

Oracle® Agile Engineering Data Management

Administration Guide

Release e6.2.1.0

E69111-04

January 2021

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Preface

Agile PLM is a comprehensive enterprise PLM solution for managing your product value chain.

Audience

This document is intended for administrators and users of the Agile PLM products.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit

<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit

<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

Related Documents

Oracle's Agile PLM documentation set includes Adobe® Acrobat PDF files. The Oracle Technology Network (OTN) website

<http://www.oracle.com/technetwork/documentation/agile-085940.html> contains the latest versions of the 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 Agile PLM Documentation folder available on your network from which you can access the Agile PLM documentation (PDF) files.

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.

Convention	Meaning
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Introduction

The Administration Guide describes how to administrate the installed Agile e6.2.1.0 components.

Note: For information about security, please refer to the Security Guide for Agile e6.2.1.0.

About Agile e6.2.1.0 Administration

An Agile e6.2.1.0 application defines a particular hardware and software configuration that allows Agile e6.2.1.0 to work with an Oracle database and Oracle WebLogic Server.

To administer the Agile e6.2.1.0 application, you can create and manage Agile e6.2.1.0 applications. For every created Agile e6.2.1.0 application, information is stored on the EDM Server that specifies how to connect to the database, locate data, and which Oracle WebLogic Server is to be used.

When you install an EDM Server, the installation program automatically creates a default application which is configured during the installation, and the application name is associated with the database.

It is also possible to create additional applications within the same installation thus, it is not necessary to maintain separate installations for different purposes. A single Agile e6.2.1.0 installation often includes separate applications for various purposes, such as testing for testing purposes before creating the actual working applications, development, production, and education.

The applications created for an installation can be associated with the same, or with different databases (e.g. a multi-application system, in which development and test applications, and their respective databases co-exist with a production application and its database). In general, it is required to have a separate production infrastructure to avoid the risk of loss of production by changing something in e.g. the development application.

About Agile e6.2.1.0 Business Services Administration

When you create an Agile e6.2.1.0 application, the Business Services component will be installed/deployed on your Oracle WebLogic Server for each new application. The Business Services comprise of the Workflow Module, Permission Manager, and Product Configurator.

Overview of the Workflow Module

To include Workflow processes in an Agile e6.2.1.0 application, optional configuration parameters can be defined for the processes within the overall Agile e6.2.1.0 application definition. For more information, refer to the chapter Administering Agile e6.2.1.0.

Note: For further information on using the Workflow module, refer to the Agile e6.2.1.0 Online Help > Using Agile e6 > Product Data Management > Workflow.

Modifying Configurations without the Administration Client

Any file or configuration modification made without the Administration Client will be lost when changing the application values with the Administration client again, except when using the component based J2EE installation.

If you want to install/deploy the Agile e6.2.1.0 J2EE components with a separate user, or on a separate server, different from the one used for the "native" Agile e6.2.1.0 installation, it is necessary to also perform a separate Agile e6 installation of the J2EE components with a separate user, or on a separate server.

Java Application Servers

Oracle WebLogic

The Oracle WebLogic server is mandatory for Agile e6.2.1.0.

After the Agile e6.2.1.0 installation, the following applications should be available in in one WebLogic domain with the default name "eSeries_domain":

- ? Web Presentation Service
- ? Java Client WebStart
- ? PLM-API (HTTP support)
- ? Web File Service
- ? Jvue Applet
- ? DaemonAdminServlet

Additionally, for each created application the Business Service and Web Services deployment have to be available in one WebLogic domain with default name "eSeries_domain_<application_name>".

The "eSeries_domain" can be accessed with the following link:

<https://app.example.com:7102/console>

The "eSeries_domain_<application_name>" can be accessed with the following link:

<https://app.example.com:7106/console>

To verify the availability of the above deployments, log in to your Oracle WebLogic domains and check the following:

The following applications have to be available in the domain "eSeries_domain":

- ? Daemon Admin Servlet
- ? HTTP Support
- ? Java Client
- ? JVue
- ? Streaming File Service
- ? VueLink
- ? Web Presentation Service

- ? Web Fileservice

The following context roots of these applications should be in working state:

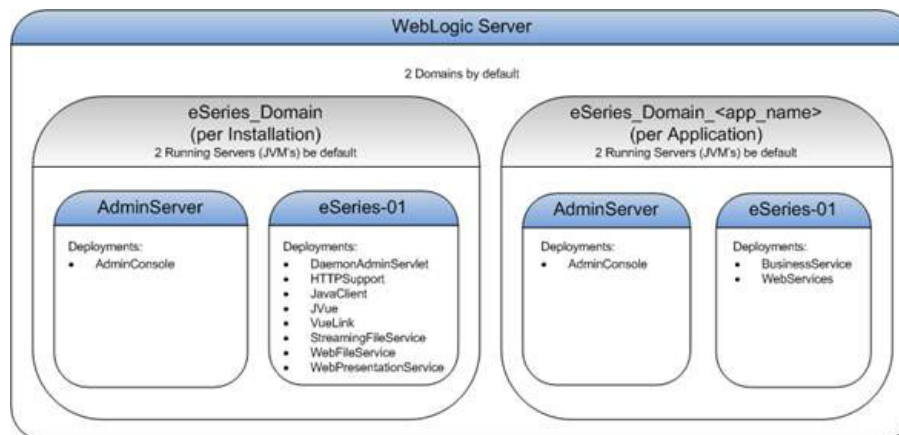
Note: Use your Oracle WebLogic server name and HTTP port.

- ? **Daemon Admin Servlet:**
https://app.example.com:7104/DaemonAdminServlet/
- ? **HTTP Support:**
https://app.example.com:7104/plm-api-axis/services
- ? **Java Client:**
https://app.example.com:7104/Jacc/
- ? **JVue:**
http://app.dfm.example.com:8040/JVue/
- ? **Streaming Fileservice:**
https://app.example.com:7104/StreamingFileService/
- ? **VueLink:**
https://app.example.com:7104/VueLink/Vuelink/
- ? **Web Fileservice:**
https://app.example.com:7104/FileService/
- ? **Web Presentation Service:**
https://app.example.com:7104/AgilePlmWps/

These applications have to be available in the domain "eSeries_domain_<application_name>":

- ? Business Service
- ? Web Services

The following graphic shows the WebLogic deployment architecture after an Agile e6 installation.



Domains Directory: <MIDDLEWARE_HOME>/user_projects/domains

Server Directories: <DOMAIN_HOME>/servers/AdminServer (eSeries-01)

Further information about the Oracle WebLogic server administration can be found under Oracle WebLogic Server documentation > Oracle Fusion Middleware Documentation Library:

<http://docs.oracle.com/middleware/1221/wls/index.html>

Apache Tomcat

Tomcat is only supported for a limited set of deployments for a remote DFM site installation.

The following applications are supported:

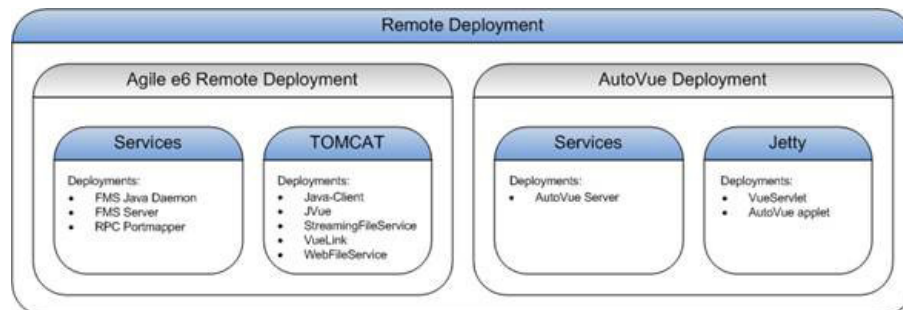
- ? Java Client
- ? JVue
- ? Streaming File Service
- ? VueLink
- ? Web Fileservice

The following context roots of these applications should be in working state:

Note: Use your Apache Tomcat server name and HTTP port.

- ? Java Client:
`http://app.dfm.example.com:8040/Jacc/`
- ? JVue:
`http://app.dfm.example.com:8040/JVue/agile-jvue-wrapper.jar`
- ? Streaming Fileservice:
`http://app.dfm.example.com:8040/StreamingFileService/`
- ? VueLink:
`http://app.dfm.example.com:8040/VueLink/Vuelink/`
- ? Web Fileservice:
`http://app.dfm.example.com:8040/FileService/`

The following graphic shows the Remote Site deployment architecture after an Agile e6 installation.



Administering Agile e6.2.1.0

The Agile e6.2.1.0 Administration client lets you create, configure, and delete Agile e6.2.1.0 applications via the web browser. Agile recommends that you use a supported browser (see Prerequisites Guide for Agile e6.2.1.0) to connect to the Administration client.

Note: If you are getting a security message from your browser, you might have to add the Administration client to the trusted websites in your browser settings.

The Administration Client

The Administration client will be installed automatically with the installer if you install a server component. It can be used to create new, or modify existing applications. The Administration client is a web based application and is deployed in an Apache Tomcat servlet container. For detailed information on Apache Tomcat servlet container refer to:

<http://tomcat.apache.org/>

Currently we are using Apache Tomcat v8.5.55

In the Agile e6 package, you can find Apache Tomcat in:

- ? Windows: %ALLUSERSPROFILE%\agile\installer\6.2.1\admin
- ? UNIX: \${HOME}/.agile/installer/6.2.1/admin.

Note: To prevent sensitive data from being compromised, secure data transfer by using HTTPS is recommended. For more information refer to the Security Guide.

Starting the Administration Client

Windows:

1. Start the service "AgilePLM_AdminClient".
2. Set the startup type to "Automatically".

UNIX:

1. Use the standard Apache Tomcat startup.
2. Stop scripts.

Note: A 64-bit Java 8 version has to be used.

To set the 64-Bit Java 8 for Tomcat on UNIX:

1. Create the file "setenv.sh" in the \$HOME/.agile/installer/6.2.1/admin/apache-tomcat/bin directory of Tomcat with a line like:

```
export JAVA_HOME=/usr/local/java/jdk8
```

2. Tomcat will automatically use this Java version which must point to a 64-bit Java.
3. Start Tomcat with "startup.sh".
4. Stop Tomcat with "shutdown.sh".

Tomcat will show the used Java version at startup with something like:

Using JAVA_HOME: /usr/local/java/jdk8

Changing the Password

The Administration client Password has to be defined after the first startup. Login without definition of the password is not possible.

1. Create new encrypted password.

To create a new password, execute:

? Windows:

```
cd %ALLUSERSPROFILE%\agile\installer\6.2.1
tools\bin\epkeytool.bat -encryptpwd -keyStore
file://%ALLUSERSPROFILE%\agile\installer\6.2.1/wallets/adminclient/private/
adminclient/cwallet.sso -keyAlias orakey
```

? UNIX:

```
cd ${HOME}/.agile/installer/6.2.1/tools/bin
./epkeytool.sh -encryptpwd -keyStore
file://${HOME}/.agile/installer/6.2.1/wallets/adminclient/private/adminclie
nt/cwallet.sso -keyAlias orakey
```

The resulting output is your encrypted password.

Note: The password is also stored in the clipboard.

2. Find encrypted password.

The encrypted password for the Administration client can be found in:

? Windows:

```
%ALLUSERSPROFILE%\agile\installer\6.2.1\admin\apache-tomcat\webapps\AdminCl
ient\metadata\Adminserver_Props.txt
```

? UNIX:

```
$HOME/.agile/installer/6.2.1/admin/apache-tomcat/webapps/AdminClient/metada
ta/Adminserver_Props.txt.
```

3. Copy the newly generated password into the "Adminserver_Props.txt" file at the password property, and restart the Apache Tomcat process.

Changing the WebLogic User Password

The password of the user "weblogic" is used to execute any administrative tasks on a Weblogic Server administration console when the Weblogic Server was installed and is in use together with Oracle Agile e6?

In this section the placeholder <DOMAIN> is used for:

- ? eSeries_Domain when talking about the Installation Domain
- ? eSeries_Domain_<App> when talking about the domain of an application called <App>

Example:

eSeries_Domain_plmref when talking about the domain of the application "plmref")

<Domain Root> is the installation path to the domains of the Oracle Weblogic Server. When installed with Oracle Agile e6 the path looks like this:

```
Unix:
/app/plm/product/Middleware/user_projects/domains
Windows:
C:\PLM\Middleware\user_projects\domains
```

Adaptions when using the nodemanager

1. Log in to the admin console of the domain <DOMAIN> and check that all servers are in "RUNNING" state (if not start them)
2. In the console on the left (in the domain structure) click "security realms" and select "myrealm". On the right, change to the folder "Users and Groups", click user "weblogic" and change to the sub folder "Passwords". Insert the new password (twice) and finish by clicking "Save".
3. Again, on the left, in the domain structure, click the root object "<DOMAIN>". On the right, click the folder "Security" and go down that page and click "Advanced" at the bottom: Additional fields are opened further down on that page.
4. In the upper left corner, in the Change Center, click the "Lock and Edit" button
5. Now, on the right, go down to the "NodeManger Password" field and insert the new password here and additionally fill the field "Confirm NodeManager Password" with the same value.
6. Go to the Change Center again and click "Activate Changes".
7. Now, stop the eSeries-01 server and then the AdminServer in the admin console.
8. Change the password behind the "password=" tag and add the new value in clear text. in both nodemanager boot files of the admin server and of the eSeries-01 server
 - ? <Domain Root>/<DOMAIN>/servers/AdminServer/data/nodemanager/boot.properties
 - ? <Domain Root>/<DOMAIN>/servers/AdminServer/data/nodemanager/boot.properties
 - ? <Domain Root>/<DOMAIN>/servers/eSeries-01/data/nodemanager/boot.properties

Caution: No "non printable" characters like CR or LF are allowed in these files!

Note: If one of the boot.properties files does not exist, then copy that file from the same location of the Installation Domain. In this case both the user (weblogic) as well as the password have to be entered in clear text into that file!

9. Finally, restart the servers of that domain through WLST (see note 1439622.1). Be aware and use the new password to connect to the node manager now!
10. Log in to the admin console with the new password and check if the servers are up and running and all deployments are there and in an active state.
11. Two files with encrypted user credentials per domain are in use for redeployments. Therefore these files need to be recreated as well.

1. Create a property file (batch.properties) with the following properties

```
plm.inst.name=<installation_name>
plm.j2eeappserver.adminserver_
password={PLM-AES-128}RSA-PUBLIC-BASE64:JoQb6W...
plm.application.adminserver_
password={PLM-AES-128}RSA-PUBLIC-BASE64:JoQb6W...
```

Note: Replace <installation_name> with your installation name (e.g. AgileInstallation62).

Note: The encrypted password "plm.j2eeappserver.adminserver_password" is the new password for the installation domain and has to be encrypted with epkeytool. The encrypted password "plm.application.adminserver_password" is the corresponding new password for the application domain.

For further information about the epkeytool please refer to the *Security Guide for Agile e6.2.1.0*.

2. Update the file which contains the encrypted password for (re)deployment.

```
"Installation Domain: setup.cmd j2eeappserver.deploysetup -propertyfile
properties/batch.properties
"Application Domain: setup.cmd j2eeappserver.deploysetup_app -propertyfile
properties/batch.properties
```

Note: Make sure to remove the batch.properties file again after changing the password.

12. Adapt all other Weblogic Server Domains accordingly.

Caution: If the boot.properties files in the nodemanager directories are adapted but the appropriate server is never started with the node manager the files stay unchanged and the new password can be read from them as it is still there in clear text.

Therefore, after the password changes are finished and all servers are running again properly, double check all files called "boot.properties" that none of them still contains the new password in clear text.

Note: These instructions can be used for one domain only and do not have to be processed for all domains of a Weblogic Server installation at the same time. However, it is not recommended (and will not be supported) to keep different passwords on different domains on the same Weblogic Server.

Therefore, please update gradually all domains that the passwords of the weblogic user match everywhere before you execute further administrative tasks on the Oracle Agile e6 installation or on the Weblogic Server itself.

Changing the Apache Tomcat Configuration

Tomcat is configured with a HTTP connector by default.

Note: The Administration client uses default ports (e.g. 8080 for the HTTP connector).

If you want to change this port you have to edit the Apache Tomcat "conf/server.xml" file and restart the Apache Tomcat process.

We recommend enabling HTTPs for the Administration client. For more information refer to:

<http://tomcat.apache.org/tomcat-8.5-doc/ssl-howto.html>

Administering with the Administration Client

Logging In

1. Access the Administration client via

`http://<servername>:8080/AdminClient`

The login screen opens.

2. Log in with the following parameters:

- ⌘ User: plm
- ⌘ Password: Your newly generated password

The Welcome screen is opened.



All available installations that can be configured, appear under Components in the navigation pane at the left hand side.

Under References, the available Database Connection, Database Server Definition, and Application Servers can be found.

Creating/Modifying an Application

1. Under <application name> -> Application, click Create.

The Create new application screen appears.

