



Feature Scope Description | PUBLIC
SAP S/4HANA for Manufacturing Logistics
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Feature Scope Description for SAP S/4HANA for Manufacturing Logistics

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1 About This Document

This feature scope description shows you which features are provided with SAP S/4HANA for manufacturing logistics. In addition, this feature scope description defines the product documentation for SAP S/4HANA for manufacturing logistics.

Related Information

[Route Trains for Production Supply: Key Features \[page 6\]](#)

[Shuttle: Key Features \[page 10\]](#)

[Inbound Cargo Registration: Key Features \[page 13\]](#)

2 Product Documentation

The product documentation describes the feature scope and provides you with information about how to install, implement, and run the add-on.

The following product documentation is available for SAP S/4HANA for manufacturing logistics. You can find all documentation deliverables on SAP Help Portal at <https://help.sap.com/s4ml>.

- This feature scope description
- Information about installation
Information about how to install the add-on
- Information about security
Security information for the add-on, including information on data protection and privacy
- Information about operations
Information about how to operate the add-on

3 About SAP S/4HANA for Manufacturing Logistics

The solution is integrated into SAP S/4HANA and extends the scope of Extended Warehouse Management and Transportation Management by offering a seamless process integration between inbound checkpoints, warehousing, production, and external storage.

i Note

SAP S/4HANA is a prerequisite for using SAP S/4HANA for manufacturing logistics. SAP S/4HANA requires separate licenses.

The solution offers key features for the following areas:

- [Route Trains for Production Supply: Key Features \[page 6\]](#)
- [Shuttle: Key Features \[page 10\]](#)
- [Inbound Cargo Registration: Key Features \[page 13\]](#)

4 Route Trains for Production Supply: Key Features

This section describes the available route train key features.

Key Feature	Use
Route Creation	<p>This feature enables you to create route data. Example:</p> <ul style="list-style-type: none">• Route name• Route type• Location parameters <p>You can use route versions for scheduled changes and assign stops to a route version.</p> <p>You can add attachments to a route version.</p>
Route Version Proposals	<p>This feature enables you to generate route versions and condition records for the route determination. You can create route version proposals manually or generate them from existing route versions. In addition, you can create route version proposals by uploading Microsoft Excel files.</p>
Manual Tour Creation	<p>This feature enables you to create ad-hoc tours during loading.</p>
Creation of Scheduled Tours	<p>This feature enables you to do the following:</p> <ul style="list-style-type: none">• Preplan of (scheduled) tours.• Monitor tour due dates.• Use calculations based on calendars and shift plans.
Utilization-Oriented Tour Creation	<p>This feature enables you to create utilization-oriented tours based on specific conditions and loadable handling units (HUs).</p>

Key Feature	Use
Tour Monitoring	<p>This feature enables you to manage and control warehouse objects and processes related to tours. For example, the following functions are available:</p> <ul style="list-style-type: none"> • Monitor the status of tours • Assigning drivers • Changing the user status • Sending messages to the driver of a tour • Creating and canceling tours • Uploading, downloading, and deleting attachments
Analytics for Tours	<p>This feature enables you to analyze your tours and filter them by 28 different parameters, such as, priority, control cycle, or product.</p> <p>In addition, you can determine up to 48 KPIs (Key Performance Indicator) for your tours: Examples: The number of open, cancelled, new, delayed, or completed tours.</p> <p>You can determine the actual tour execution time, the loading duration, the unloading preparation, the unloading duration, the tour break duration, and the tour completion duration.</p> <p>You can determine the number of open and completed loading and unloading warehouse tasks.</p> <p>You can determine the weight and volume on the tours, the number of HUs, the number of racks, the number of sub-HUs, and the number of priority HUs.</p> <p>You can determine the number of stops, tours, and items that are on time or late.</p>
Working Area and User Management	<p>This feature enables you to control which activities warehouse workers are allowed to carry out in the RF environment.</p>
Enhanced Picking	<p>This feature enhances the Extended Warehouse Management (EWM) picking in the following way:</p> <ul style="list-style-type: none"> • Restricting the users activities by validating the relevant working area and user activity profile • Providing a simplified navigation by calling subsequent radio frequency (RF) transactions automatically

