
Oracle Application Adapters for Oracle WebLogic Server

This chapter describes issues and workarounds for the following Oracle Application Adapters for Oracle WebLogic Server 12c:

- Oracle Application Adapter for PeopleSoft
- Oracle Application Adapter for SAP R/3
- Oracle Application Adapter for Siebel
- Oracle Application Adapter for J.D. Edwards OneWorld

Note: Throughout this document, `<ORACLE_HOME>` refers to the 12c installed home location.

`<ADAPTER_HOME>` refers to the following:

- For SOA:

`<ORACLE_HOME>\soa\soa\thirdparty\ApplicationAdapters`

- For OSB:

`<ORACLE_HOME>\osb\3rdparty\ApplicationAdapters`

This chapter includes the following topics:

- [Section 14.1, "Oracle Application Adapters: New Features"](#)
- [Section 14.2, "Oracle Application Adapters: General Issues and Workarounds"](#)
- [Section 14.3, "Application Explorer"](#)
- [Section 14.4, "Oracle Application Adapter for PeopleSoft: Issues and Workarounds"](#)
- [Section 14.5, "Oracle Application Adapter for SAP R/3: Issues and Workarounds"](#)
- [Section 14.6, "Oracle Application Adapter for Siebel: Issues and Workarounds"](#)
- [Section 14.7, "Oracle Application Adapter for J.D. Edwards OneWorld: Issues and Workarounds"](#)

14.1 Oracle Application Adapters: New Features

The following topic discusses new features that pertain to Oracle Application Adapters for Oracle WebLogic Server 12c:

- [Section 14.1.1, "Latest Supported Systems"](#)
- [Section 14.1.2, "Exception Filter for BPEL"](#)
- [Section 14.1.3, "Credential Mapping for SOA and BPM"](#)
- [Section 14.1.4, "Application Explorer Online Help"](#)

14.1.1 Latest Supported Systems

As of Oracle 12c (12.1.3.0.0), Oracle Fusion Middleware Application Adapters provide support for the following:

- Oracle Fusion Middleware Application Adapter for SAP R/3:
Support for SAP Java Connector (SAP JCo) Version 3.0.11
- Oracle Fusion Middleware Application Adapter for PeopleSoft:
Support for People Tools Version 8.52.
- Oracle Fusion Middleware Application Adapter for Siebel:
Support for Siebel Public Sector Version 8.2.
- Oracle Fusion Middleware Application Adapter for J.D. Edwards OneWorld:
Support for J.D. Edwards OneWorld Version 9.0 with Tools Release 9.1.0.2

For more information, see the corresponding adapter user guide and the *Oracle Fusion Middleware Application Adapters Installation Guide for Oracle WebLogic Server*.

14.1.2 Exception Filter for BPEL

The functionality of the Exception Filter for SOA and BPM has changed in the 12c release since the PS6 release. As a result, the application adapters have been certified for the new functions and documented accordingly. For more information, see the *Key Features* chapter of the specific Oracle Application Adapter user documentation.

14.1.3 Credential Mapping for SOA and BPM

The functionality of Credential Mapping for SOA and BPM has changed in the 12c release since the PS6 release. As a result, the application adapters have been certified for the new functions and documented accordingly. For more information, see the *Key Features* chapter of the specific Oracle Application Adapter user documentation.

14.1.4 Application Explorer Online Help

In the 12c release, online help is available in Application Explorer and can be accessed by right-clicking the corresponding adapter node and selecting **Help**, as shown in [Figure 14-1](#).

Figure 14–1 Application Explorer Online Help

Online help for the selected adapter is displayed.

14.2 Oracle Application Adapters: General Issues and Workarounds

The following topics discuss general issues that pertain to Oracle Application Server Application Adapters, Oracle WebLogic Server Adapter J2CA, and Oracle WebLogic Server Adapter Business Services Engine (BSE):

- [Section 14.2.1, "Version Change for the Deployment of a SOA \(BPEL, Mediator\) and BPM Process"](#)
- [Section 14.2.2, "Warning Message When Creating a Third-Party Service"](#)
- [Section 14.2.3, "OSB Admin Server Startup Message"](#)
- [Section 14.2.4, "JCA and BSE Links in Adapter Folder"](#)
- [Section 14.2.5, "Deployment Scripts"](#)
- [Section 14.2.6, "MS SQL Server and DB2 Support"](#)
- [Section 14.2.7, "Supported ojdbc.jar File"](#)
- [Section 14.2.8, "Supported Modes"](#)
- [Section 14.2.9, "Testing Outbound BPEL and Mediator Processes"](#)
- [Section 14.2.10, "Certified Repository"](#)
- [Section 14.2.11, "HTTP Repository Connection"](#)
- [Section 14.2.12, "File Repository Usage"](#)
- [Section 14.2.13, "Using Business Services Engine for Inbound Processing"](#)
- [Section 14.2.14, "Synchronous Events"](#)
- [Section 14.2.15, "Ports Option for Inbound Processing"](#)
- [Section 14.2.16, "Supported Custom Objects"](#)
- [Section 14.2.17, "Adapter Compatibility"](#)
- [Section 14.2.18, "Encoding Support"](#)
- [Section 14.2.19, "J2CA Components"](#)
- [Section 14.2.20, "Invoking a Run-Time Message When BSE Is Unavailable"](#)
- [Section 14.2.21, "Invoking Outbound BPEL Process at Run Time Using BSE"](#)
- [Section 14.2.22, "Using the J2CA Test Tool for Outbound Only"](#)

- [Section 14.2.23, "BSE Web Services Browser Pages Do Not Support DBCS Input"](#)
- [Section 14.2.24, "Adapter Language Certification"](#)
- [Section 14.2.25, "File Channel"](#)
- [Section 14.2.26, "Unsupported Adapter Functionality"](#)
- [Section 14.2.27, "Upgrading Adapters \(BSE Configuration\) on Windows Platforms"](#)
- [Section 14.2.28, "Application Explorer Online Help"](#)

14.2.1 Version Change for the Deployment of a SOA (BPEL, Mediator) and BPM Process

When deploying SOA (BPEL, Mediator) and BPMN J2CA outbound and inbound processes created in 12c JDeveloper, the following error can be expected:

The JCA Binding Component is unable to locate the Resource Adapter specified in the <connection-factory/> element:

```
location='eis/OracleJCAAdapter/DefaultConnection'
```

The reason for this is most likely that either

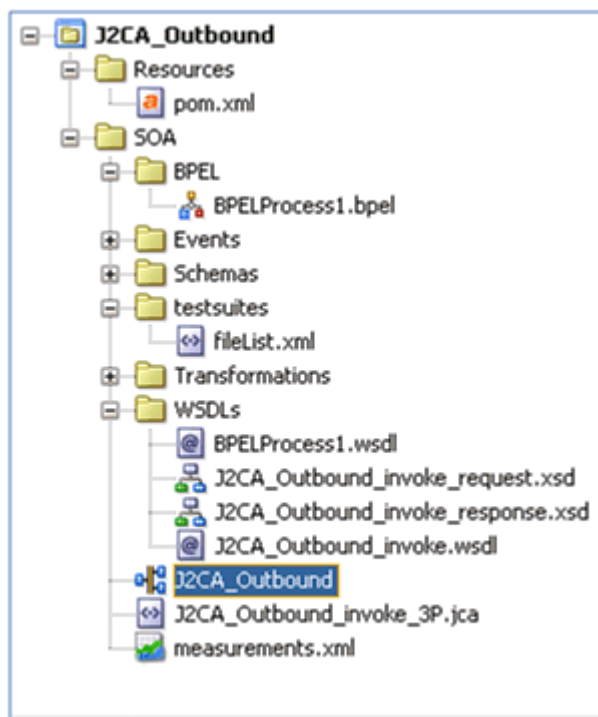
- 1) the Resource Adapters RAR file has not been deployed successfully to the WebLogic J2EE Application server or
- 2) the JNDI <jndi-name> setting in the WebLogic JCA deployment descriptor has not been set to eis/OracleJCAAdapter/DefaultConnection. In the last case you might have to add a new 'connector-factory' entry (connection) to the deployment descriptor.

Please correct this and then restart the WebLogic Application Server

Perform the following steps as a workaround to resolve this issue:

1. Double-click **J2CA_Outbound** (created BPEL process), as shown in [Figure 14-2](#).

Figure 14-2 Created BPEL Process



- Click the **Source** tab below the opened process, as shown in [Figure 14-3](#).