AgileInstallation
Create new application

APPLICATIONS

- AgileInstallation
 - Application
 - Create
 - Modify

REFERENCES

- Application Server
 - Create
 - Modify
- Database Connection
 - Create
 - Modify
- Database Server Definition
 - Create
 - Modify

Application Input Form

Name:

Database User:

Database Password:

Confirm Database Password:

WebLogic Server Admin Port:

WebLogic Server Admin SSL Port:

Admin Password Application Domain:

Confirm Admin Password Application Domain:

WebLogic Server eSeries Port:

WebLogic Server eSeries SSL Port:

J2EE Host:

Http Host:

Http Port:

Business Service ECI Port:

Web Services ECI Port:

Workflow Admin UI:

Mail Server:

Mail Port Number:

Mail Security:

SMTP User Name:

SMTP User Password:

Confirm SMTP User Password:

Import DB Dump:

Create DB User:

SYSTEM Password:

PLM Authenticator Password:

Confirm PLM Authenticator Password:

Pin Manager password:

Confirm Pin Manager password:

References

Application Server:

Database:

2. Create a new application with the following parameters:

Application Input Form

Setting	Description
Name	The name of the default application you want to create.
Database User	The database user you want to use for the application.
Database Password	The password of the database user.
Verify Password	The password entered above has to be repeated for the verification.
WebLogic Server Admin Port	The listen port for the WebLogic administration server which will contain the WebLogic administration console.

Setting	Description
WebLogic Server Admin SSL Port	The SSL listen port for the WebLogic administration server which will contain the WebLogic administration console.
Admin Password Application Domain	The password of the WebLogic user used for the application domain.
Confirm Admin Password Application Domain	The password entered above has to be repeated for verification.
WebLogic Server eSeries Port	The listen port for the WebLogic EDM server. The installer will create a separate managed server with the name "eSeries-01" in addition to the administration server. This server will contain the application specific deployments.
WebLogic Server eSeries SSL Port	The SSL listen port for the WebLogic EDM server. The installer will create a separate managed server with the name "eSeries-01" in addition to the administration server. This server will contain the application specific deployments.
J2EE Host	The host on which Business and/or Web Services are running. The WebLogic server host name.
Http Host	The host where the Web Client can be reached over HTTP. The WebLogic server host name.
Http Port	The port where the Web Client can be reached over HTTP. The HTTP port of WebLogic server.
Business Service ECI Port	The port where the Business Service will be configured to "wait" for requests.
Web Services ECI Port	The port where the Web Services will be configured to "wait" for requests.
Workflow Admin UIC	The UIC of an Agile e6 user who has administrative rights for the Workflow module. He will receive mails about administrative problems in the Workflow module (1000 - 99999). This user needs a valid e-mail address as a test e-mail is send when starting the Messenger. The messenger does not work at all if this email is missing or wrong!
Mail Server	The name of your SMTP mail server if you want to send emails via the Business Services. Mailing will be disabled if no host name is set.
Mail Port Number	The port number of your SMTP mail server if you want to send emails via the Business Services. (587 is the submission port for using encryption. 25 is the old standard SMTP port).
Mail Security	Choose the security of your mail server (STARTTLS or SSL/TLS)
SMTP User Name	User name for your SMTP mail server.
SMTP User Password	SMTP User Password for your SMTP mail server. Password must be encrypted, plain text will not be accepted
Confirm Mail Auth Password	The password entered above has to be repeated for verification.
Import DB Dump	Select if you want the standard dump to be imported to the above defined database user.
Create DB User	Select if you want the database user to be created automatically.
SYSTEM Password	Password of the Oracle database user. Note: You only have to supply a value here if you want to create a new database user and have selected this in the field above.

Setting	Description
PLM Authenticator Password	Password of the WebLogic user PlmAuthenticatorDSUser, which secures the Data Source PlmAuthenticatorDS used by the PLM Authentication provider.
Confirm PLM Authenticator Password	The password entered above has to be repeated for verification.
Plm 'manager' password	If you selected "Import DB Dump", apply the password which the plm 'manager' user of the created application should have.
Verify Password	If you selected "Import DB Dump", the password entered above has to be repeated for verification

References

In the References section you can define which database and application server must be used for this application. Normally, you don't have to change these values.

Setting	Description
Application Server	The name of the reference of the Oracle WebLogic Server where Web Services and Business Service will be deployed.
Database	The name of the reference of the database you want to use for the application.

Note: Creating a new application can take up to 20 minutes. If a database user will be created, the database dump for the application has to be imported, the domain created and setup.

Note: In case you receive the error "The connection has timed out", please check if the new application is installed correctly.

1. Open the directory with the installer log files, which can be found in the following locations:
 - ? Windows
%ALLUSERSPROFILE%\agile\installer\6.2.1\log
 - ? UNIX
\${HOME}/.agile/installer/6.2.1/log
 2. Please check for the file install_error.log in all sub-directories starting with the timestamp approximately of the beginning of your installation.
If the install_error.log cannot be found in these sub-directories, the installation is completed. You can check if the newly created installation can be found in the navigation of the Administration Client.
-

3. Click Create.

Updating an Application

1. To update an application click Application > Modify <application name>.
2. Click "Edit" in the upper right corner to be able to change the values for the application.
3. Change the necessary values.

4. To apply the changes, click "Update" in the upper right corner.

The Admin server will redeploy the Web Services and Business Services for this application with the new values.

Note: It is NOT recommended updating a production application that is in use and running.

Deleting an Application

It is possible to delete the application with the "Delete" button in the upper right corner.

Note: Deleting an application will not remove the domain for Web Services/Business Service from the Oracle WebLogic Server. This must be done manually.

Refer to the support note "How to Remove/Delete a Weblogic Server (WLS) Domain (Doc ID 1068323.1)" on My Oracle Support.

Also, the used database schema remains unchanged.

Adding a New Database Reference for an Application

To use a new database for an application, the following components are required:

- Valid database connection string.
- Valid definition of a database used by a database connection.
- Running SQL Net.

To create a new database connection:

1. In the left pane, under References > Database Connection click Create.

The Create new database connection screen appears:

2. Create a new database connection with the following parameters:

Setting	Description
Name	The new name which identifies the connection.
Client Home	The Oracle Client Home directory.
SQLNet Connect	The SQLNet connect string as defined in e.g. tnsnames.ora.

3. Click Create in the upper right corner.

To define a new database server:

1. In the left pane, under References > Database Connection, click Create.

The Create new database definition screen appears:

2. Create a new database server with the following parameters:

Setting	Description
Name	The new name which identifies the database definition.
Host Name	The host name of your database server.
SID	The SID of the database you want to connect to.
Port	The port where the listener listens on the database server.

3. Under References, define a database connection.

The database connection, which is used to connect to the database in reference section.

4. Click Create in the upper right corner.

Adding a New Application Server Reference for an Application

1. In the left pane, under References > Application Server click Create.

The Create new application server definition screen appears:

2. Define a new application server with the following parameters:

Setting	Description
Name	The new name which identifies the Oracle WebLogic server definition.
Oracle Home (WebLogic)	The Oracle Home directory where WebLogic is installed (e.g.: D:\Oracle\Middleware\Oracle_Home).
Domain Root	<p>The root directory where the Agile e6 WebLogic domains should be created (e.g.: D:\Oracle\Middleware\Oracle_Home\user_projects\domains).</p> <p>In this directory the installer will create all domains used by the Agile e6 J2EE components.</p>

3. Click "Create" in the upper right corner.

Deleting a Reference

1. In the left pane, expand the "Modify" node of either:
 - ? Reference > Database Connection
 - ? Reference > Database Server Definition
 - ? Reference > Application Server
2. Select the name of the reference.
3. Click "Delete" in the upper left corner.

Note: This will only delete the reference in the "installation_prop.xml" file if the reference is not in use. If it is in use, an error message is displayed.

Nothing else will be deleted.

Logging Out

1. To log out click the "Logout" link in the upper left corner.

Note: The Administration client times out after 10 minutes. This requires a re-log in.

Setting and Changing Initial User Passwords in a New Agile e6.2.1.0 Application

Note: The enhanced security module is enabled in each newly created application (with a new dump) by default. You can only log in to this application with the user "manager"!

Perform the following steps:

1. Start an Agile e6.2.1.0 client and log in to your application with the user "manager". The password of the "manager" user is the one you applied during installation, applicationcreation.
2. All other users are deactivated and have to be activated by setting a new valid password for them.

Set the password for user "EDBCUSTO" and all other standard users:

1. Start Agile e6.
2. Open menu Manager > Permissions > User > Basic Data.
3. To set the password, click Refresh.
4. Select user "EDBCUSTO".
5. Open the context menu and select Set Password.

Note: At the first log in of user "EDBCUSTO" with the initial password, the user will be asked to set a new password. This will be the password for future logins.

6. Repeat these steps for all newly created users and standard users.

Note: Further information about the user management can be found in the Online Help > Customizing Agile e6 > Data View > Data View User's Guide > Users, Groups and Privileges.

Advanced Administration Tasks

Deploying Customer Adapted Files

Customer adapted files which are part of a deployment, have to be adapted outside the WebLogic server. The same applies for the Tomcat application server for a DFM remote site installation. These adapted files will be available even after applying a hotfix.

Note: We do not support the changing of Agile e6 files directly in the Oracle WebLogic server deployment.

The same applies for the Tomcat application server for a DFM remote site installation.

The deployment process in Agile e6 will create a "staging" directory in <ep_root> with four subdirectories and is active for all described batch deployment tasks.

All four subdirectories contain an "installation" directory for all application-independent deployments and an "application" directory containing an additional subdirectory for each Agile e6 application. This subdirectory contains the application specific deployments (e.g. the BusinessService).

? product:

This directory contains a subdirectory for every deployed component. Under these subdirectories, the unzipped archives are available. If you want to modify any file in the archive, the file has to be copied to the same directory in the "custom" folder.

Note: When redeploying, changes made in this directory and its subdirectories will be lost.

? custom:

Note: This is the ONLY folder where you should make changes to files and add directories.

This directory contains the same directory structure as the "product" folder without files (except one, see Adapting Business Service Notification Mail Templates). Copy the files you want to modify from the "product" folder to the corresponding directory in this folder.

Note: Files cannot be deleted from the "product" folder by copying them to the "custom" folder, and deleting them there.

? merged:

This directory contains the merged result of the "product" and "custom" folders. In this directory structure you can check if your adapted files are available in the unzipped archive.

From this directory structure, the final archive will be created in the deploy directory.

Note: When redeploying, changes made in this directory and its subdirectories will be lost.

? deploy:

This directory contains the final archive before it will be deployed.

Note: When redeploying, changes made in this directory and its subdirectories will be lost.

Keeping Customer Adapted Files When Deploying a Hotfix

If you are installing a hotfix, you might get updates for files you have adapted in the past.

To keep the adaptations, do the following:

1. Check for changes in the readme file of the hotfix package.
2. Backup your "product" folder.
3. Install the hotfix.
4. Compare the backup of the "product" folder with the new "product" folder to identify any files which have been changed.
5. If you have modified any of these files in the "custom" folder, then apply the changes to the files in the "product" folder manually.
6. Redeploy the application to activate the changes.

Administering the Business Service

Business Services are always deployed if a new application is created with the Administration client. Therefore, the availability of the application server is mandatory.

If you want to perform additional changes to the Workflow module, you have to edit the configuration file for the Business Services.

Note: For further information about the Workflow module, please refer to the Workflow Online Help.

To modify the configuration file, you have to perform the steps described in the section Deploying Customer Adapted Files of this document.

Example: Adapt values in "ABS_<application_name>.ini" file of the Business Service.

To modify the configuration file, it can be copied from the "product" directory after the installation. The file is available under: "<ep_root>\staging\product\application\<application_name>\BusinessService\BusinessService.war\WEB-INF\classes".

Save the modified file to the folder:

"<ep_root>\staging\custom\application\<application_name>\BusinessService\BusinessService.war\WEB-INF\classes".

The file that you modified will be used with the next deployment of the Business Service.

The Business Services will connect to the defined database user/schema directly after they are started in the Oracle WebLogic server.

Note: Once this connection is lost, e.g. due to database reboot, due to dropping of the database schema, or due to loss of service, you must restart the Business Service inside the Oracle WebLogic server.

Note: It is also possible to restart the complete Oracle WebLogic server, but all the included services will not be available for that time.

Adapting Business Service Notification Mail Templates

After the first Business Service deployment of a new application, the notification mail templates are unpacked and available under:

"<ep_root>\staging\custom\application\<application_name>\BusinessService\BusinessService.war\WEB-INF\lib\abs-notifier-templates\lay\notifier"

All adaptations made to files in this directory, also all new files, will be available after the next deployment of the Business Service. All files and directories below the "abs-notifier-templates" directory will be automatically packed to "abs-notifier-templates-1.0-SNAPSHOT.jar" file, which will be used for the deployment.

Connection Pool for Business Service

For WebLogic, default settings are available for the data source definition and can be customized. To customize them, the following template file has to be edited:

%EP_ROOT%\build\applicationServer\weblogic_122\tpl_app\ear\tp_l_eSeriesDataSource-jdbc.xml

Note: For further information about WebLogic, please refer to the respective documentation:
http://docs.oracle.com/middleware/1221/wls/JDBC/ps_annotation.htm

Example for default values for the connection pool:

```
<jdbc-connection-pool-params>
<pinned-to-thread>true</pinned-to-thread>
<initial-capacity>5</initial-capacity>
<max-capacity>150</max-capacity>
<statement-cache-size>100</statement-cache-size>
<statement-cache-type>LRU</statement-cache-type>
<connection-reserve-timeout-seconds>120</connection-reserve-timeout-seconds>
<test-table-name>SQL SELECT 1 FROM DUAL</test-table-name>
```

</jdbc-connection-pool-params>

Note: When configuring the minimum/maximum number of connections (<initial-capacity>), every connection needs a database process. Thus, the database has to have enough processes. Please check the configuration values in file: tpl_eSeriesDataSource-jdbc.xml and refer to your database administrator for further details.

Note: Further information about how to increase the performance can be obtained in an Oracle WebLogic training session.

About PLM-API / HTTPS Support

Note: Only supported with the Java Client.

PLM-API allows the communication with the Agile e6.2.1.0 application server through firewalls (via HTTPS).

For further information on the architecture, refer to the Architecture Guide for Agile e6.2.1.0.

The PLM-API is always deployed if a new Agile e6.2.1.0 server installation is created and can be used for all created applications of the installation. To be able to use the PLM-API, it has to be configured in the Java Client. To use the PLM-API, The WebLogic server needs to be setup for HTTPS usage. Detailed information how to configure the WebLogic Server can be found in the WebLogic Server documentation on the Oracle Technology Network (<http://www.oracle.com/technetwork/index.html>).

For further information on how to set up the HTTPS support in the Java Client, refer to the section Online Help > Getting Started > Preferences, and the Architecture Guide for Agile e6.2.1.0.

Special Batch Administration Tasks

Prerequisites

Note: Agile e6.2.1.0 has to be installed!

For all batch tasks set the JAVA_HOME environment variable to Java 8 64-bit JDK before you execute setup.cmd/setup.csh in a cmd/csh shell.

Use the installation user of the Agile e6.2.1.0 installation.

Windows	UNIX
Use an administrator cmd shell.	Use a csh shell.
Execute setup.cmd for all batch tasks in:	Execute setup.csh for all batch tasks in:
%ALLUSERSPROFILE%\agile\installer\6.2.1	\${HOME}/.agile/installer/6.2.1

A properties file ("batch.properties") has to be created in one of the following directories by making a copy of the tpl_installation.properties file and adapting the properties in it:

Windows	UNIX
%ALLUSERSPROFILE%\agile\installer\6.2.1\properties	\${HOME}/.agile/installer/6.2.1/properties

Example:

Windows	UNIX
cd %ALLUSERSPROFILE%\agile\installer\6.2.0 set JAVA_HOME=<java8_64bit_home> setup.cmd application.install -propertyfile properties\batch.properties > batch_install.log 2>&1	cd \${HOME}/.agile/installer/6.2.1 setenv JAVA_HOME <java8_64bit_home> ./setup.csh application.install -propertyfile properties/batch.properties >& batch_install.log

Note: On UNIX, use different redirector settings for stderr and stdout

Note: After each batch installation task, check the log file.

Create an Application

1. Copy the template properties file installer/properties/tpl_installation.properties to installer/properties/batch.properties.
2. Replace the text in brackets (<CHANGETHIS>) with the values of your application.

You can use different batch properties files for each application.

```
# Defines if the schema will be created (system password also has to be applied
for creating a schema)
plm.application.creschema=true
# Defines if the content of an existing schema will be deleted (Attention: All
objects of the defined schema will be lost)?
plm.application.delschemaobj=false
# Database to import as defined in installation_prop.xml (normally no need to
change this)
plm.application.databasedefinition=oradb
plm.oracle.systempwd=<systempwd>
```

3. After defining the properties, execute (example):

```
setup.cmd application.install -propertyfile properties/batch.properties >
application_install.log 2>&1
```

This will create the application directory and the configuration files in the <ep_root>/init directory. Additionally, if enabled, the schema will be created and the reference dump will be imported.

