Agile Product Lifecycle Management

Application Installation Guide

Release 9.3.5

E61116-01

January 2016

ORACLE

Agile Product Lifecycle Management Application Installation Guide, Release 9.3.5

E61116-01

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Glossary

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) Web site 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.
italic	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.

1

Preparing for the Agile PLM Installation

This guide provides an overview of the Agile Product Lifecycle Management (PLM) installation and configuration process. This guide covers the installation and configuration of Agile PLM running on Oracle Fusion Middleware.

Understanding the Basics

The Agile PLM application installer is built with InstallAnyWhere and enables you to install the following components of Agile PLM:

- Application Server
- File Manager
- API

Obtaining Software

Oracle products are distributed as Media Packs. A Media Pack is an electronic version of the software. Refer to the Media Pack description or the list of products that you purchased on your Oracle ordering document. Then, view the Quick Install Guide License List to help you decide which Product Pack you need to select in order to search for the appropriate Media Pack(s) to download. Prior to downloading, verify that the product you are looking for is in the License and Options section of the E-Pack Readme. Oracle recommends that you print the Readme for reference.

Download the Oracle Agile Applications (Oracle Agile Product Lifecycle Management Release 9.3.5 Media Pack) Media Pack from the Oracle Software Delivery Cloud web site (http://edelivery.oracle.com).

There will be an itemized part list within each of the packs and you will need to download all items in order to have the complete download for the desired Oracle Agile release.

All Oracle Software Delivery Cloud files have been archived using Info-ZIP's highly portable Zip utility. After downloading one or more of the archives, you will need the UnZip utility or the Winzip utility to extract the files. You must unzip the archive on the platform for which it was intended. Verify that the file size of your downloaded file matches the file size displayed on Oracle Software Delivery Cloud. Unzip each Zip file to its own temporary directory.

Installing Agile PLM Prerequisites

Before installing the Agile PLM application, the Agile PLM database must be installed and running. For information on installing the Agile PLM database, see the *Agile PLM Database Installation Guide*.

The Oracle WebLogic Server software must be installed before the Agile PLM application server component can be installed. For information on installing Oracle WebLogic Server, see"Installing Oracle Fusion Middleware Infrastructure" on page 4-1

Understanding the Recommended Configuration

Agile PLM may be deployed in different configurations. The amount of time required to complete an installation depends on the complexity of your deployment.

For installations using a certified localized language, all server components must be installed on computers running the same localized OS. Clients can be running on the same localized OS or an English OS.

The general recommended configuration for Agile PLM components is at least one computer for each of the following server components:

- Agile PLM Database
- Agile PLM Application Server

It is acceptable to install multiple server components on the same computer. However, the minimum hardware requirements must be increased based on the number of server components installed on a single computer.

Network service and TCP/IP protocol must be enabled before you install Agile PLM.

To set up an Agile PLM system, you should install the main components in the following order:

1. Agile PLM Database
2. Oracle Fusion Middleware Infrastructure
3. Agile PLM Application Server
4. Agile PLM File Manager

Note: If the Application Server and File Manager will be installed on one machine, they should be installed at the same time in the same install session.

2

Installing Agile PLM

Installation Overview

- Install Oracle database, Agile schema, and start the database.
- Install JDK for application server.
- Install Oracle Fusion Middleware Infrastructure (includes WebLogic Server).
- Install Agile PLM 9.3.5 application components.

Copying the Agile PLM Files

Before installing Agile PLM, the contents of the media packs should be copied to a local directory with the same file structure used by the Installer. The Platforms directory must be copied into the same directory as the setup file.

Note: Oracle recommends installing the files from a local directory, not over a network.

Note: Be sure to check the size of the media packs after copying the files to verify that all files have been copied.

Starting the Agile PLM Installer

Important: Install and test this release on a designated test server before installing it on your production environment. Your test environment should mirror your production environment as closely as possible to provide accurate testing results. It is important to validate the installation of this release and confirm your integrations are working correctly as part of your minimum due diligence. Any problems or questions noted during your system testing should be resolved before installing this release on your production environment.

The Agile PLM installer displays in English only, even on non-English operating systems.

Before running the installer, make sure

- **On UNIX:** You are not logged in as the root user. You should be logged in as the same user used to install the application server software.
- You have enough available disk space.

Windows: at least 2GB of available disk space

UNIX: at least 2GB of available disk space on the filesystem where the temporary directory is located.

- You have disabled virus protection.

If virus protection is enabled, components used in the installer can be falsely identified as being infected and lock up the installation. You can enable virus protection after the installation is complete.

- On Linux, the InstallAnywhere installer requires some 32-bit shared libraries that may not be present on your system.

  1. Install the 32-bit packages that provide the following shared libraries, if they are not present:

     /usr/lib/libXtst.so - this library is typically found in package libxtst-devel

     /usr/lib/libXrender.so - this library is typically found in package libXrender-devel

     Note: 32-bit packages for Linux often end in or include one of the following strings: i686, i586, i386.

  2. Run the Agile PLM application installer. The GUI should display.

     If the GUI does not display, run in debug mode and upload the install log file for analysis. If you set LAX_DEBUG=true in the shell, and then start the installer from that shell, you may receive specific information about the missing library that is causing the runtime link error.

To start the Agile PLM installer on Windows:

1. Log in to the computer using a login with local Administrator permissions.
2. In the Disk1_Windows directory, double-click the **setup_win.exe** file.

   After a few moments, the Welcome screen appears.

   Note: If there is insufficient Temp disk space available to complete the installation, you will be prompted for another location. Click **Choose**, select another drive, click **OK**, and the installer will start.

3. For information about any screen in the installer, click **Help**.

To start the Agile PLM installer on UNIX:

1. Log into the system.

2. Open a terminal window and set the DISPLAY environment variable to your X Windows server.

   Note: The Agile PLM Installer is a graphical application and requires an X server to perform the installation. It is recommended that you display the installer UI on the server's console or use a remote desktop application such as VNC rather than sending the X-Windows display to a remote machine using a 3rd-party display manager.

3. Go to the directory where you copied the Agile PLM files. Locate the **setup_<*OS*>.bin** file, and run the program by typing the following:

   - AIX: ./setup_aix.bin
   - Linux: ./setup_lin.bin
   - Solaris (SPARC): ./setup_sol.bin
   - Solaris (X86): ./setup_solx86.bin
   - HP-UX: ./setup_hpux.bin

   After a few moments, the Welcome screen appears.

   For information about any screen in the installer, click **Help**.

Installer Online Help

Each installation panel has online help. At any time during installation, you can click **Help** for more information about the panel's options.

Note: If you leave the online help window open, it will be updated when you proceed through the installer panels. Otherwise, click **Close** at the bottom of the help window.

Installer Buttons

Agile PLM installation panels have the following buttons:

- **Cancel** -- Exits from the installation program.
- **Help** -- Displays online help.
- **Previous** -- Returns to the previous step.
- **Next** -- Proceeds to the next step.
- **Install** -- Starts installing. The Install button appears only on the Pre-Installation Summary panel, after you have specified installation options.
- **Done** -- Exits from the installation program. On Windows, after installing certain components you can choose whether to restart the computer when you click **Done**. The **Done** button appears only on the Install Complete panel, after you have finished installing.

