



Feature Scope Description | PUBLIC  
Document Version: 2108 – 2021-11-12

# SAP Digital Manufacturing Cloud 2111

## Feature Scope Description

# Content

- 1    **About This Document. . . . . 3**
- 2    **Execution. . . . . 5**
- 3    **Insights. . . . . 27**
- 4    **SAP Digital Manufacturing Cloud for edge computing. . . . . 39**

# 1 About This Document

This feature scope description describes the features that are provided with SAP Digital Manufacturing Cloud. In addition, this feature scope description also defines the product documentation for SAP Digital Manufacturing Cloud.

## Product Documentation

The following product documentation is available for SAP Digital Manufacturing Cloud:

- This feature scope description
- Information on installation  
You can find the relevant information on how to install SAP Digital Manufacturing Cloud at [https://help.sap.com/viewer/product/SAP\\_DIGITAL\\_MANUFACTURING\\_CLOUD/latest/en-US?task=discover\\_task](https://help.sap.com/viewer/product/SAP_DIGITAL_MANUFACTURING_CLOUD/latest/en-US?task=discover_task).
- Information on security  
You can find the relevant security information for SAP Digital Manufacturing Cloud at [https://help.sap.com/viewer/product/SAP\\_DIGITAL\\_MANUFACTURING\\_CLOUD/latest/en-US?task=discover\\_task](https://help.sap.com/viewer/product/SAP_DIGITAL_MANUFACTURING_CLOUD/latest/en-US?task=discover_task)
- Information on operation  
You can find the relevant information on how to operate SAP Digital Manufacturing Cloud at [https://help.sap.com/viewer/product/SAP\\_DIGITAL\\_MANUFACTURING\\_CLOUD/latest/en-US?task=discover\\_task](https://help.sap.com/viewer/product/SAP_DIGITAL_MANUFACTURING_CLOUD/latest/en-US?task=discover_task)

## Licenses

Certain features described in this document, can require a separate subscription license. For further information, contact your SAP Account Executive.

## Integration

SAP Digital Manufacturing Cloud supports integration with other SAP and non-SAP products. Note the following:

- Other products mentioned in this feature scope description can 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 can be subject to a change with the next release of SAP Digital Manufacturing Cloud.

- It's possible that you need additional licenses for other products.

For further information, contact your SAP Account Executive.

## 2 Execution

### Business Background

Using SAP Digital Manufacturing Cloud for execution, you can monitor the entire manufacturing process to optimize resources and execution. Use role-specific SAP Fiori and operator dashboards and a configurable Production Operator Dashboard (POD) to orchestrate and control the shop floor, monitor overall equipment effectiveness (OEE), and manage downtime events. Automation interfaces provide for shop-floor-driven manufacturing events and data collection. Out-of-the box integration to SAP ERP, SAP S/4HANA, SAP Extended Warehouse Management (EWM), and SAP Asset Intelligence Network (AIN) enables seamless integration scenarios.

Feature	Description
Work-In-Process Management	<ul style="list-style-type: none"> <li>• You can use a graphical routing engine to define the production flow, including the branching of alternative routing flows.</li> <li>• You can release orders and manage their status.</li> <li>• You can automatically create SFCs in the Operation Activity POD.</li> <li>• You can start and complete orders through the routing operation activities. <ul style="list-style-type: none"> <li>◦ Industry 4.0 support of one-piece flow</li> </ul> </li> <li>• Enforcement of routing flow including dynamic routing decisions</li> <li>• You can enrich routings with work instructions and data collection groups downloaded from SAP S/4HANA Cloud.</li> <li>• You can view information about BOM components assigned to individual operation activities of routings.</li> <li>• Recording of the production activity for the order</li> <li>• Place or release holds on SFCs</li> <li>• Pass or fail data collection groups through the collection of numeric data parameters</li> <li>• You can serialize SFCs.</li> <li>• You can relabel an SFC.</li> <li>• You can split any quantity of one SFC into a new SFC and merge several SFCs into one SFC.</li> <li>• You can create and execute logistics orders to track work-in-process transportation on the shop floor.</li> <li>• You can assign destinations to packing units or SFCs to automatically create the respective logistics orders.</li> <li>• You can assign transport systems to logistics orders.</li> </ul>
Work Instruction	<ul style="list-style-type: none"> <li>• Supports multiple types (URL, text, and file) for each work instruction</li> <li>• You can upload files for work instructions.</li> <li>• Supports 3D models for work instructions</li> <li>• You can deliver work instructions to the shop user, at the appropriate place and time.</li> <li>• You can record the viewing of the instruction during production.</li> <li>• You can assign work instructions to recipes.</li> <li>• You can delete work instructions from a recipe.</li> <li>• You can attach work instructions to the routing level and the routing step level.</li> </ul>

Feature	Description
Nonconformance	<ul style="list-style-type: none"> <li>• You can define a nonconformance code hierarchy.</li> <li>• You can record nonconformances during the manufacturing process to indicate production deviations.</li> <li>• You can record of the status of nonconformances.</li> <li>• You can dispose of the recorded nonconformances for rework and scrap purposes.</li> <li>• You can log secondary NC codes against a previously logged NC code to form a parent-child NC record structure</li> <li>• You can check for open nonconformances to prevent an SFC from further processing</li> <li>• You can close both primary and secondary NC codes automatically when logging a secondary NC code.</li> <li>• You can generate an incident number automatically based on the numbering pattern when logging an NC code.</li> <li>• You can make a nonconformance group valid for all operation activities or only for the assigned operation activities.</li> <li>• You can attach a file when logging an NC code.</li> <li>• You can preview a file attached to an NC code.</li> <li>• You can perform visual inspection based on live images of manufactured materials, enabled by machine learning.</li> <li>• You can automatically split off a partial quantity of an SFC for nonconformance dispositioning.</li> </ul>

Feature	Description
Data Collection	<ul style="list-style-type: none"> <li>• You can define required and optional data collection parameters and groups attached at the appropriate point in the production process.</li> <li>• You can define parameter types to be recorded (such as numeric, text, and Boolean) and their limits.</li> <li>• Collection of actual data from the production UI (POD)</li> <li>• You can collect parameters from the machine integration layer.</li> <li>• Supports pass/fail data collection groups</li> <li>• You can assign data collection groups to recipes at phase level.</li> <li>• You can attach a file during data collection.</li> <li>• You can preview a file attached to a data collection.</li> <li>• You can collect data multiple times per an SFC for a DC group.</li> <li>• You can collect data for parameters with defined minimum and maximum limits.</li> <li>• You can automatically log an NC code when the entered parameter value is outside the minimum and maximum limits.</li> <li>• You can collect data in the POD independently of the Data Collection List.</li> <li>• You can attach data collections to the routing level and the routing step level.</li> </ul>