To deploy the J2EE applications for an Agile e6 application, the following additional steps need to be executed.

1. Create J2EE application domain (example):

```
setup.cmd j2eeappserver.install.domain_app -propertyfile
properties/batch.properties > install_domain_app.log 2>&1
```

2. Deploy J2EE applications (Business Service, Web Services) to domain (example):

```
setup.cmd j2eeappserver.deploy.app -propertyfile properties/batch.properties >
deploy_app.log 2>&1
```

Set Manager User Password

Use this ant task to set the plm manager user password of an existing application. This will overwrite current password of the plm manager user in the database.

Note: For more information about encrypting the Manager password with the Agile EDM Server Wallet refer to the Agile EDM Security Guide Chapter 4 Encryption > Encrypt Passwords.

General information about the Wallets can be found in the Agile EDM Security Guide Chapter 3 Wallets > Overview Wallet Infrastructure.

1. Create a properties file "properties/batch.properties" with following properties (example):

```
plm.inst.name=AgileInstallation
plm.application.name=plmref
plm.application.managerpassword={PLM-AES-128}RSA-PUBLIC-BASE64:O/NCRL5LUX....
```

2. Execute:

```
setup.cmd application.setmanagerpassword -propertyfile
properties/batch.properties
```

Common Properties for the Redeployment

Each of the following redeployment tasks requires a property file with at least the following content.

1. Create a common Properties file (example):

```
plm.inst.name=<installation_name>
```

Note: Replace <installation_name> with your installation name (e.g. AgileInstallation62).

Note: The following three deployment tasks require additional properties:

- ? Business Service
 - ? Web Services
 - ? Web Development Toolkit
-
-

(Re)Deploying Business Services for an Application

Redeploying a Business Service causes a recreation of the Business Service 'ear' file and the deployment with the configured values as defined in the installation_prop.xml file.

1. Add the following lines to the common properties file (example):

```
plm.application.name=mytest
plm.application.dbpassword={PLM-AES-128}RSA-PUBLIC-BASE64:JoQb6W...
```

Note: The encrypted password "plm.application.dbpassword" is the database schema password for this application and has to be encrypted with epkeytool.

For further information about the epkeytool please refer to the Security Guide for Agile e6.2.1.0.

2. Redeploy BusinessService (example):

```
setup.cmd j2eeappserver.deploy.businessservice -propertyfile
properties/batch.properties > deploy_businessservice.log 2>&1
```

(Re)Deploying Web Services for an Application

1. Add the following line to the common properties file (example):

```
plm.application.name=mytest
```

2. Redeploy the Web Service (example):

```
setup.cmd j2eeappserver.deploy.webservices.core -propertyfile
properties/batch.properties > deploy_webservices.log 2>&1
```

(Re)Deploying Web Development Toolkit

Web Development Toolkit is not deployed after default installation. If you want to use it, you have to deploy it first.

Note: This can also be used to redeploy the Web Development Toolkit.

1. Add the following line to the common properties file (example):

```
j2eeappserver.deploy.webdevelopmenttoolkit=true
```

2. Redeploy (example):

```
setup.cmd j2eeappserver.deploy.webdevelopmenttoolkit -propertyfile
properties/batch.properties > deploy_wdt.log 2>&1
```

(Re)Deploying Java Client

1. Redeploy (example):

```
setup.cmd j2eeappserver.deploy.javaclient -propertyfile
properties/batch.properties > deploy_javaclient.log 2>&1
```

(Re)Deploying Web Presentation Service

1. Redeploy (example):

```
setup.cmd j2eeappserver.deploy.webpresentationsservice -propertyfile
properties/batch.properties > deploy_wps.log 2>&1
```

(Re)Deploying HTTPSupport (plm-api)

1. Redeploy (example):

```
setup.cmd j2eeappserver.deploy.httpsupport -propertyfile
properties/batch.properties > deploy_httpsupport.log 2>&1
```

(Re)Deploying Web Fileservice

1. Redeploy (example):

```
setup.cmd j2eeappserver.deploy.webfileservice -propertyfile
properties/batch.properties > deploy_wfs.log 2>&1
```

(Re)Deploying StreamingFileservices

1. Redeploy (example):

```
setup.cmd j2eeappserver.deploy.fileservices -propertyfile
properties/batch.properties > deploy_sfs.log 2>&1
```

(Re)Deploying JVUE (Agile e6 AutoVue Integration Client Component)

1. Redeploy (example):

```
setup.cmd j2eeappserver.deploy.jvue -propertyfile properties/batch.properties >
deploy_jvue.log 2>&1
```

(Re)Deploying Vuelink (Agile e6 AutoVue Integration Server Component)

1. Redeploy (example):

```
setup.cmd j2eeappserver.deploy.vuelink -propertyfile
properties/batch.properties > deploy_vuelink.log 2>&1
```

Note: When redeploying the VueLink, you need to reopen any AutoVue window and restart the AutoVue Metafile Cache Service.

(Re)Deploying DaemonAdminServlet

1. Redeploy (example):

```
setup.cmd j2eeappserver.deploy.daemonadminservlet -propertyfile
properties/batch.properties > deploy_admsvlt.log 2>&1
```

Use DB Sequences for C_ID Generation

You can replace the standard random based DataView algorithm for generating C_ID with an algorithm based on database sequences. The mechanism was previously used for environments with database replications only.

The algorithm uses a database sequence to generate the next free C_ID number. Every table uses a distinct db sequence with name <table_name>_SEQ.

To avoid conflicts with already existing C_IDs the values need to be between 01 and 1 Billion (minimum value 1 - maximum value 1 billion. As a standard, DataView uses the value range from 1 billion to 2 billion.

Note: The Workflow still creates the C_ID by normal random algorithm between 1 billion and 2 billion.

Initial setup of your environment to use C_ID generation based on Database Sequences


1. Activate Library by opening the file ep_root\init<application_name>.xml and uncommenting the following in the <Modules>:

```
<Custom>
  <cid_by_seq Name="CID by Sequence" Library="cid_by_seq" Startup="immediately"
/>
</Custom>
```

Note: Do not activate the module in both files (axalant.xml and <application-name>.xml) otherwise the application cannot be started.

Note: Module name "cid_by_seq" must be written in lower case characters.

2. Create DB stored function in your oracle dump
 1. Start sql plus as db user of your e6 application in the directory where you have stored the sql script to create the db procedure (axalant\db_util\oracle\sql)
 2. Execute the SQLPLUS> @dbs_cid_by_seq.sql
3. Create sequences for all tables containing a column C_ID. Available range of C_ID's is from 01 to 1 Billion.
 1. Start sql plus in the directory where you have stored the sql script to create all sequences (axalant\db_util\oracle\sql)
 2. Execute script dbs_cre_seq_all.sql



```
SQL> @dbs_cre_seq_all.sql
=====
Create sequences for C_ID generation for all tables
LEMON64
=====
start value: 1
max value : 1000000000
```

3. Type in values for Start Value and Max value.
The script generates a sql scripts dbs_cre_seq_all_run.sql containing statements to drop existing sequences for c_id generation and statements to created new sequences with the start and maximum values as defined
4. You are then prompted to either
Continue with <ENTER> - executes the newly generated script directly
Abort with <CTRL C> - review the generated script first and if necessary adapt the script. The script needs to be execute separately in sqlplus.
4. To check, if the new algorithm works correctly, do the following:
 - 7 Log-into e6
 - 7 Activate SQL-Trace

- 7. Insert a document and check in the generated trace file which C_ID was generated (search for insert into t_doc_dat)

Configure new tables with c_id generation based on DB Sequences

If you create a new table using DataView the necessary sequence for this table will not be created automatically! You have to create the sequence manual using the SQL-Scripts dbs_cre_seq_one.sql (input parameters: start value, max value, table name). The scripts follow the same process as described above in the initial setup, but one additional input parameter is added - the table_name for which the sequence should be created.

1. Start sql plus in the directory where you have stored the sql script to create the db procedure (axalant\db_util\oracle\sql)
2. Execute the scripts as follows:

```
SQL> @dbs_cre_seq_one.sql
=====
Create DB sequence for C_ID generation for one selected table
LEMON64
=====
start value: 1
max value   : 100000000
table name  : 'T_MASTER_DAT'

drop sequence T_MASTER_DAT_SEQ;

create sequence T_MASTER_DAT_SEQ start with 1
maxvalue 100000000 nocache;

=====
Continue with <Enter>   Abort with <CTRL C>
=====
```

Caution: If no sequence exists, the old generation from dtv method will be used!

Cluster Setup for Servers

We support two general ways to deploy Agile e6 software

1. One single J2EE Server on a separate node, hosting the WebLogic and all J2EE components for Agile e6, and an additional set of servers, hosting the native Agile e6 components.
2. A set of servers of which every server hosts a complete set of all Agile e6 server components - J2EE and native components. The nodes are installed in a cluster, e.g. as NLB cluster, and load balancing tools are used to distribute the load to the servers.

Note: For further information, please refer to the Architecture Guide for Agile e6.2.1.0.

One J2EE Server on a Separate Node

The server having the Agile e6 J2EE components installed - the WebLogic server - is separated from the server with the native Agile e6 components - the EDM server.

We highly recommend setting up two WebLogic servers on separate nodes as failover. The server, which will run from beginning, is called the WebLogic node. The second WebLogic node remains inactive as failover server until the main WebLogic server stops working.

Installation

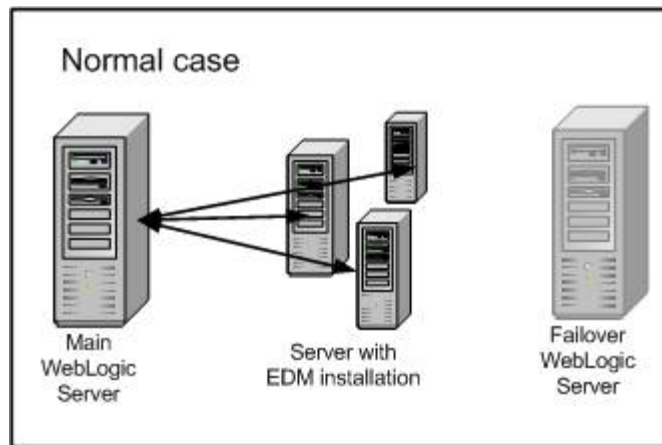
1. Install the WebLogic server nodes.

Note: For further information, please refer to chapter Component Based Installation in Server Installation Guide on Windows and UNIX for Agile e6.2.1.0.

2. After completing the installation, stop the failover application server on the failover node.

Note: Make sure it does not start automatically, e.g. by self-customized scripts.

3. After completing the application server installation, install the EDM systems on separate nodes.
4. Configure each of them for the main application server node.



Prepare Failover Configuration in Case of Errors

1. After completing the installation, for each EDM system, copy the application configuration file `<ep_root>/init/<application-name>.xml` and rename it to e.g. `<application-name>-failover.xml`.
2. Edit the renamed file and change the application server entry to mention the failover node with the failover application server.

Example:

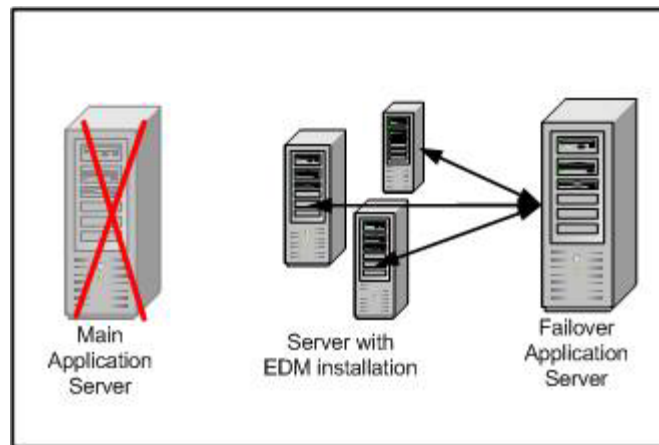
```
<IPC AbsEciUrl="eci://localhost:19997" .... </IPC>
```

In Case of Errors:

1. If the main application server stops and cannot be restarted, start the failover application server on the failover node.
2. Switch to the failover configuration for each EDM system.
 1. Stop the EDM system.
 2. Rename the original configuration file `<ep_root>/init/<application-name>.xml` to e.g. `<application-name>_org.xml`.
 3. Rename the backup configuration file `<application-name>_failover.xml` to `<application-name>.xml`

Note: This file will be used!

4. Start the EDM system.



Note: The switch to the backup application server is done.

Several Application Servers are Active

The 2nd scenario is for a load-balanced cluster with installations of the native Agile e6 components and the WebLogic servers on all nodes. In this case, the Watchdog of the Workflow services can only run on one application server. All other Agile e6 J2EE components use the load balancing feature. This includes the cache of the permission managers which will be synchronized over all cluster nodes. After a successful Agile e6 installation, the Watchdog needs to be deactivated on all servers where it is not required, as described below.

Deactivation and Failover for the Workflow Watchdog

1. Install WebLogic Server and EDM Server on all Nodes.

Note: Further information about the installation can be found in the respective installation manuals for Agile e6.2.1.0.

2. Define the node for the active Workflow services.
3. Edit the file "ABS_<application-name>.ini" for all other node(s).
4. Search for:

```
ServiceManager\Nodes\localhost\Threads\K]
className=com.agile.abs.workflow.watchdog.WatchdogService
localThread=true
```

And change it to (comment it):

```
#[ServiceManager\Nodes\localhost\Threads\K]
#className=com.agile.abs.workflow.watchdog.WatchdogService
#localThread=true
```

5. Redeploy all changed applications.

In Case of Errors:

1. If the main application server with the active Workflow service stops and cannot be restarted, remove the commenting in the file "ABS_<application-name>.ini" for one of the other nodes.

- 2. Redeploy the changed application.

Note: The switch to another application server with an active Workflow services is completed.

Manage Synchronization between Permission Manager Instances

In case several permission managers are used, their cache can be automatically synchronized after a defined time period. The synchronization parameters can be configured in "ABS_<application-name>.ini for every node.

#activate permission manager cache

(missing entry)	If prmCache entry is missing in the ABS...ini file, the cache is activated by default.	
true	Activate caching (default)	prmCache=true
false	Disable caching	prmCache=false

#activate permission manager cache, missing entry or true = activated caching, false = deactivated caching

The prmPeriod defines the time between two checks of the prm time stamp on the data base. If something relevant happened for permission manager in that period, the prm time stamp was changed on database.

(missing entry)	Uses the default of 10 minutes
prmPeriod=0:10	The value is formatted in hours:minutes (Format: hh:mm).

Note: After the update, the changed application has to be redeployed.

#max object size of the permission manager cache

The cache size could be calculated for example like this:

$(users + groups + roles + jobs + tasks) * 0.75$

Example:

prmCacheSize=5001

RAC Support

This section describes necessary modifications of an Agile e6.2.1.0 installation, including deployed Business Services, to support a RAC database.

Note: For more information about RAC architecture, please see also the Architecture Guide for Agile e6.2.1.0

We recommend performing the RAC database setup, and Agile e6.2.1.0 adaptations with the help of an Oracle consultant.

Prerequisites

1. RAC database is running.
Oracle consulting has reviewed and approved the RAC database installation.
2. Necessary changes in tnsnames.ora and sqlnet.ora on the Oracle client side, where the EDM server is running, are carried out.
3. Oracle WebLogic server is installed and running.
4. Follow the installation instruction for Agile e6.2.1.0 as described in the Server Installation Guide on Windows and UNIX for Agile e6.2.1.0.
5. For the RAC support, the following needs to be changed:
 - ? In the "Reference Configuration" mask you have to provide the following entries:
 - As "SQLNet Connect" add the net alias for your RAC database in tnsnames.ora.
 - As SID select the SID of one of the instances of your RAC database.
 - As "Host Name" add the IP address/hostname where this instance is running.

The following screenshot shows an example configuration.

6. Continue the installation instruction for Agile e6.2.1.0 as described in the Server Installation Guide on Windows and UNIX for Agile e6.2.1.0.
7. Please adapt the configuration for the data source definition to benefit from the Fast Connection Failover (FCF) feature.

If an instance is down, the J2EE components will continue to work normally using any other available instance of the RAC database.

Note: Please review the process described in chapter Deploying Customer Adapted Files.