Agile PLM Installation Modes

When installing Agile PLM, you can install in Basic or Advanced mode. Basic mode can be selected if you are installing a standalone system and choose to accept the

default settings for virtual paths and authentication accounts. Advanced mode allows you to install a standalone or clustered system and change or accept the defaults for all install settings including those that are defaulted in Basic mode such as:

- Agile Application Server Virtual Path (default: Agile)
- File Manager User Authentication (default:ifsuser)
- File Manager Virtual Path (default: Filemgr)
- Update the application URLs (Web Server, Java Client, File Manager) in the database (default:yes)

Agile PLM Installation Folders

After you install Agile PLM, the following folders appears in the AGILE_HOME directory.

This list includes the folders for all Agile PLM components, although it is not necessary that you install them all on one computer.

Folder	Description
agileDomain	Agile Application Server
FileManager	Agile File Manager
Install	Installation and configuration scripts
integration	Agile Integration Framework (AIF) products, such as Agile Integration Services (AIS) and Agile SDK
Uninstaller	Agile PLM Uninstaller

3

Upgrading to Agile PLM 9.3.5

Upgrade Overview

Agile PLM 9.3.5 is a full install that can be distributed over a wide-area network with multiple servers, or it can be limited to a single server.

- Stop and uninstall previous Agile PLM application components.
- Optionally upgrade the database software.
- Upgrade the Agile PLM database using AUT.
- Install JDK for application server.
- Install Oracle Fusion Middleware Infrastructure (includes WebLogic Server).
- Install Agile PLM 9.3.5 application components.

Important: Before upgrading to Agile PLM 9.3.5, read through this entire chapter and the Readme for the latest information. For information about optional upgrade services, contact Oracle Support.:

Note: All folder names and paths show the default settings provided during installation. Your system structure may be different if folder names or paths were changed during the installation.

Upgrading the Agile Database

The Agile database must be upgraded before installing and deploying the Agile application server. Refer to the *Agile PLM Database Upgrade Guide* for details about upgrading the Agile PLM database to the 9.3.5 release.

Upgrading the Agile Application

Because it is a full install, you should uninstall your previous version of Agile PLM before installing Agile PLM 9.3.5.

Agile PLM 9.3.5 also requires a specific version of the application server software. Make sure the supported application server software is installed before running the Agile PLM 9.3.5 installer.

Important: Do not install into the same sub-directory used by the previous installation of Agile PLM, unless you have removed any previous installation. Always install Agile PLM in a fresh directory.

Upgrading the File Vault

If you are upgrading to Agile PLM 9.3.5 from a version prior to 9.2, the file vault structure must be reorganized. In previous versions of Agile, files were stored in the <iFS Root> or files directory. In later versions, files are stored in separate directories based on a file ID. All existing files must be reorganized to conform to the newer design specifications. If you have an existing iFS or Distributed File Manager configuration, you must reorganize the files on each file server.

To reorganize existing files:

1. Backup all existing Agile file vaults to a safe location before upgrading any component to Agile PLM 9.3.5.
2. After you have copied all files into a backup directory, install the new File Manager.
3. Copy any files that you backed up into the File Manager Storage Location you specified during the File Manager installation.
4. Go to the AGILE_HOME\agileDomain\tools\ directory.
5. Run the iFSReorgV2 utility. For information on how to run the iFSReorgV2 utility, see "IFS Reorg" on page B-2.
6. After the program completes, the reorganization summary information displays.
7. Go to "Configuring the File Manager" on page 6-1 to configure the new file manager with the upgraded file vault information and to validate the installation was successful.

4

Configuring a Standalone Application Server

Installation Overview

- Install and start the database
- Install JDK for application server
- Install Oracle Fusion Middleware Infrastructure (includes WebLogic Server)
- Install Agile PLM application components: standalone application server and file manager.

Installing the Server JDK

The application server software for Agile PLM requires a 64-bit JDK be installed in order to perform the installation. Download and install a supported JDK from the downloads link on the Oracle Technology Network website.

Installing Oracle Fusion Middleware Infrastructure

The Agile PLM application server component requires that Oracle Fusion Middleware Infrastructure 12.1.3, which includes Oracle WebLogic Server, be installed before installing the Agile PLM application server component. The Oracle Fusion Middleware Infrastructure installer installs additional components including Java-required files, Oracle Web Services Manager, Oracle Enterprise Manager, and Oracle Platform Security Services.

To install Oracle Fusion Middleware Infrastructure 12.1.3:

1. Copy the fmw_12.1.3.0.0_infrastructure.jar file from the Agile PLM Media Pack to your machine.
2. Open a command window and set JAVA_HOME to the location of the previously installed JDK.
3. Run the following command: %JAVA_HOME\bin\java -jar fmw_12.1.3.0.0_ instrastructure.jar.
4. Click **Next**.
5. Enter the path where you want to install Oracle Fusion Middleware Infrastructure. Make a note of this location because it will be needed later during the installation.

6. Click **Next** on all panels until Installation Summary.
7. Click **Finish** to complete the installation.

Running the Repository Creation Utility

The Repository Creation Utility (RCU) creates database schemas required by Oracle Fusion Middleware Infrastructure. It must be run before installing the Agile PLM application server component.

Note: Before running the Repository Creation Utility, apply the following patch to the Oracle Fusion Middleware 12.1.3 ORACLE_HOME:

Patch 19614859—OPSS RCU throws three ORA-1450 errors when using CHAR semantics database

If this step is not performed and you are creating the RCU schemas in a CHAR semantics (i.e. NLS_LENGTH_SEMANTICS=CHAR) database then you will get ORA-01450 errors indicating that the maximum key length was exceeded during creation of three indexes in the OPSS schema. If this occurs, you must run RCU and drop the repository, run RCU again, and recreate the repository so that it completes without errors.

Note: The Agile PLM application server installation requires fresh RCU schemas. If a previously installed environment is being reinstalled, then its associated RCU repository must be dropped and recreated before reinstalling Agile PLM.

To create the required schemas using RCU:

1. In a command window, change to the directory, ORACLE_HOME\oracle_common\bin. ORACLE_HOME is where Oracle Fusion Middleware Infrastructure 12.1.3 is installed.
2. Run the following command:
   - Windows: rcu.bat
   - UNIX: ./rcu
3. On the Welcome page, click Next.
4. On the Create Repository page, choose System Load and Product Load, then click Next.
5. On the Database Connection Details page, enter the RCU database connection information. You can use the Agile PLM database to host the RCU schemas. Click Next.
6. On the Select Components page, enter a prefix for all schemas to be created. You should consider setting the RCU schema prefix to the Agile PLM schema name so it is clear with which Agile PLM schema the RCU schemas are associated. Make a note of the schema prefix or names because they will be needed during the Agile PLM installation.
7. Select the following repository components under AS Common Schemas:

- Metadata Services
- Audit Services
- Audit Services Append
- Audit Services Viewer
- Oracle Platform Security Services
- Common Infrastructure Services (selected by default)

8. Click Next.
9. On the Schema Passwords page, enter the password that should be used for all schemas. You can also enter different passwords for each schema, if you prefer. Click Next.
10. On the Map Tablespaces page, a table of default and temp tablespaces is displayed. Click Next.
11. Click Create to complete the RCU installation.