Feature	Description
POD Designer	<ul style="list-style-type: none"> <li>• Graphical production UI builder to create of role-specific, personalized, and extendible shop floor operator dashboards</li> <li>• You can create various POD types: Work Center, Operation Activity, Order, Custom. Each POD type queues the operator's work per your business process.</li> <li>• You can drag and drop the production plugins onto the pallet designer.</li> <li>• You can preview UI designs in real time.</li> <li>• Configurable definitions for commonly used lists, such as worklists, including sorting capabilities</li> <li>• Supports multiple page layouts and dynamic side-by-side content</li> <li>• You can create a tile for your POD on the launchpad.</li> <li>• You can display page header information, such as breadcrumbs and a clock on multiple pages of the POD.</li> <li>• You can launch plugins on separate tabs in an area in the POD.</li> <li>• Configurable header information, such as field labels and display options</li> <li>• You can define the content density mode to support display on various devices, such as tablets and laptops.</li> <li>• You can configure POD notifications.</li> <li>• You can create configurable buttons with defined button sizes, font sizes, colors, and other attributes.</li> <li>• You can visually split and configure different areas in the POD.</li> <li>• You can assign hotkeys to action buttons to trigger actions.</li> <li>• You can assign a thumbnail to the material being manufactured.</li> <li>• You can copy the POD URL to launch the POD in a new window or create a shortcut on your desktop.</li> <li>• You can delete a POD configuration.</li> <li>• You can view and copy out-of-the-box POD configurations.</li> <li>• You can set up a production process call and an SAP S/4HANA Cloud transaction to be executed in the POD. You can specify parameters to be passed with each.</li> <li>• You can set up a custom plugin to receive a custom notification.</li> <li>• You can set a custom session time out for each POD that is different from the DME session timeout.</li> </ul>

Feature	Description
Production Operator Dashboard	<ul style="list-style-type: none"> <li>• You can configure a tab page which displays multiple plugins in one of the tabs in an icon tab bar.</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• You can view SFCs based on the selected operation activity in the manufacturing process.</li> <li>• You can customize the Order POD and Post-Production Reporting POD to view SFC details.</li> <li>• You can split an SFC in a custom Order POD.</li> <li>• You can view localized material descriptions.</li> <li>• You can change the default resource for operation activities in the Order POD.</li> <li>• You can check the user certifications required for materials, operation activities, and resources.</li> <li>• You can execute process orders and record manufacturing data.</li> <li>• You can receive POD notifications that trigger a POD refresh to indicate that an event has occurred.</li> <li>• You can calculate consumption quantities using formulas.</li> <li>• You can automatically select the first SFC in the work list.</li> <li>• You can automatically update SFCs and log nonconformances.</li> <li>• You can automatically select the first workable operation activity in the list.</li> <li>• You can navigate between work instructions in a popup in the POD.</li> <li>• You can call SAP S/4HANA Cloud applications.</li> <li>• You can run a production process in the POD.</li> <li>• You can start and complete a simultaneous or any-order group in the POD.</li> <li>• You can use a routing with a relaxed flow or a routing with operation groups containing multiple operation activities.</li> <li>• You can view the POD action step that is being run by a production process.</li> <li>• You can configure a custom field for Activity Confirmation, Material Consumption, Goods Receipt, and Quantity Confirmation.</li> <li>• You can filter orders by resource and multiple work centers.</li> </ul>

Feature	Description
Process Order Execution	<ul style="list-style-type: none"> <li>• You can execute process orders with single and multiple batches.</li> <li>• You can replicate process orders, materials, material classifications, work centers, BOMs, batch numbers, recipes, and production versions from SAP S/4HANA Cloud.</li> <li>• You can enrich recipes with work instructions and collect data for process order execution.</li> <li>• You can start and complete phases, report material consumption, carry out yield and scrap confirmations as well as activity confirmations, and post goods receipts from the shop floor to SAP S/4HANA Cloud. When reporting material consumption on the Order POD, you can include the handling unit number for EWM-integrated systems.</li> <li>• You can create goods receipts and batch numbers for co-products and by-products and transfer this data to SAP S/4HANA Cloud.</li> <li>• You can perform goods issues and goods receipts with batch characteristics.</li> <li>• You can record quality inspection results for inspection-relevant phases including the use of inspection points.</li> <li>• You can perform quantity confirmations and trigger automatic confirmations of backflush components, including co-products and by-products.</li> <li>• Supports post-production reporting of order execution data</li> <li>• You can pack full or partial quantities of SFCs into packing units</li> </ul>

Feature	Description
Production Order Execution	<p>You can execute production orders using the <a href="#">Order POD</a> or <a href="#">Post-Production Reporting POD</a>:</p> <ul style="list-style-type: none"> <li>• You can replicate production orders, materials, work centers, BOMs, batch numbers, routings, and production versions from SAP S/4HANA.</li> <li>• You can enrich routings with work instructions and collect data for production order execution.</li> <li>• You can start and complete operations, report material consumption, carry out yield and scrap confirmations as well as activity confirmations from the shop floor to SAP S/4HANA. When reporting material consumption on the Order POD, you can include the handling unit number for EWM-integrated systems.</li> <li>• You can create goods receipts for finished goods, co-products, and by-products.</li> <li>• You can perform quantity confirmations and trigger automatic confirmations of backflush components, including co-products and by-products.</li> <li>• You can pack full or partial quantities of SFCs into packing units</li> </ul>
Master Recipes	<ul style="list-style-type: none"> <li>• You can download recipes and enrich them with work instructions and data collections.</li> <li>• You can update master recipes from SAP S/4HANA Cloud</li> <li>• You can view information about BOM components assigned to individual phases of recipes</li> <li>• You can delete previously attached work instructions and data collection groups from recipes and phases</li> </ul>
Buyoff	<ul style="list-style-type: none"> <li>• You can create and edit buyoffs</li> <li>• You can log buyoffs</li> </ul>
OEE	<ul style="list-style-type: none"> <li>• Optimized machine efficiency for the shop floor using Overall Equipment Effectiveness (OEE)</li> <li>• You can configure OEE time models and reason codes.</li> <li>• Integrated OEE POD to collect OEE losses and reasons at the root level</li> <li>• You can configure triggers for machine status changes.</li> <li>• You can mark an entire line as down if a resource downtime impacts the entire line.</li> </ul>

Feature	Description
Plant, Resource, and Work Center Management	<ul style="list-style-type: none"> <li>• You can define production plants.</li> <li>• You can define resources, including resource types and efficiency metrics.</li> <li>• You can assign shifts to resources.</li> <li>• You can define work centers, including the hierarchy of work centers down to the resource level.</li> <li>• You can define SFC numbering patterns. You can define next number configurations based on material groups.</li> <li>• You can assign resources to work centers.</li> </ul>
Shift Management	<ul style="list-style-type: none"> <li>• You can define shifts, including user types, resource types, and break times.</li> <li>• You can define shift intervals and effective date ranges.</li> </ul>
User Management	<ul style="list-style-type: none"> <li>• You can assign users to calendars.</li> <li>• You can assign certifications to users.</li> <li>• You can define available working hours in user calendars.</li> <li>• You can assign users to supervisors and work centers.</li> </ul>
Tool Management	<ul style="list-style-type: none"> <li>• You can create tools.</li> <li>• You can view tools created automatically with equipment PRTs transfer.</li> <li>• You can set up tool logging methods.</li> <li>• You can log tool usage in the POD.</li> <li>• You can assign tools to resources for orders.</li> <li>• You can track tool usage and view tool schedules planned in Resource Orchestration (REO).</li> <li>• You can see tool usage data for a specific SFC in a report.</li> <li>• You can load and unload tools for resources to record the actual tools used in the production.</li> <li>• You can validate loaded tools against planned production resources/tools (PRTs) or tools scheduled for a specific resource.</li> </ul>

