

# AGILE PRODUCT LIFECYCLE MANAGEMENT INTEGRATION PACK FOR SAP ERP: DESIGN TO RELEASE



The *Agile Product Lifecycle Management Integration Pack for SAP ERP: Design to Release* is a pre-built integration that seamlessly integrates Oracle's Agile Product Lifecycle Management (PLM) to SAP ERP.

## KEY FEATURES:

- New Part Request (Item number from SAP)
- New Product Introductions (Items, BOMs *etc.*)
- Product Design Updates (ECO, MCO and SCO)
- ECO Queue Management and process monitoring
- Bi-directional sync of Supply Chain Attributes
- Visibility to Product Costs in PLM
- Multi-Site PLM and Multi-Plant 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

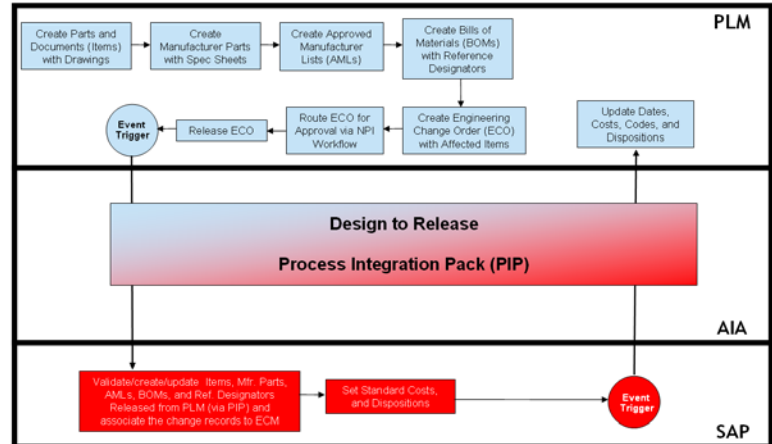
## BUSINESS BENEFITS:

- Reduced Time to Market for New Products
- Faster Time to Volume
- Improved Product Quality
- Minimum Supply Chain Disruption from New Product Introductions
- Predictable and Sustainable Product and Process Innovation

*Leveraging Oracle's Application Integration Architecture, the Agile Product Lifecycle Management (PLM) Integration Pack for SAP ERP: Design to Release 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.*

## End-to-End Design-to-Release Business Process

The Agile Product Lifecycle Management *Design-to-Release* Process Integration Pack (PIP) is a pre-built best practice process integration that is also configurable and extensible to meet your unique process needs. Based upon open, standards-based Service Oriented Architecture (SOA), it is designed to enable seamless synchronization of your enterprise product record across your supply chain and extended product network. Out-of-the-box, this integration supports enterprise processes that connect the Enterprise PLM Product Record in Oracle Agile Product Lifecycle Management with SAP ERP.



*Figure 1: Agile PLM Design-to-Release Business Process Flow*

The core enterprise processes supported by the PIP comprise of the overarching Design to Release processes for New Products and Product Design Updates, a corner-stone process that enables process and data transparency between engineering and manufacturing functions. The solution aims at improving overall design for manufacturability and accelerating profitable innovation in a global '*Design Anywhere, Build Anywhere*' business environment.

The PIP delivers an out-of-the-box best practice process, supported by standard configurations and data mappings, as well as support for advanced features such as Multi-Plant Change Propagation and bi-directional synchronization of ECO Statuses and Supply Chain data.

- Lower Total Cost of Ownership of Enterprise PLM platform
- Reduced implementation risks

### Seamless Manufacturing Release

The Oracle Agile PLM Design-to-Release Process Integration Pack supports seamless exchange of product content between Oracle Agile PLM and SAP ERP for new product introductions as well as product design updates. These best practice processes orchestrate a near real-time and highly responsive manufacturing release process for new products and design update, from Agile PLM to SAP ERP.

Both integration processes supported by the PIP are essentially triggered by a standard ECO (or MCO or SCO) Release event in Agile PLM.

