Manufacturing and Supply Chain and Asset Management in SAP S/4HANA Cloud 2002 Release Update

Dr. Gerhard Welker, SAP
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SAP S/4HANA Release Strategy
(2019–2021 and definition of deliveries)

Quarterly innovation cycle

Yearly innovation cycle with quarterly SP stacks

2019
Q4
SAP S/4HANA Cloud 1911
SPS 00

Q1
SAP S/4HANA Cloud 2002

Q2
SAP S/4HANA Cloud 2005

Q3
SAP S/4HANA Cloud 2008

Q4
SAP S/4HANA Cloud 2102

2020
Q1
SAP S/4HANA Cloud 2002

Q2
SAP S/4HANA Cloud 2005

Q3
SAP S/4HANA Cloud 2011

Q4
SAP S/4HANA 2020
SPS 00

2021
Q1
SAP S/4HANA Cloud 2102

SAP Note 2868297 - Release Information Note for SAP S/4HANA Cloud 2002
SAP Note 2868331 - Release Restriction Note for SAP S/4HANA Cloud 2002

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Manufacturing & Supply Chain & Asset Management in SAP S/4HANA Cloud 2002

- Warehouse Management
  - Lean integration between production and warehouse managed on bin level
  - Serial Number Handling in Warehouse Management
  - Attachment Services in Warehouse Management
  - Reduce manual efforts by running warehouse task creation in the background

- Inventory Management - Cycle counting as part of the physical inventory process

- Quality Management
  - Resolve internal problems by using the 8D methodology
  - Inspection results recording for serialized materials

- Production planning and execution
  - Predictive material and resource planning (pMRP)
  - Schedule Production
  - Manage Work Center Capacity
  - Reprocess failed material movements

- Resource Scheduling for Maintenance Planners
Key Innovations in S/4HANA Manufacturing & Supply Chain

**aATP**
- Customer segmentation
- Automated mass order processing using alternative variants
- Manage shortages along with business priorities
- Improve business rules
- Fast re-plan
- Plant and Material Substitution

**DDMRP**
- Overcome increasing volatility in demand and shorten lead-time
- Keep inventory at the most optimum amount to deal with variation at minimum cost across the chain
- Driving replenishment on actual demand, not forecasts. The best use of assets is to make what is needed and what sells.
- Propose decoupling points and buffer levels

**pMRP**
- Simulate future scenarios for the plant to predict capacity and component demand

**Inventory Management**
- Predict arrival and manage delivery delays for Stock in Transit
- Pre-built set of Inventory KPIs for analytics with drill down functionality
- Early detection of slow or non-moving stock

**Quality Management**
- Defect code proposal based on problem description
- Closed Loop Inspection Planning using Failure Mode and Effect Analysis
Release Highlights
Warehouse Management
SAP S/4HANA Cloud - Warehousing

Since 1708

Inventory Management

Third-Party Warehouse Management System

Since 1805

SAP S/4 HANA

SAP EWM 9.5

Since 1811

Warehouse Management

SAP S/4 HANA

SAP EWM 9.5
SAP S/4HANA Cloud - Warehouse Management
Scope in SAP S/4HANA Cloud 2002 Release

Inbound Processing
- From Supplier (with Quality Inspection)
- From Customer Returns (via other storage loc.)
- From other Storage Location
- From other DC / Plant
- From Production (with Quality Inspection)
- From Repetitive Manufacturing

Internal Processes
- Physical Inventory / Cycle Counting
  - Internal Repacking
  - Posting Changes
  - Internal Movements
  - Resource Management
  - Replenishment

Outbound Processing
- To Customer
- Return to Supplier
- Ad hoc Goods Issue
- To other Storage Location
- To other DC / Plant
- To Production (Staging)
- Kanban Supply

Batch Managed Products / Serial Numbers / Handling Units

Best Practice Processes 12
Warehouse Structure 6+4
Mass Data Migration 5
Self-Service Configuration UIs 19
Roles/ Catalogs/Tiles 2 / 12 / 39
APIs 5
Output Management 7
SAP S/4HANA Cloud - Warehouse Management
Innovation in 2019