Feature	Description
Quality Inspections	<p>You can record quality inspection results for production and process orders in the PODs where quality inspection-related plugins are configured.</p> <ul style="list-style-type: none"> <li>• You can record inspection results for inspection-relevant operations of a selected SFC (100% inspection).</li> <li>• You can upload documents for inspection characteristics.</li> <li>• You can configure and use inspection points for orders transferred from SAP S/4HANA and SAP ERP.</li> </ul>
Out-of-the-box ERP Integration	<p>Integration with SAP S/4HANA and SAP ERP:</p> <ul style="list-style-type: none"> <li>• Integration with multiple SAP S/4HANA systems using one instance of SAP Cloud Integration</li> <li>• Inbound integration including materials, BOMs, routings, recipes, production / process orders, work centers, resources, shifts, batch characteristics, in-process inspection lots and EWM stock change</li> <li>• Outbound integration including goods issues and receipts, quantity confirmations, activity confirmations, batches, batch characteristic recordings, inspection results recordings, and inspection point creation</li> <li>• Order integration: <ul style="list-style-type: none"> <li>◦ Inbound integration including BOMs and routing information</li> <li>◦ Outbound integration including order yields / scrap confirmations and order completion</li> </ul> </li> <li>• Floor stock integration: <ul style="list-style-type: none"> <li>◦ Inbound integration including floor stock replenishment</li> <li>◦ Outbound integration including material consumption and floor stock returns, scrap, and removals</li> </ul> </li> <li>• Nonconformance integration: <ul style="list-style-type: none"> <li>◦ You can transfer Quality Management (QM) defect code groups and codes from SAP S/4HANA.</li> </ul> </li> <li>• You can monitor integration messages. <ul style="list-style-type: none"> <li>◦ Inbound from SAP ERP and SAP S/4HANA</li> <li>◦ Outbound to SAP ERP, SAP S/4HANA, and SAP Asset Intelligence Network</li> </ul> </li> </ul>

Feature	Description
	<p>Integration with SAP S/4HANA Cloud:</p> <ul style="list-style-type: none"> <li>• Inbound integration including materials and batch characteristics, recipes, production / process orders, routings, work centers, and in-process inspection lots</li> <li>• Outbound integration including goods receipts, quantity confirmations, activity confirmations, and inspection results recordings</li> <li>• Floor stock integration: <ul style="list-style-type: none"> <li>◦ Inbound integration including floor stock replenishment</li> <li>◦ Outbound integration including material consumption, floor stock returns, and removals</li> </ul> </li> <li>• Nonconformance integration: <ul style="list-style-type: none"> <li>◦ You can transfer Quality Management (QM) defect code groups and codes from SAP S/4HANA Cloud.</li> <li>◦ When an operator logs a nonconformance code originated from SAP S/4HANA Cloud in the POD, it is automatically transferred to SAP S/4HANA Cloud and a generic defect record is created.</li> </ul> </li> <li>• You can monitor integration messages from SAP S/4HANA Cloud.</li> <li>• Supports calling SAP S/4HANA Cloud applications from Production Operator Dashboard</li> </ul>
<p>Out-of-the-box EWM Integration</p>	<p>You can integrate with SAP Extended Warehouse Management (EWM) to support the following staging scenarios:</p> <ul style="list-style-type: none"> <li>• Single-order staging requests</li> <li>• Cross-order staging requests</li> <li>• Single-order staging confirmations</li> <li>• Cross-order staging confirmations</li> <li>• Report of component consumption</li> <li>• Report of component removal</li> <li>• Transfer of goods receipt upon packing unit completion</li> <li>• Transfer of goods receipt without packing unit</li> <li>• Automatic staging at SFC level</li> <li>• Packing unit set as handling unit for goods receipt</li> </ul>
<p>Out-of-the-box AIN Integration</p>	<ul style="list-style-type: none"> <li>• An SAP AIN item of equipment is automatically created when the status of an SFC is set to done.</li> <li>• An item of equipment is created only if the material in Execution in SAP Digital Manufacturing Cloud has an assigned external ID from the SAP AIN model.</li> </ul>

Feature	Description
Data Foundation for KPI Analysis and Reporting	<ul style="list-style-type: none"> <li>Initial set of calculation views for production analytics and reporting</li> </ul>
Genealogy	<ul style="list-style-type: none"> <li>You can assemble components on the shop floor.</li> <li>You can enter assembly data values for materials at assembly points.</li> <li>You can remove assembled components.</li> <li>You can automatically assemble preloaded components.</li> </ul>
Printing	<ul style="list-style-type: none"> <li>You can define production-related documents, such as labels and travelers that can be printed for SFCs.</li> <li>You can set up printers to print various types of production-related documents.</li> <li>Supports data fields associated with the following objects: SFCs, orders, materials, BOMs, and routings</li> </ul>
Order Scheduling	<ul style="list-style-type: none"> <li>You can view order schedule information, including information about the order quantity that has been split for a specific operation activity in Resource Orchestration.</li> </ul>
Set Points	<ul style="list-style-type: none"> <li>You can define values of set point indicators.</li> <li>You can assign set point groups to objects, such as materials, routings, steps, recipes, phases, operation activities, resources, and orders.</li> <li>You can define values that can be written to equipment tags/indicators.</li> <li>You can use an API to get set point indicators for machine integration purposes.</li> <li>You can define set point indicators of the data type <i>Numeric</i>, <i>String</i>, and <i>Boolean</i>.</li> </ul>
Reports	<ul style="list-style-type: none"> <li>You can obtain information about the component genealogy of SFCs and batches.</li> <li>You can obtain historical activity data for SFCs and batches.</li> <li>You can navigate between parent and child SFCs.</li> <li>You can obtain information about unplanned components that were consumed for an SFC.</li> </ul>



Feature	Description
Packing	<ul style="list-style-type: none"> <li>• You can pack and unpack SFCs to and from packing units.</li> <li>• You can pack and unpack packing units to and from packing units.</li> <li>• You can generate packing unit numbers.</li> <li>• You can define the characteristics of packaging materials.</li> <li>• You can pack and unpack content to and from packing units with a simple packaging material.</li> <li>• You can pack and unpack content to and from packing units with a returnable packaging material and its instance (carrier ID).</li> <li>• You can choose a package type (conformant or nonconformant) for a packing unit if you use a returnable packaging material for packing.</li> <li>• You can choose a current location and destination (resource) for a packing unit if you use a returnable packaging material for packing.</li> <li>• You can unload the content of a packing unit from a carrier.</li> <li>• You can pack a partial quantity of an SFC into packing units (depending on the material settings).</li> </ul>
Floor Stock Management	<ul style="list-style-type: none"> <li>• You can use standalone inventory functionalities to create and manage floor stock records in SAP Digital Manufacturing Cloud locally, including inventory creation, floor stock reservation, and storage location assignment.</li> <li>• You can receive floor stocks locally, or receive inventory transferred from SAP S/4HANA, SAP ERP, SAP S/4HANA Cloud, and SAP EWM.</li> <li>• You can return and scrap components using reason codes to SAP S/4HANA and SAP ERP.</li> <li>• You can return components using reason codes to SAP S/4HANA Cloud.</li> <li>• You can remove components in PODs to SAP S/4HANA, SAP ERP, SAP S/4HANA Cloud, and SAP EWM.</li> <li>• You can disable the local inventory management of floor stocks that are transferred from SAP S/4HANA Cloud.</li> <li>• You can enable either <i>Individual</i> or <i>Consolidated</i> inventory management mode in SAP S/4HANA Cloud integration.</li> </ul>
Extensibility	<ul style="list-style-type: none"> <li>• You can create business process extensions using SAP BTP, serverless runtime.</li> </ul>

Feature	Description
Process Industry Terminology	<ul style="list-style-type: none"><li>The <i>Manage Order</i> app, the <i>POD Designer</i> app, and PODs support process industry terminology.</li></ul>

## Resource Orchestration

### Business Background

Resource Orchestration allows you to manage shop floor workflows, labor assignments, and schedule or reserve available production tools to work centers and resources.

