Agile Product Lifecycle Management

Monitoring Agile PLM using the Enterprise Manager User Guide

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Monitoring Agile PLM using the Enterprise Manager User Guide, Release 9.3.6

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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

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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

Introduction

This document introduces Agile PLM Monitoring using Oracle Enterprise Manager Grid Control.

Agile PLM Monitoring with Oracle Enterprise Manager Grid Control

Oracle Enterprise Manager 12c provides multi-instance monitoring of Agile PLM applications to deliver comprehensive, efficient, and vital health status information such as performance metrics, availability, and end-user experience.

Supported releases:

- Oracle Enterprise Manager Agent 12.1.0.5.

> **Note:** Oracle recommends Oracle Enterprise Manager Agent Release 12.1.0.5

System Requirements

Before configuring Grid Control 12c Release 4 (12.1.0.5) to manage Agile applications, you must:

- Install and configure Grid Control12c Release 4 (12.1.0.5) on at least one host computer on the network.
- Install the Grid Control components on their own host or hosts. For example, if you install Agile monitoring middle tier on host1.us.oracle.com, then install and configure the Oracle Management Service and Oracle Management Repository on host2.us.oracle.com.
- Install the Grid Control 12.1.0.5 Oracle Management Agent on every host that includes components that you want to manage with Grid Control.

Pre-requisites:

1. Install Oracle Enterprise Manager Agent Release 12.1.0.5 or later. Make sure the agent can successfully communicate with Oracle Enterprise Manager Server and upload data. For example, Agent Availability must be UP, Last Load Time must show a recent date/timestamp, and ensure to update the Last Load Time periodically.
2. Install Agile PLM Release 9.3.6.

Note: The Oracle Enterprise Manager Agent need not reside on the same machine where Agile PLM is installed.

While installing Agile, you need to know:

- The Host of Agile PLM instance.
- The Communication Protocol of Agile PLM instance.
- The Service Name of Agile PLM instance.
- The Agile Version of the Agile PLM instance (Not mandatory).

Note: Ensure that you load the Agile PLM instance.

- Default Communication Protocol and Services names are rmi and jmxrmi.
- Before configuring Grid Control 12c Release 4 (12.1.0.5) to manage Agile application, Oracle recommends that you install the Grid Control components on their own host or hosts. For example, if you install Agile on host1.us.oracle.com, then install and configure the Oracle Management Service and Oracle Management Repository on host2.us.oracle.com.
- Install the Grid Control 12.1.0.5 Oracle Management Agent on every host that includes the components you want to manage with Grid Control.

See the Enterprise Manager Installation and Configuration Guide, on The Oracle Technology Network (OTN) Web site http://www.oracle.com/technology/documentation/oem.html for details on performing these steps.

Setting Credentials in Oracle Enterprise Manager

You need to set credentials in Oracle Enterprise Manager for the user that the agent runs as. You can either set default credentials (which are the same for all agents) or different credentials for each agent (target credentials). Target credentials override default credentials.

To set credentials:

1. Click Preferences in the Oracle Enterprise Manager home page.
2. Click Preferred Credentials.
3. Click the icon in the Set Credentials column in the row for the agent. The Agent Preferred Credentials page appears.
4. Enter default and target credentials by entering the operating system username and password for the agent.
5. In the Host UserName column, enter username.
6. In the Host Password column, enter password.
7. Click Apply.

Granting 'Log on as a Batch Job' Privilege

On Windows, you need to grant to the host username the Log on as a Batch Job privilege. Set credentials for agents by setting the host username and host password in Oracle Enterprise Manager Grid Control.

To grant Logon as a batch privilege on Windows:

1. Set the control panel to classic view.
2. From the desktop, choose Start > Control Panel > Administrative Tools.
3. Double click Local Security Policy.
4. Click Local Policies.
5. Click User Rights Assignment.
6. Double-click Log on as a Batch Job. The Log on as a Batch Job Properties dialog appears.
7. Click Add User or Group. The Select Users or Group dialog appears.
8. In the Enter the Object Names to Select dialog, enter username of the host.
9. Click OK.

Additional Sources of Information

Refer to the URL below for additional information about Agile instance monitoring. The base documentation is applicable in many cases, because Agile instance monitoring leverages many of Enterprise Manager's underlying capabilities.

