

Forget triggers and custom code - use Oracle Business Events with BPEL



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Agenda

- About Innowave
- Oracle Business Events
- Why Use Business Events?
- Triggers Vs Business Events
- Oracle Applications Adapter
- Pre-requisites
- Building an Interface - Demo
- Tips and Techniques
- Q&A



About Innowave

- Technology Consulting Firm founded in 2005
- Provide unique, innovative solutions using Oracle Applications and Technology
- Integration Experts: Fusion Middleware, SOA Suite, BPEL & Web services
- Implement, upgrade, and enhance Oracle E-Business Suite, JD Edwards, PeopleSoft, and Siebel Applications and related technologies
- Extensive experience and expertise managing global and local implementations across various industry verticals.
- Provide clients with proven methodologies, tools, and templates specifically tailored to their requirements.

Oracle Business Events

Oracle Business Events System



- A service delivered with Oracle Workflow.
- Leverages Oracle Advanced Queuing (AQ).
- Ability to extend and configure business logic.
- Asynchronous messaging without modifying standard application Code.
- Publish – Subscribe mechanism.

Oracle Business Events System



- Login as Administrator

The screenshot displays the Oracle Business Events System web interface. At the top, there is a navigation bar with links for Home, Developer Studio, Business Events, Status Monitor, Notifications, and Administration. Below this, a warning message states: "Low-level logging is currently enabled. Your application will not perform as well while low-level logging is on." The main content area is titled "Events" and includes a search section. The search criteria entered is "%apps.inv%" and the results are displayed in a table.

Search
Enter search criteria and select the "Go" button to find your event definitions.

Name:
(Example: Entering "abc" returns "abcde" and "efgabc")

[Show More Search Options](#)

Results: Events

Select	Name	Display Name	Type	Status	Subscription
<input type="checkbox"/>	oracle.apps.inv.acctAliasIssue	INV ERES Account Alias Issue	Event	Enabled	
<input type="checkbox"/>	oracle.apps.inv.acctAliasReceipt	INV ERES Account Alias Receipt	Event	Enabled	
<input type="checkbox"/>	oracle.apps.inv.acctIssue	INV ERES Account Issue	Event	Disabled	
<input type="checkbox"/>	oracle.apps.inv.acctReceipt	INV ERES Account Receipt	Event	Disabled	
<input type="checkbox"/>	oracle.apps.inv.itemCreate	INV ERES Item Creation	Event	Enabled	
<input type="checkbox"/>	oracle.apps.inv.itemCrossRefEntry	INV ERES Item Cross Reference Entry	Event	Enabled	
<input type="checkbox"/>	oracle.apps.inv.itemOrgAssignment	INV ERES Item Organization Assignment	Event	Enabled	
<input type="checkbox"/>	oracle.apps.inv.itemRevisionEntry	INV ERES Item Revision Entry	Event	Enabled	
<input type="checkbox"/>	oracle.apps.inv.itemUpdate	INV ERES Item Update	Event	Enabled	
<input type="checkbox"/>	oracle.apps.inv.miscIssue	INV ERES Miscellaneous Issue	Event	Enabled	

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Oracle Business Events System



- BPEL Subscription.

The screenshot shows the Oracle Business Events System interface. At the top, there is a navigation bar with links for Home, Developer Studio, Business Events, Status Monitor, Notifications, and Administration. Below this, there is a warning message: "Warning: Low-level logging is currently enabled. Your application will not perform as well while low-level logging is on." The main content area is titled "Subscriptions: Event: oracle.apps.inv.itemCreate" and includes a descriptive paragraph: "An event subscription is a registration indicating that a particular event is significant to a particular system. An event subscription specifies the processing to perform when the triggering event occurs." Below this is a table with the following data:

System	Source Type	Out Agent	To Agent	Function	Workflow	Status
TSYNBI	Local			EDR_PSIG_RULE.PSIG_RULE	EDRPSIGF/PSIG_ESIGN_PAGE_FLOW	Disabled
TSYNBI	Local	WF_BPEL_QAGENT@TSYNBI		WF_RULE.DEFAULT_RULE		Enabled

At the bottom of the interface, there is a footer with links for Home, Developer Studio, Business Events, Status Monitor, Notifications, Administration, Diagnostics, Home, Logout, Preferences, and Help. The browser's address bar shows "Internet" and a zoom level of "100%".

Why Use Business Events?



Why Business Events?

- Robustness
 - Guaranteed Delivery
- Scalability
 - Supports multiple Subscriptions
- Zero Coding
 - Out of the box functionality

Why Business Events?



- Easier to manage
 - No Maintenance
- Oracle recommended
 - No Upgrade issues
 - No Customizations
 - Seeded Functionality