What to Do Next

Install Agile PLM and its components by starting the Agile PLM installer and following the instructions in online help.

Note: When installing the Agile PLM application server component, you must select the same JDK used to install the Oracle Fusion Middleware Infrastructure software.

Note: If you are using the AutoVue Server, you should install the AutoVue client libraries before deploying the application server and file managers. See the *AutoVue for Agile PLM Installation and User Guide* for instructions.

It is recommended to back up the <AGILE_HOME>\agileDomain\security folder after installation.

Enabling Web Services Security (Optional)

Agile PLM supports Web Services Security (WSS) for customers who want to configure additional protection for web services.

See the Agile Product Lifecycle Management Web Services Guide for information and instructions on how to enable and disable WSS.

Starting and Testing the Agile PLM Application Server Connection

After you have installed and started the Agile PLM Application Server, you can test the connection using the application server listen ports configured during installation.

Important: It is important that you do not provide users with this URL. The port you specified during the Application Server installation may be non-standard and may not be appropriate for use by external or remote Agile Web clients. This URL is a direct connection to the Application Server, and it should be used only for testing the troubleshooting purposes.

To start Agile PLM Application Server and test the connection:

1. Start the Agile Application Server.

   Windows service: Start the Windows service **AgilePLM**.

   Windows command line: Run the startAgile.cmd script located in the AGILE_HOME\agileDomain\bin directory OR choose **Start > All Programs > Agile > Agile PLM > Start Agile Server.** A command window may appear and this window must remain open but can be minimized.

   UNIX command line: Run the startAgile.sh script located in the AGILE_HOME/agileDomain/bin directory.

   Wait until the following message appears in the command window or application server log file before connecting: "Agile PLM Server Starting Up".

2. Open your browser and use the following URL to test the Agile Web client setup:

   `http://application_server_hostname:port/virtual_path/PLMServlet`

   Note: The URL is case-sensitive. The default virtual_path is Agile.

   A login window appears.

3. Enter the username and password.

   You can log in with the built-in Administrator account by typing **admin** for the user and the password you supplied as the password for the admin user in the password management screen during installation.

   The first time you log in to the application, it may take a while to load the information.

5

Configuring an Application Server Cluster

About Agile Application Server Clusters

Agile takes advantage of clustering capability provided by the application server. A cluster is a group of servers that work together to provide a more scalable, more reliable application than a single server. A cluster appears to its clients as a single server, but is actually a group of servers acting as one. A cluster provides two key advantages over a single server:

- Scalability: The capacity of a cluster is not limited to a single server or a single machine. New servers can be added to the cluster dynamically to increase capacity. If more hardware is needed, a new server on a new machine can be added. If a single server cannot fully utilize an existing machine, additional servers can be added to that machine.
- Redundancy: A cluster uses the redundancy of multiple servers to insulate clients from failures. The same service can be provided on multiple servers in the cluster. If one server fails, the surviving members can continue to serve the application. The ability to fail over from a failed server to a functioning server can increase the availability of the application to clients.

Traffic to multiple application servers needs to be managed or balanced by some device in-between the server cluster and the clients. There are two components that provide this capability; reverse-proxy web servers or load balancers. You may deploy web servers in the infrastructure if necessary but Agile PLM requires that a load-balancer with a cookie persistence feature be present in the infrastructure to distribute load, manage failover and enforce session persistence.

Installation Overview

- Install and start the database.
- Install JDK for application server(s).
- Install Oracle Fusion Middleware Infrastructure (includes WebLogic Server) on each machine that will host an Administration or Managed server.
- Install Agile PLM application components: Administration server, Managed server(s) and file manager.

Installing Agile PLM in a Cluster

The Agile PLM application server component requires that Oracle Fusion Middleware Infrastructure 12.1.3, which includes Oracle WebLogic Server, be installed before running the Agile PLM installer.

Please see "Installing Oracle Fusion Middleware Infrastructure" on page 4-1 to install the required software on each server. The installation process is the same for a cluster or standalone setup.

After Oracle Fusion Middleware Infrastructure is installed, you can install the Agile PLM Application Server component using the Agile PLM installer.

Installing Agile PLM Administration and Managed Servers

A WebLogic Server cluster typically consists of one Administration server and at least one (often two) or more Managed servers. The Administration server in a WebLogic cluster owns and manages the configuration and the Managed server(s) run the application. The Administration server and one or more Managed servers can be installed on the same machine. A typical two-machine configuration has the Administration and one or more Managed servers on one machine and one or more Managed servers on the second machine. This configuration can insulate the application from hardware failure if the two machines do not share any resources. Also multiple managed servers can be added to each machine to scale the application to the limits of the available hardware, like CPU and memory.

Install the Agile Application Server component on each server by starting the Agile PLM installer and following the instructions in online help. Make sure you select **Advanced Mode** as the Installation Mode and **Cluster Installation** as the Installation Type. The installation directory should be the same on all of the servers in the cluster.

The Agile PLM installer supports installation of zero or one administration server and zero, one or two managed servers on the same machine in a single Agile home.

Note: When installing the Agile PLM application server component, you must select the same JDK used to install Oracle Fusion Middleware Infrastructure software.

Note: If you are using the AutoVue Server, you must install the AutoVue client libraries before starting and deploying the application server and file managers. See the *AutoVue for Agile PLM Installation and User Guide* for instructions.

Setting Up a Cluster

A cluster is a group of servers that work together to provide a scalable, more reliable application platform than a single server. A typical cluster configuration contains one administration server and two or more managed servers. All servers should be located in the same subnet to ensure the unicast messages are reliably transmitted.

The following are indications that the Agile PLM installer has performed successfully:

- The necessary files are installed on the Administration server only.

Note: Some files, such as application.ear, are installed on the WebLogic Administration server only.

- The config.xml file is populated with the cluster name.
- Agile PLM is installed on each managed server machine, and each instance includes the managed server startup script, which contains the administration server name.

Starting the WebLogic Administration Server

Note: If you are using the AutoVue Server, you should install the AutoVue client libraries before starting and deploying the application server. See the *AutoVue for Agile PLM Installation and User Guide* for instructions.

To start the WebLogic Administration Server:

1. Copy the security folder from the Agile_Home\agileDomain directory on the Administration Server to the Agile_Home\agileDomain directory on any machines containing only Managed servers.
2. Copy the boot.properties file from Agile_Home\agileDomain\config folder on the Administration Server to the Agile_Home\agileDomain\config folder on any machines containing only Managed servers.
3. Go to the Agile_Home\agileDomain\bin folder on the machine where the Administration Server is installed.
4. Run the startServerAgileAdmin script.

If installing as a Windows Service, you may start the server using the Windows Service Manager.

Adding Managed Servers to the Cluster

To add WebLogic managed servers to the cluster:

1. Go to the AGILE_HOME\agileDomain\bin directory and run the addManagedServer script for each managed server:

   addManagedServer.cmd ManagedServer# <Hostname> <Port>

Starting the Managed Servers

To start the managed servers, go to the AGILE_HOME\agileDomain\bin folder on each machine where a managed server is installed and run the **startAgileManagedServer1** script.

