

Feature Scope Description | PUBLIC
Document Version: 1.0 – 2025-02-24

PLM System Integration 3.0 for SAP S/4HANA

FP02 Feature Scope Description

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1 About This Document

This feature scope description shows you which features are provided with PLM system integration for SAP S/4HANA, release 3.0 FP02. These are legally binding. On the product pages of SAP Help Portal, you may come across additional features or integration descriptions with other products that must be licensed separately. These descriptions may go beyond the product scope specified here. Further restrictions may apply based on your license agreement with SAP (see below).

This add-on is available for SAP S/4HANA and SAP S/4HANA Cloud Private Edition.

Product Documentation

The product documentation, as defined in the SAP Terms and Conditions, comprises this feature scope description.

Integration

PLM system integration for SAP S/4HANA is supported for the integration of verified partner products. Please note the following:

- Other products mentioned in this feature scope description might have their own product lifecycle, their own localization versions, or their own language scope, and are therefore named only as an example or as currently integrated.
- Integration with other products might be subject to change with the next release of PLM system integration for SAP S/4HANA.
- You might need an additional license for other products.

For more information, including the supported use cases, contact your SAP Account Executive.

2 About PLM system integration for SAP S/4HANA

PLM system integration for SAP S/4HANA helps you streamline your product development processes in a diverse system landscape.

> **Note**
>
> SAP S/4HANA or SAP S/4HANA Cloud Private Edition is a prerequisite for using PLM system integration for SAP S/4HANA. Both products require separate licenses.

> **Note**
>
> PLM system integration for SAP S/4HANA, release 3.0 FP02 consists of the software component PLMSI 300. It can only be installed as an add-on to SAP S/4HANA 2020 or higher or SAP S/4HANA Cloud Private Edition 2023 FPS02 or higher.

High-Level Business Background

The PLM system integration for SAP S/4HANA add-on enables seamless integration of product-relevant data to realize bidirectional process integration between SAP S/4HANA or SAP S/4HANA Cloud Private Edition and an external PLM system. You can transfer data without the need for additional middleware as well as monitor and troubleshoot the data transfer, both at a technical level, as well as the business level. Mapping settings can be adapted without coding.

3 Business Background and Key Features

This chapter outlines the key features of the PLM system integration for SAP S/4HANA add-on and the related business backgrounds.

> **Note**
>
> In order to integrate your SAP S/4HANA or SAP S/4HANA Cloud Private Edition system successfully with an external PLM system, you also need to procure and install the respective technical non-SAP components. The joint installation of these components is a mandatory prerequisite in order to realize the integration and support the business backgrounds as described in this document.
>
> The following documentation uses the term "SAP S/4HANA" to refer to both SAP S/4HANA Cloud Private Edition and SAP S/4HANA.

Business Background

Change management integration: The integration supports change management triggered by engineering in an external PLM system.

Key Feature	Use
Receives business entities for an approved change notice from an external PLM system in the SAP S/4HANA system	When a change notice is created and approved in an external PLM system, the integration creates the related business entities of the respective type, updates it in the SAP S/4HANA system, and links it to the respective SAP engineering change master.
Changes a document version, product version, structure version, production operation list, variant definition, or variant option rule in context of a change	You can change a document version, product version, structure version, production operation list, variant definition, or variant option rule in context of a change. The system maintains the business entities and links them to the change object as an object management record in the ECM scenario or as a reference/solution item to the SAP change record, based on the configured change object type (engineering change master or change record).
Creates and updates an SAP change master based on a change object of type problem report, change notice, and change request in an external PLM system	The integration creates and updates an SAP change master based on a change object of type problem report, change notice, and change request in an external PLM system.
Creates and updates an SAP change record based on a change object of type problem report, change notice, and change request in an external PLM system	The integration creates and updates an SAP change record based on a change object of type problem report, change notice, and change request in an external PLM system.

Key Feature	Use
Creates and maintains a change master with valid-from date effectivity, based on an engineering change notice from an external PLM system	The integration creates and maintains SAP engineering change masters, based on incoming data from an external PLM system.
Displays change object data stored in an external PLM system directly in the SAP S/4HANA system	The integration supports the display of change object data stored in an external PLM system directly in the SAP S/4HANA system.
Extensibility Options	The integration maps extension fields that are sent between an external PLM system and the SAP S/4HANA system to selected standard fields or classifications in the SAP S/4HANA system. BAdIs can be used to implement customer-specific logic.