Feature	Description
Scheduling and Dispatching	<ul style="list-style-type: none"> <li>• Enables production supervisors to create workloads for the resources and work centers they're responsible for. The scheduling mode and scheduling direction are considered along with working and nonworking times.</li> <li>• Displays capacity overload situations and resource status. Helps production supervisors identify and react to bottleneck situations.</li> <li>• Displays dispatched operations for a selected work center; supervisors can change the sequence of the operations and resolve overload situations.</li> <li>• Based on the assignments scheduled for labors, production supervisors can react to missing labor alerts.</li> <li>• You can search for labor assignments by required qualification and assign labor to shifts and work centers.</li> <li>• Production supervisors can define the resources they want to see in the Gantt chart by specifying them as relevant to scheduling or monitoring. <ul style="list-style-type: none"> <li>◦ If a resource is marked as scheduling-relevant, supervisors can dispatch operations to the resource and monitor related events.</li> <li>◦ If a resource is marked as monitoring-relevant, dispatching isn't possible and supervisors can only monitor related events for the respective resource.</li> </ul> </li> <li>• Production supervisors can sort worklists based on multiple columns during manual dispatching.</li> <li>• You can select multiple operations in a worklist that can be run on the same resource type and dispatched together using the Infinite and Finite (Find Slot) scheduling modes.</li> <li>• While dispatching operations, possible alternative resources and work centers are highlighted (considering the resource types).</li> <li>• Production supervisors can view all operations belonging to the same order with their statuses. All operations (dispatched and nondispatched) are displayed in the information area.</li> <li>• Production supervisors can release complete orders with complete quantity.</li> <li>• Production supervisors can search for orders from the worklist in the resource Gantt chart. The search results appear the worklist diagram with their statuses.</li> <li>• You can dispatch an operation to the default resource if there's a free slot available for the planned start date and planned end date for the operation. <ul style="list-style-type: none"> <li>◦ If there's no free slot available at the default resource, the system chooses an alternative resource and checks if a free slot exists for the date and</li> </ul> </li> </ul>

## Feature

## Description

time. If the subsequent alternative resource is full, the system finds a free slot in next alternate resource.

- If all alternative resources already have operations dispatched and no free slots are available, the system finds a free slot in the default resource for dispatching.

For ME on-premise scenarios, you can schedule all operation of the router using auto scheduling (Infinite and Finite/Find Slot modes).

- The details of the operations that are automatically dispatched can be viewed, such as operations, resources, start and end dates, and scheduling mode and direction of the operations.
- While automatically dispatching orders using heuristics, high-priority orders have precedence over other orders.
- While automatically dispatching operations based on a material group, you can choose to dispatch operations to specific work centers (primary work centers). This feature is available for SAP Manufacturing Execution on-premise systems.
- You can automatically dispatch active orders that were planned for a day.
- Filter the worklist table using a set of filters. You can assign filters based on priority, order scheduled date, and material to filter the worklist operations. Filtered operations can then be automatically dispatched using automatic dispatching by heuristics.

You can filter operations in the worklist area for dispatching based on classifications downloaded to SAP Digital Manufacturing Cloud from an SAP Manufacturing Execution system.

- Production supervisors can automatically dispatch operations from the non dispatched area on the Gantt chart. The related operations (both successor and predecessor) of the selected operation are then automatically dispatched to the resources. This feature is only supported when you use the Finite (Find Slot) scheduling mode.
- The order view displays an order's planned start date and end date as vertical lines in different colors. It also provides a horizontal separator line for each order for a logical separation of the order visualization. This visualization helps the end user to see if all operations are dispatched and executed between planned start and end date.
- Improved visualization of related operations and orders. When you search for orders and for related operations of an order, the operations of the order are highlighted for easy identification.

## Feature

## Description

- 
- Production supervisors can release orders from the Gantt chart directly. Orders that are successfully released are displayed with their SFC details.
  - Displays the assignment of labors who have been assigned multiple work centers in Gantt chart.
  - If a reason of absence is specified for a worker with a work center time slot, the Gantt chart displays the worker for the work center as *Partially Available*. The *Partially Available* link further displays the time slots for both work center and unavailability.
  - You can split the quantity of an operation. The different operation splits can then be dispatched to different time slots or resources. You can see these splits in the work center POD plugin. If an operation has a confirmed quantity, then you can split the remaining quantity of the operation only.
  - After an operation has been split and saved, you can merge or combine two or more such operations splits. The prerequisite for merging operation splits is that the operation shouldn't have been started by the operator. For unsaved operation splits, you can use the *Undo* option to merge the operations.
  - You can split operations and merge split operations for plants that are integrated with SAP Manufacturing Execution on-premise systems.
  - Handling of backlog operations: When the first SFC is started in the work center POD for an operation on the scheduled resource, and if the scheduled date of the operation is less than or greater than current date (that is, scheduled date isn't the current date), then the application adjusts the operation and reschedules it to the current date and time.
  - The work center-based dispatching allows the production supervisor to manually dispatch the operations at the work center level. This feature supports scenarios where customers maintain one operation per order or dispatch first operation of the router.
  - Operations can be scheduled on alternate resources/lines based on the resource type or material group. Scheduling based on material group is applicable for SAP Manufacturing Execution on-premise scenarios.
  - You can schedule operations on non-alternate resources.
  - Define/modify the sequence of operations during scheduling. The same sequence is displayed on the Gantt chart when the operations are automatically dispatched.
  - Using the automatic load balancing feature, operations are automatically dispatched to the alternate resources with a particular material group or resource type in a
-

**Feature****Description**

---

balanced manner. This feature is also available for ME on-Premise scenarios.