If installing as a Windows Service, you may start the servers using the Windows Service Manager.

Note: If you have installed multiple managed servers on one machine, managed server scripts are named and numbered for each managed server, such as startAgileManagedServer1 and startAgileManagedServer2.

6

Configuring the File Manager

About the File Manager

The File Manager manages files in a repository or vault in the file system. A File Manager provides a place to store and retrieve files locally or remotely. The File Manager can be installed on the same machine as the Agile Application Server or on a separate machine. The File Manager can also be installed in a redundant configuration and/or distributed across geographic regions.

Multiple file managers can be deployed in a distributed configuration with or without a reverse-proxy web server. A distributed file manager configuration allows you to install additional file managers at remote locations so that remote sites can store and retrieve files locally, while still making the files available to the Agile PLM system.This can dramatically improve the user experience for file operations by increasing network bandwidth and reducing network latency from the end-user's client to the file manager.

Note: If you are using AutoVue, then the AutoVue Server component should also be installed with each File Manager.

The usage model for a distributed File Manager configuration is as follows:

- The File Manager located nearest to the application server should be designated the primary File Manager.
- Users upload and download files from their preferred File Manager.
- File replication between File Managers is on-demand. When a remote user requests a file that does not exist on their preferred File Manager, the system copies the file to the remote user's preferred File Manager.
- Checking out and checking in files is the same as getting and adding files.
- Deleting a file in the application only removes references to the file and does not remove the file from the file vault. Use the vault utility to clean up additional files on non-primary File Managers.

Deployment Configurations

You can deploy the File Manager in either a standalone or redundant configuration. If you plan to install the Application Server and File Manager on the same machine (co-deployed), choose both components during the Agile PLM installation.

Note: You should run the Agile PLM installer only once on each machine and select all components you want to install on a given machine during that one install session.

In the preferred redundant configuration, each machine in the cluster has the Application Server and the File Manager co-deployed. File Managers have a shared disk for file vaults so that all file manager instances have access to the files.

You can also choose to install the File Manager and Application Server components on separate machines, though this configuration may require more hardware. Regardless which configuration you choose, the Application Server(s) and File Manager(s) should be installed before configuring and validating.

Configuring the File Manager Settings

After installing the File Manager and setting up a load balancer and/or reverse-proxy server for it, you must configure the File Manager settings in the Java Client.

Note: Before configuring the File Manager, make sure you set up any load balancer or reverse-proxy server.

To configure File Manager settings:

1. Start the Agile Application Server:

   Windows service: Start the Windows service **AgilePLM**.

   Windows command line: Choose **Start > All Programs > Agile > Agile PLM > Start Agile Server.** A command window may appear and this window must remain open but can be minimized.

   UNIX command line: Run the startAgile.sh script located in the AGILE_HOME/agileDomain/bin directory.

   Wait until the following message appears in the command window or application server log file before connecting: "Agile PLM Server Starting Up".
2. Start the Agile Java Client, as described in Installing and Configuring Java Client.
3. Log in as an Agile Administrator user.
4. Click the **Admin** tab.
5. Choose **Server Settings > Locations**. The Server Location window appears.
6. Click the **File Manager** tab to bring it forward.
7. Double-click the entry to display the File Manager dialog box.
8. Click the **Advanced** button and check the Viewer Content URL.
9. Enter the value of the File Manager URL.

   The **File Manager URL** is the URL the Agile Web Client connects to. The format is:

   http://<proxy_or_loadbalancer>:<port>/<fileserver_virtual_path>/AttachmentServlet

   Note: The default value for fileserver_virtual_path is Filemgr.

10. Click the Standard Vault Type to display the drop-down list.

    You can choose to have both Standard and Custom vaults. A standard vault is the default vault type and is used for new file uploads. A custom vault allows you to attach existing files to Agile PLM as-is, without reorganizing or uploading the files.

    Note: Each file manager must have at least one Standard Read-Write vault to be used for uploading files.

    A custom vault is always set up as read-only. You can attach an arbitrary file structure to the File Manager as a custom vault without the files being uploaded. Refer to the Agile PLM Import and Export Guide for more information on how to configure FileLoad for custom vaults.

11. Enter a description of the vault in the **Description** field.

12. Verify that the primary location where the files are stored in the **Base Storage Directory** field is the same location you entered during installation. The default location is \files. The location can be a shared network storage directory, such as a Storage Area Network (SAN).

    Important: Do not specify a mapped drive that may not be mapped automatically after a reboot. Instead, specify a local drive or UNC name, including directory path, like this: \\fileserver\filevault

13. Enter a location where the purged (deleted) files are automatically moved to in the **Purge Directory** field. The default location is \files\purge. The location can be a shared network storage directory, such as a SAN.

    Important: Do not specify a mapped location. Instead, specify a local drive or UNC name including directory path, like this: \\fileserver\filevault\purge

14. Set the vault as Read-Write or Read-Only from the Category drop-down list.

    Note: Each file manager must have at least one Standard Read-Write vault (used for uploading files) and each File Manager can have only one Read-Write vault.

    If you have multiple vaults, then the additional vaults should be defined as Read-Only.

15. If you have additional vaults, then click the plus-sign to add these vaults.

16. Click **OK** when done.

17. Start the File Manager, as described in "Starting the File Manager" on page 6-4

There are additional configuration settings used to fully configure File Manager through the Java Client. These settings are:

- Filename Prefix (Preferences)

- Checksum computation (Preferences)
- DFM Optimized Replications (Preferences)

For more information on these additional settings, see the *Agile PLM Administrator Guide*.

Reconfiguring File Manager and WebDAV after Setting up a Web Proxy Server

If you set up a Web proxy server for Agile File Manager that is different from the server or port you specified when you installed Agile PLM, you must make sure that File Manager and WebDAV point to the proxy server on the correct port. Otherwise, File Manager may not start successfully and Agile PLM clients will not be able to access file attachments.

To configure File Manager and WebDAV after setting up a Web proxy server:

1. Configure File Manager locations in Java Client.
2. Stop the File Manager.
3. Using a text editor, open the server.conf file for File Manager in the AGILE_HOME\agileDomain\config directory.
4. Find the file.server.url entry, and update it to reflect the proxy server hostname or alias and port number. After you modify the file.server.url.entry, it should look similar to this:

   file.server.url=http://webserver.company.com:80/Filemgr/services/FileServer

   Note The file.server.url entry must match the File Manager Internal Locator entry (defined in Java client: **Server Settings > Locations**) or the File Manager will not initialize successfully.
5. Save the server.conf file.
6. Restart the File Manager (Tomcat).

Starting the File Manager

After you have configured the File Manager, you can start the server.

To start the File Manager on Windows:

1. Choose **Start > Administrator Tools > Services**.
2. Start the Apache Tomcat AgileFM service.

You can check for errors in the stdout and stderr logs in the AGILE_HOME\FileManager\logs directory.