Figure 14-3 Source Tab

```

<?xml version="1.0" encoding="UTF-8" ?>
<!-- Generated by Oracle SOA Modeler version 12.1.3.0.0 at [8/22/14 8:55 PM]. -->
<composite name="J2CA_Outbound"
  revision="1.0"
  label="2014-08-22_20-55-10_886"
  mode="active"
  state="on"
  xmlns="http://xmlns.oracle.com/soa/1.0"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns:wsp="http://schemas.xmlsoap.org/ws/2004/09/policy"
  xmlns:oraswp="http://schemas.oracle.com/ws/2006/01/policy"
  xmlns:ui="http://xmlns.oracle.com/soa/designer/"
  xmlns:sca-ext="http://xmlns.oracle.com/sca/1.0-ext">
  <import namespace="http://xmlns.oracle.com/pcbpel/iWay/wsd1/Siebel/siebel_isdsrv15_tgt/queryWithVie
    location="WSDLs/J2CA_Outbound_invoke.wsd1" importType="wsdl"/>
  <import namespace="http://xmlns.oracle.com/Application2/J2CA_Outbound/BPELProcess1" location="WSD
    importType="wsdl"/>
  <service name="bpelprocess1_client_ep" ui:wsdLocation="WSDLs/BPELProcess1.wsd1">
    <interface.wsd1 interface="http://xmlns.oracle.com/Application2/J2CA_Outbound/BPELProcess1#wsd1
    <binding.ws port="http://xmlns.oracle.com/Application2/J2CA_Outbound/BPELProcess1#wsd1.endpoint
  </service>
  <property name="productVersion" type="xs:string" many="false">12.1.3.0.0</property>
  <property name="compositeID" type="xs:string" many="false">6c2ae802-ba34-4f73-8968-afbddd0108b9</
  <component name="BPELProcess1" version="2.0">
    <implementation.bpel src="BPEL/BPELProcess1.bpel"/>
  <componentType>
    <service name="bpelprocess1_client" ui:wsdLocation="WSDLs/BPELProcess1.wsd1">
      <interface.wsd1 interface="http://xmlns.oracle.com/Application2/J2CA_Outbound/BPELProcess1#
    </service>
    <reference name="Service" ui:wsdLocation="WSDLs/J2CA_Outbound_invoke.wsd1">
      <interface.wsd1 interface="http://xmlns.oracle.com/pcbpel/iWay/wsd1/Siebel/siebel_isdsrv15_tg
  </reference>
  </componentType>
</composite>
  
```

The screenshot shows the Oracle SOA Designer interface with the 'Source' tab selected. The XML code is displayed in the main editor area. The 'Source' tab is highlighted in the bottom navigation bar. The XML code includes a composite definition for 'J2CA_Outbound' with various properties and imports. The 'productVersion' property is highlighted in yellow, and its value '12.1.3.0.0' is visible.

- Change the *productVersion* property value from 12.1.3.0.0 to 11, as shown in [Figure 14-4](#).

Figure 14–4 Source Tab

```

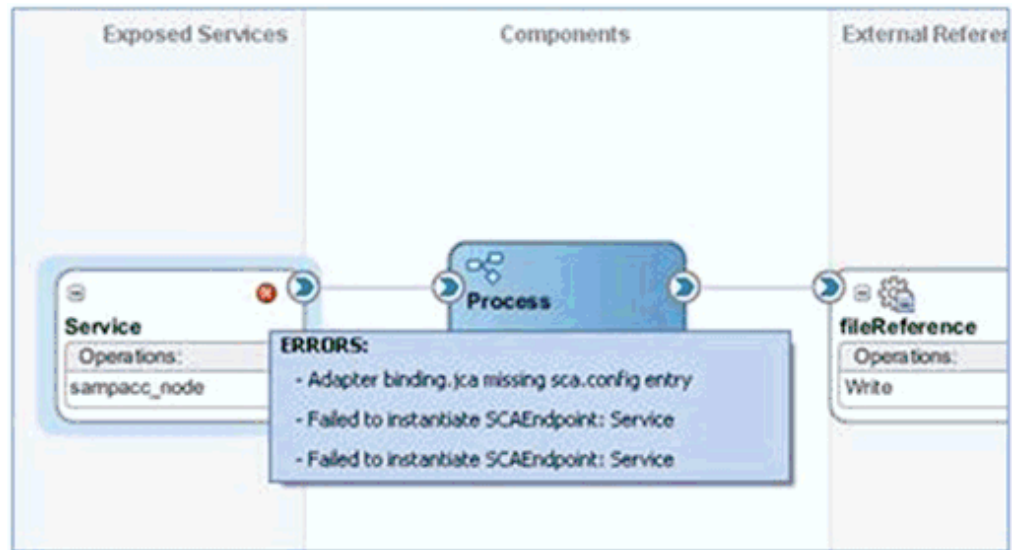
<?xml version="1.0" encoding="UTF-8" ?>
<!-- Generated by Oracle SOA Modeler version 12.1.3.0.0 at [8/22/14 8:55 PM]. -->
<composite name="J2CA_Outbound"
  revision="1.0"
  label="2014-08-22_20-55-10_886"
  mode="active"
  state="on"
  xmlns="http://xmlns.oracle.com/sca/1.0"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns:wsp="http://schemas.xmlsoap.org/ws/2004/09/policy"
  xmlns:orawsp="http://schemas.oracle.com/ws/2006/01/policy"
  xmlns:ui="http://xmlns.oracle.com/soa/designer/"
  xmlns:sca-ext="http://xmlns.oracle.com/sca/1.0-ext">
  <import namespace="http://xmlns.oracle.com/pcbpel/iWay/wsd1/Siebel/siebel_isdsv15_tgt/queryWithWie"
    location="WSDLs/J2CA_Outbound_invoke.wsd1" importType="wsdl"/>
  <import namespace="http://xmlns.oracle.com/Application2/J2CA_Outbound/BPELProcess1" location="WSD
    importType="wsdl"/>
  <service name="bpelprocess1_client_ep" ui:wsdLocation="WSDLs/BPELProcess1.wsd1">
    <interface.wsd1 interface="http://xmlns.oracle.com/Application2/J2CA_Outbound/BPELProcess1#wsd1
  <binding.ws port="http://xmlns.oracle.com/Application2/J2CA_Outbound/BPELProcess1#wsd1.endpoint
  </service>
  <property name="productVersion" type="xs:string" many="false">11</property>
  <property name="compositeID" type="xs:string" many="false">6c2ae802-ba34-4f73-8968-afbdb0108b9</
  <component name="BPELProcess1" version="2.0">
    <implementation.bpel src="BPEL/BPELProcess1.bpel"/>
    <componentType>
      <service name="bpelprocess1_client" ui:wsdLocation="WSDLs/BPELProcess1.wsd1">
        <interface.wsd1 interface="http://xmlns.oracle.com/Application2/J2CA_Outbound/BPELProcess1#
      </service>
      <reference name="Service" ui:wsdLocation="WSDLs/J2CA_Outbound_invoke.wsd1">
        <interface.wsd1 interface="http://xmlns.oracle.com/pcbpel/iWay/wsd1/Siebel/siebel_isdsv15_tgt
  </reference>
  </componentType>
</composite>

```

4. Save the changes and proceed with deploying the project.

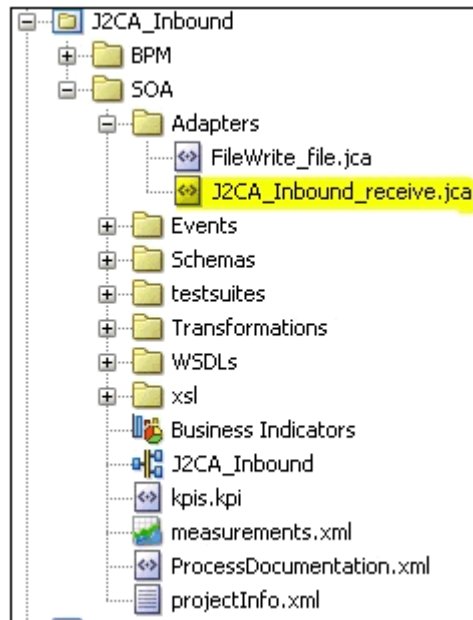
14.2.2 Warning Message When Creating a Third-Party Service

When creating a third-party adapter for SOA (BPEL, Mediator) and BPM processes in 12c JDeveloper, warning messages are displayed, as shown in [Figure 14–5](#).

