BEA WebLogic
Integration™

Release Notes

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BEA WebLogic Integration Release Notes

Part Number	Date	Software Version
N/A	September 231, 2003	2.1 Service Pack 2

Contents

BEA WebLogic Integration Release Notes

BEA WebLogic Integration Release 2.1 Service Pack 2
Date: July 2002
Revised: September 2003

Change History

The following table lists the changes included in BEA WebLogic Integration 2.1 Service Pack 2 since the initial release.

Date	Summary of Changes
November 21, 2002	■ Added certification information for SuSE Linux. For more information, see "Platform Support and System Requirements" on page 5.
September 23, 2003	■ Added support information. For more information, see "Platform Support and System Requirements" on page 5.

Release Note Topics

This document includes the following topics:

■ About This Release of BEA WebLogic Integration

- What Is New and Improved in This Release

- Platform Support and System Requirements

- Best Practices

- Problems Fixed in This Release

- Known Limitations

- Installation and Migration

- BEA dev2dev Online

- Contacting BEA Customer Support

For this release, only the Release Notes have been revised. Please use the information in these Release Notes in conjunction with the WebLogic Integration 2.1 SP1 documentation set located on the BEA documentation Web site at the following URL:

http://edocs.bea.com

About This Release of BEA WebLogic Integration

BEA WebLogic Integration 2.1 Service Pack 2 (SP2) is a single, unified platform that provides the functionality needed to integrate business systems within an enterprise, and to link those systems in a collaborative arrangement with an organization's trading partners.

Underlying this functionality is the industry-leading J2EE application server, BEA WebLogic Server, which provides the critical infrastructure needed to develop integrated solutions that support transaction management, security, fault tolerance, persistence, and clustering.

WebLogic Integration 2.1 SP2 supports end-to-end business integration by providing functionality in the following areas:

- *Business process management* makes possible the development of complex e-business processes that integrate existing enterprise systems, cross-enterprise applications, and human decision makers.

- *Application integration* makes it possible to integrate existing enterprise applications with each other, and with new e-business applications.

- *B2B integration* makes possible the connection of trading partners over the Internet, and the integration of EDI environments with WebLogic Integration.

- *Data integration* supports the seamless exchange of various data formats between applications and between trading partners over the Internet.

What Is New and Improved in This Release

BEA WebLogic Integration 2.1 Service Pack 2 (SP2) delivers the following new functionality and enhancements:

- Support for BEA WebLogic Server 6.1 SP3

  WebLogic Integration 2.1 SP2 now supports WebLogic Server 6.1 SP3 in addition to WebLogic Server 6.1 SP2.

- Full installer and service pack upgrade installer

  A full WebLogic Integration 2.1 SP2 installer is available. Use the full installation if you have never installed WebLogic Integration or if you have WebLogic Integration 2.0 or earlier installed.

  If you already have WebLogic Integration 2.1 or WebLogic Integration 2.1 SP1 installed, and you have a BEA WebSUPPORT account, you can use the service pack upgrade installer. Information about downloading these installers is provided in *Installing BEA WebLogic Integration* at the following URL: `http://edocs.bea.com/wlintegration/v2_1sp/install/index.htm`

- The BPM Timer Services have been changed to allow multiple workflow instances to be processed simultaneously. For more information, see "Time Services Changes in BPM" on page 62.

- The Data Integration functionality now provides an enhanced version of Message Format Language, MFL Version 2.02, including three new features. For

information on these features, see "Data Integration Padding and Truncation Features" on page 65.

- Support for WebLogic Integration - Business Connect 7.0

  WebLogic Integration - Business Connect enables you to securely exchange large volumes of documents with your trading partners. WebLogic Integration - Business Connect packages documents in secure envelopes that are transmitted among trading partners according to schedules.

  Detailed information about this component of WebLogic Integration is available at the following URL:
  http://e-docs.bea.com/wlibc/docs70/index.html

- Support for Contivo Analyst 3.5

  WebLogic Integration 2.1 SP2 supports Contivo Analyst 3.5. This software extends the data transformation capabilities of your data integration environment. Refer to the documentation packaged with the Contivo Analyst software. Contivo Analyst software can be downloaded from the BEA Download Center at the following URL:
  http://commerce.bea.com/downloads/weblogic_integration.jsp

- Version information logged at startup

  Version information is now written to the server log at startup. This enhancement was added in response to CR081976. The following sample shows a portion of the output to the server log:

```
####<Jul 4, 2002 3:57:48 PM EDT> <Info> <WLI> <mysystem> <myserver>
<main> <system> <> <000000>
<Weblogic Integration version:
Weblogic Integration BPM MDB Generator 2.1 SP2 07/04/2002 15:35:43 EDT #21159
Weblogic Integration Studio 2.1 SP2 07/04/2002 15:35:43 EDT #21159
Weblogic Integration Worklist 2.1 SP2 07/04/2002 15:35:43 EDT #21159
```

Platform Support and System Requirements

The following sections contain the platforms supported for WebLogic Integration 2.1 SP2, including the hardware and software requirements:

■ BEA WebLogic Integration Release 2.1 Service Pack 2 as of July 2002

■ BEA WebLogic Integration Release 2.1 Service Pack 2 as of November 2002

BEA WebLogic Integration Release 2.1 Service Pack 2 as of July 2002

The following table provides a list of the platforms supported for WebLogic Integration 2.1 SP2 as of July 2002.

Table 1. Platform Support for WebLogic Integration 2.1 SP2

Operating System and version	WebLogic Integration Version	Required WebLogic Server Version	Required JDK (included with WLS installation	Hardware Requirements	DBMS Supported[1]
Microsoft Windows NT 4.0 (SP6 or higher) Microsoft Windows 2000 Professional Microsoft Windows 2000 Advanced Server	2.1 SP2	6.1 SP4 6.1 SP3 6.1 SP2	1.3.1	Intel Pentium II or higher at 400 MHz (or higher) 256 MB RAM minimum (512 MB RAM recommended) 100 MB free disk space for program software TCP/IP network interface Persistent Internet Connection	Cloudscape 3.5.1 Oracle 8.1.7, 9i Microsoft SQL Server 7 (SP3 or higher), 2000[2] Sybase System 11.9.2
	2.1 SP1	6.1 SP2 6.1 SP3 (AI requires a patch)			Cloudscape 3.5.1 Oracle 8.1.6, 8.1.7 Microsoft SQL Server 7 (SP3 or higher), 2000 Sybase System 11.9.2
Sun Solaris 2.6 Sun Solaris 7 Sun Solaris 8[3]	2.1 SP2	6.1 SP4 6.1 SP3 6.1 SP2	1.3.1	UltraSparc 5 or higher Sparc 168 MHz or higher 256 MB RAM minimum (512 MB RAM recommended) 100 MB free disk space for program software TCP/IP network interface Persistent Internet Connection	Oracle 8.1.7, 9i Microsoft SQL Server 7 (SP3 or higher), 2000 Sybase System 11.9.2
	2.1 SP1	6.1 SP2 6.1 SP3 (AI requires a patch)			Oracle 8.1.6, 8.1.7 Microsoft SQL Server 7 (SP3 or higher), 2000[2] Sybase System 11.9.2

Table 1. Platform Support for WebLogic Integration 2.1 SP2

Operating System and version	WebLogic Integration Version	Required WebLogic Server Version	Required JDK (included with WLS installation	Hardware Requirements	DBMS Supported[1]
Hewlett-Packard HP-UX 11.0, HP-UDX 11i[4]	2.1 SP2	6.1 SP4 6.1 SP3 6.1 SP2	1.3.1	HP 9000 PA RISC at 100 MHz or higher 256 MB RAM minimum (512 MB RAM recommended)	Oracle 8.1.7, 9i Microsoft SQL Server 7 (SP3 or higher), 2000[2] Sybase System 11.9.2
	2.1 SP1	6.1 SP2 6.1 SP3 (AI requires a patch)		100 MB free disk space for program software TCP/IP network interface Persistent Internet Connection	Oracle 8.1.6, 8.1.7 Microsoft SQL Server 7 (SP3 or higher), 2000 Sybase System 11.9.2
IBM AIX 5.1	2.1 SP2	6.1 SP3 6.1 SP2		RS/6000 PowerPC or higher at 200 MHz or faster	Oracle 9i R2
	2.1 SP1	6.1 SP2 6.1 SP3 (AI requires a patch		256 MB RAM minimum (512 MB RAM recommended) 280 MB free disk space for program software TCP/IP network interface Persistent Internet Connection	Oracle 8.1.7 IBM DB2 7.2

Table 1. Platform Support for WebLogic Integration 2.1 SP2

Operating System and version	WebLogic Integration Version	Required WebLogic Server Version	Required JDK (included with WLS installation	Hardware Requirements	DBMS Supported[1]
IBM AIX 4.3.3 with Performance Pack	2.1 SP2	6.1 SP4 6.1 SP3 6.1 SP2	1.30 (Classic VM with JIT enabled)	RS/6000 PowerPC or higher at 200 MHz or faster 256 MB RAM minimum (512 MB RAM recommended) 280 MB free disk space for program software TCP/IP network interface Persistent Internet Connection	Oracle 8.1.7 IBM DB2 7.2
	2.1 SP1	6.1 SP2 6.1 SP3 (AI requires a patch)			
	2.1	6.1 SP1			

Table 1. Platform Support for WebLogic Integration 2.1 SP2

Operating System and version	WebLogic Integration Version	Required WebLogic Server Version	Required JDK (included with WLS installation	Hardware Requirements	DBMS Supported[1]
Red Hat Linux 7.2 (on IA)	2.1 SP2	6.1 SP4 6.1 SP3 6.1 SP2	Sun JDK 1.3.1_03 (downloaded and installed separately)	Intel Pentium II or higher at 400 MHz (or higher) 256 MB RAM minimum (512 MB RAM recommended)	Sybase 11.9.2 via Sybase jConnect
	2.1 SP1	6.1 SP2	Sun JDK 1.3.1_01 (downloaded and installed separately)	100 MB free disk space for program software TCP/IP network interface Persistent Internet Connection	Oracle 8.1.7
SuSE Linux Enterprise Server 7.0 for S/390 and zSeries	2.1 SP2	6.1 SP3	JDK - IBM 1.3.1 JVM Service Refresh 2 Special Build (APAR PQ63617)	S/390 or zSeries architecture 1 GB RAM 280 MB free disk space for program software TCP/IP network interface Persistent Internet Connection	IBM DB2 7.2 Oracle 9i/9.2

1. Cloudscape is a pure-Java relational database management system that BEA includes with WebLogic Server to allow you to run code samples. It is supported on Windows platforms for development use only; it is not when used in a production environment. Cloudscape is not supported on UNIX platforms.

Oracle connectivity is supported with the Oracle thin driver.

For Microsoft SQL Server, Oracle, Sybase, or DB2, WebLogic Integration must have network access to the database server. You must also have a database server account with sufficient privileges to create a database with tables.

The JDBC2 driver for Sybase is not bundled with WebLogic Server. You can download it directly from the Sybase Web site. For download instructions, see the BEA WebLogic Server 6.1 Installation Guide, available at the following URL: http://edocs.bea.com.

2. The Solaris operating system patches for Java 2 JDK, including the Solaris OpenWindows Motif patches, are required if you install the software using the GUI installation procedure. The patches are available at the following URL: http://java.sun.com/j2se/1.3/install-solaris-patches.html.

3. HP-UX 11i (aka HP-UX 11.11) is a supported environment as per Hewlett Packard's statement of binary compatibility between HP-UX 11.0 and HP-UX 11i.

4. SQL Server 2000 is supported with WebLogic Integration 2.1 Service Pack 2 (running on WebLogic Server 6.1 Service Pack 4), but requires that the patch for CR083328 be applied. This patch can be obtained from BEA Customer Support.

