Agile Enterprise Integration Platform

ORACLE

Frequently Asked Questions

Enterprise Integration Platform 2.1.2 SAP-Link 4.1.2

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PREFACE

The Agile documentation set includes Adobe® Acrobat[™] PDF files. The Oracle Technology Network (OTN) Web site (http://www.oracle.com/technology/documentation/index.html) contains the latest versions of the Oracle|Agile PLM PDF files. You can view or download these manuals from the Web site, or you can ask your Agile administrator if there is an Oracle|Agile Documentation folder available on your network from which you can access the Oracle| Agile documentation (PDF) files.

Note To read the PDF files, you must use the free Adobe Acrobat Reader[™] version 7.0 or later. This program can be downloaded from the Adobe Web site (http://www.adobe.com).

The Oracle Technology Network (OTN) Web site (http://www.oracle.com/technology/documentation/index.html) can be accessed through **Help** > **Manuals** in both the Agile Web Client and the Agile Java Client. If applicable, earlier versions of Oracle|Agile PLM documentation can be found on the Agile Customer Support Web site (http://www.agile.com/support).

If you need additional assistance or information, please contact support@agile.com or phone (408) 284-3900 for assistance.

Note Before calling Agile Support about a problem with an Oracle|Agile PLM manual, please have ready the full part number, which is located on the title page.

Readme

Any last-minute information about Oracle|Agile PLM can be found in the Readme file on the Oracle Technology Network (OTN) Web site (http://www.oracle.com/technology/documentation/index.html).

Agile Training Aids

Go to the Agile Training Web page (http://training.agile.com) for more information on Agile Training offerings.

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Chapter 1 Starting

- Q 1: When starting up the EIP, I am receiving an error from the Agile e6 connector with a "Server terminated with exit code 0 [err=102]" message inside. What can I do?
- A: This is caused by specifying the wrong environment (env) inside the eai_ini.xml file. Please use a valid one and retry.
- Q 2: When starting up the EIP, I receive an error from the Agile e6 connector with a "Not an admin request [err=902]" or a "Could not create a socket! [java.net.ConnectException: Connection refused: connect]" message inside. What can I do?
- A: This is caused by specifying the wrong port number (socket) inside the eai_ini.xml file. Please use a valid one and retry.

Q 3: When starting up the EIP, I have problems with the Message Queue. What can I do?

A: When having too many entries in the message queue, starting up the Queue takes longer. When enough time (queue-timeout) is configured in eai_ini.xml, startup might fail with the error:

Unable to create controller queue because of queue timeout (increasing the value of queue-timeout in the configuration file might help).

In this case, you need to increase the value <queue-timeout> in the <controller> section in the configuration file eai_ini.xml. The default value is 30 seconds.

- Q 4: Calling the synchronous connector from Agile e6 (e.g. Query Item) leads to an error.
- A: Check whether the connection parameters are configured correctly inside Agile e6. The connection parameters are available as DataView Defaults (EIP-SYNC-HOST and EIP-SYNC-PORT). Also, make sure that the Synchronous Server is running (check startup messages when starting Integration Platform Manager).
- Q 5: When starting up the Integration Platform, I get the error "Error creating server socket". What can I do?
- A: You are trying to run multiple instances of the Integration Platform on one box. Therefore, the port where the admin server (needed by the Administrator application) is running needs to be different for each running instance. Please edit eai_ini.xml, and change or add the configuration parameter admin.port> to the controller section (the default port is 9876). If you want to use the Administrator as well, please change or add the configuration parameter eip-port in the admin section.
- Q 5: When starting up the Integration Platform, I get the error "javax.xml.parsers.FactoryConfigurationError: Provider null could not be instantiated: java.lang.NullPointerException". What can I do?

A: The XML Parser could not be configured properly. Please have a look inside the file xerces.properties located in the jre/lib directory of your Java installation. If the last line is uncommented, please remove the comment character or add the following text on a new line:

org.apache.xerces.xni.parser.XMLParserConfiguration=org.apache.xerces.parsers.XML11Conf
iguration.

