



# BEA WebLogic Integration™

## Troubleshooting Tips and FAQs for BEA WebLogic Integration

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## Troubleshooting Tips and FAQs for BEA WebLogic Integration

<b>Part Number</b>	<b>Date</b>	<b>Software Version</b>
N/A	January 2002	2.1 Service Pack 1

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# About This Document

This document describes how to troubleshoot your WebLogic Integration deployment. This document is organized as follows:

- Chapter 1, “Introduction,” describes resources to help you troubleshoot your WebLogic Integration installation or deployment.
- Chapter 2, “Troubleshooting FAQ,” describes frequently asked questions about troubleshooting WebLogic Integration.

## What You Need to Know

This document is intended primarily for:

- System administrators who set up, deploy, and administer WebLogic Integration in a development or production environment.
- Database administrators who set up, deploy, and administer database management systems for WebLogic Integration in a development or production environment.
- Business analysts who are designing WebLogic Integration workflows.
- Application developers who are creating applications to run under WebLogic Integration.
- Application integration specialists who are integrating WebLogic Integration with enterprise information systems (EIS).

For more information, see *Introducing BEA WebLogic Integration*.

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# e-docs Web Site

The BEA WebLogic Integration product documentation is available on the BEA Systems, Inc. corporate Web site. From the BEA Home page, click the Product Documentation button or go directly to the “e-docs” Product Documentation page at <http://e-docs.bea.com>.

## How to Print this Document

You can print a copy of this document from a Web browser, one file at a time, by using the File—>Print option on your Web browser.

A PDF version of this document is available on the WebLogic Integration documentation Home page on the e-docs Web site (and also on the documentation CD). You can open the PDF in Adobe Acrobat Reader and print the entire document (or a portion of it) in book format. To access the PDFs, open the WebLogic Integration documentation Home page, click the PDF Files button, and select the document you want to print.

If you do not have the Adobe Acrobat Reader installed, you can download it for free from the Adobe Web site at <http://www.adobe.com/>.

## Related Information

For information about WebLogic Integration, see the following documents:

- *Introducing BEA WebLogic Integration*
- *Learning to Use BEA WebLogic Integration*
- *Installing BEA WebLogic Integration*
- *Starting, Stopping, and Customizing BEA WebLogic Integration*



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- *BEA WebLogic Server Administration Guide* at the following URL:  
<http://edocs.bea.com/wls/docs61/adminguide/index.html>

## Contact Us!

Your feedback on the WebLogic Integration documentation is important to us. Send us e-mail at **docsupport@bea.com** if you have questions or comments. Your comments will be reviewed directly by the BEA professionals who create and update the WebLogic Integration documentation.

In your e-mail message, please indicate that you are using the documentation for the WebLogic Integration 2.1 SP1 release.

If you have any questions about this release of WebLogic Integration, or if you have problems installing and running WebLogic Integration, contact BEA Customer Support through BEA WebSUPPORT at [www.bea.com](http://www.bea.com). You can also contact Customer Support by using the contact information provided on the Customer Support Card, which is included in the product package.

When contacting Customer Support, be prepared to provide the following information:

- Your name, e-mail address, phone number, and fax number
- Your company name and company address
- Your machine type and authorization codes
- The name and version of the product you are using
- A description of the problem and the content of pertinent error messages

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# Documentation Conventions

The following documentation conventions are used throughout this document.

Convention	Item
<b>boldface text</b>	Indicates terms defined in the glossary.
Ctrl+Tab	Indicates that you must press two or more keys simultaneously.
<i>italics</i>	Indicates emphasis or book titles.
monospace text	Indicates code samples, commands and their options, data structures and their members, data types, directories, and filenames and their extensions. Monospace text also indicates text that you must enter from the keyboard. <i>Examples:</i> <pre>#include &lt;iostream.h&gt; void main ( ) the pointer psz chmod u+w * \tux\data\ap .doc tux.doc BITMAP float</pre>
<b>monospace boldface text</b>	Identifies significant words in code. <i>Example:</i> <pre>void <b>commit</b> ( )</pre>
<i>monospace italic text</i>	Identifies variables in code. <i>Example:</i> <pre>String <i>expr</i></pre>
UPPERCASE TEXT	Indicates device names, environment variables, and logical operators. <i>Examples:</i> <pre>LPT1 SIGNON OR</pre>