BEA WebLogic Integration Release 2.1 Service Pack 2 as of November 2002

As of November 2002, WebLogic Integration 2.1 SP2 has been certified on the following platform:

- Operating System: SuSE Linux Enterprise Server 7 for S/390 kernel version 2.4.7 (May 2002)

- Required JDK: IBM 1.3.1 JVM Service Refresh 2 Special Build (APAR PQ63617). For information on downloading this JVM build, see:

  http://e-docs.bea.com/wls/certifications/certifications/
  suse_linux_s390.html#41429

- WebLogic Server Version: 6.1 SP3

■ Supported DBMS: DB2 7.2 and Oracle 9i/9.2

Best Practices

This section contains the following usage information about WebLogic Integration components and functions:

■ Specifying JAVA_HOME for Red Hat Linux

■ Settings Required for Running WebLogic Integration on HP-UX 11.0

■ Oracle 9i Driver Setup for RosettaNet 2 Security Sample

■ Using the Proper JDK

■ Support for Null Variables

■ Design-Time Web Application JSP Delivery Change

■ Sample Email Adapter Deprecated

■ Addressed Messaging

■ Nested Workflows

■ Calling Programs Using SendXMLToClient

■ BPM Plug-Ins in a UNIX Environment

■ Deploying B2B on a Managed Server

■ Improving XSLT Performance

Specifying JAVA_HOME for Red Hat Linux

The JDK required for use with Red Hat Linux is not provided with WebLogic Server. Download and install Sun JDK 1.3.1_01 separately before installing WebLogic Server.

WebLogic Integration looks for the JDK in *BEA_HOME*. Because the JDK is installed separately, choose one of the following methods to point to the correct *JAVA_HOME*. In both methods, *JAVA_HOME* is the directory in which you installed JDK 1.3.1_01.

- Use the following commands to point to the proper *JAVA_HOME* before setting your environment.

```
cd  $BEA_HOME
ln  -s  $JAVA_HOME  JAVA_HOME
```

- Use the following commands to change the definition of *JAVA_HOME* in *$WLI_HOME*/setenv.sh to point to the directory in which you installed JDK 1.3.1_01.

```
cd $WLI_HOME
JAVA_HOME=JAVA_HOME
```

Settings Required for Running WebLogic Integration on HP-UX 11.0

Changes to default configuration settings and parameters are required to run WebLogic Integration on an HP-UX 11.0 system.

In *WLI_HOME*/setenv.sh, locate the following lines:

```
HP-UX)
  JAVA=$JAVA_BIN/java
  JAVAC=$JAVA_BIN/javac
  JAVA_OPTIONS="-Djava.compiler=NONE -Xms128m -Xmx512m"
  export JAVA JAVA_OPTIONS JAVAC
```

Change:

```
JAVA_OPTIONS="-Djava.compiler=NONE -Xms128m -Xmx512m"
```

to:

```
JAVA_OPTIONS="-hotspot -Xms256m -Xmx256m"
```

Also, set the max_thread_proc to 512 and max_users to 128. You must have root access to make this change.

Oracle 9i Driver Setup for RosettaNet 2 Security Sample

If you experience failures when running the RosettaNet 2 Security sample on Solaris systems using the Oracle 9i thin driver, ensure that the driver has been properly set up. Unlike the other samples which use the `WLICP` and `WLISERVERCP` values specified in the `setenv` script, the RosettaNet 2 Security sample refers to its own setup. Add the Oracle 9i thin driver to `START_WL_CLASSPATH` in the `startWeblogic` script for both the peer1 and peer2 domains. This issue was originally reported as CR081061.

Using the Proper JDK

Ensure that you are using JDK version 1.3.1. On a Windows NT or Windows 2000 machine, WebLogic Integration installation fails at the Choose Install Set window if you are using a version of the JDK that is earlier than 1.3.x.

Note: JDK 1.3.1 is shipped with WebLogic Server 6.1, so it should already be installed on your system.

If you have not installed the JDK on a new Windows NT or Windows 2000 system, then the installer fails when the Choose Install Set window is displayed, instead of giving you the option of selecting or creating a *BEA_HOME* directory.

Add *BEA_HOME*\jdk131\bin to the Windows PATH environment variable. Install JDK 1.3.1 on the target machine and start the installation again.

This issue was originally reported as CR065631.

Support for Null Variables

WebLogic Integration 2.1 SP2 supports null values in variables through the `wli.bpm.server.evaluator.supportsNull` option in the `startWebLogic` script. When this option is set to `true`, all variables are initialized to a null value. When this option is set to `false`, all variables are initialized to their default values. The default setting for this option is `false`.

For details about this option, see *Starting, Stopping, and Customizing BEA WebLogic Integration*.

Design-Time Web Application JSP Delivery Change

The following information will be added to "Migrating Adapters to WebLogic Integration 2.1" in *Developing Adapters* in a future release.

As of WebLogic Integration 2.1 Service Pack 1, sample adapters (eMail, DBMS, and sample) no longer distribute the JSP pages in a Web application archive (WAR). Rather, the JSP pages are precompiled into Java Servlet classes. This approach eliminates the need to precompile JSP pages when WebLogic Server starts. The Java Servlet classes are delivered in the WEB-INF\classes\jsp_servlet directory in a WAR file. Since the JSP pages are not bundled into the WAR file, the adapter developer needs to establish the mapping between a URL pattern and a specific Java Servlet class in the Web application descriptor WEB-INF/web.xml.

For each JSP page for your adapter, provide a Servlet declaration. For example,

```
<servlet>
  <servlet-name>confconn</servlet-name>
  <servlet-class>jsp_servlet.__confconn</servlet-class>
</servlet>
```

This declares a Servlet named confconn and associates it with a Java Servlet class jsp_servlet.__confconn. The Web application container looks for this class in the WEB-INF/classes directory in the WAR file. After declaring all Servlet classes, associate each Servlet with a URL pattern via a servlet-mapping.

```
<servlet-mapping>
  <servlet-name>confconn</servlet-name>
  <url-pattern>confconn.jsp</url-pattern>
</servlet-mapping>
```

This servlet-mapping associates all HTTP requests for confconn.jsp to the confconn Servlet in your Web application. The adapter developer must have a servlet-mapping for all Servlets in the Web application. See the sample adapter's web.xml file for an example of all Servlet declarations and mappings needed for an adapter.

Sample Email Adapter Deprecated

The sample Email adapter is deprecated in this release of WebLogic Integration. The Email adapter will be removed from the product in a future release.

Addressed Messaging

Use addressed messaging whenever you want guaranteed message delivery.

Nested Workflows

Nested workflows must be analyzed for scalability because they can lead to transaction timeouts. The parent of a transaction timeout envelops all children.

Calling Programs Using SendXMLToClient

Be careful about enabling access to a shell program, such as `cmd.exe`, because doing so effectively defeats the `SecurityManager`, making it possible for a malicious workflow to launch anything on the client computer. For better security, list only those programs needed to execute the workflow.

`WLPISec.properties` contains a list (one item per line) of unqualified executable files, such as the following:

- `cmd.exe`

- `winword.exe`

- `mm.exe`

BPM Plug-Ins in a UNIX Environment

The plug-in architecture uses the Image object from the AWT library. As a result, the server needs to have the `DISPLAY` environment variable set in order to create this object. The plug-in simply sends the image file across the wire and allows the client to create the Image object.

When a UNIX system is used, an issue arises. Because the plug-ins make a connection to the Xwindow server, logging off can bring WebLogic Server down, as well, even if you start it with `NOHUP` and run it in background mode. For this reason plug-ins should never instantiate any class that needs the Xwindow server.

Deploying B2B on a Managed Server

To run WebLogic Integration B2B functionality on a managed server, add the following system property to the Weblogic startup script:

```
-Dwli.b2b.server.managedserver.deployed=true
```

This system property was added in response to CR070619.

If you are not using a managed server configuration, ensure that this system property is not present in the startup script. Also, when running WebLogic Integration on a managed server, do not deploy any application integration components since they cannot currently be deployed in Managed Server mode.

Improving XSLT Performance

If you frequently use XSLT, take the following actions to help improve XSLT performance:

- increase the heap size to at least 512m

- add the following JVM option to the `java` command in your `startWeblogic` script or to `$JAVA_OPTIONS` in your `setenv` script

  ```
  -XX:NewSize=128m -XX:MaxNewSize=128m
  ```

These steps are recommended for all users with enough memory to do so, but they become even more important when using XSLT because of its high short-term memory usage. See Tuning Performance in *Deploying BEA WebLogic Integration Solutions* for further information about JVM options.

Problems Fixed in This Release

The following table lists selected problems fixed in BEA WebLogic Integration 2.1 SP2, including a CR (Change Request) number for each problem. Most of these problems were originally documented in the *Release Notes* for BEA WebLogic Integration Release 2.1 or BEA WebLogic Integration Release 2.1 SP1. For a complete list of problems fixed in BEA WebLogic Integration 2.1 SP2, contact BEA Customer Support.

Table 2. Problems Fixed in BEA WebLogic Integration 2.1 SP2

Change Request Number	Description
CR058127	Japanese characters not displayed correctly in RosettaNet 2.0 system test.
CR058732	Could not send RosettaNet 2.0 message when Trading Partner name was configured as Chinese string.
CR059845	When using the XML Instance Editor, pressing Tab/Shift+Tab should toggle between column 1 and column 2.
CR061483	Logging on to the Studio does not reenable the View, Configuration, Tools, and Window menus.
CR061745	New user created in Studio does not have any rights assigned.
CR063419	Format Builder truncation enhancement request.
CR063421	Format Builder padding enhancement request.
CR063934	Multibyte character support problem in Format Builder.
CR063947	Exception occurred when an event invokes an application integration service which uses specific Japanese characters in the service name.
CR064036	TemplateDefinitionProperties dialog responds differently to inputs by mouse and by keyboard.
CR064272	Cannot log on to application integration console when using Japanese characters for the user name.
CR064545	Studio context menus not accessible.

Table 2. Problems Fixed in BEA WebLogic Integration 2.1 SP2 (Continued)

Change Request Number	Description
CR064686	Calendar feature does not work correctly. The software now checks that timed starts are within valid calendar periods.
CR064767	XML editor cannot handle repeated structures in XML schemas when `minOccurs=0`.
CR064792	Cannot update a remote trading partner's certificate from the B2B Console.
CR065049	Japanese characters not displayed correctly in B2B Console.
CR065153	Unable to use XA driver for `wliPool`.
CR065390	`wlc.log` rotation does not work.
CR065575	`NullPointerException` during XML transformation.
CR066056	Passivation exception thrown when `RepositoryResolver` is used.
CR066057	Addressed message failed to complete in test case.
CR066062	Problems occur when using Format Builder palette.
CR066093	WebMethods interoperability problem with MIME header parsing.
CR066216	Workflow label not updated when workflow completes.
CR066249	`javax.naming.NameNotFoundException` encountered in BPM.
CR066399	Unable to view the Workload Report for a role.
CR066574	XML date element not validated with `xsd:date` with `com.bea.schema`.
CR066711	Calender problems observed on double-byte Windows 2000 platform.
CR066713	A memory leak occurred.
CR066760	`NoSuchElementException` thrown when XML is added to repository.
CR066810	Format Builder not padding required spaces in COBOL Copybook file.
CR066831	Server crash with internal persistence error occurs after transaction timeout.

Table 2. Problems Fixed in BEA WebLogic Integration 2.1 SP2 (Continued)

Change Request Number	Description
CR067130	Set Task Due Date unreliable under load.
CR067534	Locks are not released after business message is sent.
CR067836	WebLogic Integration 2.1 SP1 does not work with WebLogic Server 6.1 SP1.
CR068192	ebXML plug-in code is not thread safe.
CR068291	Start public workflow actions are not executed when public workflow ends.
CR068326	Workflow cannot be modified because it is suspended.
CR068465	Server crashes after sending repeated messages of 5MB in size.
CR068632	BPM process does not recognize the user-defined exception handler.
CR068879	Parent workflow not resuming execution after subworkflows complete.
CR069009	`NullPointerException` in `com.bea.wlpi.server.workflow.variable.TypedVariable.setValue`.
CR069196	Internationalization changes to data integration required to handle escape sequences correctly.
CR069270	No means of tracking message status at the sender side when ebXML is used. The ability to track ebXML message status at the sender side has been added as an option, as described in the following steps: 1. Define an envelope variable when sending an ebXML message. 2. You can retrieve the messageId of the message from the envelope variable after the message is sent. For example, given the envelope variable `OurEnv`, the messageId can be retrieved and assigned to a string variable using the following: `ToString(XPath("//Envelope/Header/MessageHeader/ MessageData/MessageId/text()", $OutEnv))` 3. You can use the messageId to lookup the Message_History table in the database to find the status. For example: `Select status from Message_History where messageId='...' and direction='1'`
CR069324	An interoperability error occurs when using WebLogic Integration and Vitria over ebXML.

