

Agile
Enterprise Integration Platform

ORACLE

Oracle® Agile Engineering Data Management

Upgrade Manual for Enterprise Integration Platform
2.2.1

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Preface

The Oracle documentation set includes Adobe® Acrobat™ PDF files. The [Oracle Technology Network \(OTN\) Web site](http://www.oracle.com/technology/documentation/agile.html) (<http://www.oracle.com/technology/documentation/agile.html>) contains the latest versions of the Oracle Agile EDM 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 Documentation folder available on your network from which you can access the 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) (<http://www.adobe.com>).

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

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Readme

Any last-minute information about Oracle Agile EDM can be found in the Release Notes file on the [Oracle Technology Network \(OTN\) Web site](http://www.oracle.com/technology/documentation/agile.html) (<http://www.oracle.com/technology/documentation/agile.html>)

Agile Training Aids

Go to the [Oracle University Web page](http://www.oracle.com/education/chooser/selectcountry_new.html) (http://www.oracle.com/education/chooser/selectcountry_new.html) for more information on Agile Training offerings.

Accessibility of Code Examples in Documentation

Screen readers may not always correctly read the code examples in this document. The conventions for writing code require that closing braces should appear on an otherwise empty line; however, some screen readers may not always read a line of text that consists solely of a bracket or brace.

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Overview

This document should guide through an upgrade from previous versions of the Enterprise Integration Platform.

Each chapter describes the upgrade from one major version to the next one, e.g. from 2.1 to 2.2.

For changes in minor versions, please refer to the respective Release Notes documents.

Chapter 2

Upgrade Tool

The Upgrade tool allows upgrading previous versions of the eai_ini.xml file to the current EIP version.

The tool can be started with the script upgrade.cmd (Windows) and upgrade.sh (UNIX) in the *bin* directory.

The following startup options are available (you will get this by adding the --help option to the startup script):

```
Usage: Enterprise Integration Platform Upgrade [-c <conf-dir> ] [-h] -i
<in> -o <out> [-p <props-file> ] [-x <xsl> ]
```

Options:

-c		--conf-dir	Specifies the configuration directory
-h		--help	Shows this help
-i		--in	Input file (REQUIRED)
-o		--out	Output file (REQUIRED)
-p		--props-file	Specifies the properties file
-x		--xsl	XSL file (default: upgrade.xsl)

This is an example on how the tools might be called on Windows:

```
bin\upgrade.cmd -i C:\eigner\eip-old\conf\eai_ini.xml -o C:\eigner\eip-
new\conf\eai_ini.xml
```

The Upgrade tool may provide the following output:

```
[<date>] FORCE (Upgrade) - Input file (2.1.1) : C:\eigner\eip-
old\conf\eai_ini.xml
[<date>] FORCE (Upgrade) - Transformation file: C:\eigner\eip-
new\conf\upgrade.xsl
[<date>] FORCE (Upgrade) - Output file (2.1.2): C:\eigner\eip-
new\conf\eai_ini.xml
[<date>] FORCE (Upgrade) - Transformation done in 0 h 00 min 00 s 297
ms
```


Chapter 3

EIP 2.1 to 2.2

General information

This document should help you with the installation of the Enterprise Integration Platform Version 2.2 on top of the older version 2.1. It should replace neither the EIP 2.2 installation guide nor the EIP 2.2 Release Notes.

Please keep always in mind, that additional customizing of the Integration Platform (e.g. XSL Mapping) and Agile EDM (e.g. additional Query Forms) will not be upgraded automatically.

Installation

Due to the [fact](#) that quite some libraries and configuration files changed between the versions 2.1 and 2.2 we recommend installing EIP 2.2 in a directory separate from EIP 2.1. Additional mapping files and configuration should be incorporated into the EIP 2.2 installation one by one.

Configuration and Customizing

Configuration Settings

The structure of the configuration file `eai_ini.xml` has changed. Therefore, please copy your 2.1 configuration settings carefully one by one to the 2.2 `eai_ini.xml` file.

Note The usage of the Upgrade tool is highly recommended although some manual work might be required.

Following portions of the `eai_ini.xml` file have changed:

The webserver configuration in the controller area is now deactivated by default. If a network connector is used it must be activated and the port needs to be configured properly to not conflict with another process already running on the same port (e.g. a Tomcat installation).