Triggers Vs Business Events



Triggers Vs Business Events

Triggers

- Requires Coding
- Requires PL/SQL expertise
- Involves Maintenance

Business Events

- Zero Coding
- Minimal Setups
- Minimal Maintenance

BPEL Oracle Applications Adapter

Oracle Applications Adapter

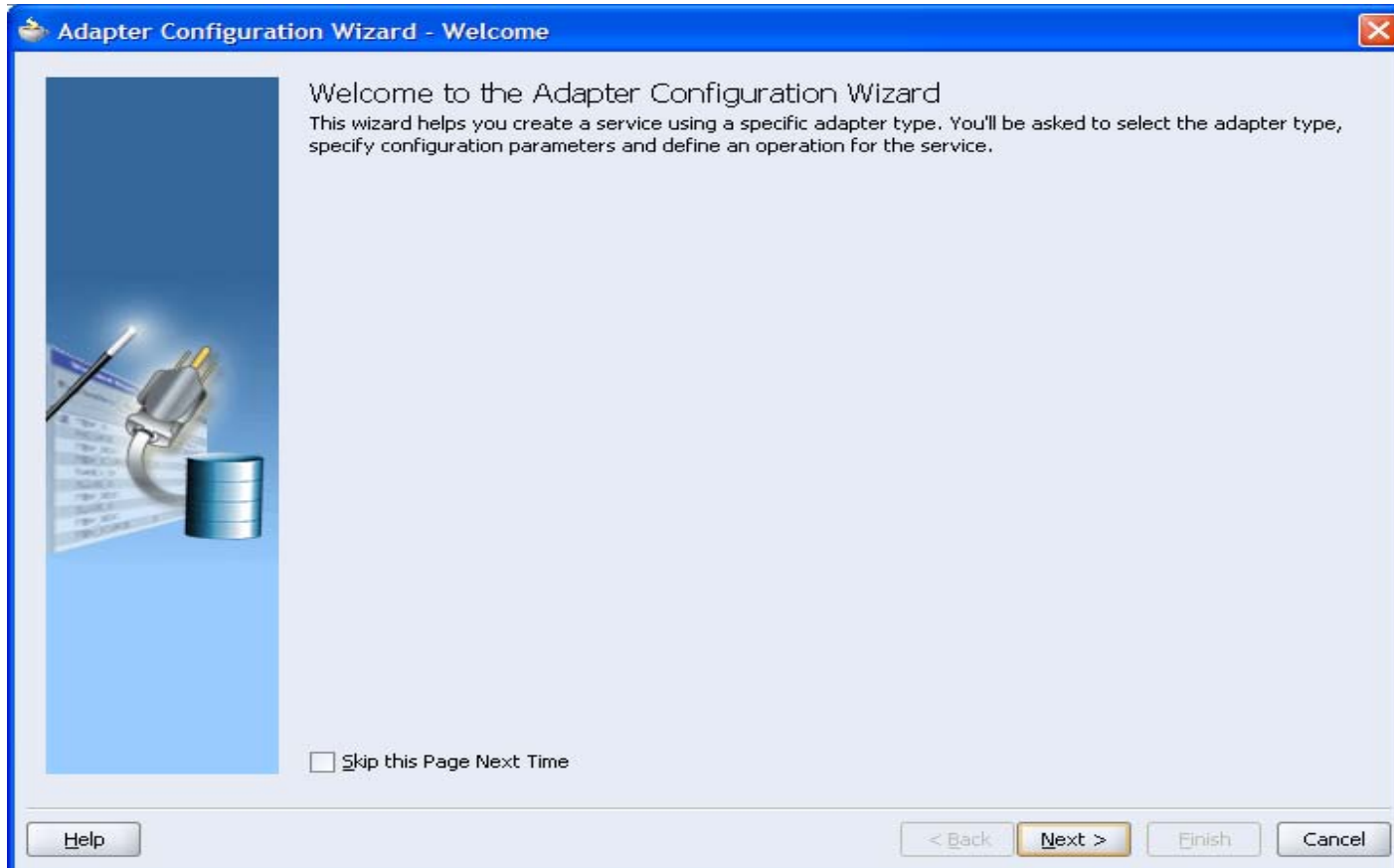


- Available out of the box
- Supports Business Events
- Also supports CPs, APIs
- Wizard driven configuration
- Declarative setup

Oracle Applications Adapter



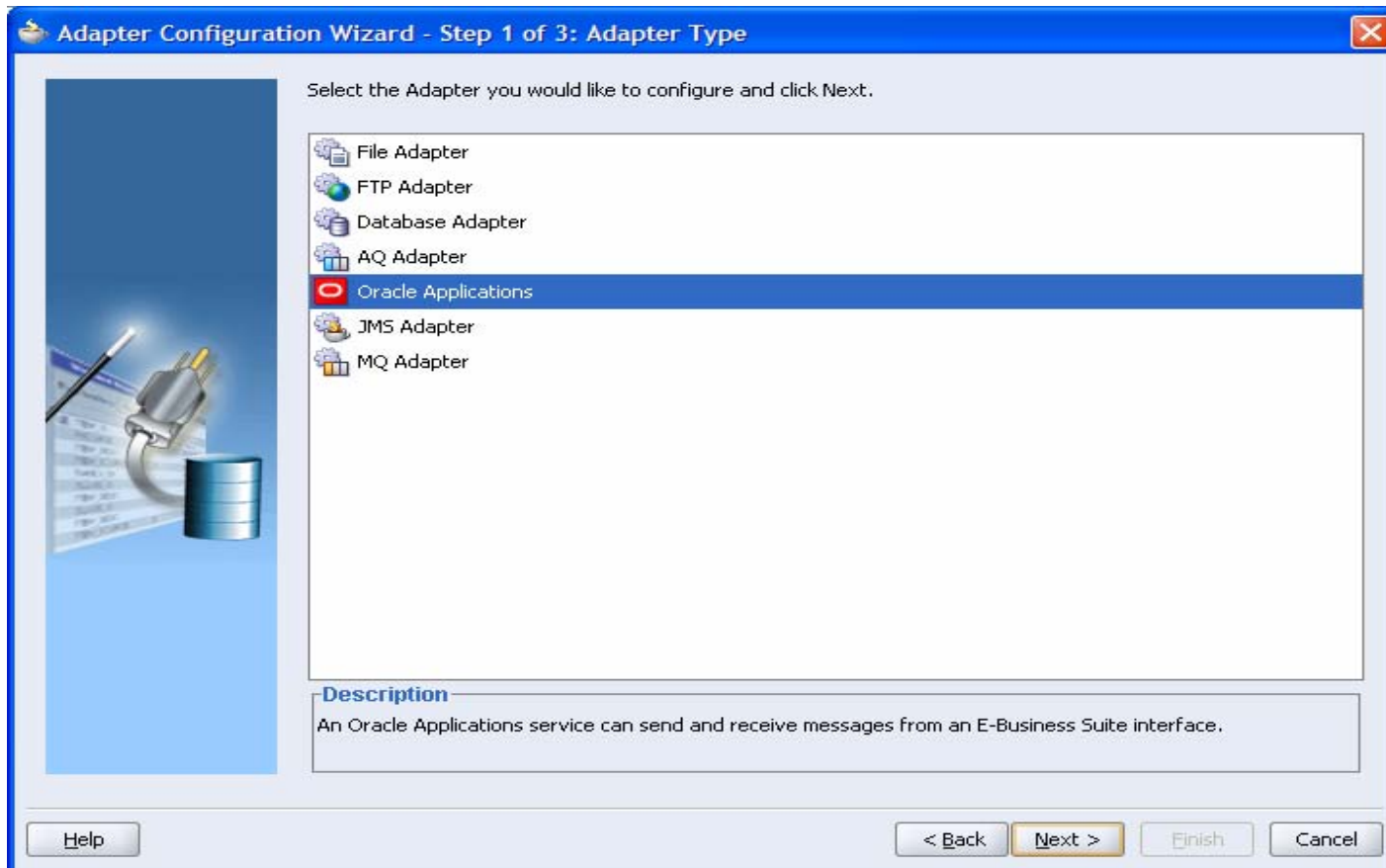
- Wizard driven configuration



Oracle Applications Adapter



- Wizard driven configuration



Oracle Applications Adapter



- Wizard driven configuration

The screenshot shows a Windows-style dialog box titled "Adapter Configuration Wizard - Step 2 of 3: Service Name". The dialog has a blue title bar with a close button (X) in the top right corner. On the left side, there is a vertical panel with a blue background containing an illustration of a network cable, a database cylinder, and a document. The main area of the dialog is light blue and contains the following text and controls:

Enter a Service Name and (optionally) enter a Description.