Key Feature	Use
System-Guided Loading	<p>This feature enables you to select the next tour for loading automatically. The following functions are available:</p> <ul style="list-style-type: none"> • Displaying information to the tour loading employee, such as the tour ID and list of handling units (HUs) that are to be loaded, quantity of already loaded HUs • During loading, request of the HU loading position (depending on the route settings) • Loading employee only needs to scan the HU and position (if necessary) • Reversal of loading HUs • Completion of loading after loading all assigned HUs or at least one HU • Request of start point (depending on route settings)
Manual Loading	<p>This feature enables you to manually load HUs by using RF transactions.</p> <p>Using the RF transactions, the loading employee defines the workload by scanning a route ID or an HU that is ready for loading (HU that is on an open loading warehouse order).</p>
Prioritized Loading	<p>This feature enables you to scan the HUs that are to be loaded. Using the RF transaction for prioritized loading by HU, any existing tour assignment is ignored so that you can trigger the RF delivery independent of the route settings (ignoring loading by driver and start point confirmation).</p>
Background Loading	<p>This feature enables you to start loading automatically: Loading is started automatically in the background by the system if the picker is also the loading employee because in this case, HUs are picked immediately into the route train.</p>
System-Guided Unloading and Delivery	<p>This feature enables you to select the next tour for unloading automatically. The following functions are available:</p> <ul style="list-style-type: none"> • Displaying detailed information to the tour driver, such as the tour ID, the number of stops, number of HUs, and planned dates. • Configuring the confirmation method, which determines the confirmation level. The confirmation method is defined on route level, route version, and route stop level. <p>Example: The tour driver only needs to scan the destination or the destination storage bin.</p>

Key Feature	Use
Manual Unloading	This feature enables you to select the tour for unloading by scanning any HU of a tour that's ready for delivery. After selecting the tour, the functions are identical to the system-guided unloading and delivery.
Wave Preparation	This feature enables you to select delivery items for the wave creation based on solution-specific attributes, such as routes and tours. During the wave preparation, picking waves can be prepared considering route- and tour-specific attributes.
Loading Lane Determination	<p>This feature enables you to identify a storage bin that is to be used as destination bin for a picking warehouse task. You can use the following route-based or tour-based processes:</p> <ul style="list-style-type: none"> • Rule-based determination of storage bin for loading • Tour assignment for schedule-based routes (optional) • Tour creation for utilization-oriented routes (optional)
Analytics for Loading Lanes	<p>This feature enables you to analyze your loading lane configuration and utilization:</p> <ul style="list-style-type: none"> • By warehouse, storage type, and storage section • By priority and route <p>You can determine the number of free, used, and unused loading lanes and you can determine the number of loadable HUs and racks.</p>
Logistical Re-Evaluation	This feature enables you to redetermine routes, tours, dates, and times of delivery items or handling units. It can also lead to a priority increase.
Visual Support	This feature enables you to display the current tour information on a tablet device during unloading. This can be the number of stops, the next stop, or relevant unloading HUs. For navigation purposes, you can also display a warehouse map to the route version.

5 Shuttle: Key Features

This section describes the available shuttle key features.

Key Feature	Use
Shuttle Loading	<p data-bbox="804 618 1390 712">This feature enables you to load cargo onto a Transportation Management (TM) freight order. The following functions are available:</p> <ul data-bbox="815 734 1390 1592" style="list-style-type: none"><li data-bbox="815 734 1390 801">• Loading cargo onto an existing freight order via radio frequency (RF) transactions<li data-bbox="815 813 1390 880">• Creation of shuttle freight orders with a mobile RF device during loading<li data-bbox="815 891 1390 985">• Creation of consignment orders using the SAP Transportation Manager (SAP TM) consignment builder in the shuttle loading transaction<li data-bbox="815 996 1390 1064">• Accessing shuttle relevant consignment orders in the RF loading transaction<li data-bbox="815 1075 1390 1209">• Considering dangerous goods checks during loading, compliant with the European Agreement concerning the international carriage of Dangerous Goods by Road (ADR) points check calculation<li data-bbox="815 1220 1390 1288">• Considering complex in-house shuttle routing with different unloading points<li data-bbox="815 1299 1390 1393">• Adding stops and warehouse stops and changing the stop sequence and configuring these by shipping point and loading point<li data-bbox="815 1404 1390 1471">• Handling of empty freight orders enables charge calculation for empty runs<li data-bbox="815 1482 1390 1516">• Canceling freight orders via the RF user interface (UI)<li data-bbox="815 1527 1390 1561">• Changing the consignment unloading point<li data-bbox="815 1572 1390 1606">• Checking if a bin is blocked