See also: The Enterprise Manager Concepts Guide, which gives you more information on the capabilities of Oracle Enterprise Manager Grid Control at The Oracle Technology Network (OTN) Web site at
http://www.oracle.com/technology/documentation/oem.html

2

Monitoring Agile Targets

Oracle Enterprise Manager Grid Control 12c Release 4 enables the monitoring of Agile PLM applications along with other Oracle and non-Oracle technologies through a single Oracle Enterprise Manager Grid Control console.

Key Benefits

It provides:

- Centralized, multi-tier, multi-instance Agile PLM monitoring.
- Discovery of Agile PLM servers and instances for each monitored SID.
- Comprehensive, efficient, and secure health status data collection.
- End-user experience monitoring for Agile PLM application modules.
- Agile PLM business service dashboards and performance trend reports.

> **Note:** Use of other Oracle Enterprise Manager capabilities may require additional licenses.

Prerequisites for Monitoring Agile Targets

After deploying Agile, perform the following steps to monitor an Agile target by using the Enterprise Manager Grid Control:

- Install Enterprise Manager Grid Control with licenses.
- You must install EMGC 12.1.0.5.
- Name the queues OEM_AGENTS and OEM_METRICS.

Creating a Target Instance

You can create a target instance on one or more agents and for each unique Agile PLM Server. You can configure Agile Server as one of the targets for the agent and the agent begins the process of monitoring the target.

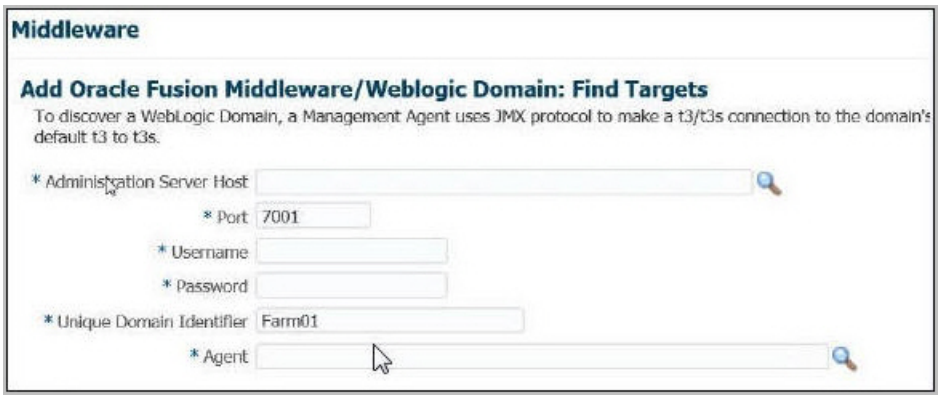
> **Note:** Enterprise Manager does not monitor the target, once an entry is deleted from the Enterprise Manager Repository.

For Agile PLM

Note: In OEM 12c, the system throws an error while monitoring Agile.

1. Click Add Target. Add Target Manually on the Set-up page.
2. Select Oracle Fusion Middleware/Weblogic Domain and the Middleware page appears.
3. Click 'Add Using Guided Process'.

Figure 2–1 Details to find Targets

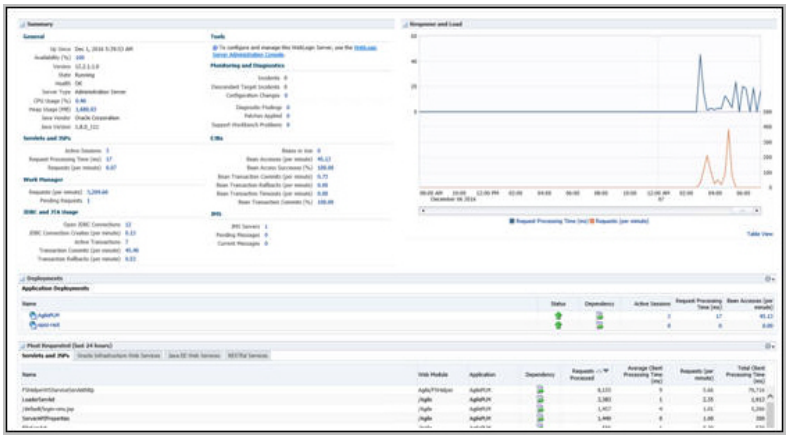


1. Administration Server Host: Select a host where Agile is installed by using the search button.
2. Agent: The Agent is selected once the user selects the Administration Server host.
3. Port: Weblogic Communication Protocol.
4. Username: superadmin
5. Password: Password for superadmin
6. Unique Domain Identifier: Define the name as a meaningful identifier (For example: - Agile93PLM_hostname_instance).