Service Type: Oracle Applications

Service Name:

Description:

At the bottom of the dialog, there are four buttons: "Help", "< Back", "Next >", "Finish", and "Cancel".

Oracle Applications Adapter



- Wizard driven configuration

Adapter Configuration Wizard - Step 3 of 3: Service Connection

A Database Connection is required to configure this adapter. Select a database connection already defined in your project or create a New Connection.

Connection:

Connection Information

User Name: apps
 Driver: oracle.jdbc.OracleDriver
 Connect String: jdbc:oracle:thin:@ebs1.innowavetech.net:1521:VIS

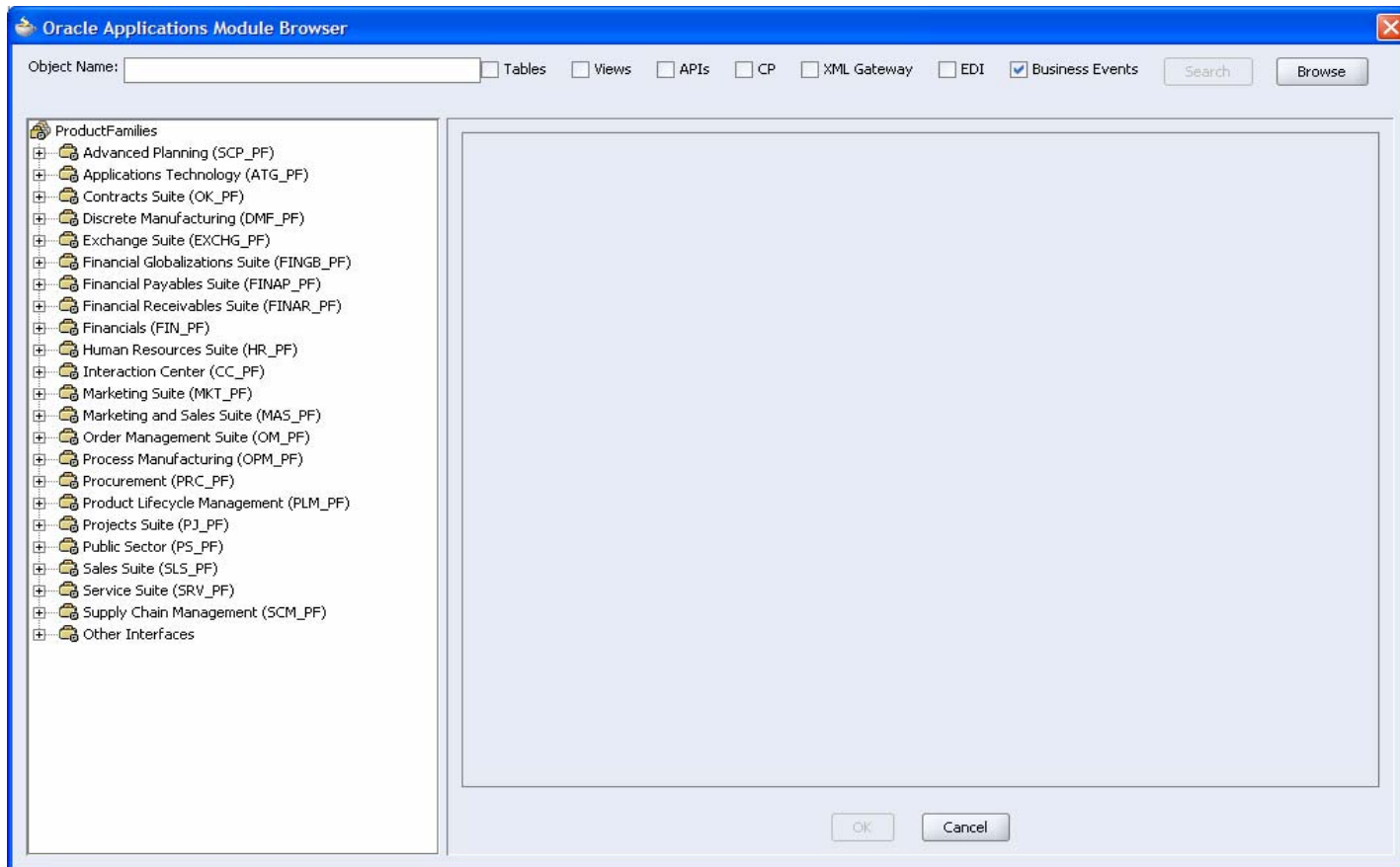
Specify the JNDI name for the database. Note: The deployment descriptor of the Oracle Applications adapter must associate this JNDI name with configuration properties required by the adapter to access the database.

JNDI Name:

Oracle Applications Adapter



- Wizard driven configuration



Oracle Applications Adapter



- Wizard driven configuration

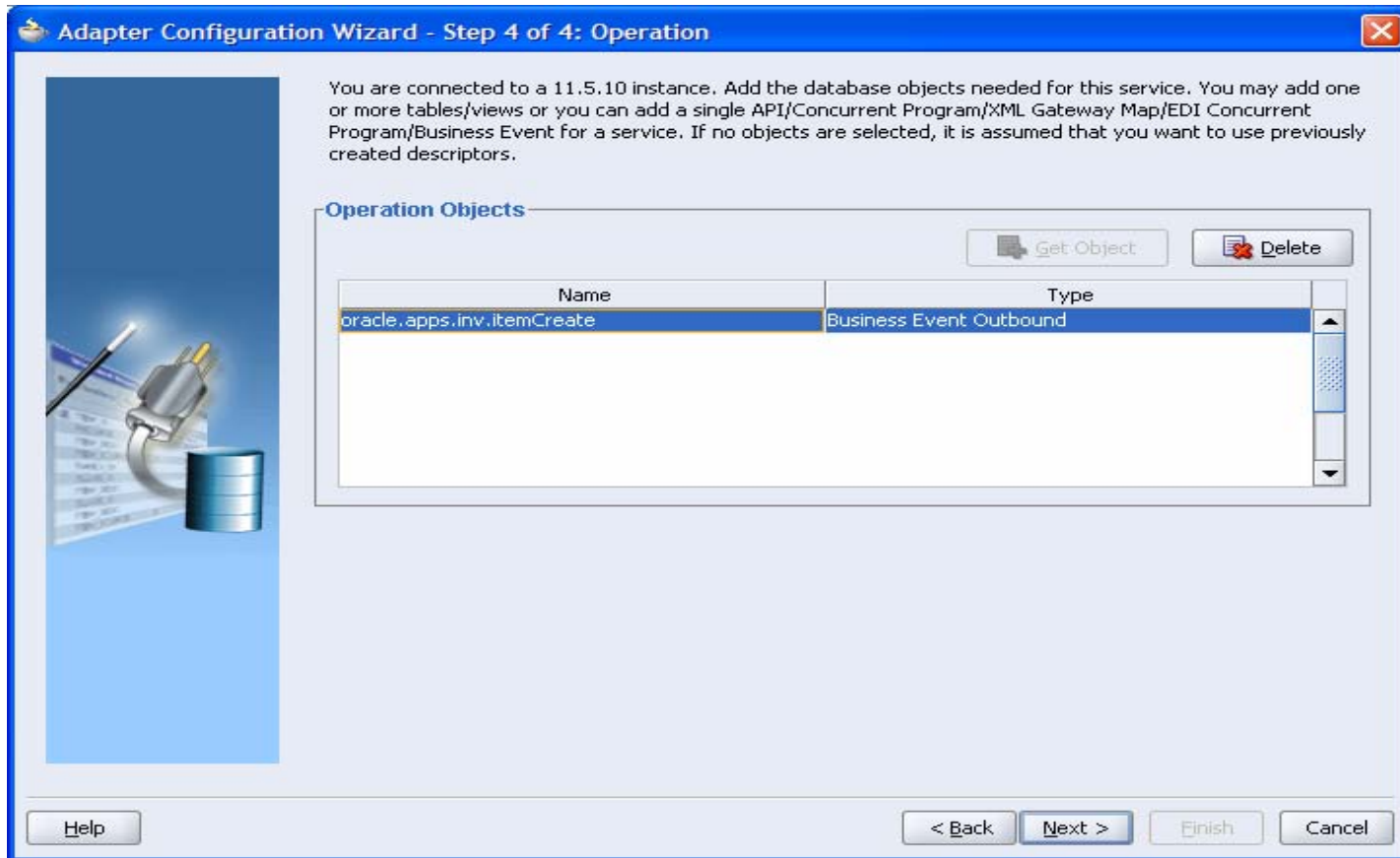
The screenshot shows the Oracle Applications Module Browser window. The 'Object Name' field is set to '%inv.item%'. The 'Business Events' checkbox is checked. The left pane shows a tree view with 'oracle.apps.inv.itemCreate' selected. The right pane shows a table with the following data:

Type	Value
Event Name	oracle.apps.inv.itemCreate
Owner Name	Oracle Inventory

Oracle Applications Adapter



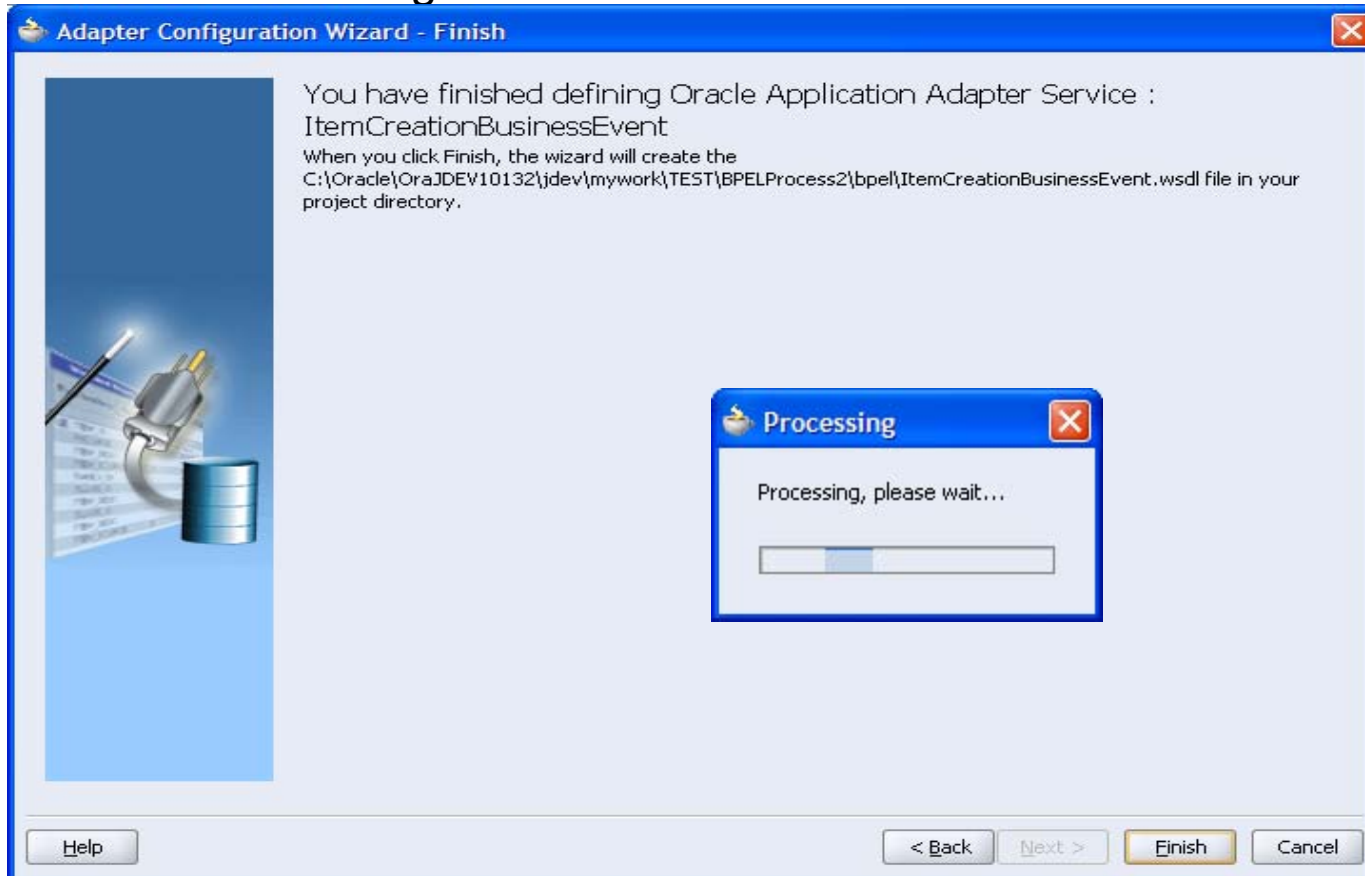
- Wizard driven configuration



Oracle Applications Adapter



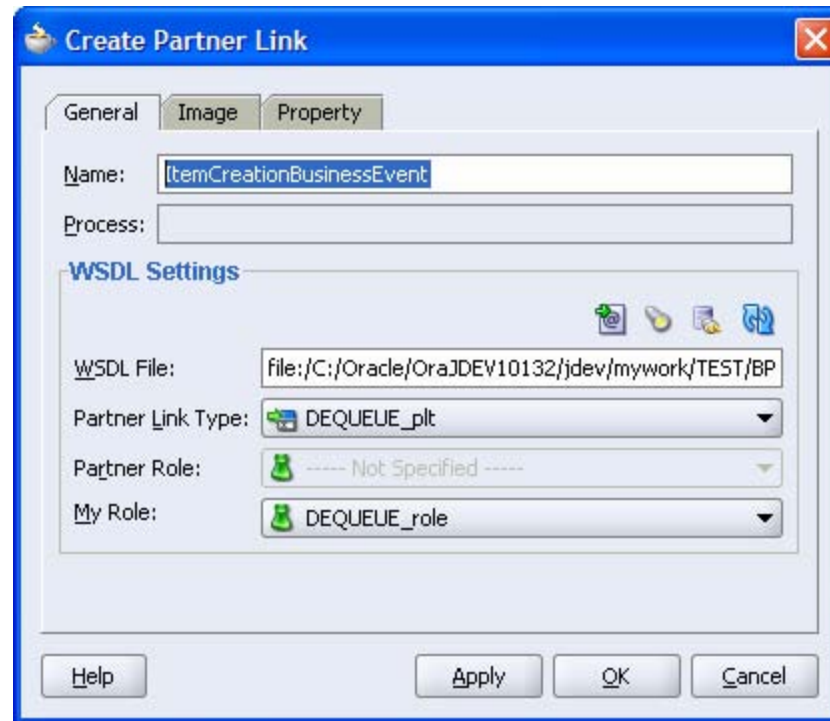
- Wizard driven configuration



Oracle Applications Adapter



- Wizard driven configuration



Pre-requisites

Pre-requisites

- System Profile Option – EDR:E-records and E-Signatures



Profile Option Name	Site	Application	Responsibility	User
EDR: E-records and E-signatures	Yes			

Pre-requisites

- Enabling the Business Event



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[Home](#) [Developer Studio](#) **[Business Events](#)** [Status Monitor](#) [Notifications](#) [Administration](#)

[Events](#) | [Subscriptions](#) | [Agents](#) | [Systems](#)

[Business Events](#) | [Events](#) >

Events

A business event is an occurrence in an internet or intranet application or program that might be significant to other objects in a system or to external agents. An event group is a type of event composed of a set of individual member events. Event groups let you associate any events you want with each other and reference them as a group in event subscriptions.

Search
Enter search criteria and select the "Go" button to find your event definitions.

Name
(Example: Entering "abc" returns "abcde" and "efgabc")

[▶ Show More Search Options](#)

Results: Events

[Select All](#) | [Select None](#)

Select Name	Display Name	Type	Status	Subscription
<input type="checkbox"/> oracle.apps.cln.inv.syncitem.receive	Event to distribute Item Master	Event	Enabled	
<input type="checkbox"/> oracle.apps.inv.itemCreate	INV ERES Item Creation	Event	Enabled	
<input type="checkbox"/> oracle.apps.inv.itemCrossRefEntry	INV ERES Item Cross Reference Entry	Event	Enabled	
<input type="checkbox"/> oracle.apps.inv.itemOrgAssignment	INV ERES Item Organization Assignment	Event	Enabled	
<input type="checkbox"/> oracle.apps.inv.itemRevisionEntry	INV ERES Item Revision Entry	Event	Enabled	
<input type="checkbox"/> oracle.apps.inv.itemUpdate	INV ERES Item Update	Event	Enabled	