Figure 14–5 Warning Messages

The issue is that the J2CA file has not been converted from 11g to 12c format. This will not impact the functionality of the adapters. If you require these warning messages to be resolved, then perform the following steps:

1. Open the jca properties file (for example, expand J2CA_Inbound, SOA, Adapters, and then J2CA_Inbound_receive.jca), as shown in [Figure 14–6](#).

Figure 14–6 JCA Properties File

2. Change `adapter="SAP Adapter"` to `adapter="3P"`.

The SAP adapter is being used in this workaround for demonstration purposes. This change is applicable for all other adapters.

14.2.3 OSB Admin Server Startup Message

With the OSB Managed mode, when starting the Admin Server the following error message may be displayed, which can be ignored:

```
Caused by: javax.naming.CommunicationException: t3://localhost:7003: Destination
192.168.128.168, 7003 unreachable; nested exception is:
  java.net.ConnectException: Connection refused: no further information; No
available router to destination [Root exception is java.net.ConnectException:
t3://localhost:7003: Destination localhost, 7003 unreachable; nested exception is:
java.net.ConnectException: Connection refused: no further information; No
available router to destination at
weblogic.jndi.internal.ExceptionTranslator.toNamingException(ExceptionTranslator.j
ava:40)
```

14.2.4 JCA and BSE Links in Adapter Folder

Clicking the **JCA_test_link** or **IBSE_test_link** in the <ADAPTER HOME> folder will generate a page not found error.

Perform the following steps as a workaround:

1. Ensure the servers are started and running, and that the adapters are deployed and started.
2. Change the Managed server port in the URL and reload the servlet pages for J2CA and BSE.

14.2.5 Deployment Scripts

This section includes the following topics:

- [Section 14.2.5.1, "Limitation With Deployment Scripts"](#)
- [Section 14.2.5.2, "Deployment Scripts Failed for BSE and J2CA With Errors"](#)
- [Section 14.2.5.3, "Deployment Scripts Failed With Invalid Port Number"](#)
- [Section 14.2.5.4, "Deployment Scripts Failed With Incorrect <ORACLE_HOME> Location"](#)
- [Section 14.2.5.5, "Deployment Scripts Failed With Invalid WebLogic User Name"](#)
- [Section 14.2.5.6, "Deployment Scripts Failed With Invalid WebLogic Password"](#)
- [Section 14.2.5.7, "Deployment Scripts Failed With Incorrect Server Name"](#)
- [Section 14.2.5.8, "Undeployment Failed When Providing Incorrect Application Name for BSE/J2CA"](#)

14.2.5.1 Limitation With Deployment Scripts

The deployment scripts do not work for the following environments:

- SOA/OSB cluster environment
- Adapters upgraded from PS6 to the 12c environment

14.2.5.2 Deployment Scripts Failed for BSE and J2CA With Errors

Deployment scripts failed for BSE and J2CA with the following errors:

```
The file, '<ADAPTER_HOME>\ibse.war', does not exist.
The file, '<ADAPTER_HOME>\iwafjca.rar', does not exist.
```

Ensure the adapters are installed and available in the specified location.

14.2.5.3 Deployment Scripts Failed With Invalid Port Number

Deployment scripts failed with an invalid port number:

```
Unable to connect to 't3://localhost:7001': Destination localhost, 7001
unreachable; nested exception is:
java.net.ConnectException: Connection refused: connect; No available router to
destination. Ensure the url represents a running admin server and that the
credentials are correct. If using http protocol, tunneling must be enabled on the
admin server.
```

Ensure a valid Admin Server port is provided or ensure the servers are started and running.

14.2.5.4 Deployment Scripts Failed With Incorrect <ORACLE_HOME> Location

Deployment scripts failed with incorrect <ORACLE_HOME> location:

```
The system cannot find the path specified.
Error: Could not find or load main class weblogic.Deployer
```

Ensure the correct <ORACLE_HOME> location is specified.

14.2.5.5 Deployment Scripts Failed With Invalid WebLogic User Name

Deployment scripts failed with an invalid WebLogic user name:

```
Unable to connect to 't3://localhost:7101': User: weblogic123, failed to be
authenticated.. Ensure the url represents a running admin server and that the
credentials are correct. If using http protocol, tunneling must be enabled on the
admin server.
```

Enter the correct WebLogic user name.

14.2.5.6 Deployment Scripts Failed With Invalid WebLogic Password

Deployment scripts failed with an invalid WebLogic password:

```
Unable to connect to 't3://localhost:7101': User: weblogic, failed to be
authenticated.. Ensure the url represents a running admin server and that the
credentials are correct. If using http protocol, tunneling must be enabled on the
admin server.
```

Enter the correct WebLogic password.

14.2.5.7 Deployment Scripts Failed With Incorrect Server Name

Deployment scripts failed with an incorrect server name (for example, test):

```
'test' is not a configured target.
```

Ensure the server name provided is valid.

14.2.5.8 Undeployment Failed When Providing Incorrect Application Name for BSE/J2CA

Undeployment failed when providing incorrect application name for BSE/J2CA:

```
[Deployer:149001]
No application named "ibse1" exists for operation "undeploy".
```

Provide a valid application name for BSE/J2CA to be undeployed.

14.2.6 MS SQL Server and DB2 Support

With 12c Release 1 (12.1.3.0.0), MS SQL Server and DB2 databases are not supported.

14.2.7 Supported ojdbc.jar File

When an Oracle enterprise database is configured as a repository with Oracle Application Adapters for Oracle WebLogic Server, only the *ojdbc7.jar* file is currently certified.

14.2.8 Supported Modes

The following section lists the supported modes for the Oracle Fusion Middleware Application Adapters.

Oracle Service-Oriented Architecture (SOA) and Oracle Business Process Management (BPM)

Supported modes:

- Managed mode

Note: Oracle Fusion Middleware Application Adapters must be deployed to the Managed Server during deployment.

- Integrated Server mode

Note: By default, the Oracle Fusion Middleware Application Adapters are deployed to the Integrated Server during deployment.

Oracle Service Bus (OSB)

Supported modes:

- Managed mode

Note: Oracle Fusion Middleware Application Adapters must be deployed to the Managed Server during deployment.

- Integrated Server mode

Note: By default, the Oracle Fusion Middleware Application Adapters are deployed to the Integrated Server during deployment.

Combined Oracle Service-Oriented Architecture (SOA) and Oracle Service Bus (OSB)

Supported modes:

- Managed mode

Note: ■ Installing Oracle Fusion Middleware Application Adapters to the SOA location (for example, `<ORACLE_HOME>\soa\soa\thirdparty\ApplicationAdapters`) is sufficient to work with SOA and OSB in a combined SOA and OSB environment.

- Oracle Fusion Middleware Application Adapters must be deployed to the Managed Server during deployment.
-

14.2.9 Testing Outbound BPEL and Mediator Processes

When testing an outbound BPEL process from the BPEL console or an outbound Mediator process from the Enterprise Manager (EM) console, do not use the XML envelopes that are generated by these consoles. Instead, remove them and use the XML payloads that are generated from the schemas, which conform to the WSDLs for namespace qualifications.

The Mediator data flows can be tested using the EM console. When creating a Mediator data flow and interactions, the Web services are created and registered with the Oracle Application Server. For more information about testing Web services, see your Oracle Application Server administrator and the following documentation:

- *Oracle Fusion Middleware Application Adapter for SAP R/3 User's Guide for Oracle WebLogic Server*
- *Oracle Fusion Middleware Application Adapter for Siebel User's Guide for Oracle WebLogic Server*
- *Oracle Fusion Middleware Application Adapter for PeopleSoft User's Guide for Oracle WebLogic Server*
- *Oracle Fusion Middleware Application Adapter for J.D. Edwards OneWorld User's Guide for Oracle WebLogic Server*

14.2.10 Certified Repository

Oracle Application Adapters have been certified with the Oracle enterprise database as the repository. The version that was certified is Oracle Database 12c Enterprise Edition (12.1.0.1.0).

Other versions of the Oracle enterprise database are also supported as long as they are supported by the Oracle SOA Suite. Except for the Oracle enterprise database, Oracle Application Adapters do not support any other database, including Oracle XE, Oracle Berkeley Database, or databases from other vendors.

14.2.11 HTTP Repository Connection

HTTP repository connections are not supported for 12c Release 1 (12.1.3.0.0), which prevents you from connecting to the Oracle Application Adapters instance from a remote machine. As a workaround, you must install Application Explorer on every

platform where integration with Oracle Application Adapters using Application Explorer is required.