Check Agile Status

1. Click Targets > All Targets. The All Targets page appears.
2. Click the Target Name which you created for Agile.
3. The following status is displayed.

Figure 2–2 Status for Agile PLM



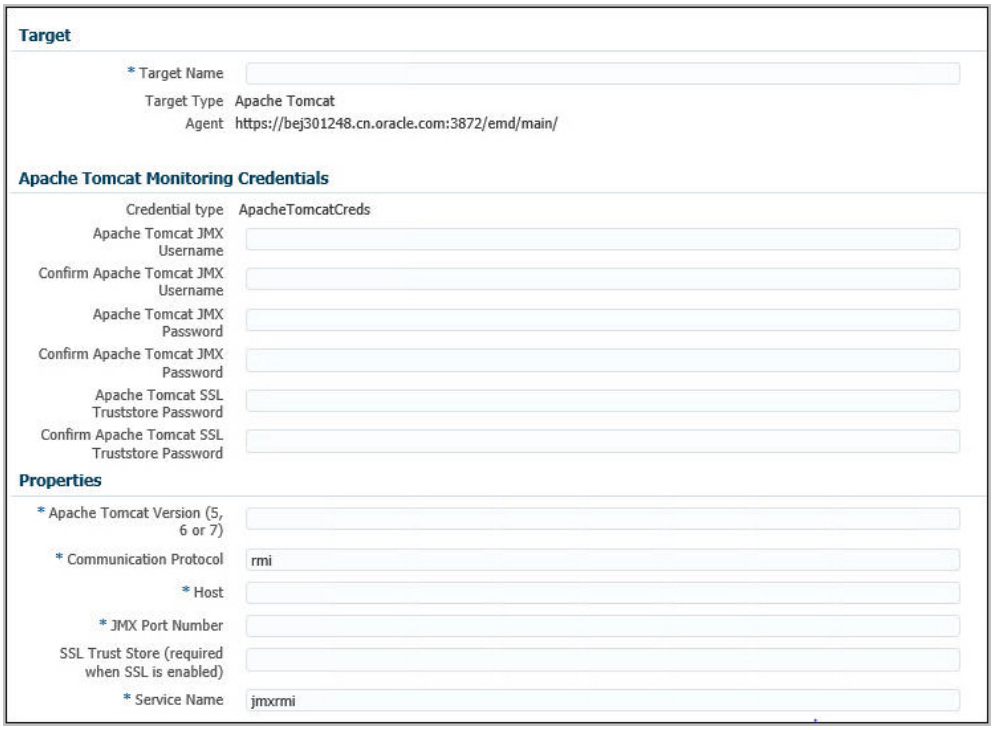
For Apache Tomcat

For details on how to enable JMX, please follow
http://tomcat.apache.org/tomcat-8.5-doc/monitoring.html

> **Note:** After removing JMX_SET, the system does not monitor Tomcat.

1. Click Add Targets Declaratively by Specifying Target Monitoring Properties.
2. Select Apache Tomcat of Target Type.
3. Click Add Manually... and the Target page appears.
4. Select the Monitoring Agent.

Figure 2–3 Apache Tomcat Monitoring Credentials



1. Target Name: Define the name as a meaningful identifier. (For example, FileManage_hostname_instance).
2. Apache Tomcat Monitoring Credentials: Enter the Credential details configured on Tomcat.
3. Properties:

   Apache Tomcat Version(5, 6 or 7): 8.5

   Communication Protocol: rmi

   Host: Enter a host where the File Manager is installed.

   JMX Port Number: Enter the JMX port Number configured in Tomcat.

   SSL Trust Store (requird when SSL is enabled): Enter the SSL Trust Store if SSL is enabled.

   Services Name: jmxrmi

Check Tomcat Status:

1. Click Targets > All Targets. The All Targets page appears.
2. Click the Target Name created for Tomcat, and the status appears.

Note: We can only check if Tomcat is up and running. No other details can be checked.

3

Deploying OEM Plug-ins for Apache Tomcat

This chapter describes how to download and deploy OEM plug-ins for Apache Tomcat.