Password Encryption

The password encryption had been changed due to be compliant with the Oracle Security Guidelines. It will now use the same method as Agile EDM uses (e.g. for the encryption of the database password). Therefore all passwords in the `eai_ini.xml` file needs to be re-generated.

Please note that the new passwords will be significant longer and are now prefixed with “RSA-PUBLIC-BASE64:”. And there will be different passwords generated from the same input to make it harder to guess or recognize previously used passwords. It is therefore advised to generate separate encrypted passwords for the same input.

The command line tool “encrypt” does not allow specifying the password to be encrypted on the command line anymore. It is recommended to paste the plain password into the system’s clipboard before running the tool. The encrypted password will be stored into the clipboard again. Or you may choose to use the UI tool named “crypt”.

Chapter 4

EIP 2.0 to 2.1

General information

This document should help you with the installation of the Enterprise Integration Platform Version 2.1 on top of the older version 2.0. It should replace neither the EIP 2.1 installation guide nor the EIP 2.1 Release Notes.

Note Please keep always in mind, that additional customizing of the Integration Platform (e.g. XSL Mapping) and Agile e6 (e.g. additional Query Forms) will not be upgraded automatically.

Installation

Due to the fact that quite some libraries and configuration files changed between the versions 2.0 and 2.1 we recommend installing EIP 2.1 in a directory separate from EIP 2.0. Additional mapping files and configuration should be incorporated into the EIP 2.1 installation one by one.

Configuration and Customizing

Configuration Settings

The structure of the configuration file `eai_ini.xml` has changed. Therefore, please copy your 2.0 configuration settings carefully one by one to the 2.1 `eai_ini.xml` file.

Note The usage of the Upgrade tool is highly recommended although some manual work might be required.

Following portions of the `eai_ini.xml` file have changed:

- New sections have been added for following connectors
 - SOAP Connector
 - Web-Service Connector
 - HTTP Connector
 - XML-RPC Connector
- New `<transformation>` elements have been added to following connectors:
 - Mail Connector
 - FTP Connector
 - Data File Connector

- New <id> elements have been added to the <queue> sub-sections for the EIP database connector (in <controller> and <admin> sections).
- New <engine-id> element has been added to the BPM connector sections for storing the processes in the EIP database.
- The axalant and PLM connectors have a new element <queue-mask> to define which mask should be used for retrieving transfer queue entries.
- The PLM connector has a new element <snapshot> in order to activate or deactivate the snapshot functionality.
- The SAP R/3 connector has the new elements <rfc-trace> and <jco-trace-level> for defining the trace levels, which should be logged in external files.
- The SAP R/3 source connector (synchronous) has a new attribute whether the R/3 system supports Unicode or not (@unicode="true").
- The <controller> section has following changes:
 - <webserver>: added to define the port how to connect to the webserver embedded in EIP.
 - <tasks>: allows to define certain tasks for the controller e.g. <cleanup-task>.
 - <feature>: allows to define the new feature (@persist-synchronous) whether XML messages of synchronous calls should be stored in the EIP database.
- The element <log/host> has been removed.
- The admin section has following new entries:
 - <admin-logger-host>: defines where to retrieve the new log entries from the EIP server.

Agile e5 and e6 Data Model

Due to some functional enhancements, the content of the Agile e5 and e6 Loader Files (separate loader files) have been changed in many ways. We cannot provide a general recommendation, whether the new loader files should be loaded in Insert mode or Overwrite or even loaded in a separate environment in order to perform the changes manually. This mainly depends on the number of modifications, which were done since the initial installation of EIP 2.0. Below list should provide you some hints what needs to be considered:

- New fields have been added to the Transfer Queue table (e5 and e6) with regards to supporting Preliminary Records and Phase Filters:
 - T_EER_SEN.PRELIMINARY_FLAG
 - T_EER_SEN.PHASE_FLAG
 - T_EER_SEN. PHASE_OPERATOR
 - T_EER_SEN. PHASE_ID
- Above new fields and some more have been added to the Transfer Queue form (EDB-EIP-SEN-SLI):
 - T_EER_SEN.PRELIMINARY_FLAG
 - T_EER_SEN.PHASE_FLAG
 - T_EER_SEN. PHASE_OPERATOR
 - T_EER_SEN. PHASE_ID

