

## **Oracle® Application Integration Architecture**

Agile Product Lifecycle Management Integration Pack for Oracle  
E-Business Suite: Design to Release Release Notes

Release 11.1

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# Value Proposition for Agile Product Lifecycle Management Integration Pack for Oracle E-Business Suite: Design to Release 11.1

This document provides an overview of the value proposition for the Agile Product Lifecycle Management (PLM) Integration Pack for Oracle E-Business Suite (EBS): Design to Release 11.1. It is a roadmap intended to help you assess the business benefits of Agile Product Lifecycle Management Integration Pack for Oracle E-Business Suite: Design to Release 11.1 and plan your information technology (IT) projects and investments.

The new features and enhancements that are planned for this release are grouped according to licensed product. This document describes new or changed functionality only. Existing functionality from prior releases is not described.

Our goal is to ensure that you leverage technology to its fullest to increase the efficiency and effectiveness of your operations. The final release may not have every feature that is discussed in this document, and a specific feature may become a part of a different application or have a product name that is different from those cited in this document.

The information provided in this document is intended to outline our general product direction and is intended for information purposes. The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.

The Agile Product Lifecycle Management Design to Release Process Integration Pack delivers seamless synchronization of product content between distributed engineering and manufacturing organizations, enabling your enterprise to accelerate time to market for new products and reduce costs, while improving product quality and minimizing supply chain disruptions.

For added configurability, extensibility, and sustainability, the Agile PLM Design to Release Integration Pack (PIP) 11.1 has been built on the Application Integration Architecture (AIA) Foundation Pack methodology and architecture, giving customers a standards-based, best-practice design to release business process.

Key features include:

- New product introductions (Items, BOM, AML etc.)
- Product design updates (ECO, MCO and SCO)
- ECO queue management and process monitoring
- Bi-directional sync of ECO statuses and supply chain attributes
- Collaborative new product [number] request
- Bi-directional synchronization of user defined attributes
- Visibility to product costs and on hand positions in Agile PLM
- Multi-site PLM and multi-org manufacturing support
- Integrated, extensible business process execution workflows and notifications framework
- Cross-application business process models and domain value maps

- Robust process monitoring and user friendly error handling
- Support for user-extensible business logic, validations and transformation
- Item synchronization
- Pre-release audit
- Support for Variant Management (Agile PLM, Oracle E-Business Suite/PIM, and Oracle Configurator Integration)

Oracle Application Integration Architecture replaces traditional enterprise application integration with flexible, pre-built, standards-based business process integration solutions. As an AIA offering, the Design to Release PIP includes all of the necessary business process models, canonical objects, and web services you need out-of-the-box. Now you can quickly orchestrate a sustainable design to release business process across Agile PLM and Oracle E-Business Suite with reduced cost and risk. In addition, the AIA adaptable framework enables you to extend the integration to accommodate your specific business needs.

# Product Enhancements for Agile Product Lifecycle Management Integration Pack for Oracle E-Business Suite: Design to Release 11.1

No integration process enhancements were done for the Agile Product Lifecycle Management Integration Pack for Oracle E-Business Suite: Design to Release in the 11.1 release.

## Participating Applications Certified Versions

The following are the versions of the applications that are certified for use with this release:

- Agile PLM 9.2.2.6, 9.2.2.7, 9.3, 9.3.0.1, 9.3.0.2, 9.3.1 (VM is not supported for Agile 9.3.0.2)
- Oracle E-Business Suite 11.5.10 CU2, 12.1.1, 12.1.2, and 12.1.3
- PIM 12.1.1, 12.1.2 and 12.1.3

**For more information** about participating applications enhancements, see the Release Notes for the respective applications.

## Foundation Pack

The Agile Product Lifecycle Management Integration Pack for Oracle E-Business Suite: Design to Release 11.1 is supported by Foundation Pack 11gR1 (11.1.1.5.0) plus roll up patch 12636915 and available on Oracle Fusion Middleware/SOA Suite 11g.

**For more information**, see *Oracle Application Integration Architecture Foundation Pack 11g Release 1 (11.1.1.5.0) Release Notes*.