To start the File Manager on UNIX:

1. Open a terminal window.
2. Change to the AGILE_HOME/FileManager/bin directory.
3. Start the File Manager:

   > ./startup.sh

Stopping the File Manager

To stop the File Manager on Windows:

1. Choose **Start > Administrator Tools > Services.**
2. Stop the Apache Tomcat AgileFM service.

You can check for errors in the stdout and stderr logs in the AGILE_HOME\FileManager\logs directory.

To stop the File Manager on UNIX:

1. Open a terminal window.
2. Change to the AGILE_HOME/FileManager/bin directory.
3. Stop the File Manager:

   ./shutdown.sh -force

Validating the File Manager Installation

To verify that the File Manager installed successfully, check the following URL:

http://<fileserver_home>:<port>/<fileserver_virtual_path>/Configuration

> **Note:** The default value for fileserver_virtual_path is Filemgr.

For example, you might type the following URL:

`http://filevault.mycompany.com:8080/Filemgr/Configuration`

If you are using a Web proxy server for File Manager, the URL might look like this:

`http://webproxy.mycompany.com:80/Filemgr/Configuration`

After a moment, the File Manager Configuration page should display. This page tests the File Manager and Application Sever connections. If Success is listed in the Status column for all connections, your installation was successful.

7

Launching and Configuring Agile Java Client

Agile Java Client Requirements

You must have a Java Runtime Environment (JRE) or Java Development Kit (JDK) version 8 or later installed on your computer to use Agile Java Client.

The server-side files required for Agile Java Client are installed with the Agile Application Server.

> **Note:** The Agile PLM administrator must send users the URL to connect to the Agile Java Client. In addition, there is a new Java client access privilege that must be granted for users to use the Java client.

Installing the Agile Java Client

To use the Agile Java Client, you must have JRE 8.0 installed on your client computer. Agile Java Client uses Java Web Start technology to download the software and keep it updated.

To launch the Agile Java Client:

1. Open your browser and type the following:

   http://<hostname>.<domain>:<port>/JavaClient/start.html

   For example, the URL might look something like this:

   `http://plmserver.mycompany.com/JavaClient/start.html`

2. Click **Launch**.

   Java Web Start proceeds to download Java Client files and install them on your computer. This may take a few minutes.

3. If a Security Warning dialog box appears, click **Start**.

4. If the Agile Desktop Integration dialog box appears, click **Yes** to integrate the Agile Java Client with your desktop.

   You are prompted to log in to the Agile server.

5. Enter your Agile PLM username and password, and then click **OK**.

   The main Agile Java Client window opens.

Reconfiguring Java Client JNLP Files

When you install the Agile Application Server, the following three JNLP files are configured for the Agile Java Client. These files are embedded with the application.ear file and deployed with the application:

- pcclient.jnlp
- ext.jnlp
- custom.jnlp

A JNLP file is an XML document that describes a Java application to be launched by Java Web Start. Ordinarily, the JNLP files are configured correctly during installation of Agile PLM. However, if you have an application server cluster and are unable to start Java Client and download its classes, you may need to reconfigure the JNLP files on the Administration server to use the correct URLs.

Modifying the JNLP Files

Agile provides two utilities for unpacking the JNLP files from the application.ear file and repacking them again after you have modified them, ExtractJNLPFiles and RepackJNLPFiles.

To extract and modify the Java Client JNLP files:

1. Stop the Agile Application Server.
2. On the application server machine (the admin server machine in a WebLogic cluster), open a command prompt window.
3. Change to the AGILE_HOME\Install\bin directory and run the **ExtractJNLPFiles** script to extract the JNLP files from the application.ear file.

   AGILE_HOME\install\bin\ExtractJNLPFiles
4. Open the pcclient.jnlp file in a text editor. The file is located in the AGILE_HOME\agileDomain\applications directory.
5. Find the following tags and edit the values listed below:

   jnlp:

   <jnlp spec="1.0+"
   codebase="http://<proxy/loadbalancer>.<domain>:<port>/JavaClient">

   serverURL:

   <argument>serverURL=<*protocol*>://<*appserver/loadbalancer*>.<*domain*>:<*port*>

   webserverName:

   <argument>webserverName=<*proxy/loadbalancer*>.<*domain*>:<*port*></argument>

   where

   <*protocol*> is the protocol used by the application server. Enter **t3** for Oracle WebLogic Server

   <*proxy/loadbalancer*> is the Web proxy server hostname or the alias for the load balancer

   <*domain*> is the fully qualified domain name

   <*port*> is the Web proxy server port or virtual port for the load balancer
6. Save the file.

7. Open the **ext.jnlp** file in a text editor. The file is located in a wls subdirectory beneath the AGILE_HOME\agileDomain\applications directory.
8. Find the following tag and edit the values listed below:

   jnlp:

   <jnlp spec="1.0+"
   codebase="http://<proxy/loadbalancer>.<domain>:<port>/JavaClient">

   where

   <*proxy/loadbalancer*> is the Web proxy server hostname or the alias for the load balancer

   <*domain*> is the fully qualified domain name

   <*port*> is the Web proxy server port or virtual port for the load balancer.
9. Save the file.
10. Open the **custom.jnlp** file in a text editor. The file is located in the AGILE_HOME\agileDomain\applications directory.
11. Find the following tag and edit the values listed below:

    jnlp:

    <jnlp spec="1.0+"
    codebase="http://<proxy/loadbalancer>.<domain>:<port>/JavaClient">

    where

    <*proxy/loadbalancer*> is the Web proxy server hostname or the alias for the load balancer

    <*domain*> is the fully qualified domain name

    <*port*> is the Web proxy server port or virtual port for the load balancer.
12. Save the file.
13. Change to the AGILE_HOME\Install\bin directory and run the **RepackJNLPFiles** script to replace the JNLP files into the application.ear file.
14. Start the Agile Application Server.

Configuring the JNLP MIME Type on UNIX

To successfully download and install application using Java Web Start, you must configure the JNLP MIME type for your server.

Add the following line to the **mime.types** file in the /oracle_home/Apache/Apache/conf directory of each application server:

application/x-java-jnlp-file JNLP

8

Uninstalling Agile PLM

Uninstalling Agile PLM on Windows

To uninstall Agile PLM on Windows:

1. Stop the following Windows services (if present):
   - AgilePLM (if you installed the Application Server as a service)
   - Apache Tomcat AgileFM (if you installed File Manager as a service)
2. Choose **Start > All Programs > Agile > Agile PLM > Uninstall Agile PLM**.
3. Click **Uninstall** on the Uninstall Agile window.
4. Click **Done** when finished.
5. Restart the computer.

Uninstalling Agile PLM on UNIX

To remove Agile PLM on UNIX:

1. Make sure the PATH environment variable contains the path to the JDK folder in the AGILE_HOME directory.
2. Stop Agile-related processes.
3. Open a terminal window and change to the AGILE_HOME/Uninstaller directory.
4. Run **UninstallAgile\PLM** to start the installer.
5. Click **Uninstall** on the Uninstall Agile window.
6. Click **Done** when finished.
7. Restart the computer.