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Internet 100%

DEMO

Building an Interface

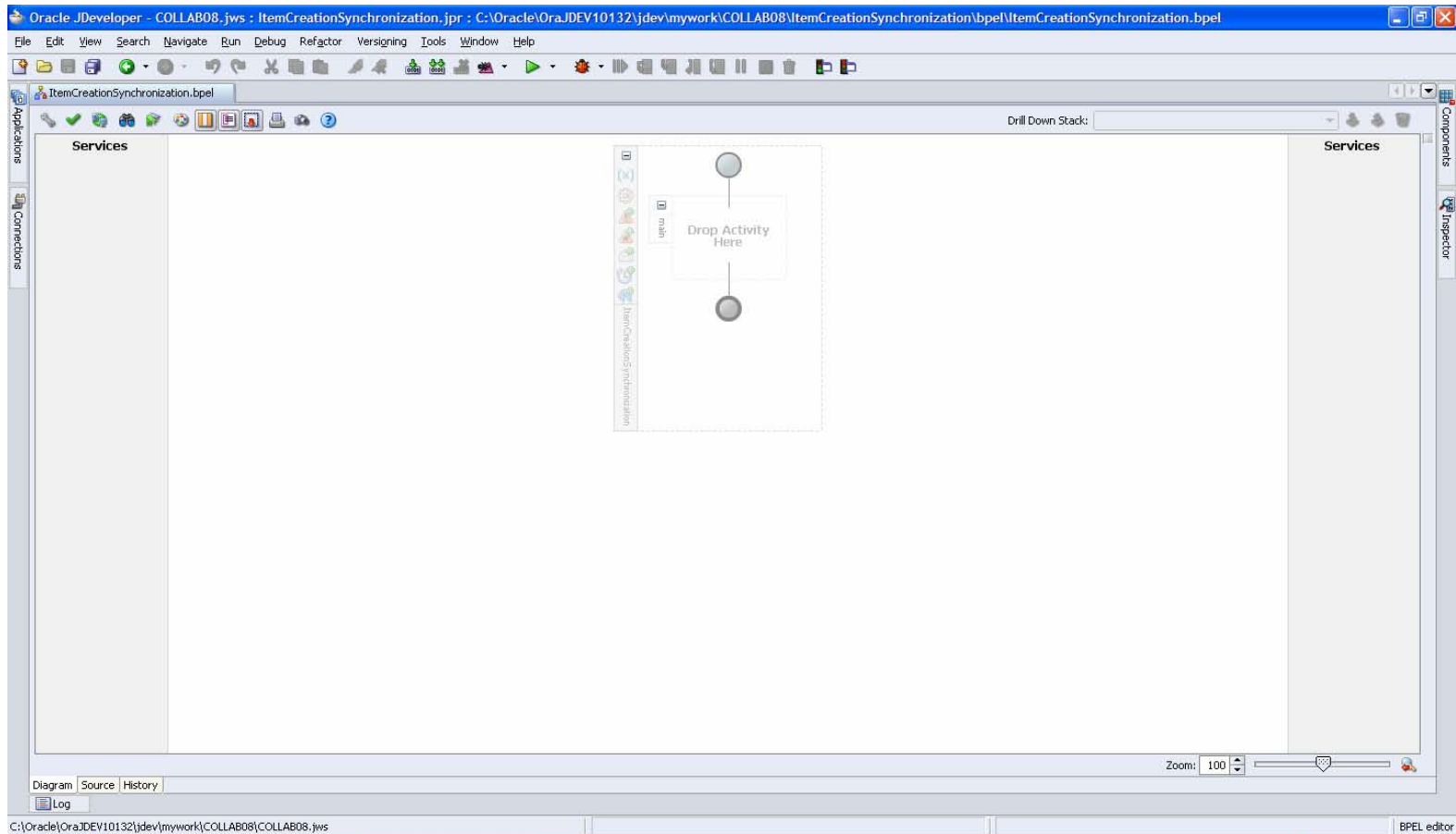


- Inventory Item Synchronization
 - Build a BPEL Process
 - Deploy the BPEL Process
 - Create an Item in EBS
 - Interface Item information

Building an Interface



- Build an Empty BPEL Process



Building an Interface



- Configure the Oracle Applications Adapter

The screenshot displays the Oracle JDeveloper IDE interface for configuring a BPEL process. The main workspace shows a BPEL diagram with a central activity labeled "Drop Activity Here" between two start/end nodes. On the left, a "Services" palette contains a component named "ItemCreationBusinessEvent" which is highlighted with a red border. The top toolbar includes standard IDE functions like File, Edit, View, Search, Navigate, Run, Debug, Refactor, Versioning, Tools, Window, and Help. The bottom status bar shows the file path "C:\Oracle\OraJDEV10132\jdev\mywork\COLLAB08\COLLAB08.jws" and the "BPEL editor" mode.

Building an Interface

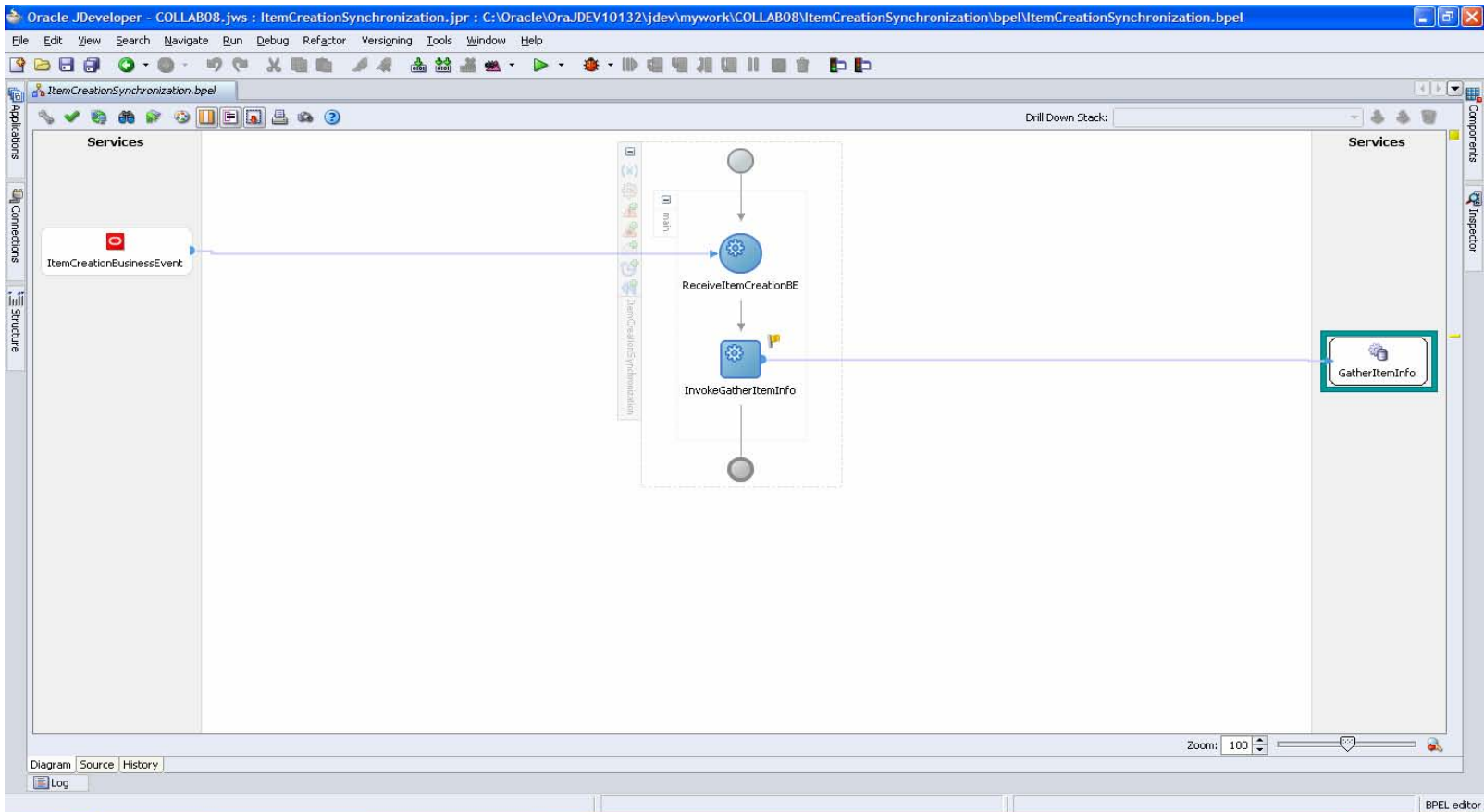


- Receive the Business Event

The screenshot displays the Oracle JDeveloper IDE interface for editing a Business Process Language (BPEL) file. The main workspace shows a diagram with a central activity named 'ReceiveItemCreationBE'. This activity is connected to an external service named 'ItemCreationBusinessEvent' located in the 'Services' palette on the left. The diagram includes a start node, a connector to the 'ReceiveItemCreationBE' activity, and an end node. The IDE's menu bar includes options like File, Edit, View, Search, Navigate, Run, Debug, Refactor, Versioning, Tools, Window, and Help. The status bar at the bottom indicates the current file path and the 'BPEL editor' mode.