- You can view the shift plan assignment of the labor for the current date.
  - The last scheduling results of operations that are automatically dispatched and the shift plan assignment of a labor for the current date can be downloaded to an Excel spreadsheet.
  - For SAP Manufacturing Execution plants, you can reschedule dispatched operations that were scheduled in the past or future, irrespective of the release status of the operations.
  - When you introduce an unscheduled downtime, you can automatically reschedule all affected operations based on configurable rules. When rescheduling operations, unscheduled downtimes are highlighted and you cannot schedule (manual or auto-dispatch) any operations in the unscheduled downtime.
  - When you reschedule operations manually using drag and drop, the tools reserved for the operation are automatically reassigned to the operation for the new time scheduled.
  - You can check the availability and reserve the tools for an operation of a shop order from the Gantt Chart.
-

Feature	Description
Monitoring	<ul style="list-style-type: none"> <li>• Displays production progress. If the production is behind schedule, it's displayed in the Gantt chart.</li> <li>• Displays the resource breakdown situations where the operator or supervisor can decide to reschedule the operations to an alternative resource or the same resource at a different point in time.</li> <li>• Icons and notifications indicate high-priority orders or violations of operation relationships.</li> <li>• The <b>Order View</b> provides an overview of all operations belonging to an order.</li> <li>• High-priority orders are indicated on the Gantt chart. The released operations are also highlighted on the chart.</li> <li>• In the resource table, the alert column shows the number of alerts for the corresponding work center or resource. You can display additional details about the operation that triggered the alert.</li> <li>• The supervisor can monitor the failed messages sent to the SAP Manufacturing Execution on-premise system for the current planning run.</li> <li>• You can view SFC details of operations.</li> <li>• POD Integration: If an operator decides to start an operation on a different resource than the one that was originally dispatched, it's reflected in the Gantt chart. The corresponding operation is displayed for the changed resource with the same timestamp when the operator had started it.</li> <li>• If the user continues an operation that is already in progress with confirmed quantity at a different resource, the supervisor is notified.</li> <li>• Notifications are grouped to provide better visualization.</li> <li>• View maintenance orders with planned start and end date: Maintenance orders are retrieved for the resources that are maintained with a mapping to the <i>Equipment ID</i> and displayed in the Gantt chart.</li> <li>• You can view the alternate resources available for an operation.</li> <li>• Notifications created in the <i>Dispatching and Monitoring</i> app for the work center POD are also available in the <i>Manage Alerts</i> app. The status of these notifications can be changed.</li> </ul>

Feature	Description
Schedule Labor	<ul style="list-style-type: none"> <li>• Production supervisors can assign shifts to the respective labor.</li> <li>• Production supervisors or operators can assign the work center to labor and shift.</li> <li>• If a certain labor isn't available, you can assign the unavailability of the labor for the corresponding day or week.</li> <li>• Labor assignments are considered during dispatching in the Gantt chart.</li> <li>• In the Labor Gantt chart, a KPI bar is included with the following labor KPIs: <ul style="list-style-type: none"> <li>◦ Demand situation in hours: Reflects the demand from the dispatched and nondispatched orders in the selected week.</li> <li>◦ Capacity situation in hours: Reflects the available labor capacity in the selected week.</li> </ul> <p>The KPIs are based on the selected calendar week. This allows you to detect if there's a gap between capacity offering and demand.</p> </li> <li>• In the Labor Gantt chart, labor KPIs related to the shift model are available in the KPI bar.</li> <li>• If an operator works on multiple work centers during a shift, you can specify the working time intervals for each work center.</li> <li>• In cases of shared resources, a labor can be assigned by more than one supervisor. This is shown as a notification to the logged-on supervisor indicating that there has been an assignment by another supervisor.</li> <li>• Displays the assignment of labors who have been assigned multiple work centers in Gantt chart.</li> <li>• A notification is displayed in case of a worker shortage at a work center for a specific shift.</li> <li>• Production supervisors can see the work centers assigned to a worker and the corresponding time slots defined during the work center assignment, while specifying the time intervals for unavailability.</li> <li>• Filter labors and work centers based on the certifications assigned to them.</li> <li>• Displays the shift assignment of labor for a week or month.</li> <li>• You can view a labor report for a calendar that includes details such as work centers assigned, start and end dates, shifts assigned, duration of work done by the labor and shift overtime information for labors who have performed overtime during the week.</li> </ul>



Feature	Description
	<ul style="list-style-type: none"> <li>• You can copy work center assignments, rotate shifts assigned to labors, and override existing shift allocations when you copy shift plans for workers.</li> <li>• You can view a work center report that lists all work centers and the time spent on each work center for the current week.</li> <li>• E-mail to inform labors about their shift schedule. The e-mail comprises of the shifts, work center assignments, availability, and unavailability along with the time duration.</li> <li>• You can upload plant holidays in an excel format. The holidays appear in the planning calendar week and help in effective planning and assignment of shifts.</li> <li>• You can upload the certifications and qualifications of labors in an excel format.</li> <li>• When you assign one or more work centers to a labor and the working time intervals coincide, this results in overlap of work centers. If you assign unavailability during the time interval when a work center is also assigned, this results in an overlap too. In the latter case, the unavailability takes the precedence and the labor is considered as unavailable.</li> </ul>
View Labor Schedule	<p>If the user has logged on as the production supervisor, the shift assignments of the workers they are responsible for are displayed.</p> <p>If a user has logged on as the production operator, the shifts assigned to them are displayed.</p>
Schedule Tools	<ul style="list-style-type: none"> <li>• Schedule or reserve the available production tools to work centers and resources for a calendar week/day. The reserved production tools are displayed for the respective work center and resource. Tools that are assigned to a particular operation of a production order are displayed.</li> <li>• View and download a report on the tools assignment to operations in an order for a selected date range.</li> </ul>

Feature	Description
SAP Manufacturing Execution on-Premise Integration with REO	<p>SAP Manufacturing Execution on-premise integration supports the following scenarios:</p> <ul style="list-style-type: none"> <li>• Scheduling of orders that are created in the ME on-premise system using Resource Orchestration where the supervisor can dispatch operations to resources. The scheduled dates and the scheduled resources from REO are then replicated to the SAP Manufacturing Execution on-premise system.</li> <li>• The release of orders from Resource Orchestration triggers SFC creation in the ME on-premise system. The supervisor can release orders to SFCs from Resource Orchestration. After the order is released, SFCs are created in the SAP Manufacturing Execution on-premise system and further processing is carried out in the SAP Manufacturing Execution system. Prerequisite for this integration is SAP Manufacturing Execution 15.0 version and above.</li> </ul> <p>Monitoring of integration messages from Resource Orchestration to SAP Manufacturing Execution on-Premise</p>

# 3 Insights

## Business Background (for Manufacturing Insights)

Using SAP Digital Manufacturing Cloud for insights, you gain valuable insights on performance, productivity, and quality, across different levels of the enterprise hierarchy (such as regions, plants, work centers, and resources). Using these insights, you can take informed decisions by combining and utilizing data from shop floor systems and execution systems, along with contextual information from business sources (such as ERP). Pre-delivered interactive dashboards filled with standardized key performance indicators (KPI), help you to further build customized KPIs, using which you can personalize your dashboards and reports. For example: You can get quick visibility of personalized KPIs, to identify non-performing regions, countries and plants.

## Business Background (for Data Engineering)

Using Data Engineering (DE) you replicate data from on-premise systems to the cloud using applications that are specific to Data Engineering. This data is then available for analysis using the SAP Digital Manufacturing Cloud for insights component, covering various manufacturing use cases, such as consumption of analytical reports at a global scale.

## Business Background (for Alerts)

Using the [Alerts](#) feature in SAP Digital Manufacturing Cloud for insights, you can receive personalized notifications (based on your subscriptions) for breaches in the KPI threshold, at any hierarchy node, based on personnel responsibility. You can customize the view of alerts (categorized by date, type, and priority). You can receive push notifications, without refreshing the page. The alert lifecycle can be completed using different stages, such as *In-process*, *Acknowledge*, and *Complete*. Using appropriate filters, you can also visualize these alerts.