A

Troubleshooting

Installation and Configuration Scripts

Several scripts are provided that can be used during installation and configuration of the Agile Application Server. The scripts are installed in the AGILE_HOME\install\bin directory:

Script	Description
Configure-CMS	Configures and repacks the CMS files in the Agile application.ear file.
ConfigureWSSecurity	Extends Agile domain to include EM and OWSM components.
ExtractArchive	Extracts all of the files in the Agile application.ear file.
ExtractConfigFiles	Extracts configuration files from the Agile application.ear file.
ExtractJavaClientFiles	Extracts all of the Java Client files from the Agile application.ear file.
ExtractJNLPFiles	Extracts JNLP files for Java Client from the Agile application.ear file.
ExtractWsdlFiles	Extracts wsdl files for Services from CoreService.war file in the Agile application.ear file
RenameWebCMS	Allows you to rename WebCMS
RepackArchive	Repacks all of the files into the Agile application.ear file.
RepackConfigFiles	Repacks configuration files into the Agile application.ear file.
RepackJavaClientFiles	Repacks all Java Client files into JavaClient.war, and then updates the JavaClient.war file contained in the Agile application.ear file.
RepackJNLPFiles	Repacks JNLP files for Java Client into the Agile application.ear file.
RepackWsdlFiles	Repacks all wsdl files into CoreService.war, and then updates the CoreService.war file in the Agile application.ear file.

Application Scripts

Several scripts are provided for deploying and starting the Agile application. The scripts are installed in the AGILE_HOME\agileDomain\bin directory:

Script	Description
addManagedServer	Adds a Managed Server to cluster.
checkLDAP	Use this script to check your LDAP's configurations.
checkLDAPConfig	Tries to connect to the Directory Server and verify whether LDAP configuration is correct.
encryptDBSchemaPwd	Use this script to encrypt the database schema password for the agile.properties file and the superadmin password for the boot.properties file.
encryptPwdUtil	Encrypts the ifsuser password for the server.conf file.
InstallService	Installs Agile PLM as a Windows service on a WebLogic Administrator server.
InstallServiceAgilePLMManaged1	Installs Agile PLM as a Windows service on a WebLogic managed server.
loadLDAPConfig	Loads LDAP configuration information into the Agile PLM database.
migrateUserstoDB	Migrates users from the Directory Server to the Agile PLM database. After you run this script, make sure to restart your application server.
multisite-data-migrate	Starts the data migration of multisite.
setEnv	Sets common environment variables used to run other Agile scripts.
startAgile	Starts the Agile application server.
startServerAgileAdmin	Starts the Agile administration server on a cluster.
startServerAgileManaged1	Starts the Agile managed server on a cluster.
stopAgile	Stops the Agile application server.
stopServerAgileAdmin	Stops the Agile Administration server on a cluster
stopServerAgileManaged1	Stops the Agile Managed server on a cluster.

B

File Vault Utilities

Several utilities are available to use with the File Vault. These utilities are installed in the AGILE_HOME\agileDomain\tools directory.

> **Note:** Make sure the Purge task is disabled before executing any File Vault utility.

Dead File Utility

The Dead File utility locates dead files in a file vault.

Usage: java -jar DeadFileUtility.jar -attachmentPrefix<*value*>**-vaultRoot**<*value*>*[***-moveProblemFiles**<*Y/N*>*]* **[-archiveFileDest**<*value*>*][-db_url*<*value*>*]* **[-db_user**<*value*>*]* **[-db_password**<*value*>*]-file*<*value*>**VERBOSE**<*true/false*>

where:

- **attachmentPrefix** is the file prefix.
- **vaultRoot** is the absolute path of the vault root.
- **moveProblemFiles** allows you to decide if you want to move the dead files to another location.
- **archiveFileDest** is the fully qualified path to an existing location where the dead files should be moved, if you have chosen to move the files.
- **db_url** is the URL of the database.
- **db_user** is the name of the database user.
- **db_password** is the password of the database user.
- **file** is the absolute path of the agile.properties file.
- **VERBOSE** allows you to choose the level of detail displayed when the command is run

Fix Vault

The Fix Vault utility corrects the file sizes in the database. The file size is determined based on the actual files in the vault and then corrects the size in the database. If the file size equals zero during an upgrade, the file size is returned to its original value after running this utility.

<*Agile_Home*>**Usage: java -classpath @WLS-HOME@/server/lib/weblogic.jar:FixFileSizeUtility.jar com.agile.webfs.tools.upgrade.FixFileSizeUtility -dburl {DBURL} -dbuserid {DBUSERID} -dbpassword {DBPASSWORD} -ifsuser {IFSUSER} -ifspassword {IFSPASSWORD} -LOG**

where:

- **dburl** is the URL of the database.
- **dbuser**id is the name of the database user.
- **dbpassword** is the password of the database user.
- **ifsuser** is the name of the iFS user.
- **ifspassword** is the password of the iFS user.
- **LOG** enables logging.

IFS Reorg

IFS Reorg is used to restructure the file vault during an upgrade from a version prior to Agile PLM 9.2.

Usage: java -jar iFSReorgV2.jar -basedir<*value*>**-oldFilePrefix**<*value*>**[-newFilePrefix**<*value*>**] [-logging <true/false>] [-simulate <true/false>]**

where

- **basedir** is the file vault location to be reorganized
- **oldFilePrefix** is the old file name prefix for the existing files in the vault
- **newFilePrefix** is the new file name prefix. All of the existing files will be renamed with this prefix. This is an optional argument. If it is not specified, the old file name prefix is used.
- **logging** enables logging of warnings or errors if set to **true**. The log is saved to a file named ifsReorg.log.
- **simulate** simulates the reorganization process without actually moving or renaming the files.

MetaFiles Remover

MetaFiles Remover is used to periodically remove metafiles from the file vault based on the last used date or size. This utility should be used when upgrading the Agile Viewer.

Note: A user-created .cmf file should not be listed or removed from the file vault.

Usage: java -jar MetaFilesRemover.jar [-delete] [-age<*value*>**] [-size**<*value*>**] -basedir**<*value*>**-prefix**<*value*>**-serverURL**<*value*>**-username**<*value*>**-password-db_url**<*value*> **-db_user**<*value*> **-db_password**<*value*><*value*>

where

- **delete** deletes the metafiles.
- **age** specifies the last access time (day in numbers).
- **size** specifies file size (KB).
- **basedir** is the file vault location where the metafiles are removed.
- **prefix** is the file name prefix.
- **serverURL** is the location of the DMS service, for example, `http://server.company.com:7001/Agile/DmsService/DmsViewerAPIService`.
- **username** is the DMS service username (ifsuser).
- **password** is the DMS service password (ifspassword).
- **dburl** is the URL of the database.
- **dbuser**id is the name of the database user.
- **dbpassword** is the password of the database user.

Missing Files Locator

Missing Files Locator is used to locate missing files, including redlined files, in a file vault, but not limited to a specific distributed file management server.

<*Agile_Home*>**Usage: java -classpath @WLS-HOME@/server/lib/weblogic.jar:MissingFilesLocator.jar com.agile.webfs.tools.upgrade.MissingFilesLocator -dburl {DBURL} -dbuserid {DBUSERID} -dbpassword {DBPASSWORD} -ifsuser {IFSUSER} -ifspassword {IFSPASSWORD}**

where:

- **dburl** is the URL of the database.
- **dbuser**id is the name of the database user.
- **dbpassword** is the password of the database user.
- **ifsuser** is the name of the iFS user.
- **ifspassword** is the password of the iFS user.