# Agile Product Lifecycle Management Integration Pack for Oracle E-Business Suite: Design to Release 11.1 Features

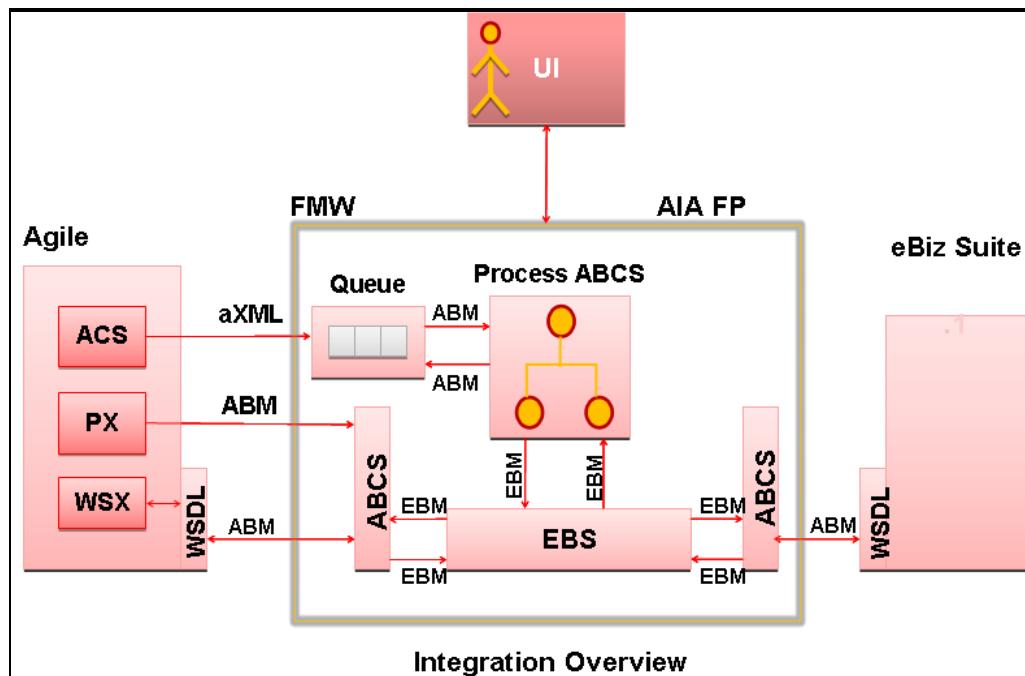
The integration between Agile Product Lifecycle Management (PLM) and Oracle E-Business Suite is designed to enable the product development process and address the primary use cases around the synchronization of product content information between Agile Product Collaboration and Oracle Manufacturing. This allows for rapid implementation of Oracle's next-generation integrated enterprise PLM processes helping the customers reduce costs and any risks associated with typical third-party and custom integrations.

The business benefits of this integration are:

- Reduced time to market for new products
- Extendibility through Oracle Product Information Management (PIM) enablement
- Faster time to volume
- Improved product quality
- Minimum supply chain disruption from new product introductions
- Predictable and sustainable product and process innovation
- Lower total cost of ownership of enterprise PLM platform
- Reduced implementation risks
- Reduced waste and total material cost by leveraging PIM as the central part repository

# Agile PLM Integration Pack for Oracle E-Business Suite: Design to Release 11.1 Architecture

The Agile PLM Integration Pack for Oracle E-Business Suite: Design to Release 11.1 architecture is illustrated in the following diagram:



The Agile PLM Integration Pack for Oracle E-Business Suite: Design to Release 11.1 includes the following functionalities:

- Manufacturing release of new product definition and product launch
- Change management of previously launched products
- Bidirectional synchronization of engineering change status and material attribute information from Oracle Manufacturing to Agile PLM
- Monitoring and control of the change processing and validation queues

The Agile PLM Integration Pack for Oracle E-Business Suite: Design to Release 11.1 uses the following Enterprise Business Objects (EBO):

- Item EBO
- ItemBalance EBO
- EngineeringChangeOrder EBO
- BillOfMaterialsConfiguration EBO

The Agile PLM Integration Pack for Oracle E-Business Suite: Design to Release 11.1 supports the following functional flows:

- Process integration for item attribute update

- Process integration for item balance update
- Process integration for new part request
- Process integration for item synchronization
- Process integration for change order validation
- Process integration for change order release
- Process integration for change order update
- Process Integration for Variant Management

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## Process Integration for Item Attribute Update

As a necessary part of the manufacturing update process, the ability to update a change order line in Agile PLM with updates on the cost and other item attributes from the Oracle E-Business Suite/PIM system is a key component of the bidirectional synchronization capability of the integration.

This process is done through a batch operation.

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## Process integration for Item Balance Update

The item balance information in the Oracle E-Business Suite/PIM system is stored in three attributes: Reserved Quantity, Available Quantity, and On-hand Quantity. An item in Oracle E-Business Suite/PIM can exist in more than one organization. Any change in any of the three types of quantities can take place in just one, or in a few, or in all organizations. These changes are updated in Agile PLM.

This process is done through a batch operation.

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## Process Integration for New Part Request

The New Part Number Request process allows for centralization of parts repository with a Master Data Management (MDM) system such as Oracle PIM Data Hub. Engineering requests for new parts, whereby may be generated based on optional attributes of parts, providing engineers part numbers in synchronous mode. The new part request (NPR) process is triggered from Agile PLM for obtaining a part number from Oracle Product Information Management (PIM) using an Agile PLM Process Extensions (PXP).