14.2.12 File Repository Usage

Do not use a File repository in development, testing, and production environments. Only use the Oracle database repository.

14.2.13 Using Business Services Engine for Inbound Processing

Using Business Services Engine (BSE) for inbound processing is not supported. BSE only supports services (outbound).

14.2.14 Synchronous Events

Synchronous event handling is not supported for the Oracle Application Adapter for Siebel, Oracle Application Adapter PeopleSoft, and Oracle Application Adapter J.D. Edwards OneWorld.

14.2.15 Ports Option for Inbound Processing

The ports option for inbound processing is not supported for J2CA events.

14.2.16 Supported Custom Objects

Oracle continues to support the custom objects of an EIS. However, Oracle cannot guarantee the support for all custom objects at the customer environment. Support to the custom object will be considered on a case by case option. Custom objects could fall under any of the following category:

- **SAP**
BAPIs, RFCs, and ALE/IDocs
- **Siebel**
Business Objects, Business Services, and Integration Objects
- **PeopleSoft**
Component Interfaces and Messages
- **J.D. Edwards OneWorld**
Business Functions and Transaction Types

It is recommended that customers who wish to troubleshoot an issue with the custom objects of an EIS, provide the following to Oracle:

1. Data and definition of custom objects.
2. Request and response XML documents for the custom objects.
3. Reproduction steps for the custom object.

14.2.17 Adapter Compatibility

You cannot have multiple versions of the client library files in the same `lib` directory. Therefore, you cannot have one instance of the adapter configured to connect to different EIS versions at the same time by using different versions of the client library files.

14.2.18 Encoding Support

The Oracle Application Adapters support only UTF-8 encoding.

14.2.19 J2CA Components

If you are working with a J2CA configuration and you create, update, or delete an adapter target or channel using Application Explorer, then you must restart Oracle WebLogic Server. This is required to refresh the repository and recognize the new/updated target or channel in the J2CA Test Servlet, BPEL process, Mediator process, BPM process, and OSB process. The default URL for the J2CA Test Servlet is:

```
http://hostname:port/iwafjca
```

This applies to J2CA targets and channels only, not BSE targets. This also applies when a target or a channel parameter is modified using Application Explorer.

14.2.20 Invoking a Run-Time Message When BSE Is Unavailable

When invoking a run-time message while BSE is unavailable, a "Whitespace required" exception error occurs.

The error message "unable to connect to URL http://host:port/ibse..." appears.

14.2.21 Invoking Outbound BPEL Process at Run Time Using BSE

When invoking an outbound BPEL process at run time using BSE, a "Not able to find SoapRouter" message appears.

Workaround: Add the following element in the respective XML file:

```
<property name "optSoapShortcut">false</property>
```

14.2.22 Using the J2CA Test Tool for Outbound Only

The J2CA Test Tool must be used only for outbound (services). Inbound (events) will list only the channels available for the corresponding adapters.

14.2.23 BSE Web Services Browser Pages Do Not Support DBCS Input

When using a BSE configuration, the browser-based test tools add encodings to the content being sent. The BSE test tool causes characters to become garbled due to these added encodings. Therefore, you cannot perform a test using input that contains Japanese characters. A possible workaround is to use a tool that can send pure SOAP requests.

14.2.24 Adapter Language Certification

Oracle Application Adapters are certified with the English language. The following adapters for 12c Release 1 (12.1.3.0.0) are certified with the Japanese language:

- Oracle Application Adapter for SAP R/3 (using SAP JCo 3.x)
- Oracle Application Adapter for Siebel
- Oracle Application Adapter for PeopleSoft

The Oracle Application Adapter for J.D. Edwards OneWorld is not certified with the Japanese language, but it is supported. If you encounter any issues with other languages, then contact Oracle Customer Support for a workaround.

14.2.25 File Channel

The File channel for events is not supported in production environments for the Oracle Application Adapter for PeopleSoft, Oracle Application Adapter for J.D. Edwards OneWorld, and Oracle Application Adapter for Siebel. The File channel is available only for testing purposes in a non-network environment. As a best practice, it is not recommended to use the File channel.

14.2.26 Unsupported Adapter Functionality

The Oracle Application Adapter for SAP R/3, Oracle Application Adapter for PeopleSoft, Oracle Application Adapter for Siebel, and Oracle Application Adapter for J.D. Edwards OneWorld does not support functionality such as Transaction, XA, and two-phase commit.

14.2.27 Upgrading Adapters (BSE Configuration) on Windows Platforms

For the Oracle 12c Release (12.1.3.0.0), after upgrading the adapters on a Windows platform, if you update the adapters for a BSE configuration and click **Activate Changes**, the following error may be generated:

```
An error occurred during activation of changes, please see the log for details.
[Deployer:149258]Server failed to remove the staged files 'C:\Oracle_Home\user_
projects\domains\base_domain\servers\soa_server1\stage\ibse\ibse.war' for
application 'ibse' completely. Check the directory and make sure no other
application using this directory. This will result in inappropriate results when
this server gets partitioned and trying to deploy this application.
```

Perform the following steps as a workaround:

1. Release the configuration from the WebLogic Administration Console.
2. Restart the Managed Server.

14.2.28 Application Explorer Online Help

Application Explorer online help is supported only on Microsoft Internet Explorer and Mozilla FireFox browsers. It is not supported on Google Chrome browsers. If your default browser is Google Chrome, then use Microsoft Internet Explorer or Mozilla FireFox if you would like to view the online help.

14.3 Application Explorer

The following topics discuss issues that pertain to Application Explorer:

- [Section 14.3.1, "Unable to Connect to Remote Machines Using File or DB Repositories for J2CA Configurations"](#)
- [Section 14.3.2, "Unsupported JMS Disposition"](#)
- [Section 14.3.3, "Unable to Connect to a J2CA Configuration"](#)

14.3.1 Unable to Connect to Remote Machines Using File or DB Repositories for J2CA Configurations

Application Explorer cannot be used to connect to remote machines for a J2CA configuration when using a File or DB repository. When using a J2CA configuration, SOA Suite must be installed on the same machine that is being used as the container for the adapters.

14.3.2 Unsupported JMS Disposition

Expanding the Events node and any Adapter node in Application Explorer generates the following exception in the log file:

```
java.lang.ClassNotFoundException: com.ibi.soap.SOAPEmitterAdapter,
com.ibi.jms.JMSOutAdapter, com.ibi.mail.MailEmitterAdapter...
```

This exception message can be ignored. The Oracle Application Adapters for Oracle WebLogic Server 12c do not support the JMS disposition. This message is recorded in the log file as a result.

14.3.3 Unable to Connect to a J2CA Configuration

When connecting to a J2CA configuration in Application Explorer, the following error message may be generated:

```
oracle/tip/adapter/api/exception/PCResourceException
```

Perform the following steps to resolve this issue:

1. Open a command prompt window and navigate to the following directory:

```
<ORACLE_HOME>\user_projects\domains\base_domain\bin
```
2. Run `setDomainEnv.cmd` (Windows) or `./setDomainEnv.sh` (UNIX/Linux).
 The `setDomainEnv` command sets the class path and other environment variables for Application Explorer in the Oracle WebLogic Server environment.
3. Do not close the command prompt window.
4. Navigate to the following directory:

```
<ADAPTER_HOME>\tools\iwae\bin
```
5. Run `ae.bat` (Windows) or `iwae.sh` (UNIX/Linux) to start Application Explorer.
 You can now connect to a J2CA configuration.