Table 2. Problems Fixed in BEA WebLogic Integration 2.1 SP2 (Continued)

Change Request Number	Description
CR069378	Message Store not found if workflow is rolled back.
CR069442	Multipart input stream does not contain boundary with RosettaNet 1.1
CR069519	Need to be able to export and import WebLogic Integration users and roles.
	A command line utility is now available to export and import the following security/user information: users, roles, organizations, business calendars, and permissions.
CR069633	Optional repeating group is not treated correctly in Format Builder.
CR069883	A SOMSchema validation error occurred.
CR069937	Provide a mechanism for recovery of messages using large message support.
	To enable the new large message recovery feature, specify the following option in the startWeblogic script:
	`-Dbea.lmsgrecovery=1`
CR070036	Rollback path no longer getting invoked.
	Workflow exception handling for transactions has been changed for this release. In prior releases of Weblogic Integration, it was possible for an application exception to cause the exception handler to execute the rollback actions, even if the transaction was not marked for rollback only. This would occur if the commit actions included Exit exception handler and rollback. This behavior has been corrected in this release.
	Now, rollback actions are executed if and only if, when the workflow processor catches a first-chance exception, the user transaction is found to have been marked for rollback only. (A first-chance exception is one thrown during normal workflow processing; for example, from user code or from an EJB. A second-chance exception is one thrown during exception handler processing.)
CR070231	A conversation named 3A2:1.3 already exists.
	To support multiple business protocols (RosettaNet-1.1 and RosettaNet-2.0) for the same PIP name (e.g., 3A2) and PIP version (for example, 1.3), create separate conversation definitions with conversation name using PIP name as prefix (for example, 3A2-RN11 and 3A2-RN20) for each business protocol.
CR070251	An interoperability error occurs when using WebLogic Integration and Vitria over RosettaNet 2.0.

Table 2. Problems Fixed in BEA WebLogic Integration 2.1 SP2 (Continued)

Change Request Number	Description
CR070352	Escape characters in send XML to client task property do not work. For more information on handling escape characters, see "Composing XML from Sub-Documents" on page 53.
CR070355	XMLTime-to-live parameter does not accept expressions.
CR070361	Format Builder not padding required fields. For information on Format Builder padding features, see "Data Integration Padding and Truncation Features" on page 65.
CR070495	Conversation version format V2.00 is not allowed.
CR070619	B2B console cannot be targeted to a managed server.
CR071078	No message is logged when invalid security access occurs on host.
CR071209	Escape characters (', " , >) do not need to be escaped in the Send XML to client action. Changed com.bea.wlpi.server.common.XMLWriterUtilities to check a flag, wli.bpm.server.xml.preserveChars. If true, it will not escape the 3 characters listed above.
CR071452	Server-side authentication support required. To enable mutual- or server-side authentication per Trading Partner, set the Weblogic Server SSL parameter ClientCertificateEnforced to false, set the Weblogic Server SSL parameter TwoWaySSLEnabled to true. To be able to use this feature, install Weblogic Server patch 73059_61sp2.jar on WebLogic Server 6.1 SP2, or run WebLogic Server 6.1 SP3 or later. To enable mutual authentication of a Trading Partner, ensure that there is a client certificate defined in that remote Trading Partner definition. If this certificate exists, then the remote partner must also provide their client certificate. To enable server-side authentication of a Trading Partner, remove the client certificate from the remote Trading Partner definition. This can be done using the B2B Console or by modifying the initial bulk load data file and removing the client certificate. If no certificate is defined for the remote Trading Partner, then WebLogic Integration allows a conversation with the partner even if no client certificate has been provided.
CR071583	Tasks are not started after due date or overdue actions. Time processing has been fixed to ensure that tasks start as expected after due date or overdue actions.

Table 2. Problems Fixed in BEA WebLogic Integration 2.1 SP2 (Continued)

Change Request Number	Description
CR071815	Message Store not found if workflow rolls back when using RosettaNet protocol.
CR072004	PIP retry results in exception regarding `fromId` not being set
CR072097	Initial field focus on Studio and Worklist logon dialog box should be on password field
CR072408	`And` joins cannot be fired in a loop.
CR072662	Make Studio tool bar buttons sticky. Double click the toolbar button to lock down the selected tool until another tool is selected or you press the escape (ESC) key. You can also hold down the Shift key when drawing the current node or line to lock down the current tool.
CR073009	MIME header of decrypted message content is incorrect
CR073068	When using WebLogic Integration 2.1 SP1 with WebLogic Integration - Business Connect, an ebXML Double Encoding problem occurred when translating text to XML
CR073094	A SAX parser exception is thrown if the attachment content id is `< . . .>`.
CR073304	WebLogic Integration - Business Connect cannot recognize MIME content type application/binary from WebLogic Integration.
CR073306	WebLogic Integration - Business Connect cannot recognize MIME content type application/binary from WebLogic Integration.
CR073348	A memory leak occurred.
CR073480	Unable to assign a cXML Business Protocol Definition to the Doc Exchange using the B2B Console.
CR074522	Unable to add an entry to the certificate authority directory.
CR074751	The `wliconfig` tool changes all connection pools.
CR075020	BPM validating queues are not performing validation.

Table 2. Problems Fixed in BEA WebLogic Integration 2.1 SP2 (Continued)

Change Request Number	Description
CR075098	Memory leak occurs when a transaction is rolled back when using the ebXML protocol.
	An ErrorQListenerBean message-driven bean (MDB) was added that deletes the message store when retries on the `eventQueue` fail.
	If you are using ebXML and you make the MDB transactional so that dequeuing from `eventQueue` happens in the same transaction as the rest of the BPM processing, you must perform certain tasks to ensure that memory cleanup is performed. To perform the cleanup, an MDB with `destination-jndi-name`, `com.bea.b2b.ErrorQueue` has been added to `ebxml-bpm-plugin.jar`. This bean cleans the internal memory structures and discards the message that was not processed successfully. Edit config.xml as follows to use this MDB:
	1. Specify an error queue with the correct JNDI name, for example:
	``` <JMSQueue JNDIName="com.bea.b2b.ErrorQueue" Name="B2bErrorQueue"/> ```
	2. Specify the new error queue as the error destination for `eventQueue`, for example:
	``` <JMSQueue ErrorDestination="B2bErrorQueue" JNDIName="com.bea.wlpi.EventQueue" Name="eventQueue" RedeliveryDelayOverride="10000" RedeliveryLimit="2"/> ```
	Specify appropriate values for *RedeliveryDelayOverride* and *RedeliveryLimit*
CR075425	Missing API for full export of WLI.
CR075427	Problem with XML Schema.
CR075432	Test framework `Helper.waitForCompletedInstance()` is broken. A memory leak occurs.
CR075797	A memory leak occurs when using ebXML.
CR076261	Delayed reply message causes new workflow to start.
CR076401	Carriage return character is stripped out from response.
CR076512	SQL exceptions with Sybase database.
CR076554	RosettaNet test failed because templates were not marked active.

Table 2. Problems Fixed in BEA WebLogic Integration 2.1 SP2 (Continued)

Change Request Number	Description
CR076649	Need ability to send user-defined fields as part of ebXML message from WebLogic Integration - Business Connect to WebLogic Integration B2Bi.
CR076684	Messages are being stuck in the queue.
CR076870	Values cannot be removed from the Proxy tab next to the Security tab in the B2B Console.
CR077009	Long steady state runs result in a slow memory leak.
CR077459	When using the View XML button to display an XML variable in the Studio, spaces in the element values from the XML document are not displayed.
CR077547	The server crashes when a CA and Conversation Definition are deleted.
CR077600	Application view does not return correct record factory in Record Translator. The logic for loading the record translator has been moved into the `ServiceDeploymentInfo` class.
CR077736	A RosettaNet null pointer exception occurs when fromDUNS is set to a value not declared as a business ID in the repository. The trading partner details are validated prior to use. If the fromDUNS value is null, an appropriate message is displayed.
CR077839	Oracle 9i needs to be supported
CR077879	Workflow cannot be modified because it is suspended
CR077908	`SOMValidationException` while `minOccurs=0` setting is used.
CR078068	Application view does not return correct record factory in Record Translator.
CR078308	Missing dollar sign (`$`) in `setdbdata` script.
CR078314	Remote methods are not discovered by a business operation; the inherited methods are displayed.
CR078366	Resizing a print image breaks the number of pages to be printed. This problem occurred during an attempt to print an image at a zoom value of over 100%. The print zoom range has been limited to 0-100%.

Table 2. Problems Fixed in BEA WebLogic Integration 2.1 SP2 (Continued)

Change Request Number	Description
CR078380	Entity bean collection access problem in Studio.
	Removed a restriction on displaying entity EJB home finder methods that return multiple objects. All entity EJB home methods are now exposed.
CR078389	Studio does not allow deletes of large numbers of instances.
	The following message and workaround are now displayed when this condition occurs:
	A transaction timeout has occurred. This may occur when attempting to delete a large number of instances from the database and time for the EJB transaction expires before the deletion is complete.
	Suggestion: Use the InstanceDeleter utility provided with WebLogic Integration. For details, see the Javadoc page for `com.bea.wlpi.util.InstanceDeleter`.
CR078444	Repository conflicts between Studio and application integration.
	Folders added to the application integration repository are now displayed correctly.
CR078445	New attribute value not saved in Studio.
	A new attribute value is now automatically saved when the dialog box is closed.
CR078447	Start Workflow dialog box shows the same workflow name multiple times with different effective dates. Specific workflows cannot be differentiated.
CR078449	Format Builder hangs when saving a format.
CR078507	Problems performing B2B bulk loading when XA driver is used.
CR079118	Server side authentication support required for ebXML.
CR079483	SAX parser exception occurs with custom action plug-in. For fix information, see CR079586.
CR079586	Need a public API to list all the tasks in a template definition for use in custom action plug-in.
	To obtain the `getTaskList` public API, contact BEA Customer Support for the following patch and associated documentation: `CR079586_21SP1.zip`. This patch also contains the fix for CR079483.
CR079697	`NullPointerException` when an application integration service is tested.

Table 2. Problems Fixed in BEA WebLogic Integration 2.1 SP2 (Continued)

Change Request Number	Description
CR079698	XML-to- Binary and XML-to-XML transforms fail when the encoding is SJIS, Shift-JIS or MS Kanji.
CR079700	Translate XML to Binary failed when encoding of XML file is EUC-JP or UTF-8.
CR079701	`SAXException` thrown after Compose Business Message and Extract Business Message are processed.
CR079794	XT hangs while attempting to save an `mfl` document with the IBM 037 encoding type.
CR079883	Application view object mixes up different adapters. Fixed a problem with the deployment information member variable.
CR080126	A SAX parser exception occurs when importing `sample_plug_in.jar` workflow templates.
CR080182	The Workflow Status window has no column headings.
CR080549	Japanese characters are note displayed correctly or a `SAXException` occurs when Japanese data is used in the ebXML sample.
CR080566	When performing an XSL transform, allow a blank input document and default to the following: `<_a_/>`.
CR080819	The deployment descriptor for `wlpi-mdb-ejb.jar` is missing entries. All transaction attributes and method permissions are now explicitly defined.

CR080834	The following exception occurs during an XSL transform:
	 `java.io.NotSerializableException:`
	 `com.bea.wlpi.server.workflow.action.`
	 `ActionXSLTransform$XSLParameter`

CR080854	The `wliconfig` script should look for `BEA_HOME` value in places other than `c:\beahomelist`.
CR081048	The TPName field in the Start Public Workflow action does not allow an expression (variable).
CR081976	Versioning information for WebLogic Integration components. For sample output, see "What Is New and Improved in This Release" on page 3.

Known Limitations

This section describes known limitations in the BEA WebLogic Integration software.

Change Requests

The following table describes limitations that are documented in formal change requests (CRs). Whenever available, a recommended workaround is provided.

1	**CR048110**	
	Problem	When a data integration user tries to enter values on a tab in a binary window, the text being typed is not inserted at the location indicated by the cursor.
	Platforms	Windows NT and 2000
	Workaround	Enter your text changes in the text portion of the hex tab of Format Tester.
2	**CR050074**	

	Problem	If your application startup class is called before the B2B engine startup, the application startup tries to access a noninitialized instance of the B2B engine, causing an error such as the following:
		
		`ERROR: Collaboration Agreement`
		`CXMLsupplierConversation|1.1|cxml|ACSNHub|AN01000033621-T`
		`is not yet registered in runtime. This error occurs if the`
		`Server is not initialized properly or the`
		`Collaboration Agreement is not registered in runtime by the`
		`WebLogic Integration B2B Console.`

	Platforms	All
	Workaround	If your application uses a startup class, you must deploy that class before deploying the B2B integration startup class.