Feature	Details
Data Management	<ul style="list-style-type: none"><li>• Replicate data from on-premise host systems (SAP ME, SAP MII-OEE, SAP ECC, and SAP S/4HANA) to the cloud by defining data agents and connections</li><li>• Suspend and resume connections to host systems</li><li>• Create multiple data models simultaneously</li><li>• Monitor the connectivity status of the data agent and the replication status of the data</li><li>• Trigger on-demand delta loads and terminate current runs, while managing data models</li><li>• Access plant data from SAP Digital Manufacturing Cloud for execution for KPI calculations and analytics</li></ul>

## Feature

## Details

---

### Analytics and Insights

- You can use the *Session Time Out (Minutes)* field to project the dashboard as an add-on display.
  - Enable ODATA APIs for all replicated tables
  - Define an enterprise hierarchy with parent nodes and child nodes to view and analyze aggregates of key performance indicator (KPI) values at different nodes
  - Define KPI thresholds across and within several manufacturing plants
  - Filter data according to time ranges: year to date, month to date, date to time, current day, current shift, and custom date ranges
  - Define custom KPIs with measures and dimensions associated with the following relevant master objects: plant, work center, order, material, router operations, and shifts
  - Perform near real-time analytics on custom KPIs
  - Identify top influencer records, for example top 10 late orders or top 10 highest defect counts
  - Obtain a global view of standard and custom KPIs defined for all products produced across several manufacturing plants
  - Configure preferred standard and custom KPIs in the tile carousel
  - Calculate KPIs at the SFC operation level using raw data provided by the SFC operation level execution details
  - Specify complete nonconformance details, including custom data fields
  - Identify potential outliers and anomalies
  - Create formulas using existing transactional data to define custom measures
  - Visualize SAP Analytics Cloud (SAC) stories without having to open an SAC application
  - Monitor deviations from the plan of executing subsequent order sequences compared to the actual sequence of orders executed
  - Compare and analyze work orders actually completed in the production work centers compared to planned work orders
  - Navigate from the control tower in the IBP solution to Plant Insights for a specific plant and material
  - Monitor and analyze material changeovers and order changeovers in resources
-

## Feature

## Details

- 
- Display simplified views for a drill-down analysis of different KPIs to identify potential root causes.
  - Analyze production against actual production data and production rate data
  - Visualize KPI data using various types of charts and tiles
  - Analyze KPI values of custom KPIs in context with sensor data
  - Measure standard KPIs related to production performance and quality. (Supported only for discrete industry scenarios)
  - Calculate overall equipment effectiveness at resource level, workcenter level, and its aggregated values across various nodes of the hierarchy
  - Visualize and analyze availability losses, performance losses, and quality losses using a dashboard
  - Calculate minimum, maximum, and average values for the cycle time across materials, orders, work centers, resources or operations, while visualizing transactional data. (Supported only for discrete industry scenarios)

---

## Control and Action

- Monitor alerts raised due to violation of thresholds set for KPIs.
  - Configure, evaluate, and deduplicate alerts  
Configure alerts for standard KPIs and receive notifications about the alerts raised. Receive e-mail notifications as well as notifications on the Fiori launchpad. Evaluate alert conditions by calculating KPIs at a defined frequency. If the alert condition is true, an alert is raised, and you are notified about the alert.  
If multiple alerts raised for the same condition, deduplication logic prevents the duplication of alerts for similar conditions.
  - Use the alert type *KPI Threshold Violated* to effectively monitor alters
  - Receive e-mail notification for standard KPI threshold violation.
-

Feature	Details
Visualization	<ul style="list-style-type: none"> <li>• Visualize planned production against actual production data and production rate data</li> <li>• Visualize KPI data using different chart types</li> <li>• Visualize KPIs defined in SAP Digital Manufacturing Cloud in SAP Analytics Cloud using live data connections</li> <li>• Get real-time operational visibility by overlaying sensor data on top of an image, while creating your dashboard</li> <li>• Drag and drop business data onto the image to display the corresponding values</li> <li>• Visualize transactional data at the operation level, order level, and work center level</li> <li>• Visualize the distribution of the data corresponding to a performance indicator for a given time period using the <i>Histogram</i> chart type</li> <li>• Change measures and dimensions using smart tables and smart charts. Modify the sequence of the fields while configuring the filter bar. The system provides value help for all dimensions in the filter bar at runtime.</li> </ul>
Alert Management	<p>Monitor and manage the lifecycle of alerts raised due to KPI threshold violation.</p> <ul style="list-style-type: none"> <li>• View a high-level summary of the alerts assigned to you</li> <li>• Change status of the alerts</li> <li>• Navigate to the details of the alerts</li> <li>• Trigger actions assigned to the alert For example, start a production process by triggering the action button from the alert details screen.</li> <li>• Filter the alerts assigned to you</li> <li>• Customize the alerts assigned to you by: <ul style="list-style-type: none"> <li>○ Changing the filters</li> <li>○ Changing the fields that the alerts display</li> <li>○ Grouping and sorting the displayed alerts</li> </ul> </li> </ul>

Feature	Details
Alert Type Management	<p>View and update the alert types to assign actions to the alert types.</p> <ul style="list-style-type: none"> <li>• View the top 100 alert types</li> <li>• Search alert types by alert type, category, and default severity</li> <li>• Customize the filters and the fields for alert types</li> <li>• Switch between different views using the variant management feature</li> <li>• Navigate to the details page of the alert types to view details and edit header information, actions, and language and description</li> <li>• Configure action buttons and assign production processes to them. All the alerts associated with the alert type display the configured action buttons in the alerts details page. Choosing the action button executes the assigned production process.</li> </ul>

## Automation

### Business Background

Manufacturing Automation enables machine integration from cloud to shop floor through SAP Plant Connectivity (PCo). This allows you to capture the communication interfaces provided by the machine and exchange data from and to the shop floor. Additionally, services can be called on the Shop Floor Systems. This enables you to design production processes using the Production Process Designer in the cloud.

Production processes can be called by observing conditions on the shop floor or by configuring Alerts or the Production Operator Dashboards.