14.4 Oracle Application Adapter for PeopleSoft: Issues and Workarounds

The following topics discuss issues that pertain to Oracle Application Adapter for PeopleSoft:

- [Section 14.4.1, "Platform Support"](#)
- [Section 14.4.2, "Limitation With PeopleTools 8.40 Support"](#)
- [Section 14.4.3, "PeopleSoft LDAP Authentication Incompatible"](#)
- [Section 14.4.4, "Automatic Reconnect to PeopleSoft"](#)
- [Section 14.4.5, "HTTPS Protocol"](#)
- [Section 14.4.6, "PeopleSoft Messages"](#)
- [Section 14.4.7, "Limitation with Level 2 Scrolls"](#)
- [Section 14.4.8, "Limitation with Level 3 Scrolls"](#)
- [Section 14.4.9, "Limitation with Effective Dated Scrolls"](#)
- [Section 14.4.10, "Limitation When Inserting a Second Row for Level 1, 2, or 3 Scrolls"](#)

- [Section 14.4.11, "PeopleTools Date Format"](#)
- [Section 14.4.12, "Generating Java APIs"](#)
- [Section 14.4.13, "Differences Between Component Interface Functionality and Adapter Functionality"](#)
- [Section 14.4.14, "Missing Field Errors When Using a Component Interface"](#)
- [Section 14.4.15, "Support for Related Display Fields"](#)
- [Section 14.4.16, "Differences Between Component Interface Functionality and Adapter Functionality"](#)
- [Section 14.4.17, "Multiple Effective Dated Scrolls"](#)
- [Section 14.4.18, "Debug Message"](#)
- [Section 14.4.19, "LOCATION Component Interface"](#)
- [Section 14.4.20, "Component Interface Names"](#)
- [Section 14.4.21, "Component Interface Java API Compilation Errors \(People Tools 8.46\)"](#)

14.4.1 Platform Support

For the Oracle 12c Release (12.1.3.0.0), Oracle Application Adapter for PeopleSoft is certified only with Windows and Oracle Enterprise Linux platforms. This adapter is not certified and supported on any other platforms for the Oracle 12c Release (12.1.3.0.0). If support on any other platforms is required for this adapter, then contact Oracle customer support.

14.4.2 Limitation With PeopleTools 8.40 Support

With 12c, configuring and using adapter targets and channels is not supported for PeopleTools 8.40. However existing processes will continue working without any issues.

14.4.3 PeopleSoft LDAP Authentication Incompatible

PeopleSoft LDAP authentication relies on sign-on PeopleCode. However, the authentication services that PeopleSoft provides with Component Interfaces do not invoke sign-on PeopleCode, so you cannot use PeopleSoft LDAP authentication with Oracle Application Adapter for PeopleSoft.

Workaround

None.

14.4.4 Automatic Reconnect to PeopleSoft

Oracle Application Adapter for PeopleSoft does not automatically reconnect when a connection to PeopleSoft becomes unavailable.

Workaround

None.

14.4.5 HTTPS Protocol

Oracle Application Adapter for PeopleSoft does not support the HTTPS protocol for events.

Workaround

None.

14.4.6 PeopleSoft Messages

Oracle Application Adapter for PeopleSoft uses messages only for events and not for services.

Workaround

None.

14.4.7 Limitation with Level 2 Scrolls

PeopleSoft has acknowledged a limitation with Component Interfaces that contain level 2 scrolls. If you try to insert a new row on a level 2 scroll, then a Null Pointer Exception error occurs.

If you receive this error, then you must upgrade your PeopleSoft release level.

This limitation is fixed in PeopleTools Version 8.16.08, and PeopleTools Version 8.17.02 in the 8.1x code line. It is tracked by PeopleSoft Incident T-MZYGAR-2C5YS.

In the 8.4x code line, this limitation is tracked by PeopleSoft Incident T-TCHURY-YZ9FR and is fixed in PeopleSoft 8.41.

Workaround

None.

14.4.8 Limitation with Level 3 Scrolls

PeopleSoft has acknowledged a limitation with Component Interfaces that contain level 3 scrolls. If you try to insert a new row on a level 3 scroll, then a Null Pointer Exception error occurs.

If you receive this error, then you must upgrade your PeopleSoft release level.

This limitation is fixed in PeopleTools Version 8.18 and is tracked by PeopleSoft Incident T-MZYGAR-D2529. However, this is still a limitation in PeopleSoft 8.41 and 8.42 (PeopleSoft Incident T-MZYGAR-3F72X). PeopleSoft has reported that this will be fixed in 8.43 (PeopleSoft incident report, 562734000).

Workaround

None.

14.4.9 Limitation with Effective Dated Scrolls

PeopleSoft has acknowledged that there is a limitation with effective dating and multiple transactions. If you want to insert multiple effective dated rows for the same primary keys, then you must use two separate transactions. This limitation is tracked by PeopleSoft Incident T-ACESAR-BS362.

Workaround

None.

14.4.10 Limitation When Inserting a Second Row for Level 1, 2, or 3 Scrolls

If you are trying to insert a level 1, 2, or 3 scroll and the following conditions exist:

- There is exactly one row for the level 1, 2, or 3 scroll.
- There are required field names that end in a numeric value.

An error message appears, in the following format:

```
This is an invalid property {ADDRESS_1} (91,15)
```

This example was created using the VNDR_ID Component Interface from the Financials application. Note that the actual property name is ADDRESS1.

Workaround

As a workaround, perform the following steps:

1. In the PeopleSoft Application Designer, open the Component Interface with which you are working.
2. Select the property that ends in a numeric value.
3. Right-click and select Edit Name from the context menu.
4. Change the name of the property.

You can select a name that does not end in a number (for example, ADDRESSA), or you can add an underscore (for example, ADDRESS_1).

5. Save the Component Interface.
6. Regenerate the Java APIs for the Component Interface.
7. Use the revised property name in your XML transaction.

14.4.11 PeopleTools Date Format

The YYYY-MM-DD date format does not work for a Component Interface key.

PeopleSoft has acknowledged this limitation for most releases of PeopleTools and has addressed it in the newest releases. For more information, see PeopleSoft Resolution ID 200730918.

Workaround

Use the MM/DD/YYYY format. Alternatively, you can write a PeopleSoft method that takes a date format of YYYY-MM-DD, changes the date to a string, reformats it to DD/MM/YYYY, and passes it to the Component Interface date.

14.4.12 Generating Java APIs

It is possible to create Component Interfaces within PeopleSoft that are internally inconsistent. Inconsistencies have been found in some Component Interface templates that have been delivered by PeopleSoft. Indicators of this problem include errors when generating the Java APIs in the PeopleSoft Application Designer.

If you encounter errors while generating the Java APIs, then the Component Interface is likely to malfunction and can possibly corrupt your database. The correct operation of Component Interfaces when errors appear during API generation cannot be guaranteed. In addition, it is strongly recommended that the source of the errors is fixed before continuing.

Workaround

Fix the Component Interface using PeopleTools.

14.4.13 Differences Between Component Interface Functionality and Adapter Functionality

The differences between Component Interfaces and standard application functionality relating to panel processing have been observed. Among the possible symptoms of these differences are messages such as, "First Operand of . is NULL." Oracle Application Adapter for PeopleSoft should replicate the functionality of a PeopleSoft Component Interface, but only when the Component Interface is run through the PeopleSoft application server in three-tier mode.

If you notice differences between expected Component Interface functionality and adapter functionality, then you must verify that the differences are real by running the Component Interface with the PeopleTools Component Interface test tool in three-tier mode.

Workaround

Test the Component Interface using the PeopleTools Component Interface testing tool in three-tier mode only.

14.4.14 Missing Field Errors When Using a Component Interface

When using a Component Interface, it is difficult to determine which of the required fields are missing when you receive a PeopleSoft error message that states, "The highlighted field is required."

Workaround

You can edit the message in the PeopleSoft message catalog to pass a variable for the field name. For more information, see PeopleSoft Resolution 200731449.

14.4.15 Support for Related Display Fields

Related display fields are not supported by Component Interfaces.

Workaround

For more information, see PeopleSoft Resolution 200731974, which offers several workarounds.

14.4.16 Differences Between Component Interface Functionality and Adapter Functionality

PeopleSoft has acknowledged problems in the Component Interface back-end processor, which will cause the adapter to act differently than the Component Interface test tool in three-tier mode for certain Component Interfaces.

PeopleSoft Case 1965239 describes a problem with the CI_JOB_DATA_HIRE Component Interface in HR 8.1x. In this situation, the NAME field is not populated by PeopleCode correctly. The workaround is to manually populate the NAME field through the XML.

PeopleSoft Resolution ID 200728981 describes a problem with the JOBCODE Component Interface, which does not allow the REG_TEMP field to be changed to empty. As a workaround, customers must upgrade to a later release of PeopleTools.

Workaround

The workaround is dependent on the Component Interface.

14.4.17 Multiple Effective Dated Scrolls

A failure occurs when inserting multiple effective dated rows.

Workaround

If you want to insert multiple effective dated rows for the same primary keys, then you must use two separate transactions. This limitation is tracked by PeopleSoft Incident T-ACESAR-BS362.

14.4.18 Debug Message

For certain releases of PeopleTools 8.4x, you may receive the following message in your debug window:

```
PSProperties not yet initialized!
```

This is a PeopleSoft warning message you can ignore.