3	**CR050226**	
	Problem	Under the following conditions, WebLogic Integration can start the wrong workflow on receipt of a business message:
		The same endpoint URI is assigned for different business protocols or different versions of the same business protocol.
		The repository contains two collaboration agreements between the same trading partners.
		Those collaboration agreements define the same roles and parties, but are associated with different business protocols (or different versions of the same business protocol).
	Platforms	All
	Workaround	Assign different endpoint URIs for each business protocol (or for each version of a business protocol).
		For example, if one collaboration agreement references RosettaNet 1.1 and the other references RosettaNet 2.0 (through the trading partner delivery channels), you must assign one endpoint URI for RosettaNet 1.1 and another for RosettaNet 2.0.
4	**CR050432**	
	Problem	In the Studio, run-time exceptions occur when variable names begin with numeric characters.
	Platforms	All
	Workaround	Begin variable names with alphabetic characters.
5	**CR051059**	
	Problem	You cannot update the data for parties in a collaboration agreement in the WebLogic Integration B2B Console.
	Platforms	All
	Workaround	If you create a party for a collaboration agreement, and subsequently want to modify any of the attributes associated with it (such as trading partner name, party identifier, role name, or delivery channel), you must delete the party, and then create a new one with the desired attributes.

6	**CR051469**	
	Problem	When you use a proxy server and do not set your system to bypass local addresses, you get the following error when running the Hello Partner sample: `ERROR> The requested URL could not be retrieved`
	Platforms	All
	Workaround	To bypass local addresses, change your Web browser configurations as follows: Internet Explorer: Choose Tools→Internet Options →Connections →LAN Settings→ Bypass proxy server for local addresses. Netscape: Choose Edit→Preferences→Advanced→Proxies→View. Add your `localhost` to Exceptions.
7	**CR052680**	

	Problem	Apache's ant command is not internationalized. The ant command is used to build application integration adapters. When an error occurs during the build process, the error text may not be displayed properly in Windows environments in which the natural language used in not English. For example, in a Japanese Windows environment you might see the following:
		
		`[java] ...\jsp_servlet\_addevent.java:20: 'class' ??????`
		`'interface' ?????????????B`

	Platforms	All
	Workaround	None
8	**CR052994**	
	Problem	The WebLogic Integration software does not currently provide methods or properties for specifying use of the Japanese character set for sending messages and for the `contentType` of the mail header (for example, `Content-Type: text/plain; charset="ISO-2022-JP"`).
	Platforms	All
	Workaround	Email adapter code is provided with WebLogic Integration. Japanese users are free to alter this code to allow for the specification of character sets. Keep in mind, however, that the sample email adapter does not support multibyte characters.

9	CR053242	
Problem		The WebLogic Integration Studio does not handle time zones correctly. For example, the client may send a local date/time string to the server, which then parses the string in its own time zone. This procedure creates ambiguities when the server and client are in different time zones.
		The following areas are affected:
		Any entity associated with a date value expressed as a string in which the time zone is implicit (for example, workload and statistics queries, and the effective and expiration dates for a template definition).
		Any date/time value that the client rounds up or down (for example, task reroutes and the effective and expiration dates for a template definition).
Platforms		All
Workaround		Use GMT for all time values when clients and server span multiple time zones.
10	CR055652	
Problem		The Application View connection values for initial and maximum cannot be the same number due to a limitation in WebLogic JCA.
Platforms		All
Workaround		None
11	CR055967	
Problem		If you log off from one server and log on to another, the following `JMSException` is thrown. The topic session for the notifier is not released during logoff.
| | | ```
The server was unable to complete your request.
JMSException: Connection not found
Start server side stack trace:
weblogic.jms.common.JMSException: Connection not found
``` |
| **Platforms** | | All |
| **Workaround** | | None |

12	**CR057163**	
	Problem	Attempt to connect fails because of a license-related exception resulting from the absence, from the classpath, of the `license.bea` file. The pathname may be too long for the system to read it. (It is possible that after repeated executions of the `setenv` program, *BEA_HOME* (`D:\bea\`), the directory in which the `license.bea` file resides, is no longer included in the classpath.)
	Platforms	Windows (on Intel)
	Workaround	Open a new DOS prompt window and try again.
13	**CR057562**	
	Problem	The names of the roles used in the PIP3A2 template have been changed from *Buyer* and *Seller* to *Customer* and *Product Supplier*.
	Platforms	All
	Workaround	If you have private workflows that call the 3A2 private workflows (in a pre-SP1 release of WebLogic Integration), you must update the roles in your private workflows.
14	**CR058307**	
	Problem	The shutdown of a spoke which might have initiated conversations blocks if WebLogic Server is shutting down at the same time.
	Platforms	All
	Workaround	Always explicitly shut down the B2B engine independently of WebLogic Server using the WebLogic Integration B2B Console. If business process management functions are running, shut down the process engine first using WebLogic Integration Studio. Next shut down the B2B engine, using the WebLogic Integration B2B Console. If shutdown of the B2B engine is invoked with the `TERMINATE` mode, an underlying WebLogic Server, listening for incoming requests, is required.
15	**CR058949**	
	Problem	The Format Builder is unable to open palettes other than the default `palette.mfl` file.
	Platforms	All
	Workaround	Close the Format Builder and rename the file required to be displayed in the palette to `palette.mfl`, then restart the Format Builder.

16	**CR059332** **CR058852**	
	Problem	Problems have occurred when running WebLogic Integration samples on Windows 2000 Advanced Server systems over an MSSQL 2000 database.
	Platforms	Windows 2000 Advanced Server / MSSQL 2000
	Workaround	The row-locking mechanism has changed between the Microsoft SQL 7.0 and 2000 databases. A solution is in progress and will be available in a future release.
17	**CR059475**	
	Problem	Application integration plug-ins do not detect the status of a `wlai-ejb-server` when the server is down at design time. A message similar to the following is displayed: ```The server was unable to complete your request. Unknown error:`NameNotFoundException:`Unable to resolve com.bea.wlpi.Admin.`Resolved: 'com.bea.wlpi' Unresolved:'Admin'```
	Platforms	All
	Workaround	None
18	**CR059746,** **CR062984**	
	Problem	The introduction of milliseconds as a unit of time broke backward compatibility for timed-triggered workflows and for TimedEvent Actions.
	Platforms	All
	Workaround	If you have created workflows with an earlier release of WebLogic Integration (or any release of BEA WebLogic Process Integrator), then you must manually reset the correct time units in the Start nodes (for timed-triggered workflows) and in all TimedEvent Actions.

19	**CR060313**	
	Problem	You cannot uninstall Power.Enterprise! Server or Client software if you try to do so from the Windows NT (or Windows 2000) Add/Remove Programs dialog box. The uninstall program looks for the `jre` in the directory from which the Power.Enterprise! software was initially installed.
	Platforms	Windows
	Workaround	Select the Uninstall item from the PowerIt program group on the Start menu. At the end of the uninstall procedure, you may need to remove the installation directory manually.
20	**CR060335**	

	Problem	WebLogic Integration fails to create an extended property for a trading partner on UNIX systems. An exception similar to the following is displayed:
		
		`<Oct 16, 2001 7:11:50 PM GMT-08:00> <Error> <B2B>`
		`<<Repository> ERROR: In SQLExecutor.doUpdate,`
		`a SQL Exception was caught while executing a SQL`
		`Statement: java.sql.SQLException: ORA-01400:`
		`cannot insert NULL into ("BOB"."XML_NODE"."NAME")`

	Platforms	UNIX
	Workaround	Manually edit the exported XML file to add the extended property. For example, to add an extended property for the trading partner named TPSpoke: From the WebLogic Integration B2B Console, choose B2B→Config→Export. Select trading partner TPSpoke for export without exporting all referenced entities. Edit the exported XML file to add the extended property. Shut down the B2B engine from the WebLogic Integration B2B Console. Import the modified XML file. Restart the B2B engine.
21	**CR062634**	
	Problem	The `SendXMLToClient` dialog box returns text that does not match the text you selected in that box. For example, if you select OK, the word yes is displayed in the XML reply (instead of OK).
	Platforms	All
	Workaround	None

22	**CR062855**	
	Problem	An event that follows a Start node immediately is not activated unless the flow enters a quiescent state before reaching that event.
	Platforms	All
	Workaround	Place a timed event before the Event node.
23	**CR063114, CR066059**	
	Problem	Format Builder stops responding after saving an MFL document.
		Format Builder uses an XSL style sheet to create DTD and XML Schema from the MFL documents after it is saved. Certain field combinations within an MFL document cause the Xalan to hang when a DTD or XML Schema document is being created.When this problem occurs you must terminate the Format Builder process. Do not hesitate to do so; you will not lose your MFL document. A DTD and or Schema will not be created, however. The default output setting of Format Builder automatically creates a DTD on save.
	Platforms	All
	Workaround	This is a known issue caused by a Xalan problem in WebLogic Server 6.1 SP1 and SP2, as noted in CR063433. Use the following patch for WebLogic Server 6.1 SP2: `CR063433_610sp2.jar`. To obtain this patch, contact BEA Customer Support. The problem has been fixed in WebLogic Server 6.1 SP3.

24	**CR063709**	
	Problem	The RosettaNet Security Sample throws an exception when a single database is used for two peers and the database tables for peer1 are overwritten by peer2. (When peer1 is booted, it cannot add the certificate and key for the appropriate users. Because the database tables have been overwritten, the system boot cannot even pick the correct certificate names for which to search in the startup script.)
	Platforms	All
	Workaround	If possible, use different databases for different peers. For example, have peer1 use MSSQL and peer2, Oracle. If you must run two peers on one machine and both peers use the same database server, make sure that:
		With MSSQL—A different database name is used for each peer, such as WLIDB for peer1 and WLIDB2 for peer2.
		With Oracle—A different Oracle user account is used for each peer, such as kevin/kevin for peer1 and nina/nina for peer2.
		Specify every database you use for this sample on the `RunRN2Security` command line, as follows:
		`RunRN2Security database_for_peer1 database_for_peer2`
		`setDBVars` and `setDBVarsExt` for the two peers are set appropriately for two databases and users, as follows:
		`/bea/wlintegration2.1/config/samples/RN2Security/config/peer1/dbInfo/database`
		`/bea/wlintegration2.1/config/samples/RN2Security/config/peer2/dbInfo/database`

25	**CR064443**	
	Problem	The first window displayed by both the full uninstaller and the service pack upgrade uninstaller contains the following message:
		"This will completely remove all components installed by InstallAnywhere. It will not remove files and folders created after the installation."
	Platforms	All
	Workaround	This message is imprecise. It should say, instead, that the uninstall process will remove the upgrade and return the software to its pre-upgrade state.

26	CR064564	
Problem	The organization view in the WebLogic Integration Worklist is not updated when you add a new organization through the following procedure:	
	Log in to the Studio and the Worklist with the same user account (such as `joe`).	
	In the Studio, add an organization.	
	Select the new organization from the Organization drop-down list.	
	Add yourself (`joe`) as a user to the new organization.	
	In the Worklist, look for the new organization in the drop-down list.	
	The problem is that the new organization is not listed. Even if you refresh the Worklist (by choosing View→Refresh), the organization is still not listed.	
Platforms	All	
Workaround	Log off from the Worklist and then log on again.	
27	CR064716	
Problem	The WebLogic Integration source code checks the PRODUCTNAME column of the `master.dbo.spt_mda` table, and it relies on finding the following string: *Sybase SQL Server*. If, instead of this string, the source code finds a variable, `@@version`, which is set to Adaptive Server Enterprise, then users get the following `com.sybase.jdbc.SybSQLException`:	
	`SET CHAINED command not allowed within multi-statement transaction.`	
Platforms	Sybase 11.9.2	
Workaround	jConnect implements the JDBC method `getDatabaseProductName` by calling the `sp_mda` stored procedure that is set up by the `installjconnect` script. This script populates the `master..spt_mda` table with information to be returned by metadata access methods.	
	If the PRODUCTNAME column of the `master.dbo.spt_mda` table contains the `@@version` variable, then you must change the variable to *Sybase SQL Server* by running the following SQL statements:	
	`update master.dbo.spt_mda set query = 'Sybase SQL Server' where mdinfo = 'PRODUCTNAME' querytype = 6`	
	`update master.dbo.spt_mad set query = 'select ''Sybase SQL Server''' where mdinfo = 'PRODUCTNAME' querytype = 2`	

28	**CR065136**	
	Problem	The upgrade installer does not provide an option migrating the Cloudscape database.
	Platforms	All
	Workaround	None required. Cloudscape is not supported for production environments.
29	**CR065392**	
	Problem	An exception is thrown when a large (over 20 MB) binary file is received from WebLogic Integration - Business Connect.
	Platforms	All
	Workaround	Use the following tuning parameters:
		StartWebLogic: Increase the heap size to 512MB.
		Database: Make the database large (up to 300MB).
		Increase the Transaction Log space (or rollback segment) to 100MB.
		Turn off the database shrinking.
		WebLogic Integration [formerly WLPI] EJBs: Edit the deployment descriptors of `wlpi-ejb.jar` and `wlpi-ejb-mdb.jar`. Edit `ejb-jar.xml` from `wlpi-ejb-mdb.jar`.
		Look for all 90-second transaction timeouts and raise each one to 1090.
		Edit `weblogic-ejb-jar.xml` from the `wlpi-ejb.jar` file and raise all 90-second timeouts to 1090.
30	**CR065397**	
	Problem	When I go to the party tab for a particular collaboration agreement and select Enable and Register this Collaboration Agreement, the `b2b.log` file seems to indicate that the enable-and-register operation is successful, but the B2B Console continues to wait for the operation to finish.
	Platforms	Windows (Intel)
	Workaround	Execute the same operation (that is, enable and register the specified collaboration agreement) from the monitoring tab, instead.

31	**CR065456**	
	Problem	There is no ebXML plug-in online help from the Studio help menu.
	Platforms	All
	Workaround	None
32	**CR065852**	
	Problem	If you run RunSamples.cmd more than once, an exception may be generated and captured in the config\samples\logs\samples.log file. (The problem does not occur the first time you run RunSamples.cmd.)
	Platforms	
	Workaround	This exception is benign; you can ignore it.
33	**CR065878**	
	Problem	The B2B plug-in to the WebLogic Integration Studio does not set Sender Name correctly with XOCP SSL.
	Platforms	All
	Workaround	Change the workflow so it does not send the message to the sender name.
34	**CR066176**	
	Problem	The Configure utility does not update setDBVars script.
	Platforms	All
	Workaround	Select the CreateDB option to ensure that setDBVars is set correctly.
35	**CR066179**	
	Problem	Using ebXML messaging may hang the server with high load and low ThreadCount settings.
	Platforms	All
	Workaround	Increase the server threadcount to approximately half the number of concurrent users expected.

36	**CR066059**	
	Problem	There is a Xalan problem in WebLogic Server which causes Format Builder to hang after saving an MFL file. The problem occurs when creating the DTD or XML Schema after saving the MFL document.
	Platforms	
	Workaround	Disable automatic DTD and XML Schema creation.
37	**CR076987**	
	Problem	Unable to use an XA driver with B2B.
	Platforms	All
	Workaround	None.
38	**CR080411**	
	Problem	There is no XA support for transactions when using an Oracle database and driver. The Oracle 8.1.6 driver is no longer supported, and transaction isolation level problems occur when using the Oracle 8.1.7 and Oracle 9i drivers.
	Platforms	All
	Workaround	None
39	**CR080449**	
	Problem	A timer sequence test may fail for a workflow with multiple timers. If there are multiple timers in a single workflow, they may be triggered at the same time. This is due to the timer resolution of plus or minus one second.
	Platforms	All
	Workaround	Do not insert more than one timed event in a workflow.

40	CR080794, CR081716	
	Problem	Installation problems occur on Solaris 8 systems which use a JRE installation as the default Java installation.
	Platforms	Solaris 8
	Workaround	Perform a full JDK installation as opposed to a JRE-only installation. This can be done either with an upgrade or a reinstallation of the JDK.
41	CR080836	
	Problem	Changes to the BPM time services to allow multiple workflow instances to be processed simultaneously resulted in a change in the parameters to the BPM startup class. The following error is reported when the server is started:

```
<Jun 24, 2002 1:35:25 AM PDT> <Critical> <WebLogicServer>
<Failed to invoke startup class "TimeProcessor",
java.lang.Exception: TimeProcessor startup failed!
Check arguments.>
```

| | **Platforms** | All |
| | **Workaround** | Update the WebLogic Server configuration files (config.xml) provided in the samples domain as follows: |

The StartupClass node for TimeProcessor should now read:

```
<StartupClass
Arguments="url=t3://localhost:7001,
user=wlpisystem,pwd=wlpisystem,
connectionFactory=com.bea.wlpi.QueueConnectionFactory,
queue=com.bea.wlpi.Timer"
ClassName="com.bea.wlpi.server.timeprocessor.TimeProcessor"
FailureIsFatal="true"
Name="TimeProcessor" Targets="myserver"/>
```

The JMS topic Timer must now be a non-persistent queue:

```
<JMSQueue JNDIName="com.bea.wlpi.Timer" Name="Timer"/>
```

42	**CR080922**	
	Problem	The Workflow Status dialog box is not automatically refreshed when you mark a task done that has a task permission of Mark done without executing.
	Platforms	
	Workaround	You must close and reopen the Workflow Status dialog box to display the current status.
43	**CR081112**	
	Problem	For workflows with multiple instances of the same message type trigger, an exception similar to the following is thrown for the second action: `java.sql.SQLException: Transaction (Process ID 53) was deadlocked on {lock} resources with another process and has been chosen as the deadlock victim.`
	Platforms	Microsoft SQL Server 2000
	Workaround	None
44	**CR081351**	
	Problem	The workflow statistics report does not display times when WebLogic Integration is running over WebLogic Server 6.1 SP3 and using the Oracle 9i thin driver.
	Platforms	All
	Workaround	None
45	**CR081427**	
	Problem	In some cases, the BPM plug-in action and event panels may have text distortions due to problems accessing resources.
	Platforms	Solaris

	Workaround	Add the following flag to your `startWeblogic` script so that BPM plugin action and event panels display properly.
		
		`-Dweblogic.servlet.ClasspathServlet.`
		`disableStrictCheck="true"`

46	**CR081732**	
	Problem	Using WebLogic Server 6.1 SP3 with WebLogic Integration 2.1 SP2 and the Sybase database, an exception similar to the following is thrown when starting the server: `SET CHAINED command not allowed within multi-statement transaction`
	Platforms	All, with Sybase 11.9.2 database
	Workaround	Use the following patch for WebLogic Server 6.1 SP3: `CR081732_610sp3.jar`. To obtain this patch, contact BEA Customer Support. To apply this patch, add the path of the JAR file to the beginning of the classpath in `$WLI_HOME`/setenv.sh as follows: `WLICOMMONCP=../CR081732_610sp3.jar:$WLI_LIB/wlicommon.jar`
47	**CR081833**	
	Problem	The `wliconfig` and `createdb` scripts behave differently in detecting changes to the `setenv` script. The Configure shortcut on the WebLogic Integration menu uses `wliconfig.jar`, which does not detect the changes in your `setenv` script. If you are going to use the Oracle9i thin driver or you need to detect changes in your `setenv` script, you must run the `createdb` script from the command line.
	Platforms	Windows
	Workaround	Run the `createdb` script from the command line to ensure that changes to the `setenv` script are detected.
48	**CR081880**	
	Problem	If a dash is used in a trading partner name, WebLogic Integration - Business Connect converts the dash to the characters %2d% in the exported file name. This results in an ebXML import error with an exception message similar to the following: `Exception:SAX Exceptioncom.bea.b2b.B2BException: SAX Exception at com.bea.b2b.bulkloader.BulkLoader.processDataFile (BulkLoader.java:267)`
	Platforms	All
	Workaround	Do not use dashes in the trading partner name. If dashes are required, you must manually remove the resulting %2d% characters from any filenames before importing the files.

49	**CR081906**	
	Problem	In some cases, Oracle streaming errors are generated when loading plug-ins. By default, the plug-ins are loaded automatically. This problem may occur when you load plug-ins manually.
	Platforms	
	Workaround	Restart the server
50	**CR081927**	
	Problem	When using the Format Builder, if the encoding specified for the Default Message Format differs from the encoding specified for the Default Field Code Page, binary generation fails.
	Platforms	All
	Workaround	Specify the same encoding for the Default Message Format and the Default Field Code Page.
51	**CR081986**	
	Problem	When enabling and registering a collaboration agreement (CA) between two trading partners using ebXML, the B2B Console hangs. However, log messages indicate that the CA was registered with the server.
	Platforms	Windows
	Workaround	Open another browser to display the modified B2B Console output.
52	**CR082488**	
	Problem	The RunSamples script does not properly load the application integration and BPM templates on a Japanese platform.
	Platforms	All
	Workaround	Use the US mode of WebLogic Server by changing the code page to US ASCII. (On Japanese Windows systems, run us.bat to change the code page.) Then run the RunSamples script, which automatically loads the application integration and BPM templates.

53	**CR082583**	
Problem	All out-of-the box domains shipped in WebLogic Integration 2.1 SP2 do not have the B2B error queue configured. This causes the following warning to appear at regular intervals, which can result in large log files:	

	`####<Jul 17, 2002 5:02:44 PM PDT> <Warning> <EJB> <mymachine>`
	`<myserver> <main> <system> <> <010061>`
	`<The Message-Driven EJB: EBXMLErrorQListener is unable to`
	`connect to the JMS destination: com.bea.b2b.ErrorQueue.`	

Platforms	All	
Workaround	Add the B2B error queue definition to the `config.xml` file. Locate the `B2bOutboundQueue` in your `config.xml` file:	
	`<JMSQueue JNDIName="com.bea.b2b.OutboundQueue"` `Name="B2bOutboundQueue"/>`	
	Below this queue definition, add the B2B error queue definition as follows:	

	`<JMSQueue JNDIName="com.bea.b2b.OutboundQueue"`
	`Name="B2bOutboundQueue"/> <JMSQueue`
	`JNDIName="com.bea.b2b.ErrorQueue" Name="B2bErrorQueue"/>`	

54	**CR082585**	
Problem	The WebLogic Integration 2.1 SP2 upgrade installer overwrites the peers database user schema and URL for the RosettaNet 2 Security sample. To use the RosettaNet 2 Security sample, you must change at least one peer to use a different database user schema. After performing an upgrade installation, the values of the URL and user-specified database values in the `peer1` and `peer2` directories reflect the default user schema and URL used in the samples domain. The following files are overwritten in the `peer1` and `peer2` directories:	

	`config.xml`
	`setdbvars`
	`setdbvarsext`	

Platforms	All	
Workaround	After performing an upgrade installation but *before* running the `migratedb` script, edit the database user schema and URL in the `peer1` and `peer2` directories in the files listed above. If you run the `migratedb` script before editing the files, a database user schema that was not intended for use will be migrated and the sample will not run properly.	

55	**CR082665**	
	Problem	Task and workflow comments are being truncated.
		Workflow and task comments are limited to a maximum of 254 characters. Comments exceeding this limit are truncated and no exception is thrown.
	Platforms	All
	Workaround	Do not include more than 254 characters in your task and workflow comments.
56	**CR082763**	
	Problem	The client certificate is not recognized when using two-way SSL on Microsoft IIS with a WebLogic Server proxy plug-in.. When a business message is forwarded from the plug-in, an exception similar to the following is thrown:
		`<Plug-Ins> com.bea.b2b.protocol.PlugInException:` `Invalid Trading Partner Certificate`
	Platforms	All
	Workaround	The following properties were added to WebLogic Server 6.1 SP2. As a workaround, add these properties to the `web.xml` file for the Default Web application using the configuration detailed in the problem description.