Advanced change management integration: The integration supports advanced change management triggered by logistics in the SAP S/4HANA system.

Key Feature	Use
Creates change objects of type problem report, change notice, and change request in an external PLM system based on an SAP change master	The integration creates change objects of type problem report, change notice, and change request in an external PLM system based on an SAP change master.
Creates change objects of type problem report, change notice, and change request in an external PLM system based on an SAP change record	The integration creates change objects of type problem report, change notice, and change request in an external PLM system based on an SAP change record.
Links various types of the change object to various types of the SAP change record	The integration can receive change objects of type problem report, change notice, and change request and link them to various types of the SAP change record.
Changes the valid-from date in an SAP change master and updates the date automatically in the change notice of the external PLM system	The integration changes the valid-from date in an SAP change master and updates the date automatically in the change notice of the external PLM system.
Extensibility Options	The integration maps extension fields that are sent between an external PLM system and the SAP S/4HANA system to selected standard fields or classifications in the SAP S/4HANA system. BAdIs can be used to implement customer-specific logic.

Business Background

Document Version integration: The integration supports the synchronization of document data between an external PLM system and the SAP S/4HANA system.

Key Feature	Use
Creates and updates document info records based on objects from an external PLM system and their business semantics and receives files	Document info records can be received from an external PLM system. The files are transferred and stored as SAP originals, linked to the corresponding SAP document info record.
Transfers documents from the SAP S/4HANA system to an external PLM system	The integration can send documents from SAP solutions to an external PLM system. This includes the exchange of document details, physical files, and vendors links.
Creates revision levels for SAP document info records, based on document versions originating from an external PLM system	The integration creates revision levels for SAP document info records, based on document versions originating from an external PLM system in context of a change notice.
Assigns vendor data to a document info record and returns document version data with vendor links	The integration assigns vendor data to a document info record that was created via the integration and returns document version data with vendor links to the external PLM system.
Receives attributes and additional data from engineering to the extended supply chain	The integration can receive various attributes and additional data. This enables the engineering department and extended supply chain stakeholders to work on a shared set of information.
Option to replicate files from an external PLM system into an SAP content repository	Files sent from an external PLM system can be uploaded to the SAP Content Server for further use or.
Option to federate files from an external PLM system	The external PLM system can provide a stable file ID to allow navigation to the file stored in the externa PLM system.
Receives documents (for example, Word, PDF, and .jpeg) with SAP-internal versioning schemas from an external PLM system	The integration can receive documents (for example, Word, PDF, and .jpeg) with SAP-internal versioning schemas from an external PLM system.
Extensibility Options	The integration maps extension fields that are sent between an external PLM system and the SAP S/4HANA system to selected standard fields or classifications in the SAP S/4HANA system. BAdIs can be used to implement customer-specific logic.

Business Background

Inspection Characteristic integration: The integration supports the synchronization of inspection characteristic data between an external PLM system and the SAP S/4HANA system.

Key Feature	Use
Creates and updates master inspection characteristics based on inspection characteristic values from an external PLM system	The integration can receive inspection characteristic values from an external PLM system. These values can be assigned to a Domain Model operation or suboperation as master inspection characteristics with reference to a plant.

Business Background

Product Version integration: The integration supports the creation of material masters in the SAP S/4HANA system based on data created in an external PLM system and business semantics.