8. Copy the original file from the "product" folder to the related "custom" folder:

```
<ep_root>/staging/product/application/<application_
name>/BusinessService/META-INF/eSeriesDataSource_<application_name>.xml
```

To:

```
<ep_root>/staging/custom/application/<application_
name>/BusinessService/META-INF/eSeriesDataSource_<application_name>.xml
```

9. Change the file as shown in this example.

```
<name>eSeriesDataSource_yin_app</name>
<jdbc-driver-params>
  <url>jdbc:oracle:thin:@rac-scan.example.com:1521/plm62</url>
  <driver-name>oracle.jdbc.pool.OracleDataSource</driver-name>
  <properties>
    <property>
      <name>user</name>
      <value>plm62</value>
    </property>
    <property>
      <name>FastConnectionFailoverEnabled</name>
      <value>true</value>
    </property>
    <property>
      <name>ConnectionCachingEnabled</name>
      <value>true</value>
    </property>
  </properties>
```

```

    </properties>
    <password-encrypted>XXX</password-encrypted>
</jdbc-driver-params>
<jdbc-connection-pool-params>
  <initial-capacity>5</initial-capacity>
  <max-capacity>100</max-capacity>
  <connection-reserve-timeout-seconds>10</connection-reserve-timeout-seconds>

<inactive-connection-timeout-seconds>1800</inactive-connection-timeout-seconds>
  <test-table-name>SQL SELECT 1 FROM DUAL</test-table-name>
</jdbc-connection-pool-params>
<jdbc-data-source-params>
  <jndi-name>eSeriesDataSource_yin_app</jndi-name>
  <global-transactions-protocol>OnePhaseCommit</global-transactions-protocol>
  <scope>Application</scope>
</jdbc-data-source-params>
<jdbc-oracle-params>
  <fan-enabled>true</fan-enabled>
  <ons-node-list>db1.example.com:6200,db2.example.com:6200
  </ons-node-list>
</jdbc-oracle-params>

```

10. Redeploy Business Service.

Limitation

The Agile e6 Configurator application uses a special connection which connects only to the instance provided in the "Reference Configuration" mask. If this instance is down, then the Configurator will not work anymore. If you use the Configurator, you must adapt the connection information for the Configurator to connect to a running database instance.

Note: This limitation is only valid for the Agile e6 Configurator. All other applications (e.g. Workflow, Permission Manager) support the RAC database.

Predefined Java Client Connection Settings

When starting the Agile e6 Client, the following connection settings can be passed:

```
-a <Application Name>
-h <Host Name>
-d <Daemon number>
-p <ECI port>
-u <PLM Username>
-l <logintype>
-f <flag for login dialog>
-t <task>
-home <home directory>
-imageRoot <url>
-imageDir <dir>
-defaults <file|URL>
```

Java Client Native Installation Windows example:

1. Open properties for the shortcut "Agile e6.1 Java Client.lnk" in "C:\Documents and Settings\All Users\Start Menu\Programs\"
2. At the end of the "Target" attribute, add the connection setting you want to use e.g.:
`-a plmref -h example.com`
3. It is also possible to edit the "jacc.cmd" file in "C:\Documents and Settings\All Users\Application Data\Oracle\Agile\EDM" and to add the setting there. Search for the line which ends with

```
...com.agile.jacc.e6.Jacc %*"
```

and replace this with e.g.:

```
"...com.agile.jacc.e6.Jacc %* -a <Application Name> -h <Host name>..."
```

Example - Java Client WebStart:

1. If not yet available, copy
`"<ep_root>\staging\product\installation\JavaClient\jacc.defaults"`
to
`"<ep_root>\staging\custom\installation\JavaClient\jacc.defaults"`
2. Adapt the properties you need in

```
"<ep_root>\staging\custom\installation\JavaClient\jacc.defaults":
```

```
jacc.node, jacc.port, jacc.app
```

Compression Option (WAN only)

To improve the data transfer performance when loading data via WAN, the Java Client Advanced IPC settings compression option 'jacc.ipc.compressSize' can be set.

For more information on the Java Client jacc.ipc.compressSize option refer to the Online Help Customizing Agile e6 > Enterprise Communication Interface (ECI) > IPC Interface > Connection Type "tcpip" > Compression.

Java Client Remote Site Definition

The client variable EP_DDM_SITE is used to configure the DFM client location. In addition, the system allows configuring the client location for the Agile e6 AutoVue Integration - EP_PVM_SITE.

Note: For more information about EP_PVM_SITE, see the AutoVue Integration Installation and Administration Guide for Agile e6.2.1.0 (Chapter: Configuring Multiple Location Support).

To configure the Java Client to start with a specific DFM/PVM site, you have several options.

Note: The PVM configuration only needs to be performed when using the Agile e6 AutoVue Integration.

Configure Local Installed Java Client

1. Edit the file "jacc.cmd" in "C:\Documents and Settings\All Users\Application Data\Oracle\Agile\EDM" and to add the setting there, search for the line where "javaw" is executed and add e.g.: -DEP_DDM_SITE="ka" (for AutoVue: -DEP_PVM_SITE="ka"). The line looks like:

```
""%JAVA_HOME%\bin\javaw.exe" %VM_OPTS% -Djacc.home="%APPDATA\e61" -DEP_DDM_SITE="mu" (for AutoVue: -DEP_PVM_SITE="mu" )..."
```

OR

1. Add the following to file jacc.ini in \$APPDATA\Agile\e61\:

```
? EP_DDM_SITE=de
? For AutoVue: EP_PVM_SITE=de
```

For example:

```
"C:\Documents and Settings\<username>\Application Data\Agile\e61\jacc.ini.
```

The jacc.ini file is available after the first execution of the Java Client.

Note: Do not edit the file while the client is running, or your settings will be overwritten.

OR

1. Set the environment variable EP_DDM_SITE=de (for AutoVue: EP_PVM_SITE=de) on the client machine application.

Note: When using the client environment variable, the variable EP_DDM_SITE=de (for AutoVue: EP_PVM_SITE=de) has to be removed from the file jacc.cmd and jack.ini.

Configure WebStart Java Client

1. If not yet available, copy "<ep_root>\staging\product\installation\JavaClient\jacc.defaults" to "<ep_root>\staging\custom\installation\JavaClient\jacc.defaults".
 2. Open "<ep_root>\staging\custom\installation\JavaClient\jacc.defaults" and change the lines:
 - ? EP_DDM_SITE=de
 - ? For AutoVue: EP_PVM_SITE=de
 3. Deploy the WebStart Java Client.
- OR
4. Set the environment variable EP_DDM_SITE=de (and/or for AutoVue: EP_PVM_SITE=de) on the client machine application.

Note: When using this option, the variable EP_DDM_SITE (and/or for AutoVue: EP_PVM_SITE) has to be removed from the jacc.defaults file.

Configure WebStart Java Client for Multiple Remote Locations

As described, it is possible to setup the EP_DDM_SITE, and for AutoVue EP_PVM_SITE, in the jacc.defaults file within the WebStart Java Client deployment. If more locations should use the central WebStart Java Client deployment, a different EP_DDM_SITE (and for AutoVue: EP_PVM_SITE) configuration has to exist in the same deployment.

In the following example, the EP_DDM_SITE (and for AutoVue: EP_PVM_SITE) are "de" and "us".

1. If not yet available, copy


```
"<ep_root>\staging\product\installation\JavaClient\jacc.defaults"
```

 to


```
"<ep_root>\staging\custom\installation\JavaClient\jacc_de.defaults".
```
2. Open "<ep_root>\staging\custom\installation\JavaClient\jacc_de.defaults" and change the EP_DDM_SITE to EP_DDM_SITE=de (and for AutoVue: EP_PVM_SITE to EP_PVM_SITE=de).
3. If not yet available, copy


```
"<ep_root>\staging\product\installation\JavaClient\jacc.jnlp"
```

 to


```
"<ep_root>\staging\custom\installation\JavaClient\jacc_de.jnlp".
```
4. Open "<ep_root>\staging\custom\installation\JavaClient\jacc_de.jnlp" and change the codebase like this:


```
<!--URL to jacc.defaults, standard is to look at the codebase -->
```

- ```
<argument>-defaults</argument><argument>$$codebase/jacc_de.defaults.</argument>
```
5. If not yet available, copy  

```
"<ep_root>\staging\product\installation\JavaClient\jacc.defaults"
```

  
to  

```
"<ep_root>\staging\custom\installation\JavaClient\jacc_us.defaults".
```
  6. Open "

```
<ep_root>\staging\custom\installation\JavaClient\jacc_us.defaults
```

" and change the EP\_DDM\_SITE to EP\_DDM\_SITE=us (and for AutoVue: EP\_PVM\_SITE to EP\_PVM\_SITE=us).
  7. If not yet available, copy  

```
"<ep_root>\staging\product\installation\JavaClient\jacc.jnlp"
```

  
to  

```
"<ep_root>\staging\custom\installation\JavaClient\jacc_us.jnlp".
```
  8. Open "

```
<ep_root>\staging\custom\installation\JavaClient\jacc_us.jnlp
```

" and change the codebase like this:  

```
<!--URL to jacc.defaults, standard is to look at the codebase -->
<argument>-defaults</argument><argument>$$codebase/jacc_us.defaults.</argument>
```
  9. Deploy the WebStart Java Client.

---

---

**Note:** With this configuration, the user at site "de" can now use the central WebStart Java Client with the URL for the jacc\_de.jnlp file and the user at site "us" is using the jacc\_us.jnlp file.

Example: [http://server:port/Jacc/jacc\\_de.jnlp](http://server:port/Jacc/jacc_de.jnlp)  
[http://server:port/Jacc/jacc\\_us.jnlp](http://server:port/Jacc/jacc_us.jnlp)

---

---

## Verify DFM Configuration

1. To verify the current Java Client EP\_DDM\_SITE (for AutoVue: EP\_PVM\_SITE) setting, create a LogiView Procedure with the following line:  

```
put (client_env ("EP_DDM_SITE"))
```

  
For AutoVue:  

```
put (client_env ("EP_PVM_SITE"))
```
2. Execute the LGV procedure. If the setup is correct you will see the defined site as output in your client message window.

## Java Daemon

The Java Daemon has to start and manage EDM Server processes. In case of a client call, it has to start a new server process if no matching server process is already running. If a matching server process is already running, it has to return the server's address. When the client terminates, and if no other client is connected to the same EDM Server process, the Java Daemon has to shutdown the EDM Server process.

The Java Daemon also has to manage all running EDM Server processes, i.e. check if there is still a connection between an EDM Server process and one or more clients. The Java Daemon always has to be able to accept a new client.



---

---

**Note:** The Java Daemon Administration Tool or Plug-in is an administrator tool only!

---

---

## Daemon Configuration File jade.ini

During Agile e6 installation, the Daemon configuration file jade.ini will be installed under <ep\_root>/axalant/ini.

During installation, the administrator sets the password for the Daemon Controller. If the password needs to be changed, it has to be changed manually in the configuration file jade.ini.

---

---

**Note:** Password has to be encrypted.

---

---

## Java Daemon Plugin

---

---

**Note:** The Java Daemon Administration Tool is available in English only!

---

---

To be able to use the Java Daemon Administration Tool, it has to be activated first.

### Activate Java Daemon Administration Tool

1. Start Agile e6.
2. Click the button "Change the preferences of the application".  
The Agile e6 - Preferences Mask is opened.
3. Select Plugins.  
The Plugins window on the right hand side displays all available plugins.
4. Select the Daemon plugin.
5. In the Load column, select the checkbox for the Daemon plugin.
6. Click Apply.
7. Click OK.

---

---

**Note:** To make the changes operative, restart Agile e6.

---

---

After the restart, the button "Opens the Java Daemon administration tool" is displayed.

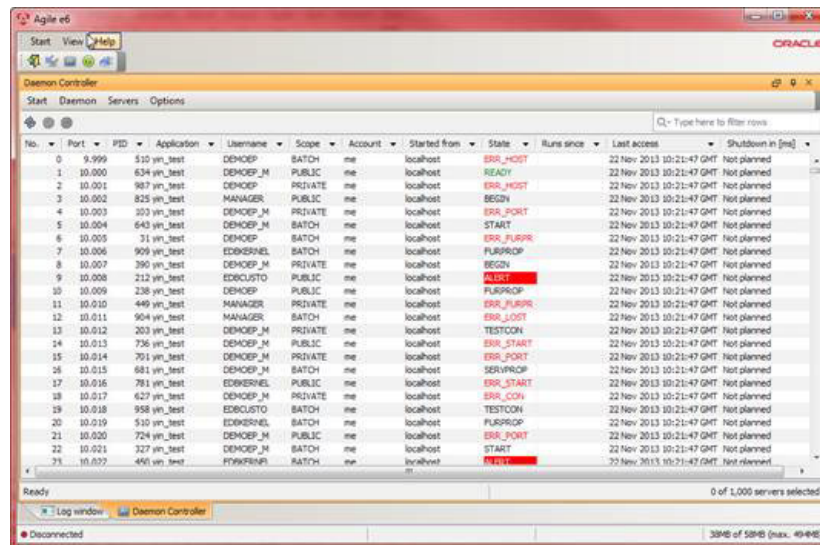
### Connect to the Java Daemon

1. In Agile e6, click the button to open the Java Daemon administration tool.  
The Daemon Controller window opens at the bottom of the screen.
2. In the Daemon Controller window, click Start.
3. Select Connect to daemon...  
The Connect to daemon window is opened.
4. Enter your information in the fields:
  - ? Daemon on host

- ⌘ Port number
- ⌘ Daemon password

5. Click Connect.

In the Daemon Controller screen, a list of all servers is displayed.



| COLUMN NAME  | DESCRIPTION                                                                                                               |
|--------------|---------------------------------------------------------------------------------------------------------------------------|
| No.          | Amount of servers.                                                                                                        |
| Port         | Port number between server and client.                                                                                    |
| PID          | PID of the server process started on this machine.                                                                        |
| Application  | Name of the application used by the server.                                                                               |
| Username     | Name of the Agile e6 user who is using the server process.                                                                |
| Scope        | Three scopes are possible: <ul style="list-style-type: none"> <li>⌘ Private</li> <li>⌘ Batch</li> <li>⌘ Public</li> </ul> |
| Account      | Account name of the user on the client machine.                                                                           |
| Started from | IP address of the client.                                                                                                 |

| COLUMN NAME   | DESCRIPTION                                                                     |
|---------------|---------------------------------------------------------------------------------|
| State         | ? BEGIN<br>Begin of initialization.                                             |
|               | ? FREEPORT<br>Reserved a free port.                                             |
|               | ? SERVPROP<br>Server Properties set up.                                         |
|               | ? START<br>Started Start command.                                               |
|               | ? TESTCON<br>Established test connection.                                       |
|               | ? FURPROP<br>Set further properties (VIEW, LANGUAGE).                           |
|               | ? READY<br>In ready state.                                                      |
|               | ? BUSY<br>Busy (blocked by a long running call).                                |
|               | ? CHECK<br>Check (getting number of connections).                               |
|               | ? ERR_HOST<br>Error: Could not get the host address.                            |
|               | ? ERR_STORE<br>Error: Could not store the new AxalantServer.                    |
|               | ? ERR_PORT<br>Error: Could not get a free port.                                 |
|               | ? ERR_START<br>Error: Could not execute start command successfully.             |
|               | ? ERR_CON<br>Error: Could not create connection to server.                      |
|               | ? ERR_FURPR<br>Error: Could not set further properties (VIEW, LANGUAGE).        |
|               | ? ERR_LOST<br>Error: Server lost.                                               |
|               | ? ALERT<br>Alert (may be lost).                                                 |
| Runs since    | Time server was started.                                                        |
| Last access   | Last time the client and the server connected to each other and exchanged data. |
| Shutdown [ms] | Shutdown in ms if a public server is no longer in use.                          |

## Working with the Daemon Controller

The following functionalities are available:

- ? Double-clicking the Daemon Controller window banner

By double-clicking the window banner, the Daemon Controller can be extended over the complete Agile e6 window. Or it can be reduced to the bottom of the Agile e6 window.

? Search

- General filter

The general filter allows filtering rows for the entered search term.

- Column filter

Every column in the Daemon Controller has a filter functionality. Each column filter lists all terms available in the respective column.

? Administration of the server

You can administer the servers from:

- Servers menu

- Context menu

- Toolbar buttons

All three options allow to:

- \* Refresh

Refreshes the server list.

- \* Information

Additional server information can be displayed for one or more selected rows.

When selecting more than one server, the information in the Server Information window is displayed below each other.