Building an Interface

- Gather Item Information



Building an Interface



- Assign Item ID to Query

Edit Copy Operation

From
Type: Variable

- Variables
 - Process
 - Variables
 - ReceiveItemCreationBE_DEQUEUE_Inp
 - WF_EVENT_T
 - ns2:WF_EVENT_T
 - PRIORITY
 - SEND_DATE
 - RECEIVE_DATE
 - CORRELATION_ID
 - PARAMETER_LIST
 - PARAMETER_LIST_ITEM
 - NAME
 - VALUE
 - EVENT_NAME
 - EVENT_KEY
 - EVENT_DATA
 - FROM_AGENT
 - TO_AGENT
 - ERROR_SUBSCRIPTION
 - ERROR_MESSAGE

Path: /ns2:WF_EVENT_T/PARAMETER_LIST/PARAMETER_LIST_ITEM/VALUE

Show Detailed Node Information

Help

To
Type: Variable

- Variables
 - Process
 - Variables
 - ReceiveItemCreationBE_DEQUEUE_Input
 - InvokeGenerateItemInfoFile_Write_Input
 - InvokeGatherItemInfo_GatherItemInfoS
 - GatherItemInfoSelect_itemID_inparameters
 - ns5:GatherItemInfoSelect_itemIDInputParameters
 - ns5:itemID