Key Feature	Use
Maintains product (material master) data within SAP S/4HANA based on business semantics	When a product version is released in an external PLM system and sent to the SAP S/4HANA system for creation, a corresponding material master is created in the SAP S/4HANA system. If document links are provided as part of the product structure transfer, links are created between the SAP material master and SAP document info records.
Aligns product revisions between SAP S/4HANA and an external PLM system	The integration can receive product revision data from an external PLM system. The data is mapped to an SAP material master and SAP material master revision level in the SAP S/4HANA system.
Triggers the creation or update of a product version in an external PLM system by creating or changing a material master in the SAP S/4HANA system	The integration can trigger the creation or update of a product version in an external PLM system by creating or changing a material master in the SAP S/4HANA system.
Triggers the creation or update of classification values assigned to a product version in an external PLM system by creating or changing a material master in the SAP S/4HANA system	The integration can trigger the creation or update of classification values assigned to a product version in an external PLM system by creating or changing a material master in the SAP S/4HANA system.
Receives attributes and additional data from engineering to the extended supply chain	The integration can receive various attributes and additional data from an external PLM system. This enables the engineering department and extended supply chain stakeholders to work on a shared set of information.
Maintains plant-specific material data merging external PLM data and reference SAP material data (based on the SAP material master templates)	The integration maintains plant-specific material data, merging external PLM data and reference SAP material data (based on the SAP material master templates).
Implicitly creates plant views on component material master level for plant-specific BOMs, based on a factory-specific structure version	During implicit plant creation, the integration transfers plant-specific data from a template product, assigns materials to a plant for a plant-specific BOM, based on a factory-specific structure version, and creates a product version with a plant assignment.
Uses template materials	If a template product (material) has been maintained for this specific product version type, this template product (material) is used as a reference product (material) in the SAP S/4HANA system.
Reserves a material master number from the SAP S/4HANA system for object creation in an external PLM system	When creating a new object in an external PLM system that corresponds to an SAP product version, the integration can reserve a material master number from the SAP S/4HANA system and assign it to the object.

Key Feature	Use
Effectivity management synchronization	The integration can receive date effectivity data for products (materials) from an external PLM system. This data can then be used for follow-on processes in the SAP S/4HANA system.
Receives a configurable product for a product version that is sent together with a variant definition link from an external PLM system	The integration can receive a configurable product for a product version that is sent together with a variant definition link from an external PLM system.
Displays product version data stored in an external PLM system directly in the SAP S/4HANA system	The integration supports the display of product version data stored in an external PLM system directly in the SAP S/4HANA system.
Creates MDG change requests creation for material masters	The integration can trigger MDG change requests for material masters if MDG is embedded in the SAP S/4HANA system where the integration is installed (embedded MDG scenario).
Extensibility Options	The integration maps extension fields that are sent between an external PLM system and the SAP S/4HANA system to selected standard fields or classifications in the SAP S/4HANA system. BAdIs can be used to implement customer-specific logic.

Business Background

Structure Version integration: The integration supports the receipt of bills of material in SAP S/4HANA.

Key Feature	Use
Receives product structures (bills of material) from an external PLM system in the SAP S/4HANA system, including updates	You can receive product structures from an external PLM system in SAP S/4HANA. The product structure is mapped to a classic SAP bill of material (BOM). The system creates or updates these objects in SAP S/4HANA under date effectivity control.
Receives product structures (bills of material) from an external PLM system in the SAP S/4HANA system, including updates	You can receive product structures from an external PLM system in SAP S/4HANA. The product structure is mapped to an SAP PEO version bill of material (BOM). The system creates or updates these objects in SAP S/4HANA under date effectivity control.
Receives attributes and additional data from engineering to the extended supply chain	The integration can receive various attributes and additional data. This enables the engineering department and extended supply chain stakeholders to work on a shared set of information.