- Q 1: When using a synchronous connector, no message XDOs are shown in the internal queue of the Integration Platform.
- A: The synchronous connection does not use the internal queue for performance reasons.

Q 2: I want to see the data, which is transferred by the Integration Platform.

- A: When turning on the DEBUG mode in element <controller/trace-level) in the eai_ini.xml file, the content of the XDOs (in certain stages) are written to files in the directory <eai.home>/tmp, e.g. bo_request.xml.
- Q 3: How can I pass information from Agile e6 to the Integration Platform, without having it available in a field in an Agile e6 form e.g. as additional mapping information?
- A: It is possible to provide additional parameters to the Integration Platform in the field Parameters in the Agile e6 Transfer Queue. The name-value pairs must follow the convention *name=value; name=value* etc.

Q 4: What mapping capabilities do I have?

A: Mapping is done by means of XML style sheets (XSL) and therefore provides all functionality of XSL. Furthermore, XSL files can also utilize JavaScript and Java for complex mapping. JavaScript examples are already included in the standard mapping files.

Q 5: How can I test my mapping without using the Integration Platform?

A: There are several XSL-Editors available on the market, which might be helpful for editing and testing XSL Mappings:

XML-Spy Version 5 allows to edit and test XSL mapping (www.xmlspy.com)

XML-Origin allows editing and testing XSL. Furthermore, it provides an XSL Debugger in order to step through your XSL mapping file (www.xmlorigin.com)

Cooktop is another (free) tool which allows to edit and transform XML (www.xmlcooktop.com)

catchXSL is a tool, which can be used for profiling your mapping i.e. allows to check the performance of the mapping (www.xslprofiler.org/)

- Q 6: The performance when transferring data from Agile e6 to EIP is very slow.
- A: The Agile e6 connector uses DataView forms (as defined in the IEF Format List and eai_ini.xml) for reading the data from Agile e6 via the XML-Interface. It should be checked that that these DataView forms

perform well even inside the DataView Client. Wrong or complex Join-Statements or usage of fields from other tables can cause a huge performance loss.

Q 7: I still have performance problems. How can I check which steps of the transfer don't perform well?

A: It is possible to activate the Profiling functionality, which provides information on how long each one of the transfer steps takes. Just add following element to the <controller> section of your configuration file eai_ini.xml :

<profiler>true</profiler>

In the trace log, you see additional profiling entries like in the following example:

[<date>] INFO (Profiler) - >>> Profiling started on operation "ControllerQueue::clear" [<date>] INFO (Profiler) - <<< Done profiling on operation "ControllerQueue::clear": 0 h 00 min 00 s 341 ms.

Q 8: How can I use special characters in the XSL mapping file?

- A: The XSLT Processor (here XALAN) escapes all special characters when the output format is set to XML (xsl:output). In order to disable the escaping in an XSL statement (e.g. xsl:value-of or xsl:text) you can set the attribute disable-output-escaping="yes".
- Q 9: When using the synchronous mode from the Agile e6 Java Client or the Agile e6 Web Client to query data into a mask, the message "Invalid widget data for widget XXX!" is issued.
- A: You should add a "dummy" Pre-Mask-UserExit to the mask (e.g. LIST) because otherwise the data are tried to fetch before they have been retrieved.

Q 1: The Agile e6 connector cannot connect to Agile e6.

A: Try to connect to the Agile e6 Java Daemon from an Agile e6 Java Client. If this works, use the same parameters for the Agile e6 connector (in eai_ini.xml).

Q 2: After transferring an Agile e6 document to R/3, it cannot be displayed with Document/Query.

A: R/3 expects a 3-letter document part and a 2-letter document version. If this is not provided correctly, the R/3 connector cannot retrieve the existing document. Solution: adapt mapping for document update and query or maintain the same field length in the Agile e6 document record (e.g. Document Version is: 00).