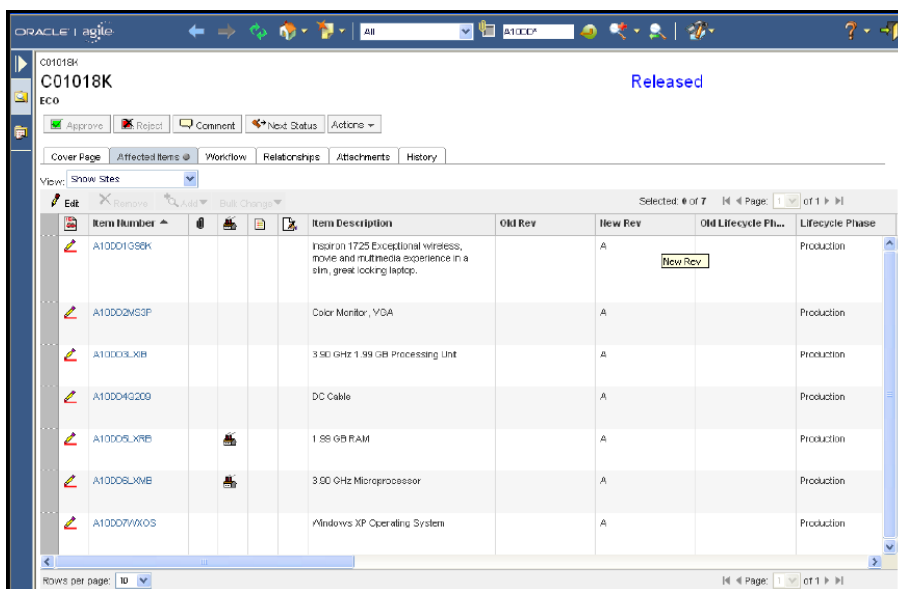


Figure 2: Agile PLM ECO Release

Upon release, the ECO is logged into a PIP processing queue where its status can be tracked and necessary actions, including sequencing, fast-tracking or error handling, can be taken.

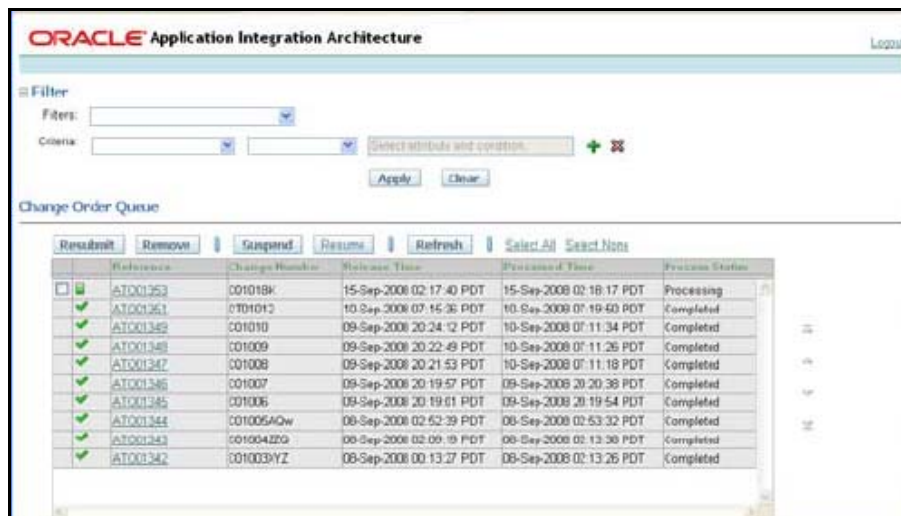


Figure 3: Process Integration ECO Queue Management

A corresponding Engineering Change Master is created and activated in SAP ERP in near real-time.

ECO transfer and implementation statuses, as well as any changes to effectivities of the affected/revised items are communicated back to Agile in a configurable batch processes.

### **Bi-directional 'Design for Supply Chain' Visibility**

The PIP functionality also addresses key concepts of 'Design for Supply Chain', with an optional bi-directional synchronization (from SAP to Agile) of supply chain data, such as item Lead Times and Costs, or any other SAP Material Master attributes. Ready access to supply chain data empowers Engineering to make more supply chain friendly decisions when introducing new or improved product designs.

### **Predictable and Sustainable Innovation**

Early visibility of better quality data leads to a smoother design hand-off between Engineering and Manufacturing, resulting in significantly improvements in time to market and time to volume metrics. It also has a positive impact on margin, cost and quality with reduced disruption on the supply chain, when new products are introduced or product revisions are released to other enterprise functions, including Manufacturing, Materials Management, Procurement, *etc.*

Similarly, providing visibility of supply chain data early in the design phases of the product, *e.g.* long lead time components or on hand positions, can lead to better engineering decisions and seamless absorption by the supply chain at release.