```
tested ServletRequestImpl context-param
  <context-param>
    <param-name>weblogic.httpd.clientCertProxy</param-name>
    <param-value>true</param-value>
  </context-param>
```

```
tested Cluster-wide switch
  <Cluster ClusterAddress="127.0.0.1" Name="MyCluster"
  ClientCertProxyEnabled="true"/>
```

```
test HttpClusterServlet context-param
  <context-param>
    <param-name>weblogic.httpd.clientCertProxy</param-name>
    <param-value>true</param-value>
  </context-param>
```

XA For Transactions Not Supported

There is no support for XA for transactions in this release. Related Change Requests include CR076987 and CR080411.

Creating a Database on UNIX Systems Using Microsoft SQL Server

Because Microsoft SQL Server is not supported on UNIX systems, you cannot use the `createdb` script (`WLI_HOME`/bin/createdb.*) to configure your Microsoft SQL Server 7.0 or Microsoft SQL Server 2000 database on UNIX.

Database Limits on Strings

WebLogic Integration limits the number of characters you can include in a string for a B2B integration entity. If the only consideration in determining such limits were the need to be consistent with the repository, the limit would be 256 characters. Many other factors, however, must be considered: required indexing for deadlock prevention, data integrity and constraints, indices on multiple columns (for example, `MessageId` and `DeliveryChannel`), and inherent database-specific index size limitations. Therefore, we recommend the values listed in the following table.

Limits on Length of Database Character Strings			
Entity	**Oracle**	**MSSQL**	**Cloudscape**
TradingPartner	256	256	256
DeliveryChannel	252	128	256

Displaying Spaces in the Studio

The WebLogic Integration Studio running on a Solaris system renders spaces as empty box characters.

Undeploying Application Integration EJB While Using BPM

If the `wlai-ejb-server` EJB is undeployed or goes down while you are using business process management (BPM) functionality with the application integration plug-in, an exception similar to the following may be thrown:

```
Unknown error: NameNotFoundException: Unable to resolve
com.bea.wlpi.Admin. Resolved: 'com.bea.wlpi' Unresolved:'Admin'
```

If you then deploy the `wlai-ejb-server` EJB from the WebLogic Server Console, the application integration plug-in for BPM cannot detect that it has been redeployed and throws an exception similar to the following:

```
The server was unable to complete your request.
NoSuchObjectException: RemoteInvokable - id: '319'
java.rmi.NoSuchObjectException: RemoteInvokable - id: '319'
```

As a workaround, restart WebLogic Server after redeploying the `wlai-ejb-server` EJB.

X Window Emulator and Telnet Connections to UNIX

The GUI-based installer for WebLogic Integration (which is written in Java) is not certified to run on a UNIX system reached through an X Window emulator or Telnet connection. Instead, we recommend a direct X Window connection. You can also use the console-mode installation procedure on UNIX systems without a graphics (windowing) workstation.

Deploying the Plug-In Sample on UNIX Platforms

If you see the following error message when you start WebLogic Integration on UNIX platforms, you are probably running the software from a terminal with no graphics capability:

```
Error initializing plugin:
com.bea.wlpi.tour.po.plugin.SamplePluginBeanHomeImpl@175d46
java.rmi.RemoteException: Exception in ejbCreate(); nested
exception is: java.lang.InternalError: Can't connect to x11 window
server using " as the value of the DISPLAY variable.
java.lang.InternalError: Can't connect to X11 window server using
" as the value of the DISPLAY variable.
```

If you are using a terminal with no graphics capability, nothing can be done about this error. The plug-in sample cannot be deployed, and you cannot run some workflows that require this plug-in.

If you are using an X terminal, set the DISPLAY variable, and restart the server. The message should not appear again.

Nonpersistent Mode Recommended for B2B Integration

We recommend that you use the B2B integration functionality in nonpersistent mode. For details about invoking nonpersistent mode, see "Configuring Persistence and Recovery" in *Administering B2B Integration*.

When using B2B in persistent mode, be sure to change the defaultdeliverymode setting for JMSConnectionFactory to non-persistence. (The default setting is persistence.)

Collaboration Agreements Between Delivery Channels for the Same Trading Partner Not Supported

If you configure two XOCP delivery channels (one hub and one spoke) for a single trading partner, with a collaboration agreement between them, and you subsequently use the WebLogic Integration Studio to define the Start Public Workflow action for the workflows in the associated conversation, you get a `duplicate trading partner` error.

To work around this problem, do not set up one trading partner with two delivery channels. Instead, set up two trading partners, each with its own delivery channel. Configure a hub delivery channel for one trading partner, and a spoke delivery channel for the other.

Problems Viewing PIP Instance Variables

When you attempt to list the variables of certain RosettaNet PIP instances, using the WebLogic Integration Studio, the following error may be reported:

```
unknown error: ClassNotFoundException:
com.bea.b2b.protocol.rosettanet.businessop.TemplateSysVariable
```

This `TemplateSysVariable` class is found in `wlc.jar`. To avoid this problem, put `wlc.jar` in the Studio classpath. This problem was previously recorded as CR054700.

Setting the Time Zone (TZ) Environment Variable for the JavaDate Type

On UNIX systems, the JavaDate type does not return a date with the appropriate time zone indicator unless the time zone variable, TZ, is set. Ensure that the TZ environment variable is set to the appropriate time zone.

The following example shows how to set the TZ environment variable:

```
TZ=US/Central
export TZ
```

The system administrator should set this variable before installing WebLogic Integration 2.1 Service Pack 1. If you experience problems with the time zone indicator on your system, contact your system administrator.

When the time zone environment variable is *not* set, the XML returned for a JavaDate type field is specified in Greenwich Meridian Time (GMT) as follows:

```
<Date>Wed Nov 15 10:55:37 GMT-06:00 2001</Date>
```

When the TZ variable is set to your time zone, the XML that is returned reflects your local time zone, as shown in the following example:

```
<Date>Wed Nov 15 4:55:37 CST 2001</Date>
```

WebLogic Integration Studio Online Help Refresh Limitations

Given certain settings for file types on your system when using Microsoft Internet Explorer as your default browser, you may encounter a limitation when refreshing HTML frames. This refresh limitation prevents online help pages from being displayed properly. For example, when you click the Help icon at the product user interface entry point, the initial online help *splash page* should be displayed. If, while navigating the help system, you click the Help icon again and the *splash page* is not reloaded as expected, the cause of the problem is probably this refresh limitation.

To work around this limitation, change your system file type settings by completing the following procedure:

1. Choose Start→Settings→Folder Options to display the Folder Options dialog box.

   Alternatively, you can double-click the My Computer icon to display the My Computer window.

2. From the main menu, choose View→Folder Options to display the Folder Options dialog box.

3. Select the File Types tab.

4. Using the scroll bar to the right of the Registered file types drop-down list, review the list of file types and select HTML Document. In the File type details field, the program specified in the Opens with field is IEXPLORE.

5. Click Edit to display the Edit File Type dialog box.

6. In the Actions list field, select Open in Same Window.

7. Click Set Default.

8. Click Close to close the Edit File Type dialog box.

9. Click Close to close the Folder Options dialog box.

Viewing the Studio Online Help Using Netscape Navigator on UNIX Platforms

To view the Online Help for individual Studio dialog boxes using Netscape Navigator on UNIX platforms, open the browser first. Once the browser is open, you can click the Help button in any dialog box or press the F1 key.

B2B Console Hangs When You Enable and Register a Collaboration Agreement

The B2B Console allows you to configure collaboration agreements and make them available immediately by enabling and registering them. (For details, see "Configuring Collaboration Agreements" in the B2B Console Online Help.)

In the following situation, however, the B2B Console may hang:

1. You choose Configuration→Parties. On the Parties tab the Enable and register this Collaboration Agreement check box is selected.

2. You click the Add/Apply button.

To work around this limitation:

1. Deselect the check box labeled Enable and register this Collaboration Agreement, and click Add/Apply.

2. Select the Monitoring tab and click the Enable this Collaboration Agreement link.

3. Select the Monitoring tab again (if it is not displayed), and click the Register this Collaboration Agreement link.

Documentation Additions, Changes, and Corrections

This section provides additions, changes, and corrections to the WebLogic Integration documentation available on the BEA documentation Web site at the following URL:

http://edocs.bea.com

Composing XML from Sub-Documents

The following information will be added to *Using the WebLogic Integration Studio* in a future release. The features described were added in response to CR070352.

This release provides you with additional flexibility in working with XML data in the Studio. The Set Workflow Variable, Post XML Event, and Send XML to Client dialogue boxes now include a check box labeled as follows: Escape XML reserve characters in generated node values. Figure 1 shows the new Set Workflow Variable dialog box.

Figure 1   Set Workflow Variable Dialog Box

By default, this check box is selected. This means that reserved characters, such as the ampersand (`&`) or right angle bracket (`<`), are escaped in order to preserve the validity of the XML document. For example, `&` and `<` would be replaced with `&` and `<` respectively. In the above example, the variable `companyXml` contains `<name>PG&E</name>`.

However, consider the following example using the XML variables, as shown in Figure 2:

```
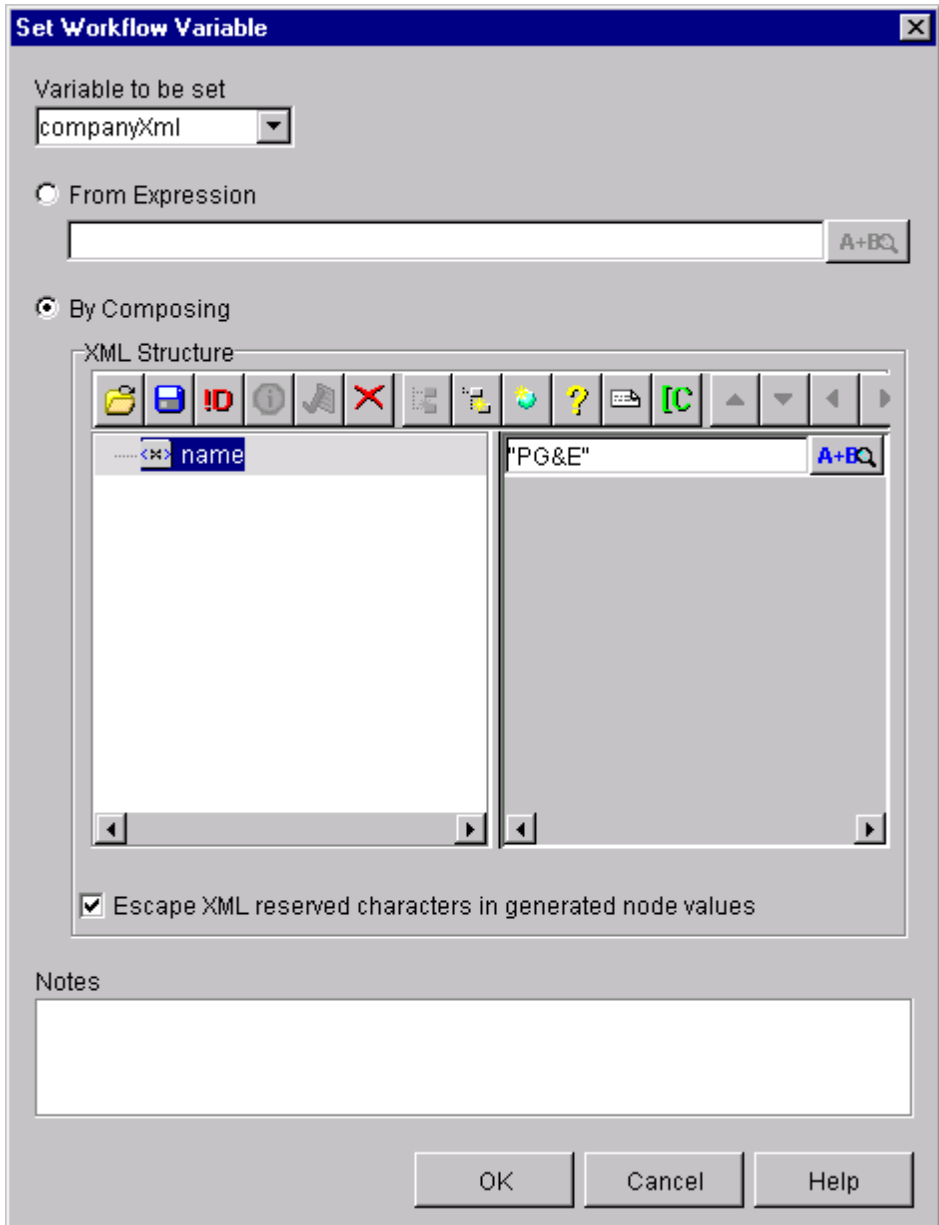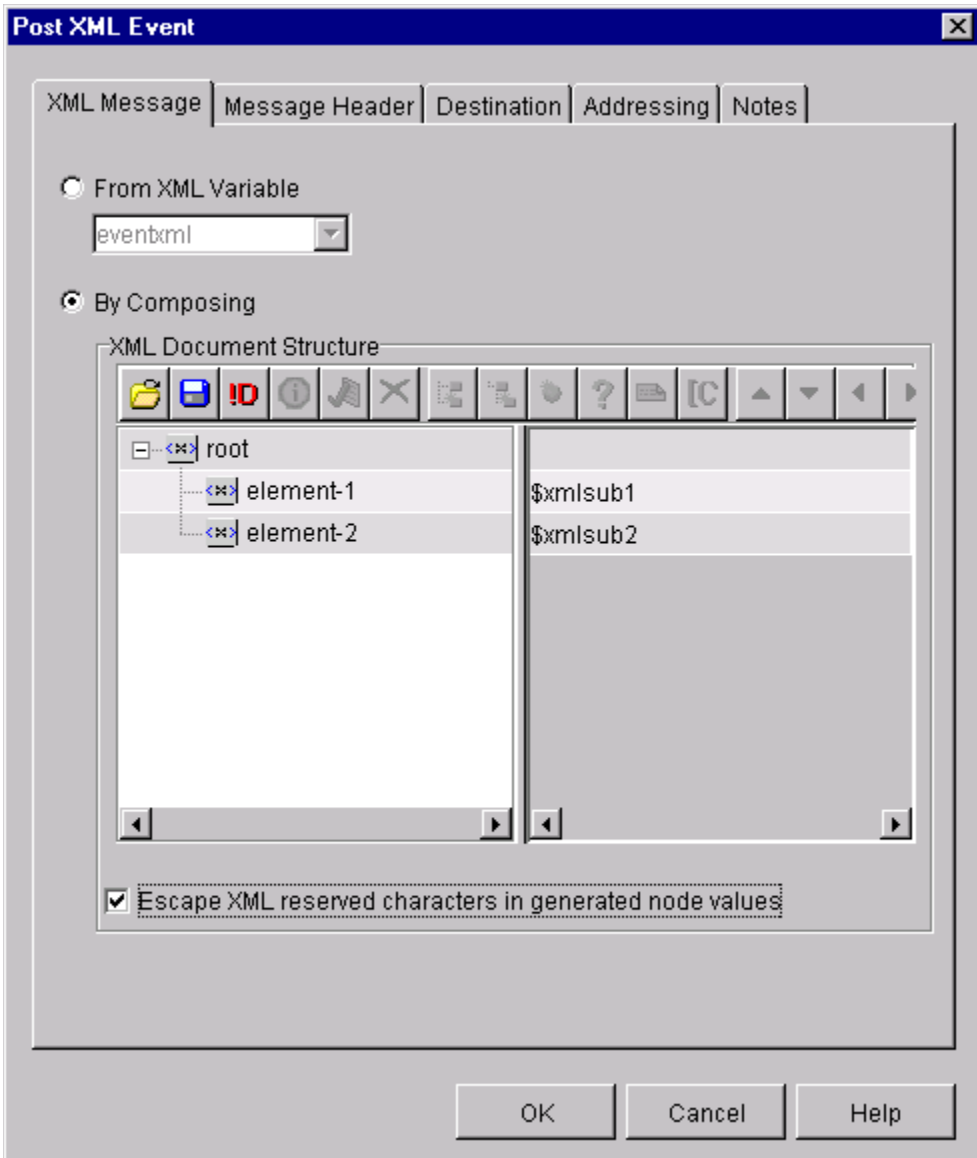xmlsub1: <sub-elem-1>value 1</sub-elem-1>
xmlsub2:
<sub-elem-2>
<ss-elem>value 1</ss-elem>
<ss-elem>value 2</ss-elem>
<ss-elem>value 3</ss-elem>
<ss-elem>value 4</ss-elem>
</sub-elem-2>
```

Figure 2   Post XML Event Dialog Box with Escape XML Check Box Enabled

The XML that is sent from this Post XML Event action contains:

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<root>
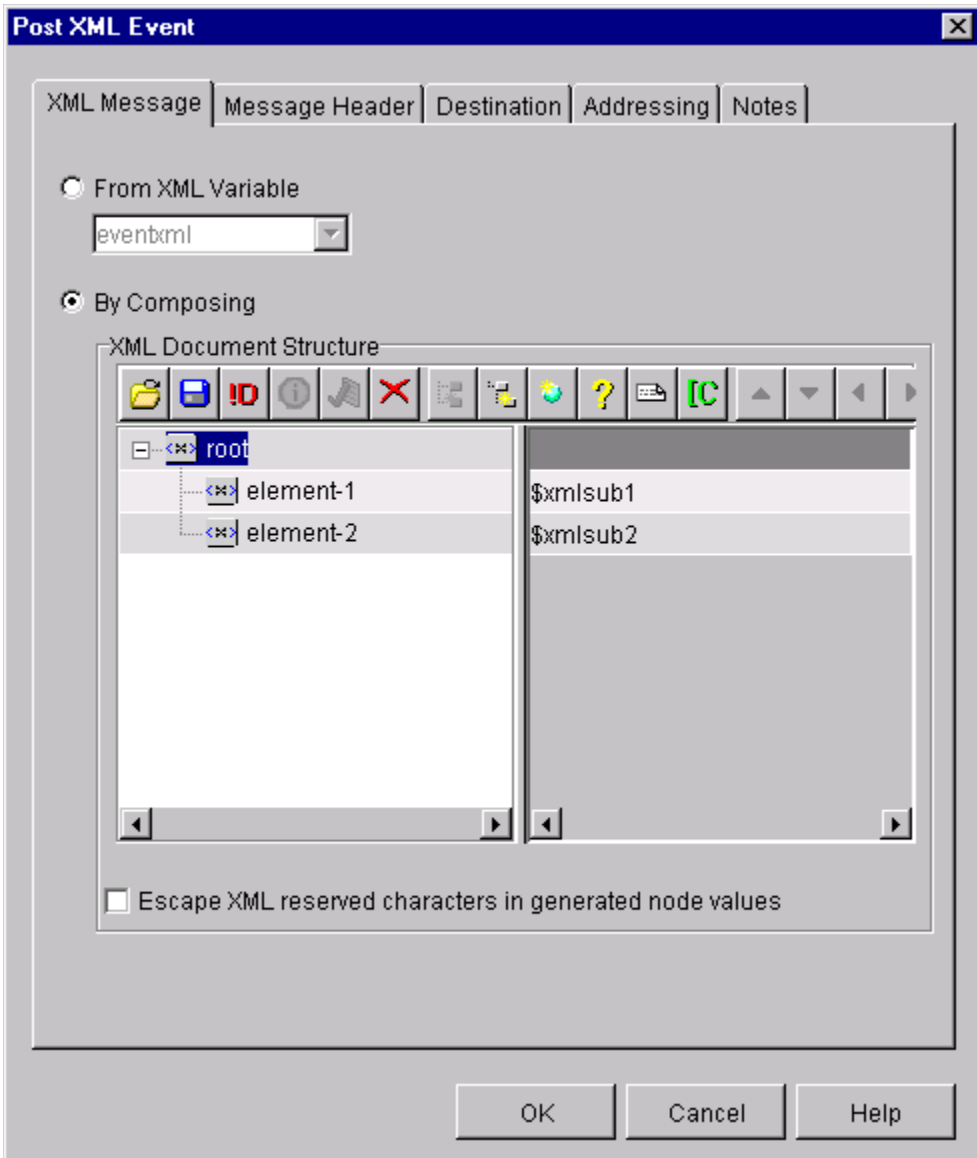
<element-1>&lt;sub-elem-1&gt;value
1&lt;/sub-elem-1&gt;</element-1>

<element-2>&lt;sub-elem-2&gt;
&lt;ss-elem&gt;value 1&lt;/ss-elem&gt;
&lt;ss-elem&gt;value 2&lt;/ss-elem&gt;
&lt;ss-elem&gt;value 3&lt;/ss-elem&gt;
&lt;ss-elem&gt;value 4&lt;/ss-elem&gt;
&lt;/sub-elem-2&gt;</element-2>

</root>
```

Disabling the Escape XML reserved characters check box leaves the data as generated, as shown in Figure 3. This is useful for creating XML documents from subdocuments.

Figure 3   Post XML Event Dialog Box with Escape XML Check Box Disabled

This results in a properly formed XML document being sent:

```
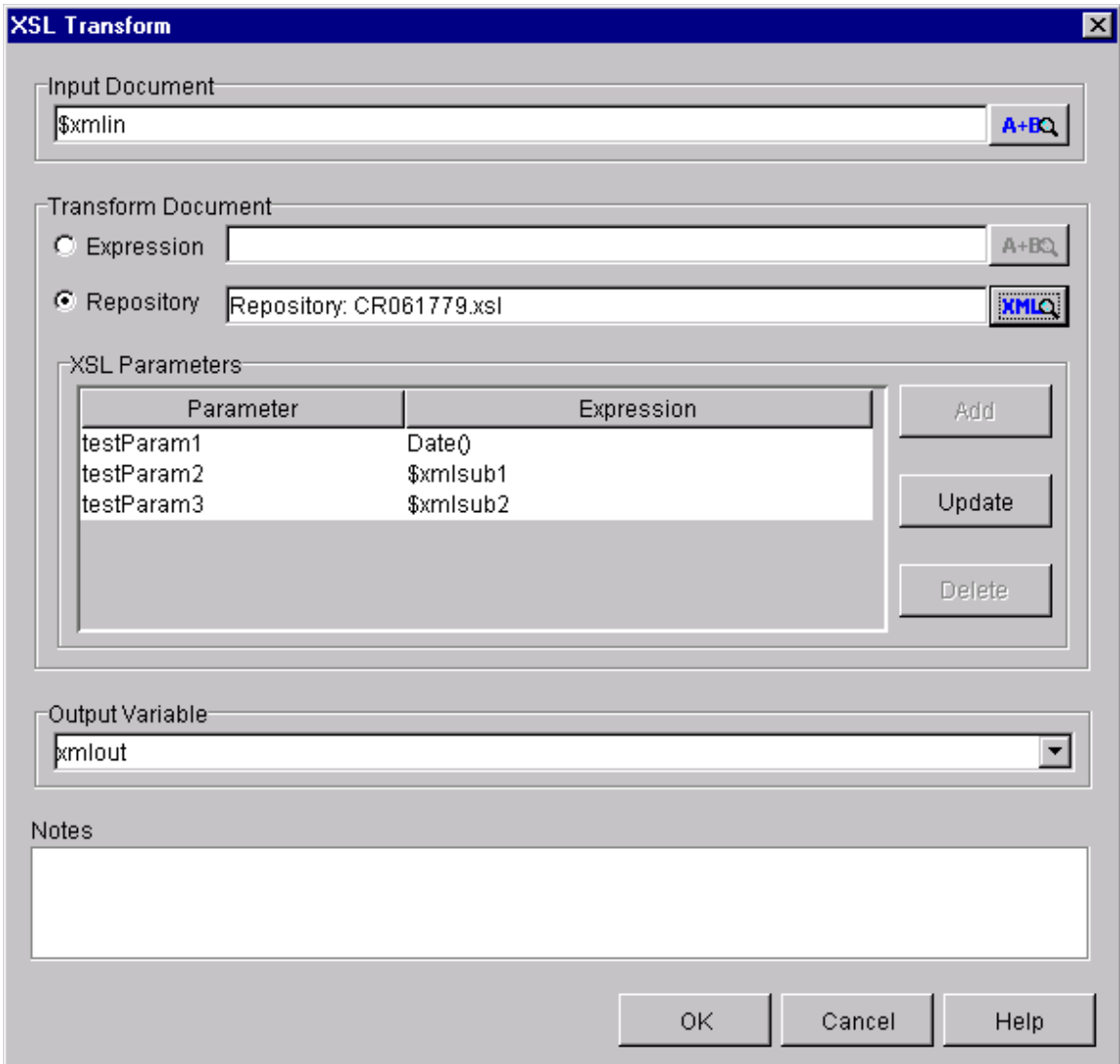<?xml version="1.0" encoding="UTF-8"?>
<root>
<element-1>
  <sub-elem-1>value 1</sub-elem-1>
</element-1>
<element-2>
  <sub-elem-2>
    <ss-elem>value 1</ss-elem>
    <ss-elem>value 2</ss-elem>
    <ss-elem>value 3</ss-elem>
    <ss-elem>value 4</ss-elem>
  </sub-elem-2>
</element-2>
</root>
```

This release also supports the ability to pass an XML subdocument as an XSL transform parameter, as shown in Figure 4:

Figure 4   XSL Transfor Dialog Box Used to Pass an XML Subdocument

The variable contents are:

```
xmlsub1: <sub-elem-1>value 1</sub-elem-1>
xmlsub2:
<sub-elem-2>
```

```
  <ss-elem>value 1</ss-elem>
  <ss-elem>value 2</ss-elem>
  <ss-elem>value 3</ss-elem>
  <ss-elem>value 4</ss-elem>
</sub-elem-2>
```

The XSL Transformation contains:

```
<xsl:param name="testParam1"/>
<xsl:param name="testParam2"/>
<xsl:param name="testParam3"/>

<xsl:template match="/">
  <out>
    <date>
      <xsl:value-of select="$testParam1"/>
    </date>
      <xmlsub1>
        <xsl:copy-of select="$testParam2"/>
      </xmlsub1>
      <xmlsub2>
        <xsl:copy-of select="$testParam3"/>
      </xmlsub2>
  </out>
```

The result of the transformation returned in `xmlout` is as follows:

```
<?xml version="1.0" encoding="UTF-8"?>
<out>
  <date>Mon Mar 18 11:40:43 PST 2002</date>
  <xmlsub1>
    <sub-elem-1>value 1</sub-elem-1></xmlsub1>
  <xmlsub2>
    <sub-elem-2>
      <ss-elem>value 1</ss-elem>
      <ss-elem>value 2</ss-elem>
      <ss-elem>value 3</ss-elem>
      <ss-elem>value 4</ss-elem>
    </sub-elem-2></xmlsub2>
</out>
```

Time Services Changes in BPM

This section includes information on changes to time services in BPM. This information will be added to the BPM documentation in a future release.