Workaround

None.

14.4.19 LOCATION Component Interface

When you attempt to access the LOCATION Component Interface using the Human Resources application, release 8.80.000, a failure occurs during runtime and the following message is displayed:

```
Component Interface Not Found
```

This is due to a problem in the way the PeopleSoft application has been delivered and is not related to the PeopleTools release.

Workaround

Perform the following steps:

1. Open the Component Interface in the PeopleTools Application Designer.
2. Make a small change to the Component Interface.
3. Undo the change.
4. Save the Component Interface.

This procedure resets certain internal PeopleSoft data structures, which enables Oracle Application Adapter for PeopleSoft to find the Component Interface. This has been observed in the LOCATION Component Interface running on the Human Resource applications release 8.8.000 on several different releases of PeopleTools, but it may occur in other Component Interfaces as well.

14.4.20 Component Interface Names

Although PeopleSoft permits Component Interface names that begin with certain special characters (such as an underscore), Application Explorer does not recognize such names.

Workaround

Begin Component Interface names with the letters A-Z or the integers 0-9.

14.4.21 Component Interface Java API Compilation Errors (People Tools 8.46)

When you compile all Java APIs for the Component Interfaces using People Tools 8.46, you may encounter compilation errors with some of the Component Interfaces.

Workaround

You can manually correct the Java source code of the failing Component Interfaces. Alternatively, if the failing Component Interfaces are not going to be used, then remove them from the API build process and do not include them in the build.

14.5 Oracle Application Adapter for SAP R/3: Issues and Workarounds

The following topics discuss issues that pertain to Oracle Application Adapter for SAP R/3 (using SAP JCo 3.x).

- [Section 14.5.1, "Starting Multiple Channels With the Same Program ID"](#)
- [Section 14.5.2, "Supported Versions and Platforms for SAP JCo 3.0.11"](#)
- [Section 14.5.3, "Native IDoc Format Support"](#)
- [Section 14.5.4, "SAP R/3 4.6C Support"](#)
- [Section 14.5.5, "Date and Time Field Mapping"](#)
- [Section 14.5.6, "Intermediate Documents \(IDocs\) During Inbound Processing"](#)
- [Section 14.5.7, "MSVC 7.0 Run-Time Component DLLs"](#)
- [Section 14.5.8, "SAP IDoc Data With DBCS \(Japanese, Chinese, etc.\) Characters Overflows and Truncates Characters"](#)
- [Section 14.5.9, "No Values Set for Code and Details in Binding Fault"](#)
- [Section 14.5.10, "SAP R/3 Adapter Exceptions"](#)
- [Section 14.5.11, "Behavior With Multiple Channels"](#)
- [Section 14.5.12, "Connections Not Listed in SAP Gateway Monitor"](#)
- [Section 14.5.13, "Multithreading Functionality With the Outbound Listener"](#)
- [Section 14.5.14, "Single Sign-On"](#)
- [Section 14.5.15, "Metadata Support"](#)

14.5.1 Starting Multiple Channels With the Same Program ID

Multiple instances are not created for a SAP JCo server implementation. Only one instance is created. As a result, you cannot start multiple channels with the same Program ID in Application Explorer. You can create multiple channels with the same Program ID, but the channels cannot be started simultaneously. For example, if two channels are using the same Program ID, then you must stop the first channel before you can start the second channel.

This limitation is not applicable for runtime scenarios. During runtime, the adapter handles multiplexing channels and Program IDs through the inbound schema validation method. However, this is not supported for Application Explorer runtime.

14.5.2 Supported Versions and Platforms for SAP JCo 3.0.11

The following SAP ERP platforms are supported by the Oracle Application Adapter for SAP R/3 (using SAP JCo 3.0.11):

- SAP R/3 Enterprise 47x100
- SAP R/3 Enterprise 47x200
- mySAP ERP Central Component (ECC) 5.0, deployed on SAP NetWeaver 2004
- mySAP ERP Central Component (ECC) 6.0, deployed on SAP NetWeaver 2004s

The following operating systems are supported by the Oracle Application Adapter for SAP R/3 (using SAP JCo 3.0.11):

- Windows 64-bit (Windows XP, Windows Vista, Windows Server 2003, and Windows Server 2008)
- Linux (Intel processor only) - (64-bit)
- HP-UX PA-RISC - (64-bit only)
- HP-UX Itanium - (64-bit only)
- Solaris - (64-bit only)
- AIX - (64-bit only)

For supported JVM information that corresponds to each operating system, refer to SAP note 1077727 in the SAP Service Marketplace. If a specific JVM is not included on the list of supported JVMs, then it is not supported by SAP.

14.5.3 Native IDoc Format Support

The native IDoc format for inbound processing is not currently supported for 12c Release (12.1.3.0.0). This issue will be resolved by applying a patch in a future release.

14.5.4 SAP R/3 4.6C Support

Oracle Application Adapter for SAP R/3 uses SAP JCo APIs that are provided by SAP. The support for this adapter is paired with the official supported versions of SAP JCo.

SAP R/3 4.6C is out of general maintenance by SAP. Oracle Software can access SAP 4.6C systems using the current SAP JCo API. Adapter service is only provided by the SAP JCo API via the SAP RFC interface. If there are any application processing issues arising because of release compatibility, then the adapter user (customer) is responsible to resolve those issues by consulting with SAP. Oracle Software does not provide support for SAP application or communication compatibility issues for SAP JCo and SAP R/3 4.6C systems.

14.5.5 Date and Time Field Mapping

Oracle Application Adapter for SAP R/3 (using SAP JCo 3.x) only handles date of format "yyyy-MM-dd" and time of format "HH:mm:ss".

Many remotely callable functions have a field that has a DATE format. The DATE field object of an adapter is equivalent to the ABAP DATE object as an 8 byte string with the format YYMMDD. In the SAP GUI, other profiles may be executed that transform the data display in the SAP GUI environment. However, the data is always stored in the DATE object format. For ease of use, the SAP Java Connector (JCo) converts data for DATE objects that also have the format YYYY-MM-DD to YYYYMMDD. A field must have format DATE (ABAP type D) to enable these transformations. RFC and BAPI functions employ fields with type D objects. All data for IDocs is type C (Character) by definition of the EDI_DD40 structure in the ABAP dictionary. Therefore, IDocs only accept the YYYYMMDD format as no conversions are performed on the field.

The TIME field object of an adapter is equivalent to the ABAP TIME object as a 6 byte string with the format HHMMSS. In the SAP GUI, other profiles may be executed that transform the time display in the SAP GUI environment. However, the data is always stored in the TIME object format. For ease of use, the SAP Java Connector (JCo) converts data for TIME objects that also have the format HH:MM:SS to HHMMSS. A field must have format TIME (ABAP type T) to enable these transformations. RFC and BAPI functions employ fields with type T objects. All data for IDocs is type C (Character) by definition of the EDI_DD40 structure in the ABAP dictionary. Therefore, IDocs will only accept HHMMSS as no conversions are performed on the field.

14.5.6 Intermediate Documents (IDocs) During Inbound Processing

When using collected IDocs during inbound processing (service mode) where one XML file contains multiple IDocs, a unique sequence number must be provided to identify each individual IDoc in the sequence. If the SAP application server cannot determine a correct sequence from the collected IDocs, then data from the first IDoc is taken and added (duplicated) to each subsequent IDoc. All data segments in subsequent IDocs in the collected IDoc file are ignored. For more information on this topic, consult the SAP ALE reference documentation.

Encoding

Encoding is a general term encompassing communications, hardware, software and instance documents. Encoding is usually not noticed until it is incorrect, when a document contains invalid characters with blank spaces or “?” or “#” characters. There are several areas to examine when investigating an encoding issue:

- Communications Channel

The communications channel encoding between the SAP server and the client machine is managed by the SAP server. The relevant client libraries query the client machine for the encoding setting and configure the communication with this information

- Hardware

The client machine encoding can be determined via the Windows Control Panel Applet “Region and Language” or the “Set_Locale” environment variable on Unix or Linux machines. When using the “Set_Locale” variable, the actual Locale files must be present on the client machine. On Windows machines, the required language pack must be installed.

- Software

Character sets are the characters or symbols of a given language or languages, and the numeric value that is used by the client machine to map data to the correct character or symbol. Data is represented in character sets and encoding is the means of transmitting this information to another character set, either local or remote. If a given character has a correct numeric value, but a missing symbol, then this results in the common convention of using “?” for the character. The resolution may be as simple as switching to a different encoding. There is also a chance that fonts, which are used to render characters or symbols on a screen or paper, do not have the correct representation or any representation for a given numeric value. This also must be checked.