---

---

**Note:** The information in the Server Information window is read only!

---

---

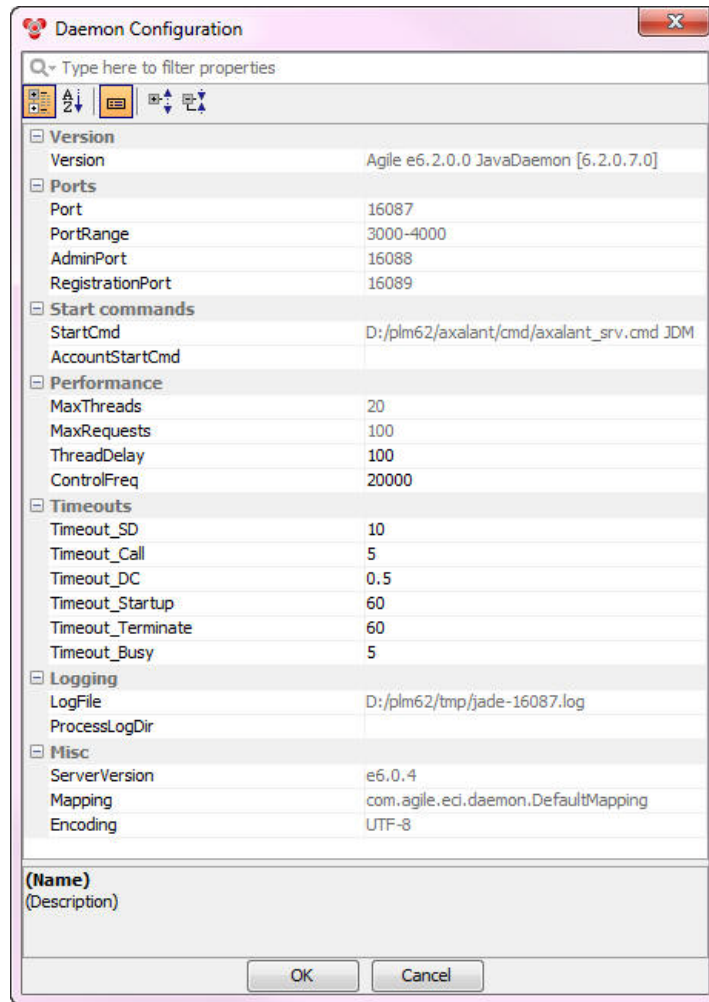
- \* Shutdown server

This option shuts down the selected server, but not the Java Daemon.

## Configuring the Daemon

1. To open the Daemon Configuration, open the Daemon menu.
2. Select Configuration.

The Daemon Configuration screen is opened.



- The Daemon Configuration window displays the current Java Daemon configuration and allows modifying certain properties.
- By highlighting a property, its description is displayed in the description area.
- The search field at the top of the window offers comprehensive search functionality.
- At the top, the following display buttons are available:
  - Categorized  
Displays the properties in categories.
  - Alphabetic  
Displays the properties alphabetically.
  - Show/Hide Description Area  
Shows or hides the description area at the bottom of the window.
  - Expand  
In the Categorized view, expands the categories.
  - Collapse  
In the Categorized view, collapses the categories.
- Every property value that is not grayed out, can be changed.

1. Double-click the respective value.
2. Enter new value.
3. Click OK.

---

**Note:** Modifications are only valid for the current session and are not stored in the Daemon configuration file `jade.ini`. After shutting down the Daemon, these changes are lost.

---

## Refresh Frequency Rate

The Daemon Controller allows setting a new time value for refreshing the server list. This value defines after which time interval the server will be refreshed.

---

**Note:** The new value is only valid on the used client machine and will be stored in the local Java configuration file `jacc.ini`. After a restart of the client, the changed value is still valid.

---

---

**Note:** Default refresh frequency rate = 60000 milliseconds

---

1. Open the Options menu.
2. Select Properties.  
The Set daemon controller properties screen is opened.
3. Select Server list refresh frequency (milliseconds).
4. Enter a value.
5. Click Set property.

## Disabling and Enabling the Daemon

The administrator can disable the Java Daemon, so no new server can access the Daemon. Requests from clients to access the respective server are denied, and the user receives an error message.

### To disable the Daemon:

1. Open the Daemon menu.
2. Select Disable.

### To enable the Daemon:

1. Open the Daemon menu.
2. Select Enable.

## Shutdown Daemon

1. Open the Daemon menu.
2. Select Shutdown.

The Shutdown daemon window is opened.

There are two options how to shutdown the Daemon:

- 2. Shutdown all servers  
The Daemon and all EDM server processes, that are managed by the Daemon, will be shutdown.
  - 2. Keep all EDM servers running  
Only the Daemon will be shutdown. The EDM server processes continue running.
3. Select a shutdown option.
  4. Click Shutdown.

## Displaying Images with the WebStart Java Client

In case you want to display your own images in the WebStart Java Client, make sure the images or icon file names are all written in lower case as otherwise, they won't be displayed correctly. The WebStart Java Client gets the images from the Web server in which the files are case sensitive.

## Agile e6 AutoVue Integration - Memory Settings

In some cases it is necessary to increase the available memory for the Agile e6 AutoVue Integration. By default, 512 MB are assigned.

### Local Installation (MSI)

To change the memory settings for the locally installed deployment (JVue.msi) for the Agile e6 AutoVue Integration, perform the following:

1. Edit the file jvue.cmd in "C:\Documents and Settings\All Users\Application Data\Oracle\Agile EDM" and change the following line:

```
set VM_OPTS=-Xmx512M
```

---

**Note:** Default size is 512 MB. Because the Agile e6 AutoVue Integration uses a 64-bit JVM, you can provide several GB to the Agile e6 AutoVue Integration.

If you request more memory than the system can provide, the Agile e6 AutoVue Integration will not work!

Example to provide 4GB to the Agile e6 AutoVue Integration:

```
set VM_OPTS=-Xmx4096M
```

---

### WebStart

To change the memory settings for the WebStart deployment (JVue.war) for the Agile e6 AutoVue Integration, perform the following:

1. Copy the original file jvue.jnlp from the directory:

%EP\_ROOT%\staging\product\installation\JVue

to

%EP\_ROOT%\staging\custom\installation\JVue

2. Edit the following line in the file jvue.jnlp to change the available memory:

```
<j2se version="1.7" max-heap-size="512m"/>
```





---

## Office Suite - PDF Generator Installation

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**Note:** Further information about how to install the Office Suite can be found in the *Client Installation Guide on Windows for Agile e6.2.1.0*.

---

One main feature of the Office Suite is the PDF generation from a MS Office file. The Office Suite supports a PDF printer to convert Office documents into PDF files.

### Installation

---

**Note:** The installation package of the Office Suite PDF Service is located in the packages directory and named officesuitepdf.zip.

---

---

**Note:** Starting with Agile e6.2.1.0 the Office pdf generator is only supported on e6 server machine. To install the PDF generator you also need to install MS Office, the Office Suite and a PDF printer on this server.

---

The zip file is contained in the officesuitepdf.zip installation package, located in the packages folder of the installation medium.

1. Copy the Office Suite PDF Generator installation package (officesuitepdf.zip) from the packages folder of the installation medium into a temporary directory.

Example:

```
copy y:\packages\officesuitepdf.zip c:\temp
```

2. Extract the installation package.

This unpacks the Agile e6.2.1.0 Office Suite PDF Generator ZIP archive into the axalant\bin\java subdirectory of your temporary directory.

Example:

```
unzip c:\temp\officesuitepdf.zip -d c:\temp
```

3. Extract the Agile e6.2.1.0 Office Suite PDF Generator package into the installation directory.

Example:

```
unzip c:\temp\axalant\bin\java\officesuitepdf.zip -d"c:\Program Files
(x86)\Agile e6".
```

The installation package contains the following directories:

- 7. PDF Service Root (C:\Program Files (x86)\Agile\_e6\Office-Suite-PDF)
  - axalant
    - bin
      - intel-ms-nt6.1 (FMS Client binaries)
      - java (Java archives)
    - cmd (Windows scripts directory)
    - ini (Configuration files)
    - pdf (PDF service files)
    - scripts (UNIX scripts)
  - ext
    - bin
      - intel-ms-nt6.1 (external binaries)
      - java (external Java archives)
  - tmp (Logging directory)
- 4. Adapt the installation.

You need to adapt the startup script to setup the 32bit Java Runtime and the installation path of the Office Suite PDF Service. The script is located at the ...\`axalant\cmd` subdirectory of the installation.

The `pdf.bat` script contains the following basic configuration settings:

```
set JAVA_HOME=<Java8_32bit_home>
set ep_root=<ROOT DIRECTORY OF THE OFFICE SUITE PDF SERVICE>
```

Example:

```
set JAVA_HOME=C:\Program Files (x86)\Java\jre
set ep_root=C:\Program Files (x86)\Agile_e6\Office-Suite-PDF
```

- 5. Adapt the service settings.

The `OfsPdf.properties` file is located at the `axalant/pdf` subdirectory of the installation. The file sets the environment variables needed to start and stop the Office Suite PDF Service.

The following properties have to be adapted.

---

---

**Note:** The other properties must not be changed.

---

---

```
#
ECI connection
#
host=<PLM host>
port=<PLM port>
env=<PLM env>
scope=BATCH
#
Client modes to define widget behaviours on client side.
the valid values are: BATCH, TEST
#
BATCH: no widgets will be opened on client side.
TEST: widgets will be opened on client side virtually.
```

```
#
mode=BATCH

#
Directories
<ROOT DIRECTORY OF THE PDF SERVICE> e.g. C:/Program Files (x86)/Agile_
e6/Office-Suite-PDF
<PDF WORK DIRECTORY OF THE PDF SERVICE> e.g. C:/officesuite/PDF
#
varenv.DATAVIEW_CROO=<ROOT DIRECTORY OF THE PDF SERVICE>/axalant/bin/${e6_
windows_client_ep_mach}
varenv.ep_root=<ROOT DIRECTORY OF THE PDF SERVICE>
varenv.axalant_root=<ROOT DIRECTORY OF THE PDF SERVICE>/axalant
varenv.$TMP=<PDF WORK DIRECTORY OF THE PDF SERVICE>
#
Host names
#
varenv.CLI_HST=pdfsrv
varenv.CLI_SRV=<PLM host>
#
machine ID
#
varenv.EP_MACH=${e6_windows_client_ep_mach}
varenv.CLI_HWS=${e6_windows_client_ep_mach}
#
Security settings
#
Security.KeyStoreFile=file://<ROOT DIRECTORY OF THE PDF
SERVICE>/init/wallet/private/batch/cwallet.sso
Security.KeyAlias=orakey
#
PLM Client
#
client1=<PLM user>,<PLM password>,office.pdf.OfsPdf
```

---

---

**Note:** To add a wallet, refer to the *Security Guide for Agile e6.2.1.0* Chapter Wallets > Manual Creation of Wallets > Batch.

---

---



---

---

**Note:** The password has to be encrypted with the batchkeytool. For more information, refer to the *Security Guide for Agile e6.2.1.0* Chapter Encryption > Encrypt Passwords.

---

---



---

---

**Note:** The PDF work directory has to be created and entered in the EDM Server configuration, PDF Service, and the PDF printer.

---

---

## Configuration

The Office Suite needs some information to access the PDF printer and to exchange the files.

## Printer Setup

The PDF printer has to fulfill the following prerequisites:

- Generate PDF file without user interaction (pure batch printing).

- ? Configurable PDF output folder.
- ? Possibility to create a <PDF-Filename>.log file in the PDF output folder, after PDF file creation.

---

**Note:** The PDF output folder is the exchange folder between the PDF printer and Agile e6.

---



---

**Note:** Any folder can be used, but the configuration of the PDF printer has to match the configuration of the Agile EDM Office Suite PDF service.

---

## Post PDF Creation Script

Prerequisite for PDF printer is the <PDF-filename>.log file creation (see above) in the PDF output folder. This file is the "Ready" file for the batch client to trigger the PDF file check in.

If your PDF printer does not create a <PDF-filename>.log file per default, there often exists the possibility to execute an application after printing. This could be used to create the <PDF-filename>.log file. It must be possible to set the filename "<PDF-filename>.log" as a parameter. The following steps describe the general setup of such a mechanism.

1. Create a file "createlog.bat" in the PDF output folder which looks like this:
 

```
set FILENAME=%~n1
set FILEPATH=%~dp0%
echo Done > "%FILEPATH%/%FILENAME%.log"
```
2. Configure your PDF printer to execute the Windows cmd shell (e.g.: C:\WINDOWS\system32\cmd.exe) with the following parameters (e.g %f is the file name parameter) :
 

```
/c C:\officesuite\pdf\createlog.bat %f
```

## Setting up the PDF Printer

### To setup the PDF printer

1. Start Agile e6.
2. Open menu Manager > Office Suite > PDF Printer.
3. Select the PDF printer from the printer list.
4. When you select the PDF printer, the following Office Suite configuration parameters are added to the Office Suite configuration table (System > OfficeSuite > Configuration table):
  - ? GDM\_PDF\_BATCH
  - ? GDM\_PDF\_DIRECTORY

The value of this configuration parameter has to be the same as the value for TEMP in the OfsPdf.properties file. Add "\"\*.pdf" at the end of it.

  - ? GDM\_PRINTER
  - ? GDM\_PRINTER\_DRIVER
  - ? GDM\_PRINT\_PORT

---

**Note:** GDM\_PRINTER, GDM\_PRINT\_DRIVER, GDM\_PRINT\_PORT are set automatically.

---



---

**Note:** This is a section of the OfsPdf.properties file:

```
host=<PLM host name>
port0=<PLM eci port>
env=<PLM environment name>
varenv.ep_root=<PDF service root>
varenv.axalant_root=<PDF service binary root>
varenv.EP_MACH=intel-ms-nt6.1
varenv.CLI_HWS=intel-ms-nt6.1
varenv.CLI_HST=<Client host name>
varenv.CLI_SRV=<PLM host name>
varenv.$TMP=<PDF file exchange folder>
client1=<Connect information>
```

---

5. The value for the Office Suite configuration parameter GDM\_ARC\_NOD has to be the same as the value for varenv.CLI\_HST in the OfsPdf.properties file.

6. In the OfsPdf.properties file, the following has to be set:

```
? host (e.g. edmhost)
? port (e.g. 20001)
? env (e.g. edmref)
```

7. In the OfsPdf.properties file, the correct user has to be entered under "client1".

8. Link the PDF Generator to a lifecycle:

The PDF Generator has to be linked to the respective transition states for the STD-DOC lifecycle. The Office Suite provides a LogiView procedure (GdmBatch/Archiv) to add a job into the PDF job list. This LogiView procedure is a transition procedure for the usage within the lifecycle of the Office document.

The following transition settings can be used:

Field	With change management	Without change management
From	220	120
State (From)	Approved	In Approval
To	230	230
State (To)	Release	Released
System	X	
For Change Management	X	
Pre-Action	xedbusr_tor_rr_vr	xedbusr_chk_no_obj_ews & xedbusr_tor_rr_vr & sig_cre_sgn
Post-Action	xedbusr_tor_sa_uv & xchg_prd_unt_ poa & GdmBatch/Archiv	xedbusr_tor_sa_uv & xedbusr_rst_ prd(260) & GdmBatch/Archiv

Thus, when an Office Suite document reaches this state, a PDF is created automatically.

9. Add "GdmBatch/Archiv" to the respective states in the Lifecycle mask.

---

**Note:** After updating the lifecycle states, the client needs to be restarted.

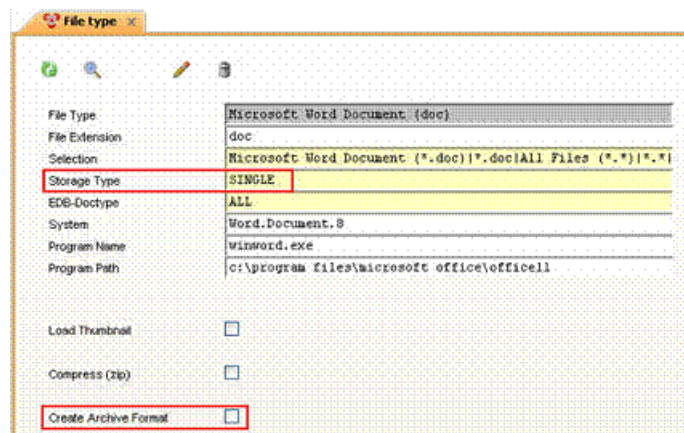
---

10. For every file type, for which a PDF should be created, the 'Create Archive Format' checkbox has to be selected in the File type mask (System > Office Suite > File Types).

---

**Note:** The PDF generation can only be used for file types of the storage type Single.

---



## Configure the Agile EDM Office Suite PDF Service

The Agile EDM Office Suite PDF Service does require some information about the local application, e.g. the exchange file between the PDF printer and Agile e6.

The configuration file of the Agile EDM Office Suite PDF Service has corresponding settings within the Agile e6 Office Suite configuration (System > Office Suite > Configuration).

The configuration table describes the settings of the configuration file of the Agile EDM Office PDF Service and the configuration settings of the EDM Office Suite configuration.

Office Suite configuration for the PDF service:

Variable	Value	Description
GDM_ARC_NOD	Hostname of the PDF Service machine (e.g. pdfsrv)	Host on which the PDF files are created (PDF batch client)
GDM_PDF_BATCH	RUN	Control parameter of the job 'PDF Generation'
GDM_PDF_DIRECTORY	PDF exchange directory (e.g. C:\officsuite\PDF_generation\*.pdf)	Working file of the PDF generator (including absolute path and generic file name)

## Office Suite PDF Service

The Office Suite PDF Service must run as a console application.

To run the Office Suite PDF Service use the pdf.bat command script located in the ...\\axalant\\cmd sub directory of the installation.

The script is called with  
`pdf.bat -c`





---

## File Server Administration

---



---

**Note:** If you use multiple IP interfaces the environment variable EDB\_CHOST needs to be set for the interface which should be used. To ensure that EDB\_CHOST is used, set the environment variable EDB\_CHOST\_FORCE.

---

### File Server Administration Program

This Administration tool enables the management of the File Server. The File Server can be installed automatically with the Agile EDM component-based installation. Three vaults are created automatically (PUB (public), FMS, EIF).