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<b>Convention</b>	<b>Item</b>
{ }	Indicates a set of choices in a syntax line. The braces themselves should never be typed.
[ ]	Indicates optional items in a syntax line. The brackets themselves should never be typed. <i>Example:</i> buildobjclient [-v] [-o name ] [-f file-list]... [-l file-list]...
	Separates mutually exclusive choices in a syntax line. The symbol itself should never be typed.
...	Indicates one of the following in a command line: <ul style="list-style-type: none"> <li>■ That an argument can be repeated several times in a command line</li> <li>■ That the statement omits additional optional arguments</li> <li>■ That you can enter additional parameters, values, or other information</li> </ul> The ellipsis itself should never be typed. <i>Example:</i> buildobjclient [-v] [-o name ] [-f file-list]... [-l file-list]...
.	Indicates the omission of items from a code example or from a syntax line. The vertical ellipsis itself should never be typed.

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# 1 Introduction

This section provides an overview of how to troubleshoot a WebLogic Integration deployment. It contains the following sections:

- Types of Problems
- Troubleshooting Resources

This section provides general troubleshooting tips. For information about known limitations in specific WebLogic Integration releases, see the *BEA WebLogic Integration Release Notes*.

## Types of Problems

The following table describes the full range of problems, organized by type, that you might encounter in a WebLogic Integration deployment.

**Table 1-1 Types of Problems in a WebLogic Integration Deployment**

<b>Problem Category</b>	<b>Types of Problems</b>
Application problems	<ul style="list-style-type: none"><li>■ Syntax errors</li><li>■ Data errors</li><li>■ Other run-time errors (such as file not found, invalid data)</li></ul>
Server problems	<ul style="list-style-type: none"><li>■ Server is unavailable</li><li>■ Service is unavailable</li></ul>

**Table 1-1 Types of Problems in a WebLogic Integration Deployment**

<b>Problem Category</b>	<b>Types of Problems</b>
RDBMS problems	<ul style="list-style-type: none"><li>■ Database is unavailable</li><li>■ Logon errors</li><li>■ Connection errors</li><li>■ SQL errors</li></ul>
Enterprise Information System problems	<ul style="list-style-type: none"><li>■ EIS is unavailable</li><li>■ Logon errors</li><li>■ Connection errors</li><li>■ Data errors</li></ul>
Hardware problems	<ul style="list-style-type: none"><li>■ Hardware failure</li><li>■ Hardware resource is unavailable</li></ul>
Operating system errors	<ul style="list-style-type: none"><li>■ Operating system errors</li></ul>
Network errors	<ul style="list-style-type: none"><li>■ Network failure</li><li>■ Network resources are unavailable</li><li>■ Logon errors</li></ul>

## Troubleshooting Resources

The following sections describe resources that you can use to troubleshoot a WebLogic Integration deployment:

- WebLogic Server Log
- WebLogic Server Administration Console
- Business Process Management Debugging
- Application Integration Logs
- B2B Integration Log
- Release Notes

- Product Documentation
- BEA Developer Center
- “Troubleshooting FAQ” section of this document

## WebLogic Server Log

The WebLogic Server log contains almost all run-time log messages. The location of the log file is specified in your server `config.xml` file. For detailed information about the WebLogic Server log, see “Using Log Messages to Manage WebLogic Servers” in the *BEA WebLogic Server Administration Guide* at the following URL:

<http://edocs.bea.com/wls/docs61/adminguide/logging.html>

## WebLogic Server Administration Console

Certain messages, such as XML translation messages, are displayed only in the WebLogic Server Administration Console. You can increase the maximum console message trace level by adding the `StdoutEnabled=true` `StdoutSeverityLevel=64` attribute to the Server element in the `config.xml` file.

## Business Process Management Debugging

You can enable debugging to route event data to the WebLogic Server Administration Console by setting the following property:

```
-Dwli.bpm.server.eventprocessor.debug=1
```

For more information, see the “[Business Process Management](#)” Web page from the WebLogic Integration documentation.

## Application Integration Logs

WebLogic Integration maintains separate logs for the Application View Management Console and for each adapter. These logs are located in the parent directory of the `config/domain` directory, where `domain` is the name of the domain that is currently running. The Application View Management Console allows you to configure logging levels, as described in “Deploying the Application View” in “Steps for Defining an Application View” in “[Defining an Application View](#)” in *Using Application Integration*.

## B2B Integration Log

Messages about B2B integration activities are written to the B2B system log file (`b2b.log`) and to the WebLogic Integration B2B Console. For more information, see “[Writing to the Log](#)” in *Writing Messages to the B2B Integration Log*.