Q 3: How can I test whether an R/3 BAPI works as expected?

A: BAPIs can also be tested interactively inside R/3. The transaction SE37 allows starting a BAPI and providing the input parameters.

Q 4: How can I test just the R/3 or Agile e6 connector (independent of each other)?

A: XML-Files can be used as source for testing the application connectors. The format of the XML files has to be as expected by the target application connector e.g. R/3 connector.

Q 5: When connecting to Agile e6 from the Agile e6 connector I get a license error, although all necessary Felics licenses are installed.

A: The licenses have explicitly to be assigned to the interface inside Agile e6. This can be done in the "Available Licenses" screen. After activating the licenses, you have to reconnect to Agile e6 to make the changes effective.

Q 6: How can I activate changes in Agile e6 masks for the Integration Platform? Disconnecting the Integration Platform from Agile e6 does not help.

A: Since the Agile e6-connector uses a background process started by the Java-Daemon, just disconnecting the Agile e6 connector from Agile e6 does not help. The background process still runs for another while and is reused, when the Agile e6 connector connects again. In order to activate customizing changes inside Agile e6, there are two options:

Kill the Agile e6 background process before connecting again

Or even better, restart the Java-Daemon, which enforces the usage of a new background process the next time the Agile e6 connector opens a connection.

Note: Starting with EIP 2.0, this should be obsolete since the connector always starts a new background process.

Q 7: When trying to read data from axalant or Agile e6, I get the error "RepositoryException: Too may elements". What is the reason for that?

A: Please verify that the table T_EER_SEN is of type T (table) and not F (foreign table). If the type is still F, you probably failed to import the loader files correctly. You may try to change the type to T by deleting the contents of the table, set the type to T, delete the table and re-create it.

It is also possible, that there may be a wrong join definition on the transfer queue mask (EDB-EIP-SEN-SLI). Please verify this by opening and refreshing the mask in interactive mode.

Q 8: When using the synchronous Agile e6 connector to query for data, I receive the error message "Error connecting to Integration Platform". How can I resolve that?

A: This error message occurs when the Eigner Integration Platform that is specified in the defaults EIP-SYNC-HOST and EIP-SYNC-PORT is not reachable. Please make sure that these values are correct and the Integration Platform is up and running with these values. You may also access these values by "Manager - > Integration Platform -> Setup Synchronous Server".

To verify if the synchronous connection is using the correct host and port, you may activate the module trace for module EER ("Tools -> Trace -> Select Module" and "Tools -> Trace -> Trace new/append"). The trace contains the used values for the connection to the synchronous PLM connector.

Q 9: When transferring a document with a file to SAP, I get the error message "I::000" in the transfer queue. How can I resolve that?

A: This error message occurs when the type of the file is not given. You have to specify it in the file entry of the document mask. Please make also sure that it is covered by the transformation files (e.g. axa_r3.xsl).

Q 10: When checking out a document with a file from SAP, I get the error message "I::001" in the transfer queue. How can I resolve that?

A: This error message occurs when program SAPFTP is not installed in a directory that is listed in the PATH environment variable. You may download this from the SAP web site and install it in <eai-home>/bin/<EIP_MACH>.

Q 11: How do I transfer classification data from Agile e6 to SAP?

- A: If you are not using the AutoBOM solution, you should add the field V_GRP_FLD.C_TITLE to the respective classification list. Please make also sure that it is covered by the transformation files by activating the element <CHARACT> in the corresponding Stylesheet section (e.g. axa_r3.xsl). For an example, see the mapping definition for ITEM-CLASS/CREATE in axa_r3.xsl.
- Q 12: When trying to check in a file in SAP, I get an error with the number 26128 ("Error uploading ..."). What does that mean?