At the core of the integration is an architecture that allows for the adaptability and reusability of core business processes. Oracle Application Integration Architecture provides the flexibility to easily modify existing processes to enable:

- Re-configuring of business processes using reusable objects and services
- Extending the process to additional applications without recoding the integration
- Protecting your changes across upgrades. When upgrades are performed on the integration or connected Oracle applications, your changes will be carried forward

### **Configurable and Extensible**

The integration process and architecture supports a robust configuration, process monitoring and error handling framework, enabling business and IT users alike, to actively manage the process and reduce latencies typical to a cross-application process. This utility leverages the Oracle Fusion Middleware Business Process Execution Language (BPEL) Process Manager.



Figure 5: BPEL Process Manager

Also included in the solution, is user friendly configuration capability for defining domain value mappings that allows business and IT users to define and manage value maps for key elements (attributes, organizations, etc.) supporting the business objects being synchronized.

Domain Value Maps (DVM) leverage Fusion Middleware Service Oriented Architecture (SOA) Suite, and is highly configurable and extensible to customer-specific mappings.

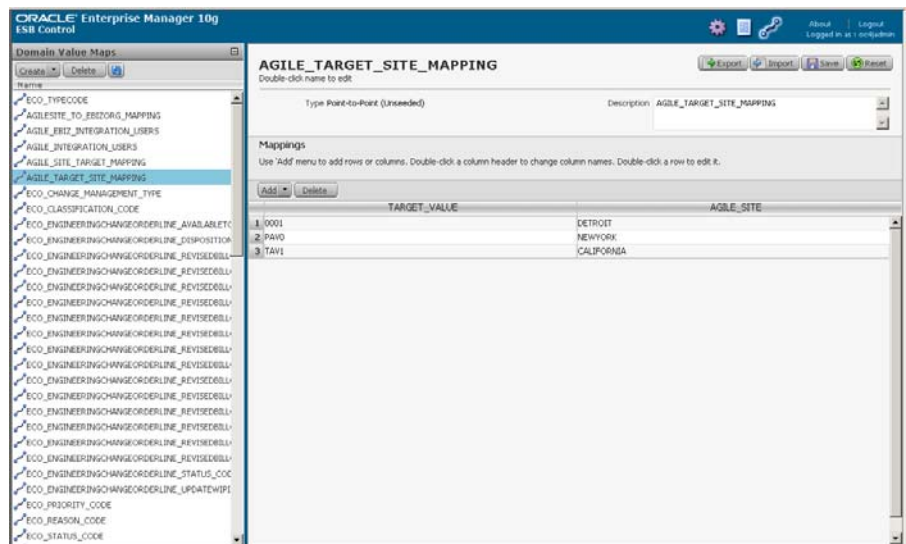


Figure 6: Configurable Domain Value Maps

The integration architecture is also supported by a robust process monitoring, error handling and configurable notification management framework, to ensure potential error conditions are identified early in the ECO release or transfer process and resulting impact on product quality, cost and time to market is effectively mitigated.

### The Oracle Advantage

Built on Oracle Application Integration Architecture (AIA), the integration includes everything you need to rapidly enable service-oriented applications, from business processes to common objects and services, to SOA Governance, at greatly reduced cost. AIA Process Integration Packs are designed to be easily extended to evolve as your business changes,

allowing you to respond to customer and market needs with greater agility and flexibility. The result is a complete end-to-end solution designed to give you faster time to benefit and lower cost of ownership.

*For more details on AIA or the Design to Release PIP visit <http://www.oracle.com/aia>.*

### **Bottom Line: Lower TCO for your Enterprise PLM Platform**

Unlike traditional point-to-point integrations, typically based on proprietary third-party technologies, the Oracle Agile PLM PIP for SAP ERP represents a SOA-based integration built on open standards. Since the PIP is designed, developed, owned, sold, and maintained by Oracle, customers will not have to incur the risk or additional costs working with 3<sup>rd</sup> parties to integrate Agile to SAP.

The Design to Release Process Integration Pack is also the first step towards building a highly configurable, extensible and sustainable platform to support Oracle's next generation integrated Enterprise Product Lifecycle Management solutions, connecting your enterprise PLM platform to your Oracle (*and 3<sup>rd</sup> party*) Enterprise CRM, SCM and ERP systems, to accelerate innovation and increase profitability.

*For more information on how the Agile PLM Integration Pack for SAP ERP: Design-to-Release can simplify your business, contact your Oracle Application Sales Representative.*

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