## Release Notes

The *BEA WebLogic Integration Release Notes* provides information about known limitations and workarounds for the version of WebLogic Integration that you are using.

## Product Documentation

The WebLogic Integration product documentation provides detailed information about all aspects of the WebLogic Integration product. For more information, see the documentation CD that comes with the WebLogic Integration package or go to the following URL:

`http://e-docs.bea.com/wlintegration/v2\_1/index.html`



## **BEA Developer Center**

The BEA Developer Center provides a range of technical resources, including newsgroups on technical topics, such as installation, clustering, JDBC, EJBs, servlets, and JSPs. For more information, visit the BEA Developer Center at the following URL:

<http://www.bea.com/support/index.jsp>

## **Troubleshooting FAQ**

For a list of common problems, see “Troubleshooting FAQ” on page 2-1.



# 2 Troubleshooting FAQ

The following sections provide answers to frequently asked questions about problems that you might encounter as you develop and deploy WebLogic Integration solutions:

- Installation and Preparation
- Migration
- Using the Samples
- Starting the Server
- Designing Applications
- Running Applications
- General Run-Time Issues

Questions are categorized according to typical user experiences. Each section describes one or more problems and includes a detailed description of the problem, one or more suggested remedies, and cross-references to additional helpful information, such as product documentation.

This section provides general troubleshooting tips. For information about known limitations in specific WebLogic Integration releases, see the *BEA WebLogic Integration Release Notes*.

# Installation and Preparation

This section answers the following questions:

- What should I do if bulk loading of repository data fails?
- How can I determine the version of WebLogic Integration that I am using?

## What should I do if bulk loading of repository data fails?

**Problem** In certain circumstances when working with B2B integration, such as before you run a WebLogic Integration sample, you are required to bulk load data into the WebLogic Integration repository. If error messages are displayed after you try to bulk load data into the repository, the bulk loading process has not run successfully.

**Solution** Check the error message to determine the reason for the error. Then correct the error and perform the bulk loading operation again. Because bulk loading is not transactional, we suggest that you completely clean your database before bulk loading the data again.

Possible errors during bulk loading include:

- The table in which you are trying to insert data does not exist.

There is a mismatch between the bulk loading statement and the repository schema. To correct the problem, make sure that: (1) your bulk loading data file is correct; (2) your repository is up-to-date and complete; and (3) you have the correct version of the repository schema.

- A repository item (for example, Conversation) has been defined.

The bulk loading data conflicts with your existing repository information. Correct your current bulk loading data file or remove the old information from the repository.

For more information, see [“Working with the Bulk Loader”](#) in *Administering B2B Integration*.

---

## How can I determine the version of WebLogic Integration that I am using?

**Problem** You do not know how to determine the installed version of WebLogic Integration.

**Solution** Look in the `registry.xml` file in your `WLI_HOME` directory (the directory in which WebLogic Integration is installed). The `registry.xml` file contains an XML segment similar to the following:

```
<product name="WebLogic Integration" format="1.0">
  <release level="2.1"
    Status="installed"
    InstallDir="C:\bea\wlintegration2.1"
    InstallTime="Nov 9, 2001 9:41:13 AM"
    InstallSet="Full"
    BuiltInServicePackLevel="0"
    ServicePackLevel="0">
    <component name="Full" />
    <component name="Samples" />
    <database Type="production"
      name="Cloudscape" />
    <database Type="samples"
      name="Cloudscape" />
  </release>
</product>
```

Look at the release element (text starting with `<release level ...>`). This element indicates the number of the release and service pack of WebLogic Integration that is currently installed.

## Migration

This section answers the following questions:

- How can I move my design-time data for WebLogic Integration to another database?
- Why do my workflows fail to work when I import a package into the WebLogic Integration Studio?

# How can I move my design-time data for WebLogic Integration to another database?

- Problem** You might want or need to move the design-time data for WebLogic Integration to another database. Such migration may become necessary, for example, because you are installing a new service pack release of WebLogic Integration, or because you are changing database types.
- Solution** To fully migrate design-time data from one WebLogic Integration repository database to another, export all design-time data from the source database and import it into the target database. For detailed instructions, see *Migrating to BEA WebLogic Integration Release 2.1* and “Specifying a New Database for a Domain” in “[Customizing WebLogic Integration](#)” in *Starting, Stopping, and Customizing BEA WebLogic Integration*.