- A: The reason for this message is that the Agile e6 connector is not able to check out the file from FMS because either the Vault Node (host name) or the Vault Network Reference (RPC port) is not correctly set in the FMS-Vault configuration.
- Q 13: When trying to transfer data from Agile e6, I get the following error in the transfer queue: "No data read; please check your query conditions (e.g. preliminary flag)". How can I resolve that?
- A: You may either have constraints defined on the mask used for reading the data (wrong Join Condition or PreMask-UserExit), or you may have a mismatch between the preliminary flag in the transfer queue and the preliminary flag on the data record.
- Q 14: When using SAP-Link on AIX, I get the following error message: "java.lang.ExceptionInInitializerError: JCO.classInitialize(): Could not load middleware layer 'com.sap.mw.jco.rfc.MiddlewareRFC' Can't find library sapjcorfc (libsapjcorfc.a or .so) in sun.boot.library.path or java.library.path". How can I resolve that?
- A: The SAP JCo native library libsapjcorfc had been built by SAP for an IBM JVM 1.3. With Java 1.4, the extension changed from .o to .so. Please copy the file libsapjcorfc.o to libsapjcorfc.so in the directory <eai-home>/libs/rs6000-ibm-aix4.3.
- Q 15: When transferring an item from e6 to SAP, I get the message "Message for BAPI_MATERIAL_SAVEDATA: (MG148) No description transferred". How can I resolve that?
- A: SAP requires that the description field is not empty. You need to provide an item description/name in e6 (field T_MASTER_DAT.PART_NAME).
- Q 16: When trying to create a relation via EXI, I get the following error message: "com.eigner.exi.EXIOperationException: Unable to save records for operation: create". How can I resolve that?
- A: With EXI, the system fields are visible in the masks. The same error occurs with the DTV-Client if the system fields are visible (CTRL-A) and the child record is selected via post field userexit. It seems there is a bug in cch_get_rec post field userexit. As a workaround, please use xedb_get_rec instead of cch_get_rec.

Chapter 4 BPM Connector

- Q 1: When starting the BPM connector, I get the error message "com.eigner.bpm.common.BpmException: Invalid component 'xxx' in process: yyy". How can I resolve that?
- A: Please make sure that the component is a valid connector from the eai_ini.xml. This connector must be set active and it must be included in an active workflow (where the source is the BPM connector and the target is the component).
- Q 2: When using expressions in conditions, I get a parsing error. How can I resolve that?
- A Please check, if the data types that are to be compared are matching. E.g., if the right side of a comparison is a string, the left side must also be a string. To sign a value as a string, it must be surrounded by single quotes. This especially applies to values returned by the function getVariableData().

Chapter 5 Technology Connectors

Q 1: When trying to access a web page served by the EIP internal web server, I get "HTTP error 404: Not Found". How can I resolve that?

A: You are trying to access a web page, whose URL (Unique Resource Identifier) is not found. Please check, if the URL is correct for the connector you are trying to use. For the HTTP connector, the URL consists of the web server's name (if run locally, localhost may be used), the web server's port (as specified at the web server's port configuration value in the eai_ini.xml), the connector's context (as specified at the HTTP connector's name (as specified at the HTTP connector's name (as specified at the HTTP connector's name configuration value in the eai_ini.xml).

For the values of localhost (web server name), 8080 (web server port), eip (connector context) and http (connector name), the URL reads: http://localhost:8080/eip/http. Please note that there is no slash at the end of the URL since it does not point to a directory but to a servlet.