---

**Note:** For more information on the component-based installation of the File Server and the standard vaults refer to the Agile EDM Server Guide.

---

The File Server Administration Tool can for example be used to execute the following functions:

- ? Stop a File Server
- ? Reload File Server configuration
- ? Request File Server information and flush File Server Log
- ? Set the log level of a File Server
- ? Create a new vault on a File Server

To execute the functions, the following arguments are available. Options marked with \* are only available with your File Server account:

---

-n <rpc>	RPC number of the File Server (Default: 804257548)
-l	Shows the File Server information
-v <number>	Set the log level to number
-k	Sends the shutdown request to the File Server*
-c <Vault Type>	Creates a new vault*
?	EIF - Extended
?	FMS - Standard
?	PUB - Public
	More information on the specific vault types can be found below in the section "Adding a vault"

-p <path>	The vault path to create a new vault
-r	Reloads File Server configuration from configuration file (fileservr.cfg)*

Examples for using the Administration Tool:

Action	Prompt
Stop a File Server	fms_admin -n 804257548 -k
Request File Server information and flush File Server Log	fms_admin -n 804257548 -l
Create a new vault on a File Server	fms_admin -n 804257548 -c EIF -p /usr/edbserve/vault1

## File Server on Windows

On Microsoft Windows, the File Server acts as a normal Windows Service Program and can be started via the Start button > Control Panel > Services. Events will be written to the Windows Event System.

All necessary arguments to run the File Server are provided in the Registry HKEY\_LOCAL\_MACHINE\Software\Wow6432Node\Agile\AgilePLM\_Fileservice.

---

---

**Note:** Because the File Server uses Microsoft Windows Access Lists and Security Checks, it is not possible to use vaults on FAT file systems. Use the NTFS file system for vaults instead. Do not use a domain user for the service account of the File Server.

---

---

Key	Default	Description	Optional
LOG_FILE	%FMS_ROOT%\log\fms.log	File Server Log	No
LOG_LEVEL	5	Report Level of File Server Logs	No
MAX_THREADS	10	Maximum number of File Server requested processed in parallel	No
RPC_NMB	804257548	RPC number	No
USER	edbserve	User of service account	Yes
CHECK_VAULTS	1	Check of standard vault (0=off)	Yes
REQ_LICENSES	None	Requested licenses: FMS_DFM = DFM	Yes
CORE_LOG	%FMS_ROOT%\log\fms_core.log	Extended log (replaced by EP_ERRLOG)	Yes

Key	Default	Description	Optional
EVENT_LOG_FILE	off	The values for EVENT_LOG_FILE.  "on" - Create a special log file for some FMS operations, called events. For each FMS operation only one line is written into the log file. The log file is written in the sub directory log of the FMS and is called event.log  "off" - no Log file is created	Yes
SECURITY_LEVEL	0x00000003 (3)	0 = Do not set and check file access  1 = Set and file access explicitly, shows warning in log file  2 = Sets file access explicitly bit does not check them  3 = Sets and checks file access explicitly and reports error when not possible.	Yes

## File Server on UNIX

When running the File Server UNIX additional arguments are available:

-h	Shows help
-version	Shows version
-c <0 1>	Disable or enable vault checks on startup
-f	Disable check for additional licensed functions (DFM)
-r <licences>	Requested licences (available: FMS_DFM)
-t <retry>	Retry to request licences (on startup)
-u <user>	Use another user account
-n <number>	Use another RPC number than the default (804257548)
-m <number>	Max. number of parallel tasks (= user requests), default is set to 30
-l <file>	Another name for the log file (default is log/fms.log)
-verbose	Write all possible information to log file
-short	Write only errors to log file.

The following example sets the command to use the RPC number 77777777 with a maximum of 10 parallel accesses with all log messages on standard output.

```
fms_srv -n 77777777 -m 10 -v -l - &
```

---

---

**Note:** : Support of homogeneous networks (UNIX LAN) comprised of clusters or local nodes. Heterogeneous networks have been taken into account in the design process.

---

---

In the UNIX part, Berkley Services rpc must be available at all nodes.

---

---

**Note:** Due to some UNIX OS changes, from e6.2.0.0.2 moving forward, the `fms_srv` script can no longer be used as standalone due to undefined library path. As a workaround for this, the `%FMS_ROOT%` must be first exported manually to the library path before using the `fms_srv`.

---

---

To manage the File Server on Unix from e6.2.0.0.2 forward, run the `fmssrv` script using these arguments available.

---

<code>start</code>	Starts the File Server
<code>stop</code>	Stops the File Server
<code>version</code>	Shows the File Server version

---

## File Server Log

Log information for the File Server is written to the file `fms.log` (default: `%FMS_ROOT%\log\fms.log`). Error messages and warnings are written into the Event Log (Windows) or the `syslog` (UNIX).

The File Server log can be configured by setting the following properties in the File Server configuration file (`fileservr.cfg`). The file can be found in the root directory of the File Server.

**Table 9–1 File Server Log**

Name	Default Value	Possible Values	Description
MaxFileSize	10000	1000-100000	The maximum file size for the <code>fms.log</code> in KB
MaxBackupIndex	10	1-9999	The maximum number of backup files like <code>fms.log_0001</code>  If the maximum number of backup files is reached a warning will be written to the <code>syslog/</code> Event Log.
OverwriteOldLogs	yes	yes or no	This setting controls if the File Server overwrites old backup files.  If an old backup log is overwritten, a warning will be written to the <code>syslog/</code> Event Log.

**Table 9–1 (Cont.) File Server Log**

Name	Default Value	Possible Values	Description
StopOnError	no	yes or no	<p>This setting controls if the File Server stops to work when no new log can be created. If set to yes, an error message is displayed and posted to the system log file as soon as no new log file can be created.</p> <p>The File Server administrator then needs to move the log files out of the log directory either by moving all backup logs or moving all backup logs except the fms.log.</p> <p>If the logs were removed, the File Server works again, a re-start is not necessary.</p>

## Adding a vault

With the standard installation the vaults are created automatically. To set up a vault you first need to create the vault definition within Agile EDM and in the next step in the Administration tool.

Vaults must be created by the system administrator as a physical entity in the network. To create the vault directories, login with File Server User and use the File Server Administration Tool:

```
fms_admin -n <rpc> -C <Vault Type> -p <path>
```

Once this is done, the area can be registered with the storage area management functions of Agile e6.

More detailed information on directory/file permissions for the vaults can be found in the Agile EDM Security Guide > Agile e6 Users and Permissions Detailed Access > File Server User Permissions

---

**Note:** Protected areas - referred to as storage areas - can be defined at any node of the network that provides File Server services. Such areas can only be accessed with SYSTEM or ROOT privileges.

---

## Create a vault definition within the Agile EDM system

Vaults define and reserve a protected part of a storage media on individual computers or within a network. Access to this areas must go through the Agile e6 file management system and is restricted to users with the necessary access rights. Generally speaking, storage areas can be defined on any storage media within a network.

Vaults in a network are defined on the operating systems level using system privileges. Vault management functions of Agile e6 can be found in the File Server FMS-Vault mask. It is reasonable to create only such vaults that physically exist in order to ensure system integrity.

1. In Agile e6, select Manager > File Management > Vaults.
2. In Insert Mode, fill in the following fields:

Field Name	Description
Vault	Unique name of the vault

Field Name	Description
Type	IN: Check-in, vault for standard file management operations BCK: Backup area, vault used for the file backup EXT: External storage area, vault that is used for export operations Or additional storage areas if required (additional areas are treated like "IN" type storage areas).
Kind	FMS: Standard vault, encrypted machine-dependent vault (with predefined names) PUB: Public storage area, public vault with direct read access for all users via mounts or client programs EIF: Extended storage area, encrypted machine-dependent vault (with cache directories); meta files are created for each file. Or additional storage areas of other File Servers are used.
Site	Defines the physical location of the computer.
Node	Name of the computer/disc node of the corresponding vault.
Disc + path	Defines the physical location of the computer. Name of the computer/disc node of the corresponding vault. Name of disc and path of the vault. Entry always has to end with a "/".
Network reference	Automatically generated entry. Network reference for the File Server.
FMS Daemon Host	Name of the FMS daemon host.
FMS Daemon Port	Name of the FMS daemon port.
Name	Automatic system entry: User name of the user who created the vault.
Date	Automatic system entry: Date of creation.
Remark	User comments.

To create a vault for the Web Client, additional information needs to be entered under the tab Web-Address and fill in the fields:

Field Title	Description
Protocol	Protocol for the Web File Service (e.g. http)
Host	Host name where the Web File Service runs
Port	Port number of the Web File Service
Path	Servlet Path on the Web Server (Default: /FileService)

3. Save the entry.

## Registering the vault on the File Server by using the FMS Administration tool (fms\_admin)

1. After the installation of the File Server the fileserver.cfg configuration file must be adapted to match the vault definition within Agile e6.

The fileserver.cfg defines the "valid" vault paths for the File Server.

In the default configuration file the standard vaults created by the File Server during startup are pre-configured and you need to add your vault path:

```
[Vaults]
FMS=fms/
EIF=area/
PUB=pub/
```

For example you have two additional vaults in your Agile e6 vault definition:

Vault Name	Host Name	Path
CADFiles	fms.example.com	/app/fms/vaults/cad/...
OfficeFiles	fms.example.com	/app/fms/vaults/office/...

Then the fileserver.cfg should contain the following entries:

```
[Vaults]
FMS=fms/
EIF=area/
PUB=pub/
CADFiles=/app/fms/vaults/cad/
OfficeFiles=/app/fms/vaults/office/
```

---

**Note:** In the configuration file fileserver.cfg the size for transfer packages can be configured independently for every client. Also the default package size can be configured.

---

2. Reload the configuration using the FMS Administration Tool.

e.g. `fms_adm -h fmsHost -n 804257548 -r`

## File Server Functionality in the EDM System

Several administration functions for Manager/System Users are available in the Agile EDM system itself.

- ? Export files not needed regularly and move to an external vault
- ? Import files - re-import files which were previously exported to an external vault if they need to be changed or viewed by the user.
- ? Move a file to a Backup vault
- ? Restoring files from a Backup vault

The import, export, or transfer of files must be performed by a system administrator. Users may only request that files are imported / exported (flag ID) using the file management functions.

The import, export, and transfer of files as well as backup, retrieve, copy, and distribute functions for files are only available between vaults of the same storage type, i.e. FMS -> FMS, PUB -> PUB, EIF -> EIF.

### Export files

---

**Note:** Files cannot be exported unless an export request has been generated for the file (Status A).

---

1. Select Manager > File Management > Files.
2. Select the file to be exported.
3. Select Export file from the context menu.
4. Select a vault of the type EXT.

The original file will be deleted after the export. The external vault may later be archived on storage media using operating system functions.

---

**Note:** "Files can only be exported to vaults of the vault type "EXT".

The vault type ("FMS", "PUB", "EIF", etc.) of the source area and the external area must be identical.

Agile e6 cannot write directly to a secondary storage media. It can only access devices that feature a file system (such as CD-ROM drives).

---

## Import Files

Exported files must be re-imported before they can be viewed or modified. After an import request has been generated, the file can be imported into the system (Status E). The file to be imported must exist in the export area and needs to be copied from a secondary storage media to the corresponding export area.

1. Select Manager > File Management > Files.
2. Select the requested file to be imported.
3. Select Import from the context menu.

---

**Note:** Files must be imported from devices with a file system (e.g. CD-ROM drives).

---

## Transfer File

This function transfers the selected files from a specified vault to another vault. The file must exist at the specified location in the source area (BCK and EXT type vaults are an exception). The file is deleted in the source area once the transfer is completed.

1. Select Manager > File Management > Files.
2. Select the file to be transferred.
3. Select Transfer from the context menu.
4. Select a vault.

The files stored in a vault of the type "BCK" (backup) or "EXT" (external), need not to be present at the specified location since the File Server cannot access secondary media. Only the relationships will be updated.

The storage area type (FMS, PUB, EIF, ...) of the source and target areas should be identical.

## Move a File to a Backup Vault

This function transfers files from a specified vault to a backup vault. A system administrator may later archive the contents of the back vault using operating system functions.

1. Select Manager > File Management > Files.



2. Select the file to be moved to the backup area.
3. Select Backup from the context menu.
4. Select a vault.

---

**Note:** Files must be imported from devices with a file system (e.g. CD-ROM drives).

---

Backup files must be transferred to backup vaults (vault type must be "BCK").

The vault type ("FMS", "PUB", "EIF", etc.) of the source area and the target area must be identical.

Exported files (vault type "EXT") and files in a backup vault (vault type "BCK") cannot be archived with this function.

Files can only be stored once in a vault. Consecutive backup operations of a file to a vault will overwrite the original backup file.

## Restore a File

This function restores a file from a specified (backup) vault at its original location in the vault. The file to be restored in the system must exist at the specified location of the backup area. The system administrator needs to copy files to be restored in the system from a secondary storage media to the corresponding backup area.

1. Select Manager > File Management > Files.
2. Select the file to be restored into the system.
3. Select Store back from the context menu.
4. Select a vault.

---

**Note:** Files must be imported from devices with a file system (e.g. CD-ROM drives).

---

Files can only be restored from a vault (storage area) of vault type "BCK".

The vault types ("FMS", "PUB", "EIF", etc.) of the backup vault and the original (target) vault must be identical.

Exported files (vault types "EXT") cannot be restored in the system. Distributed copies of files that have been distributed to several vaults will be marked as "not actual" (relationship status "N"). Only the original file will retain the "actual" status (relationship status "A").

In case of an original file the "Change date" and "File size" fields will be updated once the restore process is complete.

## Distribute Files into a different Vault

Sometimes files need to be distributed into several vaults. Distribution into several vaults can ensure that users, who do not have access to certain areas, will have access to certain files or you may wish to distribute into additional backup vaults.

## Web-enabled File Server

If you are operating a data service or a file service you will need to install the servlets into your Tomcat servlet container. If a site is just implementing one of the two it can switch off not needed servlets by adapting the web.xml configuration file. If you operate a file service the servlets will need access to the usual native fms libraries.

Normally the presentation service will be tightly coupled with the data service. But if you have access to existing services on your network you could just access these services in your presentation service and would not need to install the servlets. Still the access to the data service must be protected with authentication and authorization mechanisms as mentioned above.

The users do not need to install DLLs or other components on top of the browser.

If you use a web presentation service (Web Client), the Web File Service requires access to this! Using a Java Client the access is not required.

The web based file management assumes three factors:

- ⌘ A (meta) data service in cooperation with a presentation service to manage data about documents and files and display it to the user.
- ⌘ Access to these services must be protected with authentication and authorization mechanisms.
- ⌘ A file service that manages the physical files. A user or application who wants to check-in, check-out or delete files via the browser.

These factors may be based on different machines connected through LAN or WAN or just on one machine (mainly during test). In most cases all services will run on one machine while the users browser will run on a different machine. For better security the communication between the user and the services should use SSL connections. The communication between the services is based on encrypted messages.

## Technical View of the WebFile Server

### Secure Socket Layer (SSL)

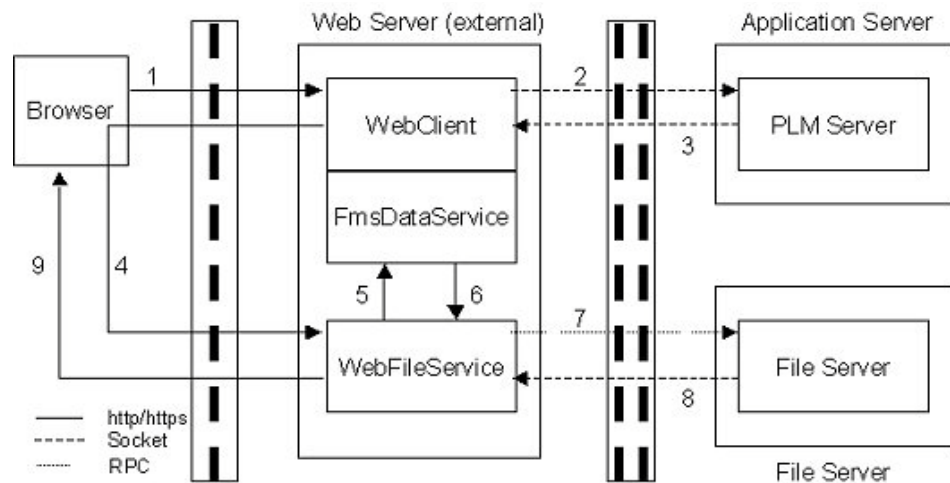
Web servers support the HTTPS protocol which encrypts the data to inform the caller about the server the data is coming from.

For more information about setting up the HTTPS environment refer to the Apache Tomcat Security information on the following Apache Web page:

<http://tomcat.apache.org/tomcat-8.0-doc/security-howto.html>

### Communication Path during File Viewing

This section describes the communication between the several components in a medium and high-end security environment.