# Why do my workflows fail to work when I import a package into the WebLogic Integration Studio?

- Problem** Sometimes, after a previously exported package is imported into the WebLogic Integration Studio, the imported workflows are not instantiated properly, or you encounter run-time errors.
- Solution** Consider the following possible solutions:
- When you import a package, make sure you have activated the workflows you want to use. If your workflows are not active, they are not instantiated as expected. Either select the `activate workflows` option in the Package Import dialog box, or manually activate the desired workflows by opening the workflow template definition properties dialog box, and selecting the `activate` option.
  - Once the workflow is imported, reset the start organization in the Start node.

- If you encounter exceptions when running workflows in which application integration application views are used, make sure you have deployed the application views used in the workflow. The WebLogic Integration Studio import facility does *not* deploy application views for you. You must use the Application View Console (available at [http://wli\\_host:port/wlai](http://wli_host:port/wlai)) to deploy your application views. For more information, see “[Defining an Application View](#)” in *Using Application Integration*.
- If you encounter exceptions when using workflows related to B2B integration, make sure you have properly bulk loaded the design-time data into the repository, as described in “[Working with the Bulk Loader](#)” in *Administering B2B Integration*.
- If you have set `wli.bpm.server.evaluator.supportsNull` as true, you must re-examine your workflows and make sure that you have properly set the initial values for workflow variables. If these variables are not set, and this flag has been set to true, then your workflow may not run. The default value is false, so if this problem occurs, you can assume that you explicitly set this value earlier.

## Using the Samples

This section answers the following question:

I installed a sample from the Developer Center and it does not seem to work with my WebLogic Integration installation. How can I fix this?

### **I installed a sample from the Developer Center and it does not seem to work with my WebLogic Integration installation. How can I fix this?**

**Problem** Although all the samples packaged with the product are compatible with your WebLogic Integration installation, not all samples available from the BEA Developer Center are updated for the current release. Some samples are not forwardly compatible.

**Solution** Read the documentation for the downloaded sample to verify that all the components of your environment (platform, release of WebLogic Integration, and version of WebLogic Server) are supported for the sample.

# Starting the Server

This section answers the following questions:

- Why do I get `ConnectExceptions` when starting the server?
- Why do I get a `Table or View Does Not Exist` error when starting the server? I am using an Oracle database.

## Why do I get `ConnectExceptions` when starting the server?

**Problem** You encounter the following exception message when the server is started:

```
      a routed: 'Protocol: 't3'' connection
to: '0S:172.16.3.18:[7001,-1,-1,-1,-1,-1,-1]' on port: '7001'
java.rmi.ConnectException: No available router to destination
. . .
```

**Solution** Remove the `*.tlog` file from your log directory.

If this problem occurs on a production server, make sure you archive the transaction log files before deleting them, as they contain information about transactions that were in process when the server failed.



## Why do I get a Table or View Does Not Exist error when starting the server? I am using an Oracle database.

**Problem** You encounter the following error message when a server, running over an Oracle database, is started:

```
####<Aug 30, 2001 12:40:52 PM GMT-08:00> <Alert> <JMS> <fushigi.beasys.com>
<myserver> <main> <system> <> <040052> <JMSServer "WLA
I_JMSServer", store failed to open, java.io.IOException: JMS JDBC store,
connection pool = <wliPool>, prefix = <null>: JMS JDBC I/
O failure
java.sql.SQLException: ORA-00942: table or view does not exist

    at oracle.jdbc.dbaccess.DBError.throwSQLException(DBError.java:114)
    at oracle.jdbc.ttc7.TTIOer.processError(TTIOer.java:208)
    at oracle.jdbc.ttc7.Oall7.receive(Oall7.java:542)
    at oracle.jdbc.ttc7.TTC7Protocol.doOall7(TTC7Protocol.java:1311)
    at
oracle.jdbc.ttc7.TTC7Protocol.parseExecuteDescribe(TTC7Protocol.java:595)
    at
oracle.jdbc.driver.OracleStatement.doExecuteQuery(OracleStatement.java:1600)
    at
oracle.jdbc.driver.OracleStatement.doExecute(OracleStatement.java:1758)
    at
oracle.jdbc.driver.OracleStatement.doExecuteWithTimeout(OracleStatement.java
:1805)
    at
oracle.jdbc.driver.OracleStatement.executeQuery(OracleStatement.java:410)
    at weblogic.jdbc.pool.Statement.executeQuery(Statement.java:48)
    at
```