Second Signature

Agile provides optional data migration scripts that can be used by customers who choose to implement the Signoff User Dual Identification feature for approval signoffs. The Signoff User Dual Identification feature was introduced to address FDA regulations laid out in 21 CFR Part 11 Section 11.200. The system now facilitates the usage of two forms of identification from the user when signing off on a document such as a change order.

For more information on these scripts, see the *Agile PLM Database Upgrade Guide*.

Thumbnail Generator Utility

Generates thumbnails in bulk for ITEM, MFRPART, and FILEFOLDERS (including Design) objects.

Usage: java -jar ThumbnailGeneratorUtility.jar -dburl<*value*>**-dbuserid**<*value*>**-dbpassword**<*value*>**-DMSURL**<*value*>**-DMSUSER**<*value*>**-DMSPASSWORD**<*value*> [**-ALL**] [**-ITEMs**<*values*>] [**-MFRPARTs**<*values*>][**-FILEFOLDERs**<*values*>] [**-log**] [**-createDate**<*value*>]

where

- **dburl** is the URL of the database.
- **dbuserid** is the name of the database user.
- **dbpassword** is the password of the database user.
- **DMSURL** is the location of the DMS service.
- **DMSUSER** is the DMS service username.
- **DMSPASSWORD** is the DMS service password.
- **ALL** generates thumbnails for all of the supported files.
- **ITEMs** generates thumbnails for a specified list of items. For multiple items, the values should be comma separated.
- **MFRPARTs** generates thumbnails for a list of MFR parts. For multiple parts, the values should be comma separated as MFRNAME:MFRPART.
- **FILEFOLDERS** generates thumbnails for a list of file folders. For multiple folders, the values should be comma separated.
- **createDate** is the date the file was created in the MM/DD/YYYY format.

Vault Simulator

Used to create a virtual vault from the Agile PLM database.

Usage: java -Dagile.fileServer.config.file="<*server.conf file full path*>**" -jar VaultSimulator.jar -VaultLoc**<*value*>**-URL**<*value*>**-userid** <value> **-password**<*value*>**-updateContentURL**<*value*>**-createfile**<*value*>

where

- **VaultLoc** is the file vault location.
- **URL** is the database location.
- **userid** is the database userid.
- **password** is the database password.
- **updateContentURL** is the location of the Content URL.
- **createFile** is the name of the newly created file.

922 PPM Post Upgrade Utility

Agile Product Portfolio Management (PPM) gives you powerful capabilities to define, analyze, and manage all aspects of a project or program. In Agile PLM 9.2.2, some of the business rules were changed. If you are upgrading from a version of PPM prior to

version 9.2.2, data migration is necessary in order for the existing data to comply with the new business rules.

The PPM Post Upgrade utility was developed to address these changes. The utility is installed after you have upgraded your system to Agile PLM 9.3.5.

To run the PPM Post Upgrade utility:

1. Unzip the utility files to a temporary directory.
2. Change to the directory where you have unzipped the files and locate the upgrade.properties file.
3. Edit the following entries in the upgrade.properties file to match your environment:

Server Settings
server.url
URL of the Agile PLM application
The format is <protocol>://<machine_name>/<application_name>.
On WebLogic, the protocol is t3.
server.login.id
Login ID of the Agile user who has PPM-related privileges to run the utility. This is typically the Admin user.
server.login.password
Password of the Agile user.
pe.weekend.days
Weekends configured in the server. This value should be the same as the setting in the agile.properties file.
Database Settings
db.url
The JDBC driver URL of the database
The format is jdbc.oracle:thin@<db_machine_name>:<port>:<instance_name>.
db.username
Agile database username
db.password
Agile database password
Application Server Settings
agile.dir
The parent directory where the library files for the Agile application are located.
oc4j.dir
N/A
Location of the Oracle Application Server, if installed.
wls.dir
Location of the WebLogic Application Server.

4. Save the upgrade.properties file.
5. Verify that Agile PLM is running.
6. On a command line, make sure that the JAVA_HOME environment variable points to the location of the JDK. If it does not, set the value to the correct location.
7. In the directory where you unzipped the utility files, run **install.cmd** to start the utility.

   Important: If you configured the PPM Post Upgrade Utility in Agile PLM 9.2.2 and are upgrading to Agile PLM 9.3.5 from version 9.2.2, run **install upgrade-actualtime.cmd**, NOT install.cmd to start the utility.

8. Restart the Agile application server.

Glossary

ACP

See **Agile Configuration Propagation (ACP)**

Activity

A project activity in Agile Product Portfolio Management, such as a program, task, or phase.

Affected Files

Similar to Affected Items, these objects are EC files that are Design Release Candidates.

Agile Configuration Propagation (ACP)

Propagating existing configuration the PLM to the newly installed version of PLM.

ACS

See **Agile Content Service (ACS)**

Agile Content Service (ACS)

ACS is an event-driven XML-based publishing service that makes the product record available to a wide variety of business applications and users, internally and across the global manufacturing network

Agile Destination

A package created by an Agile PLM system in the target PLM using Web Services to import from the Attachments tab of the package in the target system.

Agile Integration Services (AIS)

A collection of predefined Web Services in the Agile Integration Framework that enable communication between the Agile Application Server and disparate systems

Agile Product Portfolio Management

The Agile PLM project management solution that is integrated with the product information in PLM.

AI

Affected Items tab on Change objects in Agile.

AIS

See **Agile Integration Services (AIS)**.

Approved Manufacturer Parts List (AML)

List of approved manufacturer parts associated with an item.

AML

See **Approved Manufacturer Parts List (AML)**.

API

See **Application programming interface (API)**.

Application programming interface (API)

A set of routines, protocols, and tools for building software applications. An API expresses a software component in terms of its operations, inputs, outputs, and underlying types.

Assembly

A product assembly lists the parts in a product and shows the substances and materials that comprise those parts. It is linked to specifications that can restrict how much of a particular substance that product assembly may contain

Automated transfer orders (ATO)

Content published by Agile PLM users in real time with a content transfer order (CTO) or set up subscribers to automatically create automated transfer orders (ATO) based on a schedule or triggered by a workflow status change.

Baseline

A snapshot of a project, usually in its initial stage, used as a reference for future comparison in Agile Product Portfolio Management.

Bill of Material (BOM)

A hierarchical representation of a product that is made up of other products.

Bill of Substances (BOS)

A hierarchical list of substances that are contained in the parts and assemblies that make up a BOM.

BOM

See **Bill of Material (BOM)**.

BOS

See **Bill of Substances (BOS)**.

CAD

See **Computer-aided design (CAD)**

Commodity

A class of goods that is in demand, that is supplied without qualitative differentiation regardless of supplier.

Computer-aided design (CAD)

The use of computer systems to assist in the creation, modification, analysis, or optimization of a design. CAD software is used to increase the productivity of the designer, improve the quality of design, improve communications through

documentation, and to create a database for manufacturing. CAD output is often in the form of electronic files for print, machining, or other manufacturing operations.