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## Process Integration for Item Synchronization

An engineer creating a new part in Agile PLM should be able to synchronize the part number to Oracle E-Business Suite/ PIM. This action is triggered on the action menu for the item. If the item does not exist on Oracle E-Business Suite/PIM, it will be created or else updated. When a part already exists in both Agile PLM and Oracle E-Business Suite/PIM, and it is not released, then changes in its attributes in Agile PLM need to be updated in Oracle E-Business Suite/PIM.

## Process Integration for Change Order Validation

During a product design phase, new products or parts are introduced and existing parts go through design changes. When the authoring of a part's attributes and design information is complete and is ready for publishing to the manufacturing system, it is released by means of change orders. Before a change order is routed for approval in Agile PLM, you can check whether it will be implemented successfully in Oracle E-Business by validating the change order before it is released. Any potential errors will be caught early. The validation simulates the change order or Engineering Change Order (ECO) processing at any stage prior to the Release state (preferably, the Submit state).

## Process Integration for Change Order Release

The change order release comprises of new Part/Product Release (PREL) and Product Design Modification (PDM) flows from Agile PLM triggered by a standard ECO or a manufacturing change order (MCO) or a service change order (SCO) release event in Agile PLM. While Agile PLM is the system of record for item description, design, specs, and other information, Oracle E-Business Suite typically has many more attributes and placeholders for information than the Agile PLM system. Hence, the change order release needs to be updated in the Oracle E-Business. A corresponding Engineering Change Order is created in Oracle E-Business Manufacturing, in the appropriate Oracle E-Business Inventory Organizations, in near real-time. The ECO in Oracle E-Business can be implemented manually, or via a 'low-touch', standard E-Business ECO Auto-Implement process.

The release of a change order in Agile PLM acts as a trigger for the synchronization of product design information with Oracle E-Business. Because Agile PLM is a system of records for product design data, the synchronization process involves transfer of the released revision of product design from Agile PLM to the manufacturing system.

## Process Integration for Change Order Update

The change order update from Oracle E-Business Suite to Agile PLM process flow is a means to communicate change in status of the change order in Oracle E-Business Suite/PIM (also part of the manufacturing update business flow). It constitutes a key requirement for keeping users in Agile PLM informed about the life cycle of a change order. This involves communicating the change order status in Oracle E-Business Suite/PIM to a configurable field on the change order in Agile PLM or changing the status of the change order in Agile PLM.

This process is done through a batch operation.

## Process Integration for Variant Management

The process integration for variant management integrates Agile PLM with Oracle E-Business Oracle Configurator (CZ) and enables Agile PLM users, by using Oracle Configurator, to view different User Interfaces (UIs), created for the same Bills of Material (BOM) model, based on the user login/profile. Oracle Configurator Developer (OCD) responsibility helps the user to define rules, customize the UI, and then publish the UI based on different parameters such as application/usages/effective dates.

The variant management process integration consists of the following flows:

- Agile PLM to Oracle PIM:

- New Part Request (Model, OptionClass and Standard)
- Transfer pre-release 'Prototype' Items (Model, OptionClass and Standard)
- Release/Transfer ('Prototype') super BOM through ECO.
- Release super BOM through ECO.
- Oracle PIM to Agile PLM:
  - Oracle Change Order Implementation Information to Agile (Event based/Batch)
  - Oracle Item Operational Attributes to Agile (Batch)
- Agile PLM to Oracle Configurator:
  - Generate Instance BOM using Option Picker

# Additional Resources

There are additional resources that can help your organization learn more about this release.

Resource	Navigation
Process Integration Pack Implementation Guides	<b>Oracle Technology Network:</b> <a href="http://download.oracle.com/docs/cd/E21374_01/index.htm">http://download.oracle.com/docs/cd/E21374_01/index.htm</a>
Foundation Pack Guides	<b>Oracle Technology Network:</b> <a href="http://download.oracle.com/docs/cd/E21764_01/aia.htm">http://download.oracle.com/docs/cd/E21764_01/aia.htm</a>
Installation and Upgrade Guide	<b>Oracle Technology Network:</b> <a href="http://download.oracle.com/docs/cd/E20059_01/doc.250/e18557.pdf">http://download.oracle.com/docs/cd/E20059_01/doc.250/e18557.pdf</a>
User Guide and Capacity Planning Whitepaper	<b>Oracle Technology Network:</b> <a href="http://www.oracle.com/technology/documentation/agile.html">http://www.oracle.com/technology/documentation/agile.html</a>

Visit the My Oracle Support/Oracle Metalink website frequently to keep apprised of ongoing changes.

For other sources of documentation, visit Oracle Technology Network: Oracle Documentation.

For training opportunities, visit Oracle University.