**Solutions** This error occurs when JMS finds two tables with the same name, one of which belongs to a different user or schema. Assign each JMSJDBCStore table a unique name. Change the JMSJDBCStore line in your config.xml file to a line similar to the following example:

```
<JMSJDBCStore ConnectionPool="wliPool" Name="wliPool"
PrefixName="someuniqname" />
```

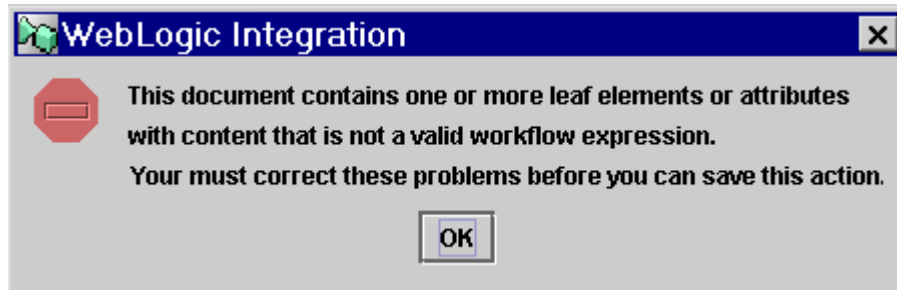
## Designing Applications

This section answers the following questions:

- Why do I encounter an error message when I create an XML document in the WebLogic Integration Studio XML editor?
- How do I start a public workflow that starts a B2B conversation?
- What should I do if I cannot see an entity (such as a trading partner) in the navigation tree?
- What should I do if I cannot see the details of business protocol definitions?
- What does it mean if I see a SQL Exception while trying to remove an element from the WebLogic Integration repository?

### Why do I encounter an error message when I create an XML document in the WebLogic Integration Studio XML editor?

**Problem** When you create a legitimate XML document in the WebLogic Integration Studio XML editor, the instance editor may display the following message:



- Solution** Make sure that all values displayed in the right pane of the instance editor are valid expressions. The instance editor indicates values that have invalid expression syntax by displaying an X icon on the lines with errors. For values that are string constants, add double quotes around the string literal. For information about how to make other types of values valid expressions, see *Using the WebLogic Integration Studio*.
- Problem** When you import a legitimate XML document into the WebLogic Integration Studio XML editor, the instance editor may display an error message, prompting you to convert the document to a valid template document.
- Solution** Click Yes and convert the document into a template document.

## How do I start a public workflow that starts a B2B conversation?

- Problem** You want to start a workflow that initiates a B2B conversation.
- Solution** To start a workflow that initiates a B2B conversation, use the Start Public Workflow action from another workflow. An API is also available to start a public workflow from within a Java application. Note that Start Public Workflow provides input parameters to determine a collaboration agreement, which determines a conversation. The conversation, in turn, contains the workflow template name.
- Problem** I am using a Start Public Workflow action and the workflow does not start.
- Solution** Common errors:
- Organization of the workflow template is not consistent with the conversation definition in the WebLogic Integration repository.
  - You did not enter a valid trading partner name in quotes.

## What should I do if I cannot see an entity (such as a trading partner) in the navigation tree?

**Problem** You cannot find entities that you expect to see listed in the navigation tree of the WebLogic Integration B2B Console.

**Solution** Complete the following steps:

1. Click the WLI B2B node in the navigation tree.
2. Select the Configuration tab.
3. Select the Preferences tab.
4. Select Display entities on the navigation tree.
5. Click Apply.

## What should I do if I cannot see the details of business protocol definitions?

**Problem** You cannot see the details of business protocol definitions in the navigation tree of the WebLogic Integration B2B Console.

**Solution** Complete the following steps:

1. Click the WLI B2B node in the navigation tree.
2. Select the Configuration tab.
3. Select the Preferences tab.
4. Select Display advanced configuration controls.
5. Click Apply.

---

## What does it mean if I see a SQL Exception while trying to remove an element from the WebLogic Integration repository?

**Problem** You encounter a similar SQL exception while removing an element from the repository:

```
Exception:ERROR: In SQLHelper.execute(), a SQL Exception was caught while
executing a SQL Statement: SQL Exception: DELETE on table 'PARTY_IDENTIFIER'
caused a violation of foreign key constraint
'15b58164-00e8-4d2f-8ace-00ac100b2400' for key (27). The statement has been
rolled back.
```

```
com.bea.b2b.management.ManagementException: ERROR: In SQLHelper.execute(), a SQL
Exception was caught while executing a SQL Statement: SQL Exception: DELETE on
table 'PARTY_IDENTIFIER' caused a violation of foreign key constraint
'15b58164-00e8-4d2f-8ace-00ac100b2400' for key (27). The statement has been
rolled back.
```

```
. . . <remainder of stack trace not shown> . . .
```