Contract (Price)

This is a subclass of the Published Prices class. Contract prices are prices provided by the supplier for a specific item or manufacturer part. This price information applies only for the specified duration and can apply to any project.

Co-Sourcing

The process of leveraging product cost across suppliers.

DCO

See **Design Change Order (DCO)**

Deliverable

A unit of work required for a project's success, usually fulfilled by generating a digital file. (Word processing documents, spreadsheet documents, PDFs, presentation documents, and so on.) Deliverables can also be Agile PLM objects and processes. Also called 'content' in Agile Product Portfolio Management.

Design Change Order (DCO)

A Change Order subclass that is available when the effected File Tab is enabled and provides access to all Agile PLM Workflow functions.

Design File Folder

An EC file folder that is integrated with CAD and PLM files, providing full access to PLM Workflow function.

EC

See **Engineering Collaboration (EC)**

EC Client

A Java-based UI to access, administer and operated the EC solution.

ECO

See **Engineering Change Order (ECO)**

Engineering Change Order (ECO)

An object that carries with it all the proposed changes to a product and/or its BOM. When approved and implemented, the proposed changes become effective.

Engineering Collaboration (EC)

An application that provides data and process integration between CAD applications and Agile PLM. It allows CAD designers and engineers to capture and control the data representing a primary source of the product record.

Extensible Markup Language (XML)

A markup language that defines a set of rules for encoding documents in a format that is both human-readable and machine-readable

File Manager

The File Manager manages files in a repository or vault in the file system and provides a place to store and retrieve files locally or remotely. You can install it on the same

server as the Agile Application Server or on a separate one. You can also install the File in a redundant configuration and/or distributed across geographic regions.

File Transfer Protocol (FTP)

A standard network protocol used to transfer computer files from one host to another host over a TCP-based network, such as the Internet.

FQPN

See **Fully qualified path name (FQPN)**.

FTP

See **File Transfer Protocol (FTP)**

Fully qualified file name

The exact name of a file on a computer that is completely specified such that it is unambiguous and cannot be mistaken for any other file on that system.

Fully qualified path name (FQPN)

The full path of a resource, directory or file, stored in a computer. It is composed by the full path to the resource and its syntax depends on the operating system.

Gantt Chart

A project management tool that shows project activities and schedule as a bar chart. The chart lists project activities in sequence, and presents critical information such as the start and end dates of each activity, as well as interdependencies between activities.

Item Master

The product record. It is the entire collection of Items - Parts, Documents, and any other user-defined subclasses of the Items class maintained under change control in the Agile system.

Java Message Service (JMS)

The Java Message Service (JMS) API is a Java Message Oriented Middleware (MOM) API for sending messages between two or more clients.

JMS

See **Java Message Service (JMS)**.

Lifecycle Phase

Current state in an object's workflow.

LRR

Latest Released Rev - concerning a Part or Document.

NCNR

Non-Cancelable Non Returnable. Applies to an item. NCNR can be a Yes or No, depending on the supplier. You can ask for the NCNR information in the supplier response. This is one of the critical factors in finding the best deal among the supplier responses.

PDX

See **Product Definition eXchange (PDX)**.

PLM

See **Product Lifecycle Management (PLM)**.

Percent allocation or % allocation

The percentage of a resource's time allocated to a specific task or tasks in Agile Product Portfolio Management..

Percent complete or % complete

Amount of time and effort expended on a project measured as a percentage of the time and effort required to complete the whole project. Used in Agile Product Portfolio Management.

Product Definition eXchange (PDX)

A standard designed for the e-supply chain. This standard is based on the XML format because it provides a simple yet powerful and flexible way to encode structured data into a format that is both human- and computer-readable. In PLM, PDX packages contain product content, such as items.

Product Lifecycle Management (PLM)

The process of taking parts/documents from inception to production to phase-out, and all the stages in between.

Protocol

A system of digital rules or agreed-upon format for data exchange within or between devices. It determines the type of error checking and data compression used.

Published Price

This is a subclass of the Published Prices class. Published prices are prices provided by the suppliers in response to an RFQ and published from the project. The published price information can also be used in other projects.

PCO

See **Price Change Order**

Price

An object that carries with it all the proposed changes to a product and/or its BOM. It can be approved and implemented to make the proposed changes effective.

Price Change Order

It is an object that carries with it all the proposed changes to a price. It can be approved and implemented to make the proposed changes effective.

Quote history

A subclass of the Quote Histories class. Quote history prices are the stored prices from supplier responses that you can use. Any change in the response line of an RFQ is stored in the historical response and is usable at any time.

Request for Information (RFI)

A material declaration that lists the parts in a product assembly and shows the substances and materials contained in the part.

Request for Quote (RFQ)

A standard business process whose purpose is to invite suppliers into a bidding process to bid on specific products or services.

Request for Proposal (RFP)

A solicitation, often made through a bidding process, by an agency or company interested in procuring a commodity, service or valuable asset, to potential suppliers.

Response Line

A response line has information about only one item. The negotiation of price and terms for items is dealt with in a response line.

Resource Pool

A group of users who can be bulk assigned as resources for a particular project or task in Agile Product Portfolio Management.

RFI

See**Request for Information (RFI)**.

RFP

See **Request for Proposal (RFP)**

RFQ

See **Request for Quote (RFQ)**

RFQ Response

A medium of communication between the user and the supplier. One response from a supplier can contain multiple response lines for different items. Price data is added to the project automatically when the supplier submits the response.

Schedule Editor

The scheduling engine that handles updates to the project schedule in Agile Product Portfolio Management.

Schema

In computer programming, a schema is the organization or structure for a database. The activity of data modeling leads to a schema.

SDK

See **Software Development Kit (SDK or "devkit")**

Software Development Kit (SDK or "devkit")

A set of software development tools that allows the creation of applications for a certain software package, software framework, hardware platform, computer system, video game console, operating system, or similar development platform.

Sourcing Project

The entry point of sourcing and product pricing. A sourcing project tracks data required for sourcing and pricing, to perform data analysis for effective pricing.

Standard Cost

Applies to an item. This is the market cost of the item. It is site-specific. The standard cost is for a unit.

Supplier

A supplier of one or several commodities.

Target Cost

Applies to item. This is the expected cost of the item by you or the supplier. This can be a percentage of the standard cost. Target cost is for a unit.

Timesheet

The time entry system in Agile Product Portfolio Management, used to track actual hours spent by resources on project activities and to calculate corresponding labor cost.

TLA

See**Top Level Assembly (TLA)**

Top Level Assembly (TLA)

The level in a BOM that indicates the ultimate product being manufactured.

Transfer order

Every time Agile Content Service (ACS) publishes product content, it produces a transfer order that keeps track of what, where, and when product content is transferred.

UPK

See **User Productivity Kit (UPK)**

User Productivity Kit (UPK)

The Oracle online help system used in some Oracle products.

Web Service Extensions (WSX)

A Web service engine that enables communication between Agile Product Lifecycle Management system and disparate internal and external systems.

WSX

See **Web Service Extensions (WSX)**.

XML

See **Extensible Markup Language (XML)**.

XML Schema

Description of a type of XML document, typically expressed in terms of constraints on the structure and content of documents of that type, above and beyond the basic syntactical constraints imposed by XML rules.