A source of encoding confusion that is often overlooked is the JVM encoding, which can prevail if a document is missing an encoding statement. Missing encoding declarations can occur and unless a specific application catches this,

often the JVM encoding is used as the encoding, Always check the JVM encoding parameters if an encoding issue occurs to ensure that this issue is not the cause.

- Instance Document

The XML header declaration contains an encoding statement. It should be remembered that it is a declaration, not a promise. A document may state “UTF-8” but be saved in “ASCII” or some other format. Mismatched document encoding is a common mistake that usually can be resolved by opening it in an editor that supports saving in different encodings and save to the declaration statement. However, always ensure when saving to a given encoding that all characters are present and correct after the save.

14.5.7 MSVC 7.0 Run-Time Component DLLs

SAP JCo 3.x requires Microsoft C++ runtime libraries to execute on Windows platforms (32- and 64-bit). Go to the SAP Service Marketplace and navigate to SAP note 684106. This note contains the downloads for the C++ runtime libraries. Download the library that corresponds to the installed operating system under which the SAP JCo will execute (32- or 64-bit).

- SAP JCo 3.x requires the Microsoft 2005 C++ runtime libraries.

If you receive an “invalid side by side execution version” error, or the SAP JCo will not load, then regardless of the version that is used, you must install the patch located at the following URL:

<http://www.microsoft.com/technet/security/bulletin/MS09-035.msp>

For SAP JCo 3.x, you must always apply the patch as well as the run time libraries.

Note: A 32-bit JVM and C++ runtime libraries can be run on a 64-bit machine, as long as all pathways are 32-bit (JVM, library, and any other executables for the session; 64-bit components can only run on 64-bit devices). No 32-bit components can be referenced in the LD_LIBRARY_PATH or PATH environment variables in a 64-bit environment. Inserting 32-bit components into a 64-bit environment variable results in errors that consist of “wrong ELF class” or “class cannot be loaded” messages.

14.5.8 SAP IDoc Data With DBCS (Japanese, Chinese, etc.) Characters Overflows and Truncates Characters

SAP IDoc data with Japanese DBCS characters overflows and truncates characters in all BSE and J2CA events and services.

Explanation:

This issue only occurs on non-Unicode SAP MDMP environments, where one character can be two or more bytes. As an example of this issue, when using Japanese, the SAP field length is four characters. The English word “ball” fits correctly into the field because one character equals one byte. The Japanese word for ball in Shift-Jis encoding is three characters, but two bytes per character, so the last character is truncated and the last character appears in the next field. Since IDocs are positional delimited, this can cause errors in processing. This occurs because SAP uses character length, not byte length for all non-Unicode field lengths. There is no work around on this issue other than using Unicode or using shorter text in IDocs in DBCS.

14.5.9 No Values Set for Code and Details in Binding Fault

If you use the wrong request XML to invoke a SAP outbound process in Oracle BPEL Console, then the instance will be faulted and a binding fault will be thrown. Log in to the Oracle BPEL Console, select the faulted instance, and then click **Audit**. No values are set for Code and Details in the binding fault.

Workaround

None.

14.5.10 SAP R/3 Adapter Exceptions

During outbound processing, instead of receiving adapter exceptions from the BPEL or Mediator layer in the Enterprise Manager (EM) console, you can perform the following steps to receive adapter exceptions in XML format:

1. Open Application Explorer and connect to a configuration.
2. Expand the MySAP adapter node to view the available targets.
3. Right-click an available MySAP target node and select **Edit**.
The Application Server dialog displays the target connection information.
4. Click the **Advanced** tab.
5. From the Error Handling list, select **Creates Error Document**.
6. Click the **User** tab.
7. In the Password field, type a valid password for the SAP R/3 application.
8. Click **OK**.
9. Close Application Explorer.

Oracle BPEL or Mediator generates the error message in the response XML document. For example, if you use the GetDetail method for the CompanyCode SAP BAPI in your outbound processing, the following error message is shown in the XML response:

```
<companycode_get_detail_
oct24ProcessResponseurn:sap-com:document:sap:business.responsehttp://xmlns.orac
le.com/companycode_get_detail_oct24>
<COMPANYCODE_ADDRESS> </COMPANYCODE_ADDRESS>
<COMPANYCODE_DETAIL> </COMPANYCODE_DETAIL>
<RETURN>
<TYPE>E</TYPE>
<CODE>FN020</CODE>
<MESSAGE>Company code 1010 does not exist</MESSAGE>
<LOG_MSG_NO>000000</LOG_MSG_NO>
<MESSAGE_V1>1010</MESSAGE_V1>
</RETURN>
</companycode_get_detail_oct24ProcessResponse>
```

14.5.11 Behavior With Multiple Channels

When different channels are created using identical connection parameters (server, gateway, and program ID) the SAP gateway automatically enters load balancing mode. The load balancing algorithm is determined by the gateway profile configuration during gateway installation. Typically these include least used, lightest load, or several other SAP selections. If you are intentionally setting load balancing,

then consult the gateway manager for the proper procedure to configure the adapter and Oracle instances to take advantage of load balancing features on the system. If load balancing is accidentally triggered by configuration errors, then it can result in missing messages (sent to another server) or wrong destination.

For example:

Shipping selects server A1 with gateway 01 and program ID MyProg.

Purchasing selects server A1 with gateway 01 and program ID MyProg.

Shipping sends ten messages and only six appear at the BPEL process.

Purchasing sends ten messages and only five appear at the BPEL process.

Shipping cannot understand what happened to four missing messages.

Shipping cannot understand why they have five purchasing messages.

The same applies for Purchasing.

Workaround

Change the program ID to a unique key for each department, as this is not a load balanced scenario.

14.5.12 Connections Not Listed in SAP Gateway Monitor

There are some occurrences when connections being made to SAP R/3 using Application Explorer are not listed in the SAP Gateway Monitor (transaction SMGW). This issue pertains to Oracle Application Adapter for SAP R/3 (using SAP JCo 3.0).

The adapter does not connect directly to the SAP R/3 system, but to the SAP JCo. Since the SAP JCo manages the connections to SAP R/3, and most connections are rapid and transient, most client (inbound) connections to SAP R/3 do not display in the SAP Gateway Monitor (transaction SMGW). Regular SAP JCo and RFC client traces are available from the client tracing options as described in the *Oracle Fusion Middleware Application Adapter for SAP R/3 (SAP JCo 3.0) User's Guide*. Server connections are persistent and are listed under "logged on Clients" in transaction SMGW.

14.5.13 Multithreading Functionality With the Outbound Listener

The adapter usually attempts to start three threads for each SAP outbound event channel. This is performance consistent with the SAP Gateway model, where only one thread is active at a time to emit. However, in the adapter one thread is emitting, one thread is writing, and one thread is in cleanup. If the gateway administrator enables multithreading on a particular program ID, then multiply the threads by three when setting the threads for maximum performance.

14.5.14 Single Sign-On

SAP supports single sign-on by means of authentication tickets created in its own programs. Currently, there is no single sign-on support between Oracle Application Servers and SAP ERP systems.

14.5.15 Metadata Support

SAP ERP Version 6.0 introduced many new data structures, such as deep (multi-level) structures, nested structures (structures where each column is itself a structure), and

tables of such data structures. Currently, only deep and nested structures are supported. Nested tables or line types are currently not supported by the adapter.

14.6 Oracle Application Adapter for Siebel: Issues and Workarounds

The following topics discuss issues that pertain to Oracle Application Adapter for Siebel.

- [Section 14.6.1, "Additional Configuration in the Siebel Environment"](#)
- [Section 14.6.2, "Service and Integration Nodes"](#)
- [Section 14.6.3, "Automatic Reconnect to Siebel"](#)
- [Section 14.6.4, "Updating or Deleting Siebel Records Using Oracle Application Adapter for Siebel"](#)
- [Section 14.6.5, "Adapter Exception Error If Siebel Request Document Contains Japanese Characters"](#)
- [Section 14.6.6, "HTTPS Protocol"](#)
- [Section 14.6.7, "Multi-Value Groups"](#)
- [Section 14.6.8, "BPMN Properties Adjustment"](#)

14.6.1 Additional Configuration in the Siebel Environment

Some out-of-the-box Siebel business services may require additional setup steps in the Siebel environment before they can be run successfully. For example:

- When using a business service such as EAI XML Converter, before generating the XSD for the integration object, you should use Siebel tools to remove the 'xml container element' tag in the integration components you plan to use.
- When building a solution with the EAI dispatch service business service, you may need to set up a named subsystem to handle HTTP requests.