Deploying an OEM Plug-in

Plug-ins define and deploy an agent to manage and monitor a target. Before you begin the process of monitoring Agile, you need to download Apache Tomcat.

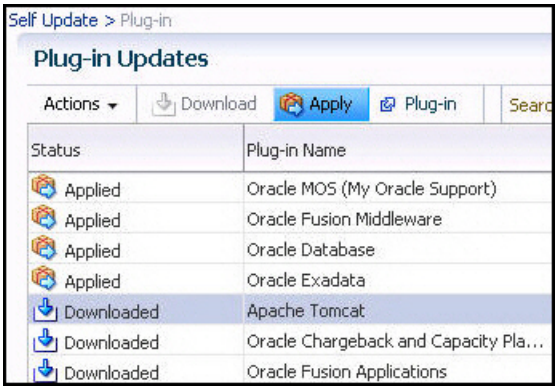
> **Note:** Oracle Fusion Middleware is deployed by default.

You can now log in to the Oracle Enterprise Manager 12c from the browser (IE).

To deploy plug-in:

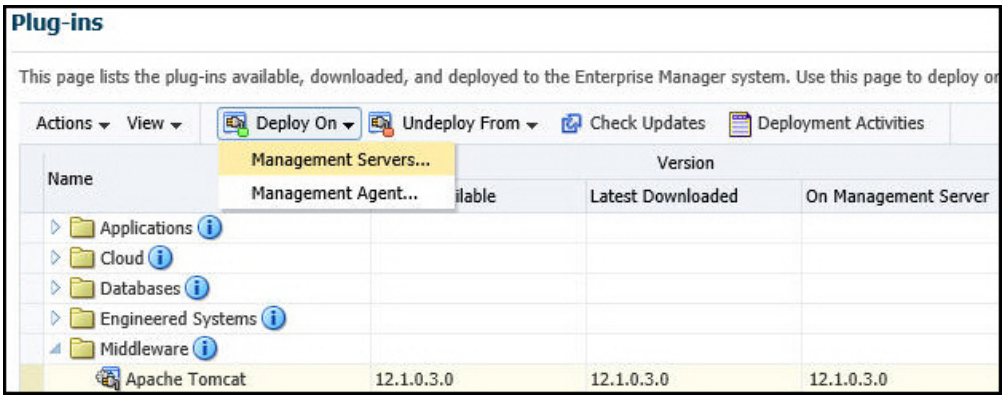
1. Log in to the Oracle Enterprise Manager 12c.
2. Enter the username and password in the respective columns.
3. Click Login. The Oracle Enterprise Manager 12c page appears. Sign in to your account.
   - Settings > Setup > My Oracle Support.
   - Save your account as preferred credentials.
4. Setup Self Updates and Apply Updates. The Oracle Enterprise Manager Setup page appears.
5. Setup >Extensibility > Self Update.
   - Apply an Update in Online Mode.
6. Select Plug-in, download Apache Tomcat.

Figure 3–1 Plug-in Updates



7. Click OK in the pop-up that appears. You are directed to the Plug-in Home page.
8. Deploy Apache Tomcat plug-in.

Figure 3–2 Deploy Apache Tomcat Plug-in



Note: Ensure that you deploy it first on Management Servers.

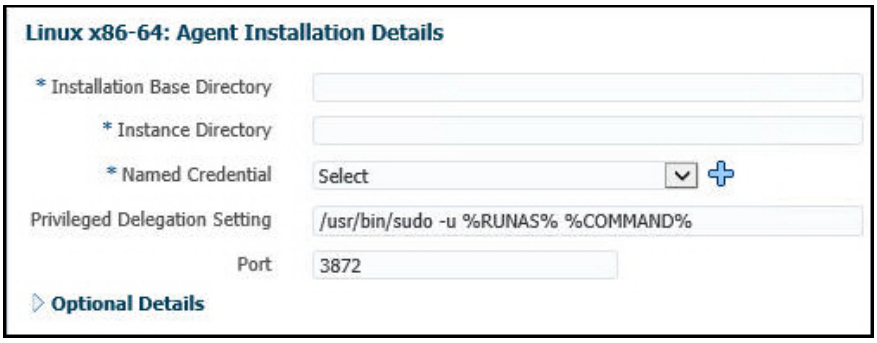
Download and Deploy Agents to Target Server

Follow the below steps to download and deploy agents.