Feature	Description
Web Server Management	<p>Enables management of REST-based web servers:</p> <ul style="list-style-type: none"> <li>• Define and model a web server that can be connected to other web servers to design and run cloud-based or PCo-based production processes using services exposed across the network of connected web servers.</li> <li>• Enable connection and communication with the server instance by configuring the web server with details such as the server endpoint and security information. Service metadata information is available in the service registry when software product, software version or web server is assigned to services.</li> <li>• Services can be assigned to web servers and used from relevant servers to design cloud-based or PCo-based production processes.</li> </ul>



Feature	Description
Machine Model and Connectivity	<p data-bbox="804 371 1394 432">Enables configuration of machine model and shop floor integration:</p> <ul data-bbox="804 454 1394 1621" style="list-style-type: none"> <li data-bbox="804 454 1394 551">• Define the digital twin of the machine and manage information required to call up machine data or plan a machine orchestration in the machine model.</li> <li data-bbox="804 562 1394 723">• The machine model connected to SAP Plant Connectivity (PCo) enables information exchange with the shop floor system by reading and writing tags of machines and performing services or methods of machines.</li> <li data-bbox="804 734 1394 1621">• Onboard equipment by importing tag configuration from a data source in shop floor and manage connectivity configuration for onboarded equipment. You can create, display, change, and delete the elements needed to onboard an equipment and to set up the connectivity to the related device. These elements are: <ul data-bbox="858 949 1394 1301" style="list-style-type: none"> <li data-bbox="858 949 1394 1010">◦ Equipment objects, as implemented in SAP's Asset Core component.</li> <li data-bbox="858 1021 1394 1081">◦ SAP Plant Connectivity (PCo) objects, including the service provider capabilities that PCo offers</li> <li data-bbox="858 1093 1394 1223">◦ Shop floor systems that are used as data sources such as OPC UA, OPC DA, OPC HDA, IP21, Proficy Historian, and Asset Framework to which the PCo objects are connected</li> <li data-bbox="858 1234 1394 1301">◦ Web server objects (like SAP Digital Manufacturing Cloud) to which the PCo objects are connected</li> </ul> <p data-bbox="847 1312 1394 1373">Use deployment groups to deploy shop floor systems, service providers, services, and client proxies to PCo.</p> </li> <li data-bbox="804 1384 1394 1545">• Subscribe to PCo tags and notify relevant services on specific trigger conditions and write back a sensor data based on service output. Sensor data from PCo can be brought into Insights using HTTP protocol based on query scenario.</li> <li data-bbox="804 1556 1394 1621">• Manage SAP Plant Connectivity systems that are on deployed on the edge.</li> </ul>

Feature	Description
Visualized Production Configuration	<p>You can model production processes that orchestrate and automate machine communication and process execution using a visual editor.</p> <p>You can define production processes for three runtimes: cloud, edge, and SAP Plant Connectivity (SAP PCo) systems (on-premise). There can be exactly one cloud runtime but there can be multiple edge and SAP Plant Connectivity runtimes in parallel.</p> <ul style="list-style-type: none"> <li>• For all of the three runtime types, you can: <ul style="list-style-type: none"> <li>◦ Bundle different processes in one "design".</li> <li>◦ Reuse, that is embedding one production process into another. This can happen also between different runtimes. Cloud-based sub-processes as well as automation sequences on any SAP PCo system can be called from cloud or PCo runtime. Automation sequences can also be called from edge runtime.</li> <li>◦ Start and complete process with control elements: This includes the definition of parameters that are to be supplied to the process at start time (process input parameters) and those that the process hands back to the caller after process execution (process output parameters).</li> <li>◦ Reuse snippet - a small region of process components of control elements and services (excluding embedded production process) across production process designs.</li> <li>◦ Save results of one activity for input in a later activity with internal variable.</li> <li>◦ Transfer directly result values of one activity as input values for a later activity.</li> </ul> </li> <li>• In designing cloud or edge-based production processes, unless specifically noted, you can: <ul style="list-style-type: none"> <li>◦ Branch the process flow for multiple conditions using the condition control element.</li> <li>◦ Execute steps in parallel using the parallel control element: The process execution is unconditionally branched into multiple execution threads, which are processed in parallel.</li> <li>◦ Call sub-processes synchronously, that is, the caller waits for the called process returning a result, or asynchronously, that is, the called process is executed independently of its caller.</li> <li>◦ Handle errors with the error control element: The execution of a singular process step terminates with an error. This error can be fetched and processed; the entire production process may terminate with an error accordingly.</li> </ul> </li> </ul>

Feature	Description
	<ul style="list-style-type: none"> <li>○ Design scripts with the script task control element: The user can define JavaScript routines which execute computations on production process variables.</li> <li>○ Call the Production Operator Dashboard to take action or display messages using a plugin extension or notification element. (Cloud processes only)</li> <li>○ Read and write indicators with machine model services. This includes the writing of defined set points.</li> <li>○ Read and write indicator synchronized to SAP IoT (Cloud processes only).</li> <li>○ Call SAP Digital Manufacturing Cloud services that are executing various manufacturing execution functionalities, and SAP Manufacturing Integration and Intelligence (MII) services, user-defined applications on SAP Business Technology Platform or other platforms exposed as a service (Cloud processes only).</li> <li>○ Call some SAP Digital Manufacturing Cloud services, that are executing various manufacturing execution functionalities (edge processes only).</li> <li>○ Use structured data types as value of parameter and variable.</li> <li>○ Analyze the information log and adjust input/output parameter values step by step to resolve problems using the debugging function. You can control which step the debugging process is going to stop at by setting stop point in the process workflow (Cloud processes only).</li> <li>● In designing PCo-based production processes (automation sequences), you can: <ul style="list-style-type: none"> <li>○ Branch the process flow for a condition using the condition control element.</li> <li>○ Call automation routines supplied by SAP Plant Connectivity itself or by a shop floor service provider (such as an OPC UA server).</li> <li>○ Call SAP PCo-based subprocesses as well as cloud-based production processes.</li> <li>○ Call SAP Digital Manufacturing Cloud for execution services.</li> </ul> </li> </ul>
Runtime Environments	<p>The following runtime environments for production processes are supported:</p> <ul style="list-style-type: none"> <li>● Cloud-based runtime environment</li> <li>● Edge-based runtime environment</li> <li>● SAP Plant Connectivity systems</li> </ul>

Feature	Description
Production Process Execution Monitoring	<p>You can observe and conduct relevant operations on cloud-based and edge-based process executions.</p> <ul style="list-style-type: none"> <li>• You can see all running process instances in one table.</li> <li>• You can see process start- and end-time as well as the duration in a table.</li> <li>• You can see the status of the process instance in a table.</li> <li>• You can see subprocesses, that is, processes called synchronously by another process.</li> <li>• You can filter the process instances.</li> <li>• You can see log information in designated level on any process instance.</li> </ul> <p>You can relaunch asynchronously-run cloud-based processes that terminated with an error.</p>
Indicator Subscription Management	<p>Support machine data ingestion using PCo to SAP IoT.</p> <p>You can observe indicator values (equipment tags) and trigger an action if a condition becomes true.</p> <p>Trigger events are:</p> <ul style="list-style-type: none"> <li>• Change of an indicator value</li> <li>• A logical condition on the indicator value becoming true</li> </ul> <p>Possible actions can be:</p> <ul style="list-style-type: none"> <li>• Call a single service in the cloud</li> <li>• Call a service of external service provider</li> <li>• Call a cloud-based process</li> <li>• Call an automation sequence</li> <li>• Send (ingest) indicator values to SAP IoT for time series storage</li> </ul> <p>You can also observe indicator values (equipment tags) on an edge system and trigger an action if a condition becomes true.</p> <p>Possible actions can be:</p> <ul style="list-style-type: none"> <li>• Call a single service on the edge</li> <li>• Call an edge-based process</li> </ul>
Timer Management	<p>You can create a timer to trigger actions in SAP Digital Manufacturing Cloud.</p> <p>Possible actions are services from the service registry.</p>
Business Rule Management	<p>You can create a business rule to trigger an action when a specific business event happens. Possible actions are production processes from the service registry.</p>