Key Feature	Use
Shuttle Unloading	<p>This feature enables you to unload cargo for a Transportation Management (TM) freight order. The following functions are available:</p> <ul style="list-style-type: none"> • Unloading cargo for a freight order via radio frequency (RF) transactions • Accessing shuttle relevant consignment orders in the RF unloading transaction • Unloading via freight order, consignment order, or handling unit • Mass unloading for defined shipping points and loading points • Triggering mass unloading by scanning a freight order • Including/excluding handling units during mass unloading • Closing a shuttle automatically when the last HU is unloaded • Unloading HUs meant for a different destination • Adding stops and warehouse stops and changing the stop sequence and configuring this by shipping point and loading point • Maintaining exceptions during unloading and correction of differences, for example, posting of nonexistent handling units back to the source storage bin

Key Feature	Use
Monitoring of Shuttles	<p>This feature enables you to be up to date about the current situation of warehouse-internal shuttle transportation, from both the Extended Warehouse Management ((EWM) in-house logistics) and Transportation Management (transport logistics) perspectives:</p> <ul style="list-style-type: none"> • Identify and check the status of the shuttle transports (including relevant logistical data). • Monitor freight orders for shuttle cargo status within TM. • Monitor consignment orders' structures. • Monitor, for example, EWM warehouse requests related to a shuttle, warehouse stops and their statuses, and warehouse task details for the HUs that are within a shuttle. • Track the warehouse door status. • Access the <i>Shuttle</i> node and its sub-nodes in the Warehouse Management Monitor. • Analyze and gather data relevant for seamless integration into in-house logistics processes within EWM, for example information about picking, packing, loading, unloading, and staging.

6 Inbound Cargo Registration: Key Features

This section describes the key features that are available for inbound cargo registration.

Key Feature	Use
Integration	<p>This feature currently supports you to integrate inbound cargo registration into the following:</p> <ul style="list-style-type: none">• Advanced Shipping and Receiving Inbound cargo registration is completely built on Advanced Shipping and Receiving.• Extended Warehouse Management For managing and streamlining your inbound logistics• Stock room managed warehouses For managing and streamlining your inbound logistics• Inventory management For managing and streamlining your inbound logistics if using the lean Warehouse Management application component
Streamlined User Interface	<p>This feature enables you to have all relevant data to hand in the way you want it.</p> <p>The streamlined user interface of inbound cargo registration provides a flexible and powerful set of functions, which can be set up the way users or user groups need it.</p> <p>You can use inbound cargo registration functions as follows to create a positive user experience and to see only the data you need:</p> <ul style="list-style-type: none">• Create and change profiles for the selection and viewing of freight orders, consignments, and delivery notes• Use page layouts to optimize the arrangement of screens, alongside using profiles to restrict the data you see• Use context dependent navigation in terms of functions and navigation options to help you identify the next step in your work intuitively• Navigate between different data (for example, freight orders, consignments, and delivery notes) using a highly efficient tree navigation• View detailed data organized in tabs separately
Consignments as a Representation of Cargo to Be Transported	<p>This feature enables you to use consignments as the level on which the transportation of cargo is ordered, cargo is transported, and EDI is received.</p>

Key Feature	Use
Transparency of Data with Delivery Notes	<p>This feature enables you to have data transparency for inbound logistics. The use of delivery notes provides an interface between the following:</p> <ul style="list-style-type: none"> • Transportation planning and execution • Materials planning • In yard • In house logistics <p>You can do the following:</p> <ul style="list-style-type: none"> • View transportation planning and execution data • View prenotified quantities in materials planning data • View in yard data and trigger follow on processes • View in house logistics data and trigger follow on processes • View aggregated packages based ASN data that reflects suppliers' delivery notes
Maintenance of Data for Delivery and Transportation Execution	<p>This feature enables you to maintain data related to delivery and transportation execution for your inbound cargo.</p> <p>You can create, change, and enhance the following:</p> <ul style="list-style-type: none"> • Freight order related data • Consignment related data • Delivery related data using your delivery note data • Delivery note related data, which represents your inbound EDI message
Display Matching Consignments	<p>This feature enables you to accept or reject the system proposal for the assignment of the following to their corresponding freight orders:</p> <ul style="list-style-type: none"> • Consignments that are identified by a standard inbound process but cannot be assigned because of errors • Potential consignments that are identified by a standard inbound process <p>You can also delete the consignment or unassign the consignment from the freight order.</p>
EDI Messaging and Automation of Changes to Document Statuses	<p>This feature enables you to receive messages via EDI and configure confirmation control keys to automatically set the warehouse processing status of the inbound documents and post goods receipt. You can use this automated process for both separate inbound ASN messages (creating consignments) and combined inbound ASN messages (creating consignments and freight orders) sent by carriers.</p>