Key Feature	Use
Receives structure version data, including visualizations and geometric instances	The integration can receive structure version data from an external PLM system in SAP S/4HANA, including visualizations and geometric instances. This data can then be used to create a classic BOM in SAP S/4HANA or a BOM under version control in SAP S/4HANA manufacturing for production engineering and operations (PEO).
Receives a dependent set of data (structure versions (versioned), document versions and production operation lists) from an external PLM system	The integration can receive a dependent set of data (structure versions (versioned), document versions and production operation lists) from an external PLM system. This data can then be used in SAP S/4HANA manufacturing for production engineering and operations (PEO).
Creates and updates plant-specific BOMs based on a structure version from an external PLM system	The integration creates and updates plant-specific BOMs based on a structure version from an external PLM system.
Creates and updates BOM alternatives based on a structure version from an external PLM system	The integration creates and updates BOM alternatives based on a structure version from an external PLM system.
Controls the effectivity of BOM components based on a structure version component unit effectivity from an external PLM system	The integration controls the effectivity of BOM components by model unit effectivity (SAP parameter effectivity) based on a structure version component unit effectivity from an external PLM system. If no unit effectivity values are received, default values can be assigned.
Maintains alternative units of measure (UoM) for products to enable advanced BOM management capabilities	The integration maintains alternative units of measure (UoM) for products, based on structure version component UoMs, enabling advanced BOM management capabilities.
Maintains object dependencies on structure version component level	The integration receives and maintains object dependencies, like variant rules, on BOM item level.
Maintains variant conditions on structure version component level	The integration maintains variant conditions on structure version component level to define for which configuration of the overall product a component is valid. Variant conditions with free-form syntax are not supported.
Uses implicit plant creation based on a template product	During implicit plant creation, the integration transfers plant-specific data from a template product, assigns materials to a plant for a plant-specific BOM, and creates the product version with one or more plant assignments.
Receives a configurable structure that is sent together with a variant condition assigned to a BOM from an external PLM system	The integration can receive a configurable structure for a structure version that is sent together with a variant condition assigned to a BOM from an external PLM system.
Extensibility Options	The integration maps extension fields that are sent from an external PLM system to selected standard fields in the SAP S/4HANA system. BAdIs can be used to implement customer-specific logic.

Business Background

Customer Order Item integration: The integration supports the transfer of customer order items from SAP S/4HANA to an external PLM system.

Key Feature	Use
Transfers sales order items from SAP S/4HANA to an external PLM system, including updates	You can transfer a sales orer item and its configuration from SAP S/4HANA to an external PLM system.
Extensibility Options	The integration maps extension fields that are sent from an external PLM system to selected standard fields in the SAP S/4HANA system. BAdIs can be used to implement customer-specific logic.

Business Background

Customer Order Item Product Structure integration: The integration supports the transfer of customer order item product structures between SAP S/4HANA and an external PLM system.

Key Feature	Use
Receives and sends product structures which are specific to a customer order between an external PLM system and the SAP S/4HANA system, including updates	The integration can receive and send product structures which are specific to a customer order between an external PLM system and SAP S/4HANA. In SAP S/4HANA, the product structure is mapped to a sales order bill of material. The system creates or updates the objects in SAP S/4HANA under date effectivity control.
Receives and sends attributes and additional data from engineering to the extended supply chain	The integration can receive and send various attributes and additional data. This enables the engineering department and extended supply chain stakeholders to work on a shared set of information.
Receives and sends plant-specific BOMs based on a structure version from an external PLM system	The integration receives and sends plant-specific BOMs based on a structure version from or to an external PLM system.
Maintains alternative units of measure (UoM) for products to enable advanced BOM management capabilities	The integration maintains alternative units of measure (UoM) for products, based on structure version component UoMs, enabling advanced BOM management capabilities.
Uses implicit plant creation based on a template product	During implicit plant creation, the integration transfers plant-specific data from a template product, assigns materials to a plant for a plant-specific BOM, and creates the product version with one or more plant assignments.

Key Feature	Use
Extensibility Options	The integration maps extension fields that are sent from an external PLM system to selected standard fields in the SAP S/4HANA system. BAdIs can be used to implement customer-specific logic.

Business Background

Production operation list integration: The integration supports the transfer of production operation lists that are created in an external PLM system to classic PP routings in the SAP S/4HANA system.