- T_PHA_OPR_LUT.EDB_NAME
- T_PHA_LUT.EDB_NAME
- The join definition of the Transfer Queue form (EDB-EIP-SEN-SLI) has been changed:
T_EER_SEN.VIEW_VER=T_EIP_VIEW.VIEW_ID(+)&T_EER_SEN.PHASE_ID=T_PHA_LUT.EDB_ID(+)&T_EER_SEN.PHASE_OPERATOR=T_PHA_OPR_LUT.EDB_OPER(+)
- A snapshot table T_EIP_SNAPSHO has been replaced with following objects:
 - Entity: EDB-EIP-SNAPSHOT (table name: T_EIP_SNAPSHT).
 - Entity Relation between transfer queue (EDB-EER-SEND) and Snapshot entity (EDB-EIP-SNAPSHOT) with table T_EIP_SNP_STR.

Two loader files have been provided for Agile e6 only, which could be loaded optionally:

- e6_eip_bpm_history.bld:
BPM History Option for storing back the results of BPM processes.
- e6_eip_exp_chg_set.bld:
Work Set Export Option for transferring complete Works Sets (part of new Change Management in Agile e6) to R/3.

They lead to following additional objects in Agile e6 (on top of the changes already described above):

BPM History Option:

- New entity EDB-EIP-HISTORY (table T_EIP_HIS).
- New mask EDB-EIP-HIS-SLI.
- New fields have been added to the Transfer Queue table (e5 and e6) with regards to supporting Preliminary Records and Phase Filters:
 - T_EER_SEN.PRELIMINARY_FLAG
 - T_EER_SEN.PHASE_FLAG
 - T_EER_SEN.PHASE_OPERATOR
 - T_EER_SEN.PHASE_ID

Work Set Export Option:

- New IEF Definitions for exporting Work Sets including affected objects e.g. Item, BOM, etc.
- New EXI Interface Object EXI-CHG-SET.
- New mask and link definitions required for exporting the Work Set data.

Agile e5 and e6 Connector

The libraries for connecting to the Synchronous PLM Connector have been changed. Therefore, please replace the old eipsync shared libraries with the new one in the directory `axalant/bin/<operating-system>`.

EIP Message Queue

Some tables of the EIP message queue have changed due to additional features supported by the EIP. We recommend using a new (separate) queue schema for EIP 2.1 and rerunning the dbmaint tool.

Business Process Engine

The Business Process Engine comes with additional and changed predefined processes:

- <eai_home>/conf/bpm/bpel_plm_ecm_set_release.xml: for transferring Work Sets from Agile e6 to SAP R/3.
- <eai_home>/conf/bpm/bpel_plm_bom_release.xml: optimized for transferring Agile e6 BOMs to SAP R/3.

Business Process Viewer

A tool has been provided which allows to converted BPEL based process definitions into HTML. These HTML files could be viewed in the Internet Explorer in order to have the process displayed in a graphical way. A new script bpmconvert.cmd/ bpmconvert.sh has been provided in the <eai_home>/bin directory therefore.

EIP Embedded Web Server

In order to save as a basis for the SOAP Connector, Web-Service Connector and HTTP Connector, a Web-Server has been provided along with the EIP Installation. In the directory <eai_home>/data following new sub-directories have been added:

- html: contains the image files relevant for the BPM Viewer
- webapps: contains the web services provided through the AXIS framework

EIP 1.2 to 2.0

General information

This document should help you with the installation of the Enterprise Integration Platform Version 2.0 on top of the older version 1.2. It should neither replace the EIP 2.0 installation guide nor the EIP 2.0 Release Notes.

Please keep always in mind, that additional customizing of the Integration Platform (e.g. XSL Mapping) and Eigner PLM (e.g. additional Query Forms) will not be upgraded automatically.

Installation

Due to the fact, that a lot of libraries and configuration files changed between the versions 1.2 and 2.0 , we recommend to install EIP 2.0 in a directory separate from EIP 1.2. Additional mapping files and configuration should be incorporated into the EIP 2.0 installation one by one.

Note The usage of the Upgrade tool is highly recommended although some manual work might be required.