14.6.2 Service and Integration Nodes

Service nodes and Integration node can be created using only alphanumeric characters and "-" "_". No other special characters are allowed.

14.6.3 Automatic Reconnect to Siebel

When connecting to Siebel using the Java Data Bean Interface, you cannot reconnect after initial connection loss. This might occur when Application Explorer experiences a brief loss of network connection or if the Siebel Server or Gateway Service is restarted while Application Explorer is logged into the Siebel application.

Workaround

To log in successfully to the Siebel application, restart your application server and Application Explorer. This is a known Siebel API issue. For more information, see Siebel Alert 984.

14.6.4 Updating or Deleting Siebel Records Using Oracle Application Adapter for Siebel

If you are logged in as a Siebel user that does not belong to the team that owns the record being updated or deleted, then you cannot perform the action. By default, the adapter is set to 'My' view. However, in Siebel Access Control there are other views,

such as 'All' view and 'Organization' view. Therefore, even if the user does not belong to the team and the record is not visible in 'My' view, the user may be able to update or delete the record through another view in the Siebel front end. This is not possible through the adapter. The adapter requires that the user is part of the team of the record being updated or deleted.

Workaround

There are two possible workarounds:

- Log in through the Siebel adapter as a user that is already part of the team that owns the record you need to update or delete.
- Add the user to the team that owns the record you need to update or delete.

14.6.5 Adapter Exception Error If Siebel Request Document Contains Japanese Characters

An adapter exception error is returned if the Siebel request document contains Japanese characters in J2CA. The same request works in BSE.

Workaround

This will be fixed in a future release.

14.6.6 HTTPS Protocol

Oracle Application Adapter for Siebel does not support the HTTPS protocol for services and events.

Workaround

None.

14.6.7 Multi-Value Groups

Oracle Application Adapter for Siebel does not support Multi-Value Groups (MVG) with join specifications.

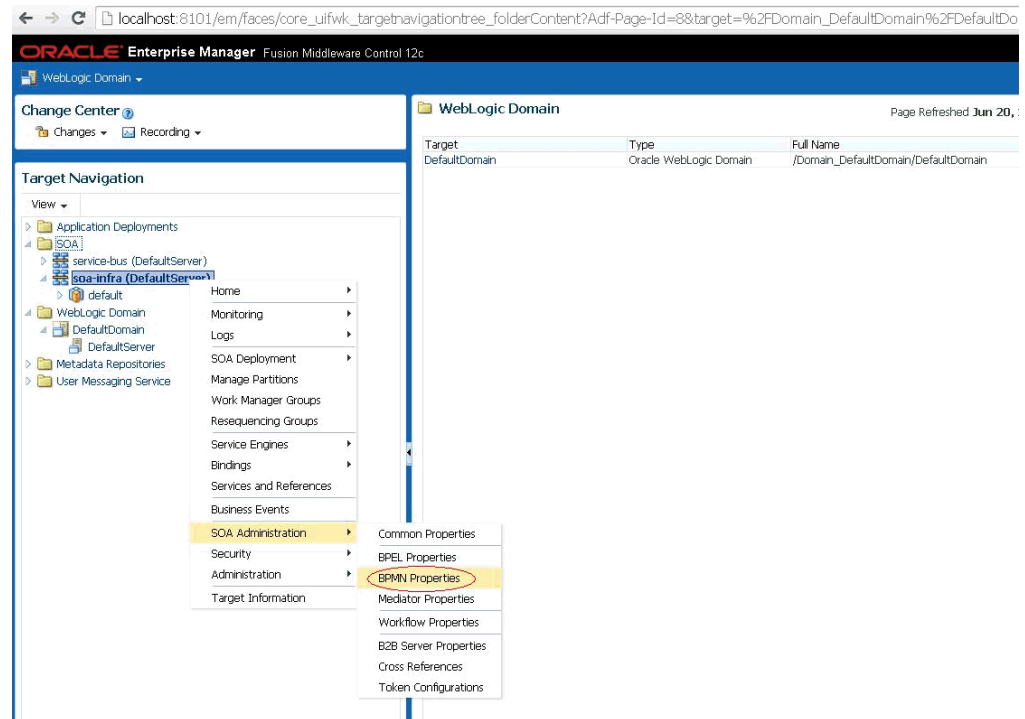
Workaround

None.

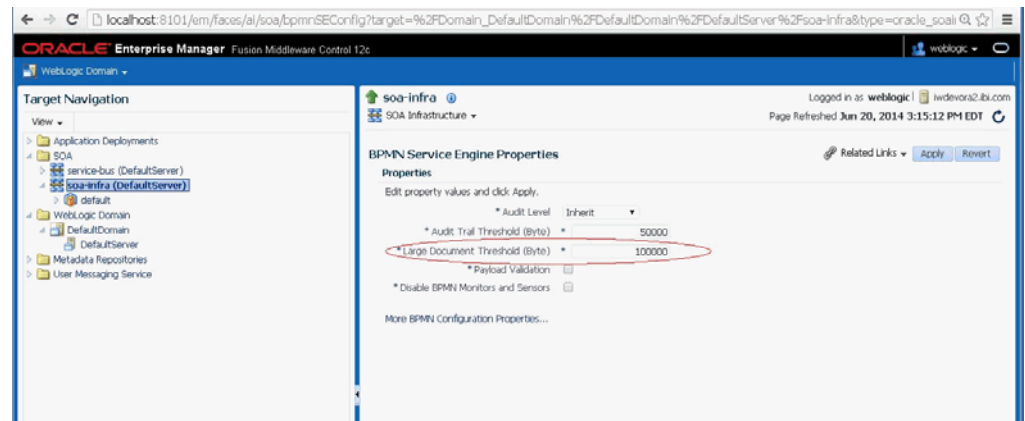
14.6.8 BPMN Properties Adjustment

For inbound processing, if the size of the XML response event message is close to 1 MB or greater, then perform the following steps.

1. Log on to the Enterprise Manager console.
2. Right-click **soa-infra (DefaultServer)** in the left pane, select **SOA Administration**, and then click **BPMN Properties**, as shown in [Figure 14-7](#).

Figure 14–7 Enterprise Manager Console

3. In the BPMN Service Engine Properties pane, provide a value for Large Document Threshold (Byte) parameter, as shown in Figure 14–8.

Figure 14–8 BPMN Service Engine Properties Pane

14.7 Oracle Application Adapter for J.D. Edwards OneWorld: Issues and Workarounds

The following topic discusses issues that pertain to Oracle Application Adapter for J.D. Edwards OneWorld.

- [Section 14.7.1, "Platform Support"](#)
- [Section 14.7.2, "J.D. Edwards OneWorld Unit Of Work \(UOW\)"](#)

14.7.1 Platform Support

For the Oracle 12c Release (12.1.3.0.0), Oracle Application Adapter for J.D. Edwards OneWorld is certified only with Windows and Oracle Enterprise Linux platforms. This adapter is not certified and supported on any other platforms for the Oracle 12c Release (12.1.3.0.0). If support on any other platforms is required for this adapter, then contact Oracle customer support.

14.7.2 J.D. Edwards OneWorld Unit Of Work (UOW)

The following section provides information on the J.D. Edwards OneWorld Unit of Work (UOW).

1. Oracle recommends you to generate individual business functions of J.D. Edwards OneWorld and then group them together.
2. Generating the individual business functions and grouping them together is completely based on the experience and knowledge related to the business functions of J.D. Edwards OneWorld. There is no documentation on generating the UOW.
3. To create the XML Schema Document (XSD) files that can be used for UOW, perform the following steps:
 - a. Trigger the appropriate event from the J.D. Edwards OneWorld GUI and generate an XML output file based on the event.
 - b. Using the XML file, create an XSD file using an XML editor, such as XMLSPY.
 - c. When creating the XSD, make sure that the XSD satisfies the SOA 11g namespace requirements. Manually add the namespace, target namespace, and other items that are required for SOA 11g.
4. Once generated, copy the XSD files for the UOW into the repository folder. This repository folder is automatically configured on your file system when a J.D. Edwards OneWorld target is created using Application Explorer.