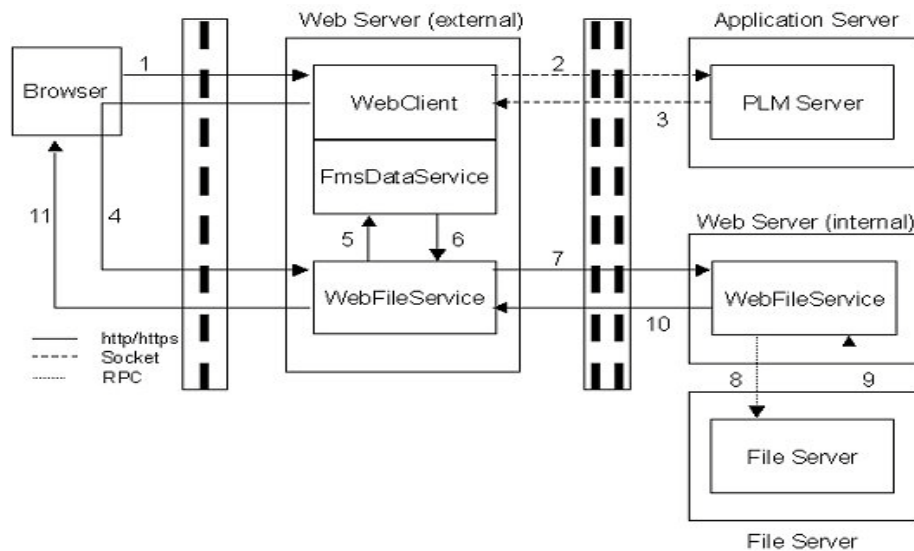
## Software components:

Browser	The browser is used to access the web site on the Web Server.
Web Client	The Web Client is a web service, which gains access to the Agile EDM system.
FMS Data Service	The FMS Data Service is an internal service, which provides the Meta data for the file access.
Web File Service	The Web File Service provides the file access for the user.
PLM Server	The PLM Server represents the Agile EDM system.
File Server	The File Server manages the files within the Agile EDM system.

## Communication steps:

1. The user pushes the viewing button to view a file.
2. The Web Client calls the xfile userexit over ECI.
3. The PLM Server calls the FMS callable over ECI (the Meta data will be stored in the Cache of the FMS Data Service).
4. The Web Client responds a redirection URL to the browser and the browser sends a GET request to the Web File Service (the request contains an access ticket).
5. The Web File Service decrypts the access ticket and sends a signed request envelope to the FMS Data Service to gain the Meta data.
6. The FMS Data Service responds with a signed envelope, which contains the Meta data.
7. The Web File Service calls the File Server via RPC by using the FMS client library. The RPC return packet contains the socket for the file transfer.
8. The File Server creates a new thread for the file transfer and sends the file via socket to the calling Web File Service.
9. The Web File Service sends the receiving data without caching as respond of the redirection GET request to the browser.

The high-end security environment communication is a little bit different.



## Software components:

Browser	The browser is used to access the web site on the Web Server.
Web Client	The Web Client is a web service, which gains access to the Agile EDM system.
FMS Data Service	The FMS Data Service is an internal service, which provides the Meta data for the file access.
Web File Service	The Web File Service provides the file access for the user.
PLM Server	The PLM Server represents the Agile EDM system.
File Server	The File Server manages the files within the Agile EDM system.

## Communication steps:

1. The user pushes the viewing button to view a file.
2. The Web Client calls the xfile userexit over ECI (the PLM Server checks if a proxy configuration is available for the Web Client site and adds the proxy data to the Meta data).
3. The PLM Server calls the FMS callable over ECI (the Meta data will be stored in the Cache of the FMS Data Service).
4. The Web Client responds a redirection URL to the browser and the browser sends a GET request to the Web File Service (the request contains an access ticket).
5. The Web File Service decrypts the access ticket and sends a signed request envelope to the FMS Data Service to gain the Meta data.
6. The FMS Data Service responds with a signed envelope, which contains the Meta data.
7. The Web File Service generates a POST request to the Web File Service, which is running on the internal Web Server to get the file. The POST request contains an encrypted envelope with the Meta data.
8. The Web File Service calls the File Server via RPC by using the FMS client library. The RPC return packet contains the socket for the file transfer.
9. The File Server creates a new thread for the file transfer and sends the file via socket to the calling Web File Service.

10. The Web File Service sends the incoming file data without caching to the calling proxy Web File Service.
11. The (Proxy) Web File Service send the receiving data without caching as response to the redirection GET request to the browser.

## Configuration

---

**Note:** The JNI of the 64bit JVM does not work with 32bit libraries and the File Server client library cannot be loaded. The 32bit JVM is the only supported JVM on AIX.

---

The possibilities to configure the Web Proxy Server of the web file management system is described here.

The web proxy supports a main switch to activate or deactivate the proxy mechanism. The main switch is accessible via the "Configuration parameter" mask (Manager > System Configuration > Other Parameters).

EDB-FMS-PROXY -> ON/OFF (default)

You have to insert this configuration parameter to activate the proxy mechanism.

In case of a high-end security environment, the Web File Service on the external Web Server works as a proxy to the internal Web File Service. The definition of a Web Proxy needs two steps.

1. Define a default proxy for a site or a specialized proxy for a vault for the site.

You can define a set of default proxy entries for several sites, by adding the information of the external Web Server with the path to the (Proxy) Web File Service.

Additionally, you can define a set of proxy entries for several sites, by adding the information of the external Web Server with the path to the (Proxy) Web File Service. If a vault has no proxy information, the default proxy information is used.

Field Name	Description
Site	Site of Web Client
Protocol	Protocol for the Web FileService (e.g. http)
Web Host	Host name where the Web File Service runs
Web Port	Port number of the Web FileService
Web Path	Servlet Path on the Web Server (Default: /FileService)

2. Set the site information in the configuration file of the Web Client.

Each external Web Client should have a unique site information, so that the PLM Server could decide if a (Proxy) Web File Service is necessary. You can add this information in the webplm.properties file of the Web Client, which is located in the <webclient\_root>/config directory.

The following line sets the site "www" for this Web Client:

```
axalant.env.EP_PROXY_SITE=www
```

## Administration

### The Config file web.xml

The web file service has a configuration file to setup the necessary data for the servlets.

#### The General Section

Key	Default	Description
Webmaster	myaddress@mycompany.com	The e-mail address of the administrator to whom questions and comments regarding this application should be addressed to.
tracemasks	Default all 0	Trace masks and flags for packages and classes: 0 - no output 1 - trace output 2 - debug output 3 - trace and debug output

### Servlet definitions

#### Data Service

A Servlet to handle the data information about file operations. It has a dual role. One role is as a singleton that can be accessed from other classes of the application. The other role is of a servlet that can be POSTed to.

Key	Default	Description
ECIHandleLifeTime	3600	lifetime in seconds before an ECIHandle expires 5min=300 1hr=3600 1day=86400

#### Check-in Service

Accepts a file posted as multi-part form data and checks it into the file management system. A free (for some requirements see the license) MultipartParser is available from Jason Hunter ([www.servlet.com](http://www.servlet.com)) and his cos.jar is used by FmsCheckinServlet.

Key	Default	Description
maxPostSize	100242880	The maximum size in bytes a posted file may have.

#### Checkout Service

Handles checkouts from the file management system. File check-outs can be requested from this servlet. A handle must be supplied that has been issued from the application. FmsCheckoutServlet will then initiate a communication with the FmsDataServlet to finish the operation.

#### Delete Service

Handles delete requests from the file management system. File deletes can be requested from this servlet. A handle must be supplied that has been issued from a data source. FmsDeleteServlet will then initiate a communication with the data source to finish the operation.

#### Additional MIME Types

The following content types are currently mapped to the associated file extensions in the Tomcat web.xml file.

Further content types can be added in the web.xml file!

Mime Content-Type	File Extensions	Comment
application/msword	.doc	Microsoft Word Documents
application/octet-stream	.exe, .bin	Binary
application/pdf	.pdf	Adobe Portable Document Format
application/postscript	.ps	Adobe Postscript
application/rtf	.rtf	Microsoft Rich Text Format Docs
application/vnd.frame-maker	.fm, .frm, .frame	Adobe Frame Maker
application/vnd.hp-HPGL	.pgl	HP Graphics Language files
application/vnd.lotus-1-2-3	.wks, .wk3, .wk4, .wg2, .wt4, .123	Lotus 123 Files
application/vnd.lotus-freelance	.pre, .prz, .mas, .prs	Lotus Freelance Files
application/vnd.lotus-wordpro	.lwp	Lotus Wordpro Files
application/vnd.ms-access	.mdb	Microsoft Access Files
application/vnd.ms-excel	.xls, .xlc	Microsoft Excel Files
application/vnd.ms-powerpoint	.ppt, .pot, .pps	Microsoft Powerpoint Files
application/vnd.ms-project	.ppm	Microsoft Project Files
application/vnd.visio	.vsd, .vst, .vsw, .vss	Visio Drawing File
application/x-mif	.mif	Maker Interchange Format (Frame)
application/x-msbinder	.obd	Microsoft Binder Files
application/x-quattro-win	.wb1, .wb2, .wb3	Quattro Pro for Windows Files
image/cgm	.cgm	Computer Graphic Metafile (CGM)
image/g3fax	.fax	Fax
image/gif	.gif	GIF image files
image/jpeg	.jpg, .jpeg, .jpe	JPEG image files
image/png	.png	Portable Network Graphics Files
image/tiff	.tif, .tiff	TIFF Image Files (.TIF)
image/vnd.dwg	.dwg	AutoCad files
image/vnd.dxf	.dxf	AutoCad Interchange Files (.DXF)
image/vnd.fpx	.iges, .igs	Kodak Flash Pix
model/vnd.dwf	.dwf	AutoCad drawing files
text/x-vcard	.vcf	VCard

Several DIFFERENT content types use the same extensions:

Mime Content-Type	File Extensions	Comment
application/wordperfect 5	.wpd	WordPerfect 5 documents
application/wordperfect 5.1	.wpd	WordPerfect 5.1 documents
application/x-wordperfe ct6	.wpd	WordPerfect 6 documents



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## Printing Configuration

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### Lightweight Reporting

---

**Note:** For further information regarding Lightweight Reporting please refer to the Online Help > Getting Started documentation.

---

### Userexit pri\_wdg

---

**Note:** For further information regarding the userexit pri\_wdg please refer to the Online Help > DataView documentation.

---



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## Setting Up the Online Help

To make the Online Help available in the Java and Web Client, complete the following steps:

---

**Note:** The following configuration parameters are not supported by standard help, but could still be used for customer specific help:

- EDB-HLP-MASK
  - EDB-HLP-MASK-MSH
  - EDB-HLP-PATH
  - EDB-HLP-PATH-EDBKERNEL
- 

1. In your Agile e6 installation folder, create the directory structure ".\axalant\htd\htdocs\axalant\doc\_ep\eng".
2. Download the Online Help for Java and Web Client from the Oracle Technology Network website:  
<http://www.oracle.com/technetwork/documentation/agile-eseries-098047.html>
  1. For Agile e6.2.1.0, click on the link HTML.
  2. Download the documentation package Online Help for Agile e6.2.1.0 (Java/Web Client).
  3. Save the zip file into the directory ".\axalant\htd\htdocs\axalant\doc\_ep\eng".
3. Extract the zip file into the ...\eng directory.

On UNIX use unzip, and on Windows use Winzip or 7zip to extract the file.

---

**Note:** The zip file is only available in English. If the dump language is set to German, create a directory structure ..\doc\_ep\ger and extract the zip file in the "ger" directory. If the dump language is set to French, create a directory structure ..\doc\_ep\fr and extract the zip file in the "fr" directory.

---

4. Copy the "axalant" folder, which is located under the htdocs folder, to a Web Server of your choice. Copy the axalant folder directly below your document root of your Web Server.

Example:

1. Use the HTTP server of your Admin Server installation (Apache Tomcat) located under:

Windows:

%ALLUSERSPROFILE%\agile\installer\6.2.1\admin

UNIX:

\$HOME/.agile/installer/6.2.1/admin.

2. Navigate to the directory "webapps".
3. Create a new directory "help".
4. Copy the "axalant" folder, which is located under the htdocs folder, to the "help" folder.
5. Log in to Agile e6 as a manager user (e.g. edbcusto, demoep\_m).
6. Select System > Other Parameters.
7. In the configuration mask, search for rubric EDB-HLP and select the folder Configuration parameter.
8. Set the documentation root EDB-HLP-ROOT to:

`http://<http server name>:<http port>/help/axalant/`

The program adds /doc\_ep/eng/ or /doc\_ep/ger/, depending on which language is active, followed by the index file name index.html.

? English:

`http://<http server name>:<admin http port>/help/axalant/doc_ep/eng/index.html`

? German:

`http://<http server name>:<admin http port>/help/axalant/doc_ep/ger/index.html`

On UNIX Systems, Agile e6.2.1.0 starts Mozilla as a default. If the browser is not defined, follow the steps below:

1. Select Manager > External Applications to specify different browsers on different operating systems and client nodes.  
  
This is where the default browsers for each available UNIX System are defined. For Microsoft Windows the default system HTML browser is used.
2. Copy the line for your hardware architecture and insert the hostname and browser name.

---

**Note:** Make sure that all of the following are true:

---

- ? File type is equal to HTML
- ? Mode is equal to H (help)
- ? "-" is a wildcard and means every possible value (like \*)

## Using WebLogic Server

The WebLogic Server can be used to provide the Online Help. In WebLogic you can develop a simple Web application to display static HTML content.

1. Download the Online Help for Java and Web Client from the Oracle Technology Network website:

<http://www.oracle.com/technetwork/documentation/agile-eseries-098047.html>

- a. For Agile e6.2.1.0, click on the link HTML.
  - b. Download the documentation package Online Help for Agile e6.2.1.0 (Java/Web Client)
2. Save the zip file into a new directory, e.g. online\_help.
3. Extract the zip file in this directory.  
On UNIX use unzip, and on Windows use Winzip or 7zip to extract the file.
4. Login to the WebLogic Console and deploy the online\_help directory as an application.
5. Click Deployments.
6. Click Lock & Edit.
7. Click Install and set the path to the directory created in step 2.
8. Click Next.
9. Select a Managed Server to deploy to and click Next.
10. Accept the defaults and click Finish.  
The deployment completes successfully.
11. Click Activate Changes.



---

## DFM Web Service Configuration

---

DFM is supported with the Web Service interface. The DFM Web Service configuration is performed in the database, thus the web deployment of the DFM Web Service is simplified. The configuration has to be performed before starting the Document Management Web Service.

In Agile e6 on the FMS-Vault mask, configuration information for the FMS Java Daemon can be added:

- ? FMS Daemon Host
- ? FMS Daemon Port.

The DFM Web Service configuration for the different DFM sites, including the main Web Logic server(s), are managed by using site specific configuration parameter.

---

**Note:** Please be aware that these configuration parameter need to be created by an Administrator first.

---

- ? EDB-WSI

EDB-WSI is the main rubric for the DFM Web Service configuration, and it contains the default Web Service URLs for the Web Logic server and the default DFM sites.

- EDB-WSI-URL

URL of the CoreServices deployed in the application domain of the Web Logic Server.

If necessary, the configuration parameter EDB-WSI-URL can be adapted site specific. It usually points to the central Web Logic installation for all DFM locations.

- EDB-WSI-DFM-URL

URL of the StreamingFileService which is deployed in the installation domain of the Web Logic Server.

The configuration parameter EDB-WSI-DFM-URL can be adapted site specific for the different DFM location.





## Environment Configuration Parameters

Each EDM Server process has an environment, which is set on startup. An Agile e6 application consists of environment variables which are set through shell scripts and additional configuration values read by the EDM Server process at startup from XML configuration files. Information about EDM Server environment variables can be found in the Agile e6 Online Help.

---

**Note:** The next two sections describe the internal Agile e6 startup of an EDM Server process.

---

## Startup Process on Windows

- Invoking EDM Server startup through Java Daemon
- %ep\_root%\axalant\cmd\axalant\_srv.cmd
  - %ep\_root%\axalant\cmd\plm\_env.cmd  
Read for all applications.
  - %ep\_root%\axalant\cmd\plm\_env\_dev.cmd  
If exists, read for all applications, not available in standard installation.
  - %ep\_root%\axalant\cmd\plm\_env\_cust.cmd  
If exists, read for all applications, not available in standard installation, customers should add their modifications for all applications here.
  - %ep\_root%\init%\env\_name%.cmd  
Read for specified application only.
  - %ep\_root%\init%\env\_name%\_cust.cmd  
If exists, not available in standard installation, read for specified application only, customers should add their modifications for all applications here.

### Startup of EDM Server process which reads:

- %ep\_root%\init\axalant.xml  
Read for all applications which are defined in "%ep\_root%\init%\env\_name%.xml", which is the default.

