

# **Agile Product Lifecycle Management**

Application Installation Guide

Release 9.3.4

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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) 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
<b>boldface</b>	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.



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# 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 9.3.4 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. Agile PLM Application Server
3. Agile PLM File Manager

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**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.

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## Configuring the User Productivity Kit

If you purchased the Agile User Productivity Kit (UPK), the online help system for Agile PLM, follow the instructions in the UPK documentation for configuration after Agile PLM is installed.

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# Installing Agile PLM

## Installation Overview

- Install and start the database.
- Install JDK for application server.
- Install Oracle Fusion Middleware Infrastructure (includes WebLogic Server).
- Install Agile PLM 9.3.4 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.

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

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## Starting the Agile PLM Installer

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**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.

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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

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

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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.

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**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.

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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.

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**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.

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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.

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**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.

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## 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
jdk	Java Development Kit 1.7.0_11
Uninstaller	Agile PLM Uninstaller

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# Upgrading to Agile PLM 9.3.4

## Upgrade Overview

Agile PLM 9.3.4 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 9.3.4 application components.

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**Important:** Before upgrading to Agile PLM 9.3.4, read through this entire chapter and the Readme for the latest information. For information about optional upgrade services, contact Oracle Support.:

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**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.

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## 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 9.3.4 release.

## Upgrading the Agile Application

Because it is a full install, you should uninstall your previous version of Agile PLM before installing Agile PLM 9.3.4.

Agile PLM 9.3.4 also requires a specific version of the application server software. Make sure the supported application server software is installed before running the Agile PLM 9.3.4 installer.

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**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.

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## Upgrading the File Vault

If you are upgrading to Agile PLM 9.3.4 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 9.3.4.
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.



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# 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 9.3.4 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_infrastructure.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.

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**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.

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**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.

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### 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.

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

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**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.

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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.

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**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.

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**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](http://application_server_hostname:port/virtual_path/PLMServlet)

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**Note:** The URL is case-sensitive. The default virtual\_path is Agile.

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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.

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# 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 9.3.4 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.

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.

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

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**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.

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## 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.

---

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## 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.

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---

**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`

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---

**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 Server connections. If Success is listed in the Status column for all connections, your installation was successful.



---

# 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 9.3.4 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**



---

# 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.



## 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.
ExtractWsdIFiles	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.
RepackWsdIFiles	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.
encryptpwd	Encrypts a password for use in Agile property files.
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.

---

## 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.
- **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.

### 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.
- **dbuserid** 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<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).

## 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.
- **dbuserid** 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<v
alue>-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 9.3.4.

**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 9.3.4 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.

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4. Save the upgrade.properties file.
5. Verify that Agile PLM 9.3.4 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.

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**Important:** If you configured the PPM Post Upgrade Utility in Agile PLM 9.2.2 and are upgrading to Agile PLM 9.3.4 from version 9.2.2, run **install upgrade-actualtime.cmd**, NOT **install.cmd** to start the utility.

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8. Restart the Agile application server.