Feature	Description
Production Configuration Management	<p>You can deploy production configuration using a deployment group:</p> <ul style="list-style-type: none"> <li>• All machine model artifacts such as the configuration of SAP Plant Connectivity systems, equipment objects, and shop floor systems (for example, OPC UA servers)</li> <li>• Production process designs, that is, any kind of production processes</li> <li>• Indicator subscriptions</li> <li>• Timers</li> <li>• Business rules</li> </ul>
Service Registry Management	<ul style="list-style-type: none"> <li>• You can register services and plugin extensions.</li> <li>• You can define structured data types for use in the Production Process Designer.</li> </ul>

## AI/ML Scenarios Management

Feature	Description
Create Analytical Data Set	<ul style="list-style-type: none"> <li>• Manage analytical data sets for AI/ML scenarios which can be used to train new machine learning models.</li> <li>• Select and deselect manufacturing data (IT/OT) collected as analytical data set.</li> <li>• Automated creation of analytical data sets for the <a href="#">AI/ML scenario for Visual Inspection</a> which allows to download images of inspected materials and inspection results that were collected with the POD Plugin <a href="#">Visual Inspector</a> on the shop floor.</li> </ul>
AI/ML Scenarios - Visual Inspection	<ul style="list-style-type: none"> <li>• Create visual inspection scenarios using a wizard. These scenarios are used to simplify the detection of visual defects during an inspection using machine learning.</li> <li>• Upload a trained model to classify images of inspected materials into conformance and nonconformance categories, and map model results to Nonconformance codes.</li> <li>• After a scenario for visual inspection has been created and machine learning model has been provided, this model assists the operator in logging proper Nonconformance codes using the POD plugin <a href="#">Visual Inspector</a>.</li> <li>• Add multiple scenario combinations (plant, material, and operation) during the creation of a visual inspection scenario. Visual inspection scenarios can be configured to support manual (without machine learning model) or assisted modes (with machine learning model).</li> <li>• Visual inspection scenarios support machine learning model types for binary classification, multi-class classification, multi-label classification, and object detection.</li> </ul>

## Network

Feature	Description
Collaboration	<p>A collaboration platform where customers can work together with suppliers on various topics in individual collaboration rooms:</p> <ul style="list-style-type: none"><li>• Design collaboration: Collaborate on the design of a part or product in a visual and interactive way.</li><li>• Quality collaboration: Collaborate on the quality inspection of engineering samples.</li><li>• Document sharing: Securely share documents with collaborating members.</li><li>• Communicate with ease: Engage in open conversations for more transparent and centralized communication.</li></ul>
Data Sharing	<p>Share product genealogy across plants and across organizations, including data collected during the manufacturing process.</p>
Integration	<p>Out-of-box integration with SAP systems:</p> <ul style="list-style-type: none"><li>• SAP Ariba: Integrate with SAP Ariba to enrich sourcing through Ariba with collaborations in Network.</li><li>• SAP S/4HANA Cloud and SAP S/4HANA: Create requests for quotations based on the collaboration results.</li><li>• SAP S/4HANA: Enhance quality inspection with collaboration in Network.</li></ul> <p>Extension and API integration: Provide a framework and APIs that allow customers and partners to integrate with Network.</p>
Support for Additive Manufacturing	<p>"Parts analysis" for additive manufacturing:</p> <ul style="list-style-type: none"><li>• Make assessments of parts to determine if they're suitable for additive manufacturing and allow partners or suppliers to integrate additional functionalities.</li><li>• Create collaborations for further evaluation.</li></ul>
Private Organizations	<ul style="list-style-type: none"><li>• As a customer, invite service providers to exclusively collaborate with you.</li><li>• As a supplier, join the network and share collaborative functions limited to the invitee business partner.</li></ul>

## 4 SAP Digital Manufacturing Cloud for edge computing

Using SAP Digital Manufacturing Cloud for edge computing, you can process machine data, and thereby support production processes, closer to the source of data and on the shop floor, to enable faster decision-making and to operate with latent connectivity to the cloud.

SAP Digital Manufacturing Cloud for edge computing enables you to deploy a defined set of functions provided by SAP Digital Manufacturing Cloud on the edge. The focus of SAP Digital Manufacturing Cloud for edge computing is on functions relevant to execution and automation in discrete industries.



SAP Digital Manufacturing Cloud for edge computing enables the synchronization of configuration and business data between edge and cloud. The solution also provides a graphical user interface that allows you to access function on the edge.

# Important Disclaimers and Legal Information

## Hyperlinks

Some links are classified by an icon and/or a mouseover text. These links provide additional information.

About the icons:

- Links with the icon : You are entering a Web site that is not hosted by SAP. By using such links, you agree (unless expressly stated otherwise in your agreements with SAP) to this:
  - The content of the linked-to site is not SAP documentation. You may not infer any product claims against SAP based on this information.
  - SAP does not agree or disagree with the content on the linked-to site, nor does SAP warrant the availability and correctness. SAP shall not be liable for any damages caused by the use of such content unless damages have been caused by SAP's gross negligence or willful misconduct.
- Links with the icon : You are leaving the documentation for that particular SAP product or service and are entering a SAP-hosted Web site. By using such links, you agree that (unless expressly stated otherwise in your agreements with SAP) you may not infer any product claims against SAP based on this information.

## Videos Hosted on External Platforms

Some videos may point to third-party video hosting platforms. SAP cannot guarantee the future availability of videos stored on these platforms. Furthermore, any advertisements or other content hosted on these platforms (for example, suggested videos or by navigating to other videos hosted on the same site), are not within the control or responsibility of SAP.

## Beta and Other Experimental Features

Experimental features are not part of the officially delivered scope that SAP guarantees for future releases. This means that experimental features may be changed by SAP at any time for any reason without notice. Experimental features are not for productive use. You may not demonstrate, test, examine, evaluate or otherwise use the experimental features in a live operating environment or with data that has not been sufficiently backed up.

The purpose of experimental features is to get feedback early on, allowing customers and partners to influence the future product accordingly. By providing your feedback (e.g. in the SAP Community), you accept that intellectual property rights of the contributions or derivative works shall remain the exclusive property of SAP.

## Example Code

Any software coding and/or code snippets are examples. They are not for productive use. The example code is only intended to better explain and visualize the syntax and phrasing rules. SAP does not warrant the correctness and completeness of the example code. SAP shall not be liable for errors or damages caused by the use of example code unless damages have been caused by SAP's gross negligence or willful misconduct.

## Bias-Free Language

SAP supports a culture of diversity and inclusion. Whenever possible, we use unbiased language in our documentation to refer to people of all cultures, ethnicities, genders, and abilities.





© 2021 SAP SE or an SAP affiliate company. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP SE or an SAP affiliate company. The information contained herein may be changed without prior notice.

Some software products marketed by SAP SE and its distributors contain proprietary software components of other software vendors. National product specifications may vary.

These materials are provided by SAP SE or an SAP affiliate company for informational purposes only, without representation or warranty of any kind, and SAP or its affiliated companies shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP or SAP affiliate company products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.

SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP SE (or an SAP affiliate company) in Germany and other countries. All other product and service names mentioned are the trademarks of their respective companies.

Please see <https://www.sap.com/about/legal/trademark.html> for additional trademark information and notices.