The BPM time services now allow multiple workflow instances to be processed simultaneously when started by a time trigger. Previously, all time actions were processed sequentially by a single instance of the Message-Driven Bean (MDB) TimeListenerBean. Now, instead of being a singleton, TimeListenerBean is initially deployed with 5 instances. It uses the `wlpiOrderKey = <instance id>` message header for message selection to ensure that timer actions are processed sequentially for any given instance and different instances are processed by a different bean.

Information for Deployers

Users deploying applications should note that a prime number of TimeListenerBeans must be deployed to ensure that any one instance's time actions are processed by the same MDB. This preserves the sequence of time actions within an instance.

Information for Administrators

Administrators should update the WebLogic Server configuration file, `config.xml`, with the required arguments for the `com.bea.wlpi.server.timeprocessor.TimeProcessor` startup class. A sample follows:

```
<StartupClass
Arguments="url=t3://localhost:7001,user=wlpisystem,
pwd=wlpisystem,
connectionFactory=com.bea.wlpi.QueueConnectionFactory,
queue=com.bea.wlpi.Timer"
ClassName="com.bea.wlpi.server.timeprocessor.TimeProcessor"
FailureIsFatal="true" Name="TimeProcessor"
Targets="myserver"/>
```

where:

`url` = URL of the server that the TimeProcessor is deployed on

`user` = the `wlpisystem` user

`pwd` = `wlpisystem` user's password

`connectionFactory` = JNDI name of the WLPI connection factory

`queue` = JNDI name of the Timer queue

Also, note the addition of `FailureIsfatal="true"`.

Information for Application Designers

Users designing applications should note that since the instance ID is used as the message selector for the MDBs, it is possible that time actions could all get sent to the same TimeListenerBean. This occurs in situations where the instance containing the time action is always a factor of the number of deployed TimeListenerBeans.

For example, if 3 TimeListenerBeans are deployed and the application has the following template definitions:

Parent→Child→Grandchild

where the Grandchild template definition performs a time action such as Task Due Date, and then starts another instance of the Parent. This results in the instance of Grandchild always going to the same MDB because the result of the following calculation:

$<instance\#>$%3 (the remainder of $<instance>$/3)

will always be the same, assuming these are the only workflows running).

Time-Based Processing and WebLogic Time Services

BPM time-based processing is now coupled more closely with WebLogic Time Services. This affects the trigger time of time-based actions in a BPM workflow. The accuracy of timers is dependent on that of the underlying WebLogic Server timers, with a resolution of milliseconds but an accuracy of plus or minus roughly one second. This means that time based actions may fire up to one second prematurely. Time-based actions should, therefore, not be used for timing-critical designs needing extreme accuracy.

Time processing occurs in a separate execution thread from that of the workflow. When a timer triggers, the TimeListener MDB attempts to resume processing of the workflow in which the timer was scheduled. In certain situations, it is possible for the timer to trigger prior to the workflow instance having been committed to the database, resulting in a message similar to the following:

```
Workflow warning: com.bea.wlpi.common.WorkflowException:
The system could not find the specified workflow instance:IID
```

where *IID* is the instance ID of the workflow.

This only occurs in design patterns where a time-based action is performed in the first transaction of the workflow, and when the timer is scheduled for a period of time shorter than it takes the workflow to complete.

For example, consider a workflow template definition comprised of the following nodes:

Start→Task1→Task2→Event→Done

where:

Task1 performs a timed event action that sets the timer for 1 second
Task2 performs some simple processing
Event waits for a message and then processes it

Under normal circumstances, workflow processing starts and the timer is set in Task1 for (current_time + 1 second). The workflow processor moves to Task2 and executes its actions. The Event node is reached and the transaction is committed. The workflow is now stored in the database. The timed-based action fires and resumes processing the instance, performing those tasks in the overdue action list (canceling the event, for example) if the workflow has not completed.

In this example there is a very high probability that, if the workflow is called repeatedly, at one point the timer will fire early enough and the latency before the transaction commits will be long enough that the timer processing begins before the workflow instance has been committed to the database. In testing, we have found that the situation occurred after 249, 750, and 1122 instance have processed normally. Obviously, the probability of this occurrence increases as the time for the trigger decreases and the amount of processing prior to the workflow instance being committed to the database increases (more actions are performed prior to the first quiescent point).

Correct Sequence of Steps for Monitoring Running Workflows

In Executing and Monitoring the Example Workflows in *Learning to Use BPM with WebLogic Integration*, under the section "Monitoring the Running Workflows in the Studio", steps 15 and 16 are reversed, causing problems in properly updating variables. This problem was reported as CR080585. The correct sequence of steps is as follows:

14. Return to the Worklist window.

15. Select the Accounting tab, and double-click the Generate Invoice task. In the Error Warning message box, enter a valid state abbreviation, such as CA.

16. Select the Shipping role tab, and double-click the Ship Order task to execute it.

17. Return to the Studio.

Workflow Status Is Not Automatically Refreshed

The Workflow Status dialog box is not automatically refreshed when you mark a task done that has a task permission of Mark done without executing. You must close and reopen the Workflow Status dialog box to display the current status. This behavior was reported in CR080922 and will be reflected in the Worklist documentation in a future release per CR080930.

Data Integration Padding and Truncation Features

This section includes information on enhancements to the data integration functionality provided by WebLogic Integration 2.1 SP1. This information will be added to *Translating Data with WebLogic Integration* in a future release. Specifically, it provides an enhanced version of Message Format Language, MFL Version 2.02, with three new features supported by this new version of MFL:

- Padding
- Truncating

■ Padding of mandatory fields

Note: All prior versions to 2.02 versions of MFL are completely supported.

Padding

Fixed-length fields containing data with a length shorter than the length specified in the MFL definition are padded. In previous versions, padding was limited to padding fields only at the end of the field. In MFL v2.02, the padding feature offers two options for padding fixed-length fields:

■ Padding by Trailing option—allows padding at the end of fields

■ Padding by Leading option—allows padding at the beginning of fields

You can specify either but not both of these options. Padding of fields is done when fields are translated from binary to XML and from XML to binary. MFL v2.02 provides a new attribute, `padtype`, which can be specified with a value of either `leading` or `trailing`.

Padding at the beginning of a field is indicated by the following:

```
padType="leading"
```

Padding at the end of a field is indicated by the following:

```
padType="trailing"
```

Truncating

In MFL v 2.02 includes a new truncation option. Using this feature, you can specify the number of characters to be truncated at the start or the end of the field data. Two truncation options are provided:

■ Truncate First n characters

■ Truncate After n characters

Both options require you to specify the number of characters (denoted by n).

If the Truncate First n characters option is selected, the first n number of characters are removed or truncated from the field. The value n should be an integer less than or equal to the length of the field.

If the Truncate After n characters option is selected, all characters after the nth character position from the start of the field are truncated. This feature is only offered for XML-to-binary translations. You can select either option or both options.

MFL v2.02 provides a two new attributes to support this feature: `truncateFirst` and `truncateAfter`. Both attributes take integer values indicating the number of characters to truncate.

For example, `truncateFirst="2"` truncates the first 2 characters of the field. Specifying `truncateAfter="3"` truncates everything after 3 characters.

Padding of Mandatory Fields

This padding of mandatory fields option is provided so that mandatory groups or mandatory fields that do not have data at translation time are filled or padded if a default value is provided for the field. If no default value is specified and the field does not have data during translation, than an error is generated. This feature is useful in the case of groups occurring multiple times, where data for all fields in the group is the same. By providing default values for all the fields in the group, those group occurrences without data are padded with default values.

This feature works is only offered for XML-to-binary translations. There is no MFL change for this feature.

Bulk Loader Errors and Improper B2B Shutdown

The following information will be added to *Administering B2B Integration* in a future release. This information was compiled in response to CR049068.

If you shut down the B2B engine abnormally and subsequently try to use the Bulk Loader utility, you get an error message, indicating that the B2B engine is still running or was shut down abnormally, similar to the following:

```
D:\bea\wlintegration2.0\collaborate\bin\systemData>
bulkloader BulkloadMssqlConfig.xml <May 30, 2001 2:22:10 PM PDT>
<Error> <WLC> <<BulkLoader> ERROR: Can not run bulkloader when WLC
is running.> ERROR: Can not run bulkloader when WLC is running.
```

Shut down the B2B engine from the WebLogic Integration B2B Console. Do not use Ctrl-C to shut down the B2B engine. For recommended ways to shut down the B2B engine, see "Monitoring B2B Integration" in *Administering B2B Integration*.

Installation and Migration

This section discusses WebLogic Integration 2.1 SP2 installation and migration and includes the following topics:

- Full Installation

- Upgrade Installation

- Migrating from WebLogic Integration 2.1

- Migrating from WebLogic Integration 2.1 SP1

Full Installation

WebLogic Integration 2.1 SP2 uses the standard BEA installer. No changes to the full installation procedure were made for WebLogic Integration 2.1 SP2.

Upgrade Installation

An upgrade installer is provided that allows you to update WebLogic Integration 2.1 SP1 to WebLogic Integration 2.1 SP2.

WebLogic Integration 2.1 SP2 uses the standard BEA upgrade installer which overlays an existing installation after backing up user-modifiable files. The upgrade installer functionality has not changed for this release. For instructions on performing a service pack upgrade, see "Installing and Uninstalling Service Pack Upgrades" at the following URL:

```
http://edocs.bea.com/wlintegration/v2_1sp/install/instupg.htm
```

To migrate from WebLogic Integration 2.1 to WebLogic Integration 2.1 SP2 an addition to the database is required. The ebXML feature, which was added in WebLogic Integration 2.1 SP1, requires the addition of a new table along with some new rows being added to existing system tables. There is a script that performs this

update which is accessible from the upgrade wizard and from the command line scripts. For a reference to relevant migration documentation, see "Migrating from WebLogic Integration 2.1" on page 69.

No addition to the database is required to migrate from WebLogic Integration 2.1 SP1 to WebLogic Integration 2.1 SP2.

If you are using a version of WebLogic Integration prior to release 2.1, existing methods of migrating to WebLogic Integration 2.1 are retained. Depending on the version of WebLogic Integration that you have installed, this may involve more than one step. You will need access to the migration utilities and scripts that are currently delivered as part of the WebLogic Integration 2.1 installation package.

Migrating from WebLogic Integration 2.1

The migration tasks required when upgrading from WebLogic Integration 2.1 to WebLogic Integration 2.1 SP2 and the same as those required when upgrading from release 2.1 to release 2.1 SP1. For a description of migration tasks, see Migrating WebLogic Integration 2.1 to WebLogic Integration 2.1 Service Pack 1 at the following location:

```
http://edocs.bea.com/wlintegration/v2_1sp/migrate/berlsp1.htm
```

Migrating from WebLogic Integration 2.1 SP1

There are no migration tasks required when upgrading from WebLogic Integration 2.1 SP1 to WebLogic Integration 2.1 SP2.

BEA dev2dev Online

Visit the BEA dev2dev Online to obtain helpful resources that you might find useful when creating your WebLogic Integration applications. Additional development tools, ideas, and programming tips are continuously added to this site, which we encourage you to visit often.

You can reach BEA dev2dev Online at the following URL:

http://dev2dev.bea.com/index.jsp

Contacting BEA Customer Support

If you have questions about this release of the WebLogic Integration software, if you encounter problems while installing and running the software, or if you need to obtain patches, contact the BEA Customer Support Center at the following URL:

http://www.bea.com/support

You can also contact your BEA Customer Support Center by using the contact information provided on the Customer Support Card, which is included in the product package.

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

- Your name, e-mail address, phone number, and fax number

- Name and address of your company

- Your machine type and authorization codes

- Name and release of the product you are using

- Description of the problem and the content of pertinent error messages