**Solution** SQL exceptions like this occur when you attempt to remove a repository element that is being referenced by another repository element from the repository. This exception occurs if you attempt to remove a trading partner that is currently involved in a collaboration agreement. Removing such a trading partner causes a violation of database referential constraints. Before attempting to remove the trading partner, remove the collaboration agreement in which this trading partner is included or remove the reference from the collaboration agreement to the trading partner. For more information on repository element relationships and removing references between repository elements see [“Working with the Repository”](#) in *Administering B2B Integration*.

# Running Applications

This section answers the following questions:

- How can I can find, in the Worklist, the name of the workflow template needed to start the workflow?
- How can I debug and trace my workflow execution?
- Starting a workflow throws an exception. Why is no instance created?
- What should I do if the WebLogic Integration process engine does not process some messages or events in the JMS queue?
- What should I do if I get a “resource unavailable” or “Transaction has timed out when making request to XAResource 'WebLogic.jdbc.jts.Connection” exception?
- What should I do if I encounter event generation problems while using application integration?
- What should I do if my application integration asynchronous service responses are lost while I am using business process management?

## How can I can find, in the Worklist, the name of the workflow template needed to start the workflow?

**Problem** You create a workflow template in the WebLogic Integration Studio and then use the Worklist user interface to start the workflow. However, you cannot find the workflow template in the Worklist when you want to start the workflow.

**Solutions** Perform one or more of the following steps:

- Make sure that you saved the workflow in the WebLogic Integration Studio.
- Make sure that you activated the workflow template.

- The user logged in to the Worklist might belong to several organizations. Switch the organization to which the user is assigned, to the one associated with your template.
- Make sure that the workflow allows a manual start.

**Additional Information** See *Using the WebLogic Integration Studio* and *Using the WebLogic Integration Worklist*.

## How can I debug and trace my workflow execution?

**Problem** You are having difficulty determining why a workflow is not operating correctly.

**Solution** Tracing the execution of a workflow can help determine the cause of problems and indicate a solution. There are several ways to debug or trace the execution of a workflow instance:

- In your task actions, print out tracing messages. Use a business operation in which `java.lang.System.println()` statements are used. This option is effective for debugging workflow instances that execute quickly and cannot be debugged using the method described previously.
- Use audit actions in your tasks to output audit information to the audit topic. You can see the audit entries in a log file called `myserver.log` in `config/bpmdomain/logs`. Also, before this action can have any effect, the template definition must have enabled auditing in its properties.
- If an e-mail server has been set up properly, send an e-mail to yourself at each point you want to test.
- In addition to using the audit entry action, you can use the Set Workflow comment action at each point you want to test. The comment appears in the Workflow Instances dialog box described previously.

- In the WebLogic Integration Studio, open the workflow instance monitor and check the variables and workflow status. The workflow instance monitor shows you the current state of variables in the workflow instance and indicates which tasks in the workflow instance have been executed thus far. If your workflow needs to wait for user input or asynchronous events, it stops executing for periods of time. During these periods, you can investigate the details of your workflow instance.

If your workflow runs nonstop after it is instantiated, this debugging technique may be less effective because the state of variables and the active task can change rapidly.

Whenever possible, use the `Assign task to user` action at locations in your workflow at which you would like the workflow execution to stop long enough for you to display the variables and executed tasks. This ability to stop allows you to walk through your workflow execution step by step, using the Worklist tool. At each step, you can use the Worklist tool to allow the workflow to proceed to the next step.

If it is not possible to halt the workflow execution using this method, try another debugging method.

**Additional Information** See the documentation for the `assign task to user` and the `make audit entry` actions in *Using the WebLogic Integration Studio*, as well as the documentation for business operations in *Programming BPM Client Applications*.

## Starting a workflow throws an exception. Why is no instance created?

**Problem** A workflow encounters an exception, but no workflow instance exists to indicate that the workflow was instantiated.

**Solution** Workflow instances are created and persisted in the database only after a workflow reaches a quiescent state or done node. If a workflow encounters an exception before it reaches a quiescent state or done node, the workflow instance is rolled back. To solve this problem, force a quiescent state by inserting an action, such as `No Operation` or `Assign Task to User`, that causes the workflow instance to wait.

**Additional Information** See *Using the WebLogic Integration Studio* and [“Understanding the BPM Transaction Model”](#) in *Programming BPM Client Applications*.