Configuration and Customizing

Configuration Settings

The structure of the configuration file eai_ini.xml has changed. Therefore please copy your 1.2 configuration settings carefully one by one to the 2.0 eai_ini.xml file.

Following portions of the eai_ini.xml file have changed:

- New sections have been added for following Connector:
 - BPM Connector (Business Process Manager)
 - Mail Connector
 - JDBC (Database) Connector
 - FTP Connector
- The <bor> sections of the PLM and SAP Connector have been extracted into separate files.
- New <feature> elements have been added for the PLM and SAP Connector to configure whether to connect to the systems on-demand.
- New <connection> elements have been added to several connectors in order to more easily activate or deactivate connection parameters.

- New <queue> elements have been added to more easily activate or deactivate the queue connection parameters.
- A new <encoding> element has been added to the controller section in order to define the encoding for newly generated XML messages in EIP.

Eigner PLM Data Model

Due to some functional enhancements, the content of the Eigner PLM Loader Files have been changed in many ways. We cannot provide a general recommendation, whether the new loader files should be loaded in Insert mode or Overwrite or even loaded in a separate environment in order to perform the changes manually. This mainly depends on the number of modifications which were done since the initial installation of EIP 1.2. Below list should provide you some hints what needs to be considered:

- A new field has been added to the Transfer Queue table (T_EER_SEN) and form (EDB-EIP-SEN-SLI) for Snapshot Functionality: T_EER_SEN.SNAPSHOT_FLAG.
- Also the sequence of the fields in T_EER_SEN has been changed and the index EER_SEN_IND has been optimized.
- The view (V_EIP_VIE) has been removed and a new table (T_EIP_VIEW) has been provided instead for the version view support.
- The mask of the Transfer Queue EDB-EIP-SEN-SLI has been modified to support above changes:
 - New field T_EIP_VIEW.VIEW_NAME instead of V_EIP_VIE.C_NAME.
 - Changed JOIN definition on the mask:
T_EER_SEN.VIEW_VER=T_EIP_VIEW.VIEW_ID(+).
- A new table (T_EIP_SNAPSHO) has been provided for storing snapshots. This table is related to the table T_EER_SEN via a REFINE definition in DataView.
- Additional LGV procedures have been provided:
 - EP_REPLICATION/RPL_CreateSnapshot.
 - EP_REP_QUEUE/ShowSnapshot.

Eigner PLM Connector

The libraries for connecting to the Synchronous PLM Connector have been changed. Therefore please replace the old eipsync dll's or libraries with the new one in the directory axalant/bin/<operating-system>.

EIP Message Queue

Some tables of the EIP message queue have changed due to improvements in performance. We recommend using a new (separate) queue schema for EIP 2.0 and rerunning the dbmaint tool.

Business Process Engine

A new Business Process Engine has been provided with this release which introduces several

changes:

- A new directory has been provided for storing the process definitions: <eai_home>/conf/bpm
- The new Business Process Connector was added to the configuration file eai_inl.xml as new <connector> section, which is also used in the <workflow> definitions.

SAP Connector

4 new RFCs have been provided for SAP R/3.

- /EIGNER/MATERIAL_CHANGE
- /EIGNER/MATERIAL_CREATE
- /EIGNER/MATERIAL_DOC_LINKS
- /EIGNER/BOM_ITEM_EFFECTIVITY

The JCo (SAP Java Connector) libraries have been removed from the installation package and need to be installed now by you as described in the installation manual.

SAP Source Connector

A new SAP Source Connector has been provided, which allows connecting to the EIP from inside SAP R/3. Installation of this will be described in a separate document.

EIP 1.1 to 2.0

General information

This document should help you with the installation of the Eigner Integration Platform Version 1.2 on top of the older version 1.1. It should neither replace the EIP 1.2 installation guide nor the EIP 1.2 Release Notes.

Please keep always in mind, that additional customizing of the Integration Platform (e.g. XSL Mapping) and Eigner PLM (e.g. additional Query Forms) will not be upgraded automatically.

Installation

Due to the fact, that a lot of libraries and configuration files changed between the versions 1.1 and 1.2, we recommend to install EIP 1.2 in a directory separate from EIP 1.1. Additional mapping files and configuration should be incorporated into the EIP 1.2 installation one by one.