1. Choose Setup > Extensibility > Self Update. Self Update page appears.
2. Choose Agent Software, download related Agent Software.
3. After it is downloaded, apply the agent.
4. Click Setup > Add Target > Add Target Manually.
   - To add Agile PLM, select AgilePLM from the Add drop-down menu. Click Go.
   - To add Apache Tomcat, select Apache Tomcat from the Add drop-down menu. Click Go.
   - To add RMW, select AgilePharmaEM from the Add drop-down menu. Click Go.
5. Select Add Host Targets, click Add Host… and Add Target page appears.
6. Click Add, input Host and related Platform, click Next.

7. Input Agent Installation Details and Click Next.

Figure 3–3 Agent Installation Details



1. Installation Base Directory: The Base Directory where you install Agent.
2. Instance Directory: The instance Directory where you install Agent instance. Usually it will be fulfilled once you input Installation Base Directory.
3. Named Credential: Choose the Credential with which you can log in to Target Server.
4. Privileged Delegation Setting: Psuedo privilege configuration.
5. Port: Agent listen port

8. Click Deploy Agent.

4

Agile Metrics

The plug-in collects and displays information and performance metrics for the target Agile PLM.

About Agile Metrics

This section provides descriptions for all the Agile metrics that you monitor. The table below lists and describes the metrics.

Metric	Description
Maximum CPU Usage (%)	The maximum usage of CPU usage.
Maximum DB time (ms)	Usage of database time for single dialog program.
Maximum Dialog Response Time (ms)	Average dialog response time.
Actual Number of Users	The current number of users logged in to the Agile system.

There exists the current numbers of users system-wide and for each application server instance.

Metric	Description
Maximum usage of extended memory (%)	The maximum usage of extended memory.
Minimum for program buffer hit ratio (%)	Hit ratio of Program buffer.
Waiting Queue for dialog process	The dispatcher queue that measures the number of dialog process requests waiting for a free dialog process. This should be zero in an optimally tuned landscape (SID).
Hit Ratio Table Definition	Hit ration table definition.
Maximum % of memory paged out	Paging out rate.
Maximum usage of roll area (%)	Maximum usage of roll area.

The Oracle Enterprise Manager All Metrics page displays metric information.

To navigate to the All Metrics page:

1. Click Targets on the Navigation bar of the home page. The Host page appears.
2. Click All Targets. The All Targets page displays a list of all targets in the Oracle Enterprise Manager Grid Control including hosts, agents, and databases.

3. Select the target instance option - Agile PLM or AgilePharmaEM.
4. Click All Metrics from the list of options.

The Oracle Enterprise Manager Metrics page displays menu options for Agile Information, User Usage and Response.

Agile Information

To view information about Agile PLM or RMW, click About Agile / Recipe& Material Workspace on the Oracle Enterprise Manager Metrics page.

User Usage Information

To view Agile PLM or RMW user usage information, click User Usage on the Oracle Enterprise Manager Metrics page. The User Usage page displays the following information:.

Name	Description
Users	Logon User Number
Sessions	Logon User Sessions Number

Response Information

To view response information, click Response on the Oracle Enterprise Manager Metrics page. The Response page displays response information for the Server including:

- Status (up or down)
- Response time (sec).

Glossary

ACP

See **Agile Configuration Propagation (ACP)**

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

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

Audit

An audit is the pro-active process of verifying compliance with quality requirements.

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.

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)**

Corrective and Preventive Actions (CAPA)

The CAPA is a formal process of addressing any generic quality problems and analyzing the root cause so you can implement corrective and preventive actions.

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)**

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.

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.

Non-Conformance Report (NCR)

NCR reports a basic material deviation from specifications or requirements in one or more products.

PDX

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

PG&C

Product Governance and Compliance is a solution designed to help manufacturers manage all kinds of product compliance.

PLM

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

Problem Report (PR)

A Problem Report contains a basic description of a generic quality incident, problem, or incident reported from a customer's perspective

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.

Product Service Request (PSR)

Product Service Requests report quality incidents, and aggregate many PSRs to a single PSR.

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.

Quality Change Request (QCR)

QCRs allow you to aggregate problems into a routable quality record, perform root-cause failure analysis, and drive the problems to closure using standard CAPA procedures.

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.

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.

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.

Supplier

A supplier of one or several commodities.

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.