---

## What should I do if the WebLogic Integration process engine does not process some messages or events in the JMS queue?

**Problem** It appears that the events or messages posted to the JMS queue are not processed by the WebLogic Integration process engine.

**Solution** Try any of the following solutions:

- Make sure that you publish your message to the correct JMS queue. The process engine subscribes to `com.bea.wlpi.EventQueue`.
- When the process engine processed your event, it failed in a step performed after the event node. WebLogic Integration rolled back the transaction and returned the workflow instance to the event-waiting state. Inspect the workflow for problems with subsequent steps.
- On the event generation side, you published the event within a transaction and an error occurred within the transaction. If WebLogic Integration rolls back the sender's transaction, then the event is not published. Check your server log for error messages related to transactions. If this problem occurs in a workflow, you have the option of sending the message immediately, regardless of whether the transaction has committed.
- WebLogic Integration could not match your event with corresponding templates and instances. Use addressed messages, instead. Addressed messages reduce the possibility of mismatched messages by allowing you to explicitly designate a workflow instance to receive the event. To solve the problem completely, apply a recovery or message-resend mechanism when implementing your application.

For more information about using addressed messaging to guarantee message delivery, refer to the following:

- “Guaranteeing Message Delivery” in [“Tuning Performance”](#) in *Deploying BEA WebLogic Integration Solutions*
- “Guaranteeing Message Delivery” in [“Establishing JMS Connections”](#) in *Programming BPM Client Applications*
- “Posting an XML Message to a JMS Topic or Queue” in [“Defining Actions”](#) in *Using the WebLogic Integration Studio*.

# What should I do if I get a “resource unavailable” or “Transaction has timed out when making request to XAResource 'WebLogic.jdbc.jts.Connection'” exception?

**Problem** You encounter one of the following exceptions:

- `resource unavailable`
- `Transaction has timed out when making request to XAResource 'WebLogic.jdbc.jts.Connection'`

**Solution** These errors can indicate that more connections are required by your application than you have allocated in the connection pool. An error might occur due to pool exhaustion in the WebLogic Integration repository pool or in the application integration connection factory pool for an `Application View`.

To determine which pool is being exhausted, check the exception stack trace. If you see a class with a name such as `xxxConnectionFactory.getConnection()` in the stack trace, you can conclude that a connection factory pool is depleted. The exception message often points to the depleted pool. If you do not see such a class in the stack trace, you can conclude that the JDBC connection pool is depleted.

For either type of pool, estimate the number of expected maximum concurrently active users, multiply that number by two, and use the resulting number as the value of `Max Capacity` in the pool. For JDBC connection pools, modify the `JDBCConnectionPool` element of your `config.xml` file. For connection factory pools for application views, use the `Application View Console` to edit the connection parameters section of the application view and set the `Max Capacity` value.

If setting `Max Capacity` for connection factories does not solve the problem, increase the maximum capacity in the adapter deployment unit. To do this, locate the adapter's RAR file (the location is indicated in your server's `config.xml` file within the application element for your adapter) and edit its `weblogic-ra.xml` deployment descriptor, which is located within the `META-INF` directory of the archive.

**Note:** To edit the `weblogic-ra.xml` file, extract the archive, edit the file, and jar the archive. Increase the `max-capacity` element of the `pool-params` element in the `weblogic-ra.xml` file.

If you are using Oracle, check your database block size. If the block size is 2K, rebuild your database with an 8K block size.

You can also adjust the `ThreadPoolSize` and JDBC connection pool size to proper levels so that each transaction does not need to wait a long time to get a free database connection. In most cases, you should set the JDBC connection pool size to be twice as big as the `ThreadPoolSize`, but the appropriate size depends on the needs of your application.

## What should I do if I encounter event generation problems while using application integration?

**Problem** You define an application view containing event definitions and deploy it, but you cannot receive any events when using the event-test facility in the WebLogic Integration Application View Console.

**Solution** This problem might be due to any of the following reasons:

- Your event adapter did not start correctly. Check the adapter log file to determine whether the event adapter encountered any errors. Even when errors occur on startup, the event adapter (shown as a Web application in the Application View Console) appears to be deployed. Despite this, the event adapter might be rendered inoperative if errors occur. The event adapter log file is usually located in the directory that contains the `config/domain` directory for your domain.
- Your event adapter encounters errors when trying to generate the event you expect to receive. Check the event adapter log file for any errors. The event adapter log file is usually located in the directory that contains the `config/domain` directory for your domain.
- Your event adapter is not the only event adapter for a given EIS, and other event adapters might be stealing events from your adapter.