Path: /ns5:GatherItemInfoSelect_itemIDInputParameters/ns5:itemID

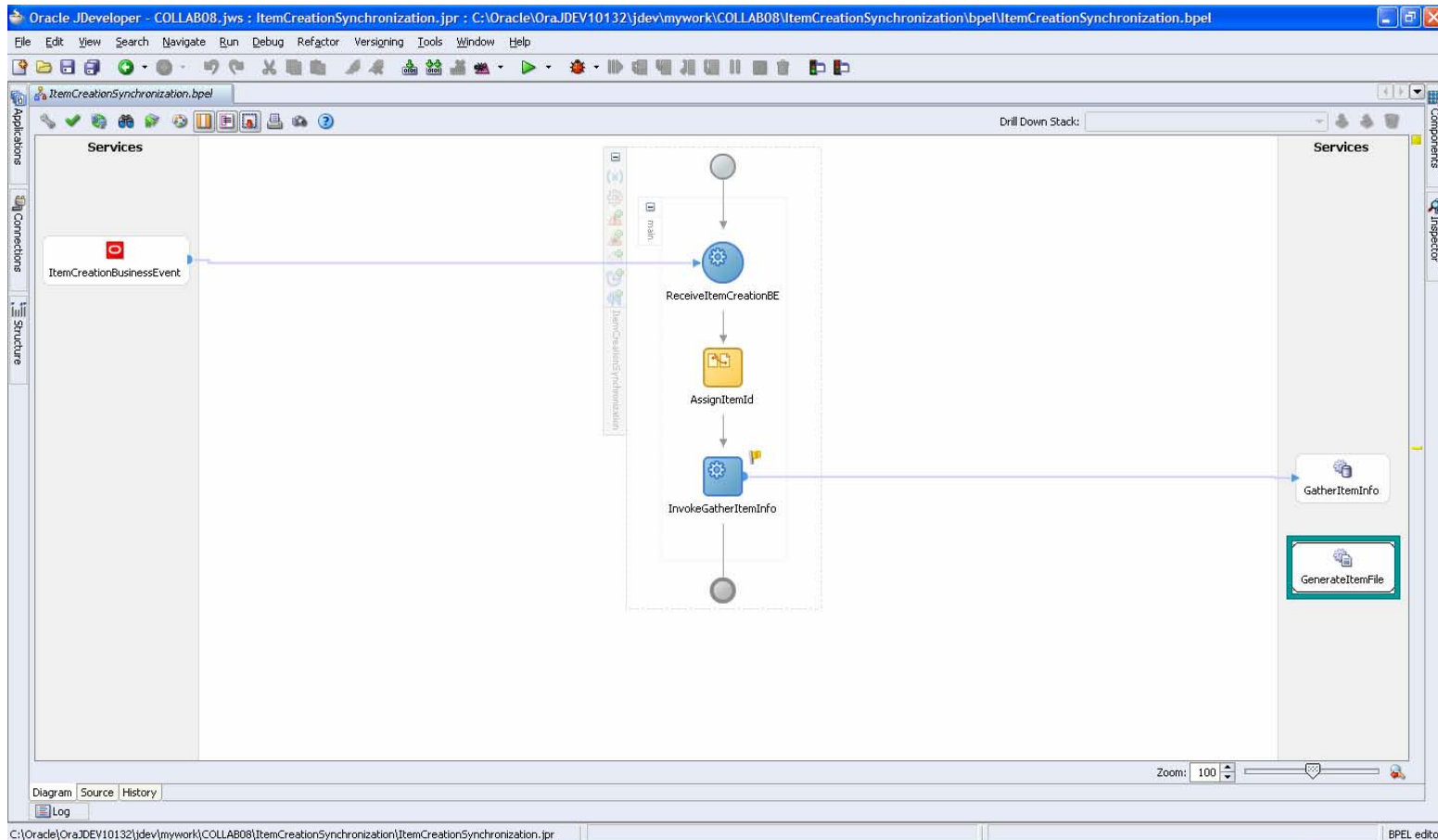
Show Detailed Node Information

OK Cancel

Building an Interface



- Configure the File Adapter



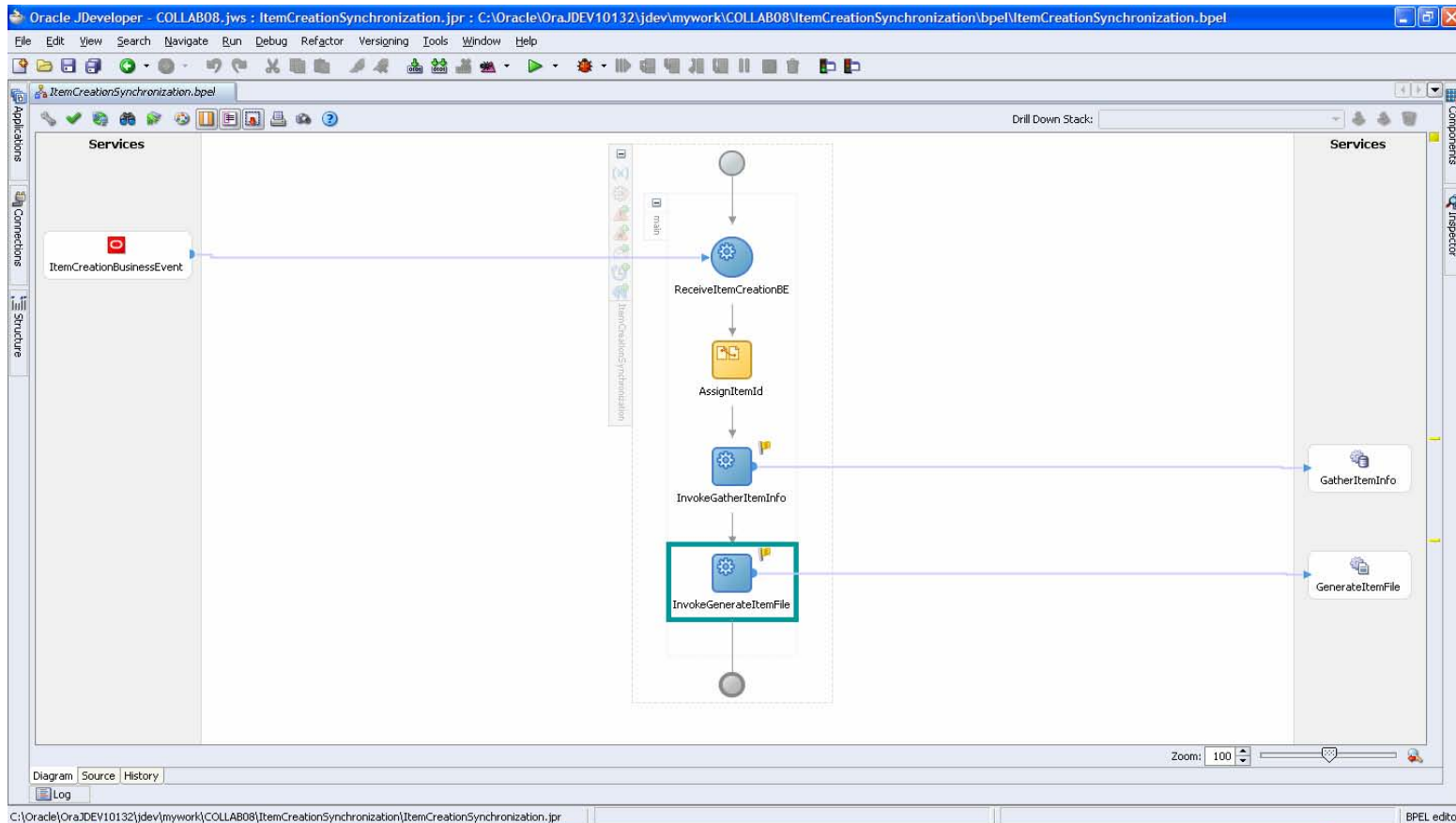
C:\Oracle\OraJDEV10132\jdev\mywork\COLLAB08\ItemCreationSynchronization\ItemCreationSynchronization.jpr

BPEL editor

Building an Interface



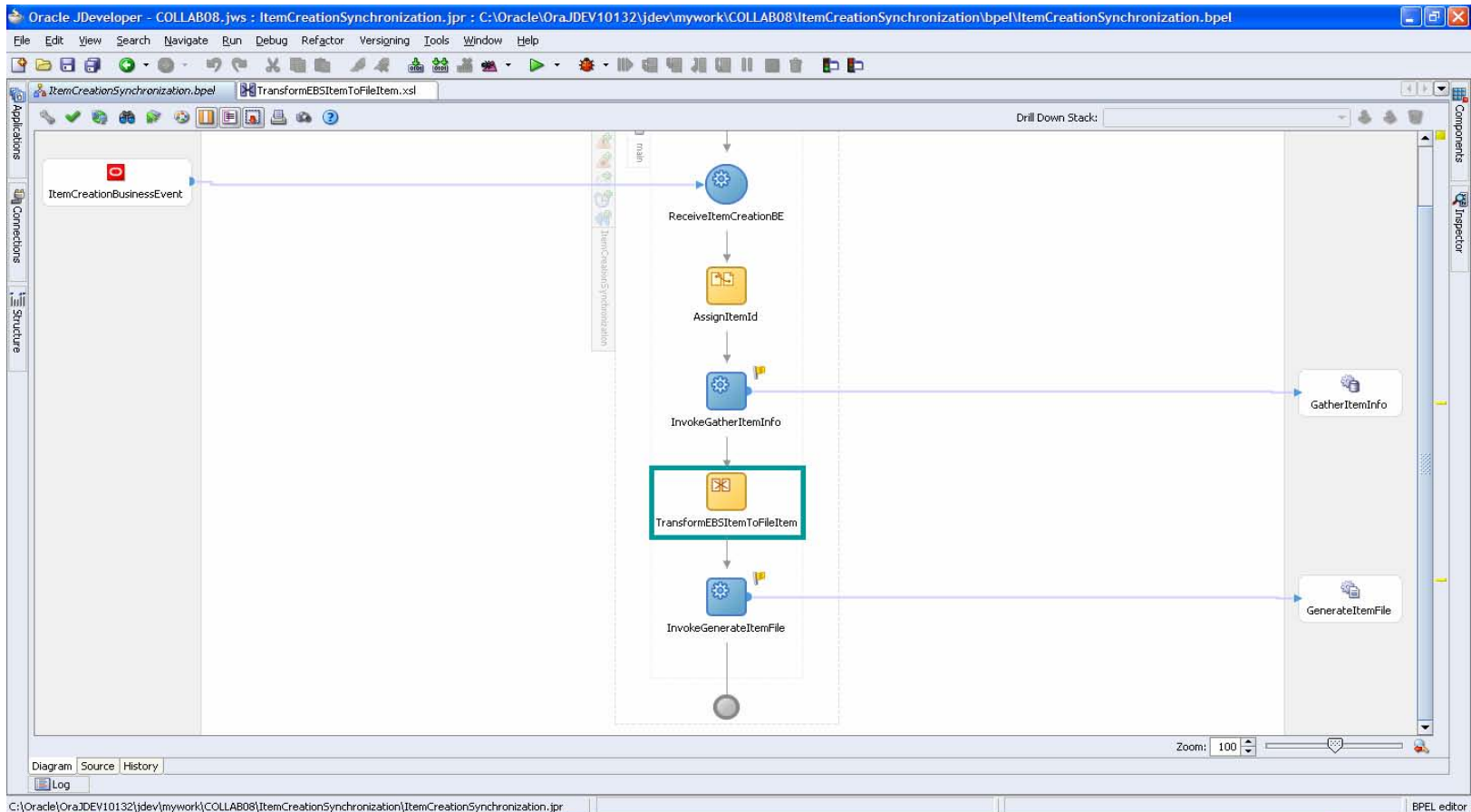
- Invoke the File Adapter



Building an Interface



- Transform Item Information to Text File



Building an Interface



- Deploy the BPEL Process
- Create an Item in EBS
- Find the generated .TXT file in the Output folder

Tips and Techniques

Tips and Techniques



- Oracle On-Demand scenario
- Reposting Mechanism
- Exception Handling



Q & A

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