhost:8988/jde/servlet/com.jdedwards.runtime.virtual.VCServlet?
launchAction=launchBICatalog
```

If you use this method, you must also map the JD Edwards EnterpriseOne user to an Oracle BI Application Server using the Soft Coding applications (P954000 and P953000). Once a JD Edwards EnterpriseOne user is mapped to a valid Oracle BI user, the system automatically logs the user into the Oracle BI Application server.

5.2 Creating a URL Task

To create a task that calls a URL:

1. Access JD Edwards EnterpriseOne Solution Explorer.
2. From Menu Design mode, right-click a folder and click Insert New Task from the menu. The Task Revisions application appears.
3. In Task Revisions, complete the Task Name field.
4. Select the Common tab, and then complete the following fields:
 - Product Code
 - Jargon
 - Country Code

Leave this field blank if you want this task to be available for all users, regardless of their country codes. Otherwise, enter the country code that must be assigned to users before they can access this task.
5. Select the Executable tab, and then select URL as the task type option.
6. Complete the URL field to point to the Oracle BI Application Server or JD Edwards HTML Server.
7. To apply roles to the task, select Roles from the Form menu.
8. In Task Where Used, select the role that you want to apply to the task, and then select Change Status from the Row menu. A check mark appears to indicate that the role is applied to the task. To remove a check mark, select Change Status from the Row menu again. To apply all roles to the task, select Enable All from the Form menu.
9. Click Close.
10. In Task Revisions, click OK.

See Also:

- "Working with Task Views" in the *JD Edwards EnterpriseOne Tools Solution Explorer Guide*
- "Setting Up Tasks" in the *JD Edwards EnterpriseOne Tools Solution Explorer Guide*

6 Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at

<http://www.oracle.com/us/corporate/accessibility/index.html>.

Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit <http://www.oracle.com/support/contact.html> or visit <http://www.oracle.com/accessibility/support.html> if you are hearing impaired.

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