It is generally assumed that the event adapter is dedicated to an EIS instance, and that the EIS instance has only one event adapter. In the case of the BEA DBMS adapter, if you have more than one event adapter pointing to a given database (and the set of `EVENT/EVENT_DATA` tables), one event adapter receives any event that is generated, depriving the other event adapter of the event. The adapter that receives the event is not predetermined, so a specific adapter might get events on one occasion and not get them on another. Make sure only one event adapter is pointing to your EIS instance.

# What should I do if my application integration asynchronous service responses are lost while I am using business process management?

- Problem** In the WebLogic Integration Studio, you define a workflow in which application integration functionality is used to invoke services asynchronously. Within the workflow you define a task node, to invoke a service, and an event node, to receive the response from a service. At run time, however, the response event is not received.
- Solution** This problem can occur when no significant amount of logic is designed between the task node and the event node for an asynchronous response. In this case, you might encounter a race condition in the WebLogic Integration process engine that causes it to miss events. It is difficult to determine whether the response is received by the BPM event queue. Use the WebLogic Server Administration Console to monitor the BPM event queue and to determine whether the message count has increased as a result of running the workflow containing the task that invokes the asynchronous service. To solve this problem, add a `No Operation` in a task that is placed between the task node and the event node for the asynchronous service. The addition of the `No Operation` introduces a slight delay in the processing of the workflow instance.

## General Run-Time Issues

This section answers the following questions:

- How can I solve out of memory errors?
- Where are WebLogic Integration log messages saved?
- My server will not shut down properly.

## How can I solve out of memory errors?

**Problem** You encounter out of memory errors in Java applications when the demand for memory allocation in the program exceeds the free space in the JVM heap. You must terminate the Java process that is currently running and restart the application. Although out of memory errors cannot be eliminated completely, the following solutions can reduce the occurrence of this error.

**Solution** Increase the amount of free space in the JVM and reduce demand. Specifically, you can implement the following steps:

- Increase the maximum heap size. The recommended heap size is 384 MB. In any case, it should be less than the physical memory size. Otherwise, memory swapping, which can significantly reduce performance, becomes necessary.
- Make Java garbage collection (GC) more effective. Use the `-Xincgc java` command to adjust garbage collection frequency. The appropriate level of frequency, however, depends on your application. If GC is performed too frequently, your program may be stalled to allow the heap to be shrunk.
- Reduce unnecessary demand as much as possible. You can control demand through your own application. In WebLogic Integration, we suggest using a database other than Cloudscape for production because Cloudscape uses more JVM memory than other databases. If you use the MSSQL or Oracle database, use the Java HotSpot JVM instead of the classic JVM.
- If you are using JMS, make it persistent (File- or DBMS-based) so that it is not necessary to keep messages in memory at all times during execution.

## Where are WebLogic Integration log messages saved?

**Problem** You do not know how to find WebLogic Integration log messages.

**Solutions** Use the following instructions to locate WebLogic Integration log messages:

- Look in the WebLogic Server log file. Almost all run-time log messages are stored in this log file. Check your server `config.xml` for the pathname of the log file.

- Look in the WebLogic Server Administration Console. Some messages, such as XML translation messages, are displayed only on this console. You can increase the maximum console message trace level by adding the `StdoutEnabled=true StdoutSeverityLevel=64` attribute to the `Server` element in the `config.xml` file.
- Check the following component-specific log files:
  - For application integration, separate logs are maintained for the WebLogic Integration Application View Console and for each adapter. These logs are located in the parent directory of the `config/domain` directory, where `domain` is the name of the domain that is currently running.
  - For the WebLogic Integration process engine, you can set the `-Dwli.bpm.server.eventprocessor.debug=1` property, which routes event data to the WebLogic Server Administration Console.

## My server will not shut down properly.

**Problem** After running the `stopWeblogic` command, you get the following error message:

```
<Oct 12, 2001 6:24:00 PM PDT> <Critical> <WebLogicServer> <Failed  
to invoke shutdown class  
"WLCSshutdown", java.lang.IllegalArgumentException>
```

**Solutions** This problem, a known bug with WebLogic Server, occurs when you stop and restart the B2B engine without concurrently stopping and restarting WebLogic Server. When this bug appears, the B2B engine has already been shut down properly, but WebLogic Server may hang. For more information, see the BEA WebLogic Server documentation.

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