Key Feature	Use
Supports sequence creation and parallelization of classic routing operations	The integration enables the transfer and management of production operation lists from an external PLM system to classic PP routings in the SAP S/4HANA system.
Receives production operation lists with operations and suboperations, tools, document versions, and component allocations from an external PLM system	The integration can receive production operation lists with operations and suboperations, tools (PRT of type material), document info records (linked as PRT), and component allocations from an external PLM system in the SAP S/4HANA system, including updates. A production operation list represents a classic PP routing in the SAP S/4HANA system.
Receives production operation lists in context of a change with validity from an external PLM system	The integration can receive change objects of type change notice that were created in an external PLM system, with validity and related solution objects of type production operation list in the SAP S/4HANA system and hand over the changes to downstream processes.
Receives variant conditions of a production operation list from an external PLM system	The integration can receive variant conditions of a production operation list created in an external PLM system at the operation level. The SAP S/4HANA system stores the data as operations of a classic PP routing. Variant conditions with free-form syntax are not supported.
Receives model unit effectivity of a production operation list from an external PLM system	The integration can receive model unit effectivity of a production operation list created in an external PLM system at the operation level. The SAP S/4HANA system assigns the unit effectivity at operation level. If no unit effectivity values are received, default values can be assigned.
Assigns master inspection characteristics or embedded inspection characteristics to an operation or suboperation	The integration assigns master inspection characteristics or embedded inspection characteristics to an operation or suboperation, based on received inspection characteristics from an external PLM system.
Supports the staged processing of structure version data	The integration supports the direct as well as staged processing of structure version data, including automatic notifications to the external PLM system, once a shop floor routing is created according to the change record process.

Key Feature	Use
Extensibility Options	The integration maps certain extension fields that are sent from an external PLM system to selected standard fields in the SAP S/4HANA system. BAdIs can be used to implement customer-specific logic.

Business Background

Variant definition integration: Ability for product developers to create variant definitions in the external PLM system and transfer them to the SAP S/4HANA system for variant configuration.

Key Feature	Use
Receives variant definitions that were defined in an external PLM system	The integration can receive variant definitions, variant options, and variant option rules that were defined during creation or update of a product model in an external PLM system.
Sets number ranges for variant definitions and options in order to allow internal numbering	The integration sets number ranges used for generating unique names in order to allow internal numbering for variant definitions and options.
Supports various variant option types	The integration supports the transfer of various variant option types, including String, Boolean, Integer, and Decimal, as well as various operators.
Uses a variant model to define configurable products	The integration uses the variant model to define configurable products.
Extensibility Options	The integration maps certain extension fields that are sent from an external PLM system in the context of variant configuration to selected standard fields in the SAP S/4HANA system. BAdIs can be used to implement customer-specific logic.

Business Background

Vendor integration: Ability for product developers to transfer vendor data between the external PLM system and the SAP S/4HANA system for business partner integration.

Key Feature	Use
Receives vendor data that was defined in an external PLM system	The integration can receive vendor data that was defined in an external PLM system.

Key Feature	Use
Triggers the creation or update of vendor data in an external PLM system	The integration triggers the creation or update of vendor data based on an SAP business partner.
Extensibility Options	The integration maps certain extension fields that are sent from an external PLM system in the context of vendor configuration to selected standard fields in the SAP S/4HANA system. BAdIs can be used to implement customer-specific logic.

Business Background

View structure version integration: Ability for product developers to transfer manufacturing reference structures between an external PLM system and the SAP S/4HANA system.

Key Feature	Use
Extensibility Options	The integration maps extension fields that are sent from an external PLM system to selected standard fields in the SAP S/4HANA system. BAdIs can be used to implement customer-specific logic.
Receives manufacturing reference structures from an external PLM system	The integration can receive manufacturing reference structures from an external PLM system to provide contextual information for BOM components during the production process.

Business Background

Inbound and outbound data federation: Ability for product developers to show product and change data stored in the external PLM system directly in the SAP S/4HANA system and vice versa.

Key Feature	Use
Outbound data federation between the SAP S/4HANA system and an external PLM system	You can enable an external PLM system to show data of the integrated system for material master, document info record, change master, change record, bill of material, and sales order item to access business data in the context of a leading object.
Inbound data federation between an external PLM system and the SAP S/4HANA system	You can display product version and change object data stored in an external PLM system directly in the SAP S/4HANA system, without receiving payloads.

Business Background

Data cleanup, logging, and license measurement: The integration supports the use of reports for housekeeping and license measurement activities.

Key Feature	Use
Data deletion after upgrade	You can use reporting tools to clean up data table entries of the previous release after successful migration.
Logging and monitoring	You can use reporting tools to extract message payloads or to delete logging information and message object counters on a regular basis, depending on company requirements.
Data cleanup	You can use reporting tools to display and delete message object counters or delete key mapping data, including business partner to vendor key mapping.

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