- Q 2: When trying to access the HTTP connector's main page (e.g. under http://localhost:8080/eip/http), I get "HTTP error 405: HTTP method GET is not supported by this URL". How can I resolve that?
- A: The HTTP connector is used as source connector and is only capable of receiving POST requests with the data it should process. GET requests are normally done to receive data from a web site, which is not possible with the HTTP connector.
- Q 3: When accessing the EIP's services web page (e.g. under http://localhost:8080/axis/), I get "HTTP error 500: Unable to compile class for JSP". How can I resolve that?
- A: Your environment variable JAVA_HOME points to the installation of a Java Runtime Environment (JRE) instead of a Java Development Environment (JDK). In a standard JRE, the file tools.jar containing the Java Compiler is missing. Either you install a JDK, or you copy the file tools.jar from a JDK to the JRE's lib directory.
- Q 4: When trying to send data to an EIP web service or when trying to list the web services via the EIP's service web page (e.g. http://localhost:8080/axis/servlet/AxisServlet), I get an error that the service is not found. How can I resolve that?
- A: Please check if all services are configured with their connector, each connector is active and in a workflow, and the file server-config.xml in the directory axis/WEB-INF (under the webapps directory that is configured in the controller's configuration in the eai_ini.xml) does contain all the needed services. If a service is missing in the file, please check the configuration, delete the file, and restart the EIP.

Chapter 6 Miscellaneous

Q 1: Which TELNET tool should I use for remote access to EIP?

A: There were several problems with using the MS-Windows Telnet tool when logging on to the EIP UNIX server for starting up the EIP. Sometimes the EIP was stopped because a CTRL-C was sent by the tool. It is recommended to use another Telnet tool for that purpose, e.g. NCD PCX-Ware. In addition, some X-Emulation Tools like Excursion can lead to problems especially when using the Admin-GUI or Encryption GUI.

Q 2: How can I change the startup parameters of the Java Virtual Machine, which is used for the Integration Platform? I got an OutOfMemory message when using very large XDO messages.

A: The file conf/eip.conf allows you to modify the startup parameters of the Java Runtime Environment. For example, the parameter wrapper.java.maxmemory allows you to change the amount of allocated memory. You may also want to copy these parameters (wrapper.java.maxmemory and wrapper.java.initmemory) to the application specific configuration file (e.g. admin.conf) to set this individually for each application.

Q 3: I have some problems with the Integration Platform (wrong data, mapping or some exceptions). What information do I need to send to Agile Support to get appropriate help?

- A: There are several files, which might be helpful for identifying problems:
 - 1. The configuration file *eai_ini.xml* in *<eai.home>/conf*
 - 2. The respective mapping files, e.g. axa_r3.xml in <eai.home>/conf
 - 3. The log file *eai.log* in *<eai.home>/log*

4. The XDO Backup Files, e.g. *bo_request.xml* in *<eai.home>/tmp*. These backup files are only written if the DEBUG option is turned on. The debug option is turned on in the configuration file *eai_ini.xml* in the section *<eai_root/controller/log>* e.g.

```
<log active="true">
...
<level>DEBUG</level>
...
</log>
```

Q 4: It takes quite long to start up the Integration Platform. How can I minimize the startup time?

A: Especially in production environments, it is recommended to remove unnecessary entries from the configuration file eai_ini.xml. You should remove all connector, pipe and workflow entries, which are not used by the current instance of the EIP. In addition, you should also remove Business Object / Verb definitions, which can be configured for some of the connectors (Agile e6, R&3), but are not used. This will also reduce the startup time of the respective connectors.

Q 5: In the profiling trace I can see that each single EIP operation takes very long. How can I optimize the overall performance?

A: When starting up the Java Virtual Machine (JVM), it is possible to influence its behavior. On AIX, we experienced some negative impact on the performance especially when transferring the first few records. With its IBM JVM, the Just-In-Time Compiler (JITC) is activated by default. When specifying the Quickstart option, we realized a significant performance improvement. You may even want to disable the JITC although this is not recommended by IBM and does not further improve the performance.

To set these options for IBM's JVM, please edit the file conf/eip.conf and add or change the setting wrapper.java.additional.2 to one the following values (JITC means Just In Time Compiler):

JITC activated:	wrapper.java.additional.2=
Quickstart with JITC:	wrapper.java.additional.2=-Xquickstart
JITC deactivated:	wrapper.java.additional.2=-Djava.compiler=NONE

For another JVM, please refer to its documentation.