Note The usage of the Upgrade tool is highly recommended although some manual work might be required.

Configuration and Customizing

Configuration Settings

The structure of the configuration file eai_ini.xml has changed. Therefore please copy your 1.1 configuration settings carefully one by one to the 1.2 eai_ini.xml file.

Following portions of the eai_ini.xml file have changed:

- The <reconnect> option has been added to the connectors.
- The <notification> option has been added to the controller.
- Files can be renamed during check-out from Eigner PLM; therefore a new “rename” option has been provided in the <bor> section of the PLM and axalant connector.
- The PLM Connector can now check out multiple files (instead of only a single file) at once. The “ckoflag” option does now allow the value “all”.
- The EIP –internal queue can now be stored in Oracle and SQL-Server database systems instead of only the internal one. If you want to activate this option, configuration changes are necessary in the <controller> and <admin> section in order to point to the new database.
- The SAP Connector does now support the SAP Load Balancing Server option. Therefore the logon information of the SAP-Connector changed in the configuration file.

- Due to the new Archive functionality in the Admin GUI (described below) an additional element <archive-dir> was added to the <controller> section.
- A new Data File Connector has been provided, which allows performing XSL mapping before writing into a file. Therefore a new connector section is provided.
- The library for encrypting the passwords for connecting to the external systems and database has been exchanged. Therefore ALL passwords have to be encrypted newly and put into the configuration file.

Database Support

As mentioned above, you can now use Oracle and SQL-Server database systems for storing the queue. Therefore the “dbmaint” script has been provided to generate the necessary tables and entries in the respective database system.

EIP running as Background Process (Service)

This is a new feature, which needs to be configured and activated first. Please refer to the separate installation guide about the EIP Daemon.

eipping tool

The new eipping tool allows you to automatically check the status of the EIP process and its connectors.

SAP RFC installation

Some of the R/3 RFCs provided in a transport file have changed. Unless you changed some of the RFCs, provided by Eigner, we recommend that you load the new RFCs and retest the SAP Connector.

Eigner PLM - SAP R/3 Mapping Files

The mapping files axa_sap.xsl and sap_axa.xsl have been optimized. Longtext is now better supported. Please consult Eigner representatives for further information or directly compare the old and new mapping files in order to extract the differences.

New Archive directory

The new Administration GUI does now allow to archive and cleanup “old” XDOs in the queue. Therefore a new directory <archive> has been provided as part of the installation, where each XDO (with its different versions) gets stored in a separate XML archive file.

Eigner PLM Loader Files

Due to some functional enhancements, the content of the Eigner PLM and axalant Loader Files have been changed in many ways. We cannot provide a general recommendation, whether the new loader files should be loaded in Insert mode or Overwrite or even loaded in a separate

environment in order to perform the changes manually. This mainly depends on the number of modifications which were done since the initial installation of EIP 1.1. Below list should provide you some hints what needs to be considered:

- New fields have been added to the Transfer Queue table (T_EER_SEN) and form for the version view support.
- A new view (V_EIP_VIE) has been provided of the version view support.
- The forms for displaying the query results from R/3 have been changed. Mainly additional USX triggers have been added. This was necessary in order to support the PLM Web-Client and Java Client.
- Due to the new feature that in every success or error case, the response to the calling Eigner PLM system is guaranteed, the Callback Triggers in the Transfer Queue might have to be adapted to the new behavior.

Eigner PLM Library

The synchronous communication between Eigner PLM and the Integration Platform has been enhanced and therefore the new eipsync library file needs to replace the older one in your Eigner PLM installation e.g. <ep_root>\axalant\bin\

Chapter 7

EIP 1.0 to 1.1

General information

This document should help you with the installation of the Eigner Integration Platform Version 1.1 on top of the older version 1.0. It should neither replace the EIP 1.1 installation guide nor the EIP 1.1 Release Notes.

Please keep always in mind, that additional customizing of the Integration Platform (e.g. XSL Mapping) and Eigner PLM (e.g. additional Query Forms) will not be upgraded automatically.

Installation

There had not been any major changes, so running the Upgrade tool should do the job.

Note The usage of the Upgrade tool is highly recommended although some manual work might be required.