Key Feature	Use
Customs Statuses and the Unloading Permission Process	This feature enables you to monitor the customs status of the unloading permission process. Inbound cargo registration displays customs data for freight orders and consignments per document.
Shelf Life	This feature enables you to control if the shelf life expiration date is present in the data of incoming consignments for shelf life controlled products. It also enables you to block the processing of consignments with shelf life controlled products if their minimum remaining shelf life or the total shelf life falls short.
Preallocated Stock	This feature enables you to monitor which incoming transports have preallocated stock loaded.
Prioritize Preplanned Freight Units During Delivery Note Creation	<p>This feature enables you to register delivery notes in a consignment based on preplanned freight units, that is, freight units that were assigned to the consignment during preplanning done prior to shipping.</p> <p>During delivery note creation, the system uses purchasing attributes to first determine the preplanned freight units before searching amongst unplanned freight units.</p>
Efficient Handling of Erroneous EDI Data	<p>This feature enables you to handle erroneous data in an efficient and intuitive way. The data is viewed in a non-technical way so that corrections can be done quickly by support and your logistical departments.</p> <p>Inbound cargo registration enables you to do the following:</p> <ul style="list-style-type: none"> • Identify missing, faulty, and incomplete data transmitted to you via EDI • Track incoming erroneous data from EDI • Enhance data that is not complete • Modify data sent incorrectly via EDI to make it work in the warehouse • Move the correction of erroneous documents from IT users to business users • Identify errors when goods movement is posted and analyze goods movement posting failure

Key Feature	Use
On Hold Delivery Notes with Errors	<p>This feature unblocks the business process by enabling you to validate and process correct delivery notes in consignments that also contain delivery notes with errors. You set the status of a consignment to Ready for Warehouse Processing after setting the status of its delivery notes with errors to On Hold to await correction. Once you correct the errors in the delivery notes with the On Hold status, you remove their On Hold status and process them so that the complete consignment is to be Ready for Warehouse Processing and subsequent settlement.</p> <p>You can search for consignments with On Hold deliveries with missing goods receipt.</p>
Mass Goods Receipt in Warehouse Based on Bills of Lading and Consignments	<p>This feature enables you to do mass goods receipt in EWM based on bills of lading (BoL) and consignments.</p> <p>You can use RF handheld functions to do each of the following for all handling units in one step:</p> <ul style="list-style-type: none"> • A complete goods receipt based on the BoL • Unloading cargo based on the BoL • A complete goods receipt based on the consignment • Unloading cargo based on the consignment
Packing	<p>This feature enables you to pack the following into packages:</p> <ul style="list-style-type: none"> • Delivery note items (product items and auxiliary packaging materials) • Partial quantities of delivery note items by number, weight, or volume • Packages into other packages <p>You can pack single or multiple items in one step into a package, you can pack items in an identical way into many packages, and there are multiple functions you can perform, for example, unpack packages and copy packages.</p>



Key Feature	Use
Packaging Based on Unified Package Building	<p>This feature enables you to use an enhanced integration to the packaging specification (EWM), packaging instructions (core), and the package builder (EWM and TM).</p> <p>By using unified package building in inbound cargo registration, you have access to these alternative approaches to packaging.</p> <p>The new data layer uses packaging master data and rules from EWM, TM, and LO.</p> <p>Inbound cargo registration supports mass package creation to support you in quickly creating the packages for a delivery note.</p>
Packaging Based on Alternative Unified Package Building Rules	<p>This feature enables you to generate packages based on unified package building rules maintained in the system. You can generate packages according to the default unified package building rule or by selecting any determined unified package building rule proposed by the system.</p>
Packaging Validation Against Unified Package Building Rules	<p>This feature enables you to check if there is any deviation between the actual packaging data in the delivery note in inbound cargo registration and the packaging data according to the relevant unified package building rules. There are multilevel validations at header level, item level, and packaging hierarchy level.</p> <p>You can select any proposed alternative unified package building rule for the system to use for validation.</p>
Summarized JIT Calls	<p>You can use summarized JIT calls, based on new JIT functions, for inbound delivery notes.</p>
Provision of BADIs for Customer-Specific Functions	<p>This feature enables you to include modification free enhancements, based on the BAdI and BOPF enhancement concept, in inbound cargo registration.</p>

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