? %ep\_root%\init%\env\_name%.xml

## Startup Process on UNIX

- ? Invoking EDM Server startup thru Java Daemon
- ? \${ep\_root}\axalant\scripts\axalant\_srv
  - \${ep\_root}\axalant\scripts\plm\_env.sh  
Read for all applications.
  - \${ep\_root}\axalant\scripts\plm\_env\_dev.sh  
If exists, read for all applications, not available in standard installation.
  - \${ep\_root}\axalant\scripts\plm\_env\_cust.sh  
If exists, read for all applications, not available in standard installation, customers should add their modifications for all applications here.
  - \${ep\_root}\init\\${env\_name}.sh  
Read for specified application only.
  - \${ep\_root}\init\\${env\_name}\_cust.sh  
If exists, not available in standard installation, read for specified application only, customers should add their modifications for all applications here.

### Startup of EDM server process which reads

- ? \${ep\_root}\init\axalant.xml  
Read for all applications which have defined it in "\${ep\_root}\init\\${env\_name}.xml", which is the default.
- ? \${ep\_root}\init\\${env\_name}.xml

## Startup Shell Scripts

This section describes the environment variables which can be modified by the customer.

- ? If the environment variable should be set for all applications, use "plm\_env\_cust.<extension>".
- ? If the environment variable is application specific then use "%env\_name%\_cust.<extension>".
- ? If the files do not exist, they must be created.

Environment Variable	Description	Values	Optional	Example
axalant_tmp	Path to the EDM Server log files.	\$ep_root/tmp	no	\$ep_root/tmp or %ep_root/tmp
axalant_data	Path to the EDM root	\$ep_root	Not used in code! Maybe obsolete	\$ep_root or %ep_root
ORACLE_HOME	Path to the Oracle client home directory.	-	no	D:\oracle\product\12.2\db_1

Environment Variable	Description	Values	Optional	Example
NLS_LANG	National language set for the Oracle client to use for the EDM Server process.	-	no	AMERICAN_AMERICA.AL32UTF8
TNS_ADMIN	Path to the tnsnames.ora for the Oracle client to use for the EDM Server process.	-	no	%ORACLE_HOME%/network/admin
EP_DEBUG	<p>A comma separated list containing the modules that should generate debug output. Special entries are <code>_all_</code> to debug all modules, <code>Main</code> for the main routine and <code>0</code> to turn off debug output.</p> <p>If debug output is enabled, each Agile e6 process creates an <code>axalant-&lt;hostname&gt;-&lt;pid&gt;.err</code> and <code>.out</code> file to capture stderr and stdout.</p> <p>Be aware that using the value <code>_all_</code> will have a negative performance impact on the EDM Server, and it will generate huge log files.</p>	<code>_all_</code> , <code>0</code> , or a comma separated list of module IDs (as defined in <code>axalant.xml</code> or <code>ebd_mid.h</code> ).	Yes	Main,Mod,Epq,Lgv
EDB_LOGDIR	Directory for the log files created by the EP_DEBUG setting. Default is <code>\${ep_root}/tmp</code> .	Directory with path	Yes	/my/log/dir
EDB_LOGSIZEBUFFER	<p>Buffer size in bytes for stderr output. If <code>0</code> is specified, the output will be unbuffered.</p> <p>A value of <code>0</code> should only be used if crashes occur and the log buffer is not flushed to disk. Maximum size used is currently <code>1024</code>. Values greater than <code>1024</code> are ignored.</p>	0 to 1024	Yes	1024
EDB_TRC_ALL	Deprecated. Use EP_DEBUG with Epq instead.			

Environment Variable	Description	Values	Optional	Example
EDB_TRC_DEBUG	Deprecated. Use EP_DEBUG with Epq instead.			
PATH	PATH to use for the EDM Server process.	-	no	PATH=%ORACLE_HOME%/bin;%PATH%

## Startup Configuration Files

In Agile e6, the application configuration files are in XML format and can be found in the <ep\_root>/init directory (e.g. <application>.xml and axalant.xml). They replace the former \*.edb files in the same directory. Some basic attributes in the application specific <application>.xml file can be modified over the Administration client web interface. If you need to change the enhanced attributes, the files can be edited manually with an editor.

All changes not performed over the Administration client web interface will be lost if you use the Administration client web interface again to change the values of the application.

### <application>.xml

The following section describes the attributes of the XML nodes that can be defined in the XML file.

In a standard installation not all attributes are defined in the XML file and default values are used.

### General Node

```
<General SignalFlag="1" ModuleConfig="axalant.xml" TraceConfig=""
UseCommonTraceFile="1"/>
DbBlobLocation="edb_lob"
```

Attribute	Description	Values	Optional	Example
SignalFlag	<p>If the entry is 1, Agile e6 catches runtime errors and stops the server process in a controlled manner.</p> <p>For instance, all database connections are disconnected. This might cause hanging server processes and is therefore deactivated by default.</p>	0 or 1	Yes	1

Attribute	Description	Values	Optional	Example
ModuleConfig	Contains the name of the configuration source which is used as the primary source for the Agile e6 module definitions.  All modules of this source are registered. From the original configuration source, only the modules entered in [Modules\Custom] will be registered.  The module IDs must be unique over all sources.	File name of the primary module source: [X:][path]filename.xml [F:][path]filename.edb  If specified without type F or X, the same type as the original source is assumed. If specified without path, \${ep-root}/init is used.	Yes	axalant.xml
TraceConfig	The Path to the C++ trace configuration file.	F:<path to trace config file>	Yes	F:D:\oracle\plm61\axalant\ini\trace.edb
UseCommonTraceFile	If the entry is 1, the EDM Server writes all common traces (SQL, C/C++ and LogiView) into the standard server trace.	0 or 1	Yes	1

## Database Node

```
<Database Library="epq10c_oral12" Vendor="Oracle" Version="112"
User="plmref@plm61" Pwd="plmref"
 ParallelConnect="ON_DEMAND_CONNECT"
 ParallelConnectTimeout="10"
 DbWuqSP="Static"
 BindMode="All"
 Wildcards="?%"
 Querymode="MIXED">
</Database>
```

Attribute	Description	Values	Optional	Example
User	The schema name and the SQLnet connect string of the database to which the application should connect to.	e.g. plmref@plm61	n	-
Pwd	The password of the database schema to which the application should connect to. Can be encrypted, but also clear text passwords are possible.	e.g.: plmref or encrypted e.g: {PLM-AES-128}JoMHO s.....NpMCDcytN+DJI	n	-
DbBlobLocation	Table space for the database Blob fields	edb_lob		

Attribute	Description	Values	Optional	Example
ParallelConnect	<p>This setting manages the Oracle database connection behavior when a data record is going to be updated with the function "epqupdpar()". The major use case for this functionality is the number server so that pulling a new number from a number cycle is done in a parallel connection. The concurrency of the requested data modification is vastly improved by enabling a parallel connection.</p> <p>Important: This setting does not influence the standard behavior of any database transaction, it is only important for a very small number of functions explicitly using "epqupdpar()" instead of "epqupd()"</p>	<p>NO_PARALLEL_CONNECT - Update of the data record via "epqupdpar()" will be executed within the current transaction. The concurrency of an application transaction is low and this setting should be used only for small installation size and/or small number of statements in a transaction.</p> <p>PERMANENT_CONNECT - A permanent parallel database connection will be opened when an update of a data record via "epqupdpar()" is requested. This connection will require additional memory resources in favor of a fast response time for an update. The concurrency of an application transaction is high.</p> <p>ON_DEMAND_CONNECT - A temporary parallel database connection will be opened when an update of a data record via "epqupdpar()" is requested. This connection will require temporarily additional memory resources and will also take more time for execution due to the time required to open and close a parallel connection. Closing the parallel connection is influenced by the "ParallelConnectTimeout". The concurrency of an application transaction is high. This setting is the best one if the memory resources are very limited.</p>	Y, Default in EPQ: 'NO_PARALLEL_CONNECT' Default in Installation: 'ON_DEMAND_CONNECT'	-

Attribute	Description	Values	Optional	Example
ParallelConnectTimeout	Determines when the parallel connection in mode "ON_DEMAND_CONNECT" will be closed after <ParallelConnectTimeout> seconds due to inactivity. After each read-only statement, a check occurs when an update in the last parallel connection has happened, and if the timeout has been exceeded, the parallel connection is closed.	Value in seconds e.g. 10 for 10 seconds inactivity  A value of 0 immediately closes the parallel connections after it has been used.	Y,  Default in EPQ: 0  Default in Installation: 10	-
DbWuqSP	Defines which algorithm will be used for a "Where Used Query" or "Structure Explosion". There is a "dynamic" version available which created a temporarily stored procedure during runtime, which is suited to the requested query for a specific table. The other version uses a stored procedure which is static and part of the standard database dump.  Note: This is an internal parameter, please change it only after being advised by a support engineer.	Static - Static stored procedure in database dump  Dynamic - Stored procedure which will be created during runtime	Y, Default is: 'Static'	
BindMode	Manages the usage of place holders in the dynamic SQL statements. Using place holders is important to avoid the need to parse SQL statements if many SQL statements have the same structure but different values for variables. Not using place holders will add the parsing time on database server side to the execution time for each SQL statement.  Note: This is an internal parameter, please change it only after being advised by a support engineer.	Value is an integer handled as a bit mask; each value is specific for a condition value in a WHERE-clause. The value in a clause is the SQL keyword:  Interval (between): 1  Equal (=): 2  Like (like): 4  Less than, or greater than: (<,>):8  Less equal, or greater equal: (<=,>=): 16	Y, Default is 31, for Oracle 8 Databases it has been only Equal(2)	Using place holders for all conditions:31  Using place holders only for an Interval and Equal conditions:3

Attribute	Description	Values	Optional	Example
Wildcards	<p>Sets the characters to define the single and the multi wildcard in the database. A single wildcard is a place holder in a query for exactly one character; a multi wildcard is a placeholder for zero to many characters.</p> <p>There are many places in the application to define wildcards, it is important to understand in which order the wildcard definitions are evaluated. Please see <a href="#">here</a> the order of evaluation (first line is also first evaluated):</p> <p>Configuration parameter (this entry here) Wildcards</p> <p>Command line parameter: -w</p> <p>DataView Defaults SYSTEM parameter: WILDCARD</p> <p>DataView Defaults USER parameter: WILDCARD</p> <p>To simplify the wildcard definition it is strongly recommended to use the WILDCARD parameter in the DataView defaults only.</p>	Any combination of 2 ANSI characters, special characters are recommended	Y, Default: '?%'	Setting an asterisk for multi wildcard like on a Windows or UNIX shell: '?*'



Attribute	Description	Values	Optional	Example
Querymode	<p>Defines the mode how a query for data will be handled. Queries for exact matches and wildcard matches are distinguished. An exact match is containing no wildcard e.g. 'abcdef' while a wildcard match contains any combination of wildcards e.g. 'a?cd%f'. There are many places in the application to define the query mode, it is important to understand in which order the query mode definitions are evaluated. Please see here the order of evaluation (first line is also first evaluated):</p> <p>Configuration parameter (this entry here) Querymode</p> <p>Command line parameter: -q</p> <p>DataView Defaults SYSTEM parameter: QUERYMODE</p> <p>DataView Defaults USER parameter: QUERYMODE</p> <p>To simplify the query mode definition it is strongly recommended to use the QUERYMODE parameter in the DataView defaults only.</p>	<p>SENSITIVE - Queries will distinguish upper and lowercase character. This will provide the best database performance.</p> <p>INSENSITIVE - Queries will not distinguish between upper and lower case characters.</p> <p>MIXED - Queries will use 'SENSITIVE' for exact matches and 'INSENSITIVE' for wildcard matches. This provides the best balance between performance and usability of a query</p>	Y, Default: MIXED'	<p>A query for 'abc' match in SENSITIVE: only 'abc'</p> <p>INSENSITIVE: 'abc', 'Abc', 'ABC', 'aBc', ...</p> <p>MIXED: for exact matches only 'abc', for wildcard matches 'abc', 'Abc', 'ABC', 'aBc', ...</p>

## Security

```

<Security>
 <Default KeyStoreFile="file://D:/oracle/plm61/init/wallet/private/server/"/>
 <ws_sso KeyStoreFile="file://D:/oracle/plm61/init/wallet/private/ws/"/>
 <abs_sso KeyStoreFile="file://D:/oracle/plm61/init/wallet/private/sso/"/>
</Security>

```

Attribute	Description	Values	Optional	Example
KeyStoreFile	The location of the Oracle Wallet file used by the EDM Server.	file://%ep_ root%/init/wa llet/private/< wallet-type>/	no	file://%ep_ root%/init/wallet/private/server/

## IPC Node

```

<IPC AbsEciUrl="eci://www.example.com:19997" SecurityLevel="process"

```

```
TicketLifeTime="600"
 Node = "www.example.com">
</IPC>
```

Attribute	Description	Values	Optional	Example
AbsEciUrl	The URL where the business service can be reached on the Oracle WebLogic Server.  The port must match the "Port" entry in the ABS_<env>.ini file on the Oracle WebLogic Server.	eci://www.example.com:1997	-	-
Protocol	Also configurable in the command line.  If the configuration file or command line contains both entries and if the command line also contains the resource to be used, Agile e6 is started in ECI Server mode and can be contacted by ECI clients via the specified parameters (see ECI Manual).	<ECI Protocol ID>	Yes	1
Node	The host name of the EDM Server when running as an ECI server.	Fully qualified host name	Yes	www.example.com
SecurityLevel	This entry specifies the security level to be used for IPC connections.  The default value of connection should be used whenever possible, to ensure that no unauthorized access is possible.  Use the other values only if a legacy integration is not capable of passing credentials during an ECI connect.  An Agile e6 application using a value other than connection should be secured by firewalls, so that only the legacy system has remote access to the Agile e6 server.	One of:  unrestricted: no authorization required to establish the connection.  process: first IPC connection needs to authorize by passing credentials.  connection: each IPC connection needs to authorize by passing credentials. [default]	Yes	process
TicketLifeTime	The life time value of EDM tickets for multiple ECI connections.	Expire value in seconds	Yes	21600 (default)

---

**Note:** In case of long processes, as e.g. batch processes, it is recommended to set the time value for the TicketLifeTime to "0", thus defining an indefinite timeout.

---

## Modules Node

```

<Modules>
<Core>
 <Class Name="Classification" Library="epsrv_edb" Type="embedded"
Startup="immediately"/>
</Core>
<Custom>
 <Sample Name="Sample Custom module" Library="sample"/>
</Custom>
</Modules>

```

The Modules element contains two child elements called Core and Custom. Each of these child elements may contain any number of module definitions, where the element name is used as Module ID.

The attributes of each element are as follows:

Attribute	Description	Values	Optional	Example
Name	A short description of the module. This is displayed in the library list of Agile e6.	A human readable name	No	Sample Module
Library	The name of the library to be loaded, if possible without path and operating-system-specific suffix	Library name	No	epsrv_sample
Entry	The name of the entry function of the module.  This information is provided by the supplier of the respective module.  If the entry does not exist, it is derived from the module ID as follows: <mod-id>_Entry	Function name	Yes	Sample_Entry
Startup	Controls the automatic start-up of a module.  If the entry does not exist, the module is only loaded, initialized and started on demand.	One of  immediately: Starts the module immediately during server startup.  onDemand: Starts if a userexit requests the module [default]  disabled: Does not start the module.	Yes	onDemand
Type	Specifies the module type, standard is dynamic.	One of:  Static  embedded: Only used for internal Agile e6 modules.  dynamic: Standard value for external modules. [default]	Yes	dynamic

## LogFileMgr/CpsVerify Node

```

<LogFileMgr>

```

```
<CpsVerify Mode="append" Prefix="CpsVerify">
 </CpsVerify>
</LogFileMgr>
```

Attribute	Description	Values	Optional	Example
Mode	Logfile mode. For CpsVerify the value is overwritten by user specific default "CPS_LOG_FIL_MOD". So adapt the default instead of changing value here.	trunc = truncate log message file before writing log messages append = append log messages to file	yes	Mode="append"
Prefix	Prefix for logfile. Not evaluated yet for CpsVerify, prefix is always set to value "CpsVerify".	CpsVerify	yes	Prefix="CpsVerify"

### PLMPresentationServices Node

```
<PLMPresentationServices Report_Service_
URL="http://www.example.com:7103/AgilePlmWps/reporter/report"/>
<Windows DATAVIEW_TBSP="edb" DATAVIEW_IXSP="edb_idx" ... DATAVIEW_DUMP="<EP_
ROOT>\axalant\dmp" ...>
```

Attribute	Description	Values	Optional	Example
Report_Service_URL	Lightweight reporting URL, generated automatically. URL on the configured Oracle WebLogic Server.	http://www.example.com:7103/AgilePlmWps/reporter/report		

### Environment Node

```
Environment>
 <intel-ms-nt6.1/>
</Windows>
<Unix ... >
 <i686-linux-ol6/>
 <rs6000-ibm-aix7.1/>
 <sparc-sun-solaris11/>
 <ia64-hp-hpux11.31/>
</Unix>
</Environment>
```

Environment variables for the EDM Server process can be set here, or in the startup scripts defined above.

These values will overwrite all previously defined values from e.g. startup scripts.