Available 1902
- **Quality Inspection**: Inbound Processing with Quality Management
- **Cycle Counting**: New Physical Inventory method
- **General Storage**: New Storage Type Template
- **Migration of Fixed Bin Assignments**: New Migration Object

Available 1905
- **Resource Management**: APIs for Mobile Warehouse Tasks Execution
- **Kanban Supply to Production**
- **Process Warehouse Tasks - Picking**: Fiori App
- **Harmonized Control Cycle**
- **Enterprise Search**: Storage Bins and Warehouse Products

1811
Initial Cloud Release
SAP S/4HANA Cloud - Warehouse Management

Innovation in 2019

**Available 1908**

- Goods Receipt from Repetitive Manufacturing
- Warehouse Analytics
  - Warehouse Tasks and Outbound Delivery Orders
- Process Warehouse Tasks – Putaway
  - Fiori App

**Available 1911**

- Replenishment
  - Planned Replenishment of Fixed Bins
- Enhancements to Physical Inventory
  - Partial Save
- API – Read Outbound Delivery Order
- Access/Scanning Codes for Packing
- Support of further process Variants (e.g. configurable Material)
- API – Read Handling Units

**Enhancements to KANBAN Processing**

- Reversal and Quantity Differences
SAP S/4HANA Cloud - Warehouse Management

Innovation in 2020

Available 2022

- Bin Managed Production Stock & Synchronous Postings
- Attachment Services for WM Objects
- Automation of pick task creation
- API for Inventory Counting
- Serial Numbers
  - On Document Level
- Harmonization of Handling Units
  - Unified HU Numbering
  - Forward WM HU to Sales & Distribution
- Enhanced API for Deliveries (WM)
  - Update of Delivery
- Analytics for Inbound Deliveries
# SAP S/4HANA Cloud - Warehouse Management

## Best Practice Processes

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<th>Scope</th>
<th>Item Title</th>
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<td>SAP S/4HANA Cloud 1811</td>
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</table>
I want to have a lean integration between production and warehousing.

I want to increase my stock transparency in production.

I want to reduce manual steps in my production integration process.

SAP S/4HANA Cloud - Warehouse Management
Bin Managed Production Stock

IM Storage Location
Production Supply Area

WM Storage Location
Production Supply Area

BIN  BIN  BIN  BIN  BIN
SAP S/4HANA Cloud - Warehouse Management

Bin Managed Production Stock
SAP S/4HANA Cloud Warehouse Management
Bin Managed Production Stock – Process with IM-Managed PSA

Production

Create & Release Production Order → Trigger Staging of Material → Outbound Delivery

Stock Transfer to Production Storage Location (IM managed)

Warehouse

Outbound Delivery Order → Create & Confirm Warehouse Tasks → Post Goods Issue

Post Goods Receipt → WM Inbound Delivery → Post Goods Receipt → Create & Confirm Warehouse Tasks
SAP S/4HANA Cloud Warehouse Management
Bin Managed Production Stock – Process with WM-Managed PSA

Production

Create & Release Production Order → Trigger Staging of Material → Outbound Delivery → Goods Issue → Confirm Production Order

Warehouse

Posting Change Delivery → Create & Confirm Warehouse Tasks → Create Warehouse Tasks → Confirm Warehouse Tasks

Goods Receipt

step can be automated
I want to store serialized products in my warehouse

I want to know which customer received which serial numbers!

I want a lean solution for serial number handling in my warehouse
SAP S/4HANA Cloud - Warehouse Management
Serial Number Handling on Document Level - Process

Inbound Processing

Serial Numbers (Optional)

Inbound Delivery

Outbound Processing

Serial Numbers (Mandatory)

To Customer

Outbound Delivery

Serial Numbers (Optional)

To Production

To Production

Inbound Delivery
SAP S/4HANA Cloud - Warehouse Management
Serial Number Handling on Document Level - Configuration

- **SSCUI Determine Serial Number Profiles**: New node for warehouse serialization settings available
- **New** standard Serial Number Profile for Warehouse Management is shipped with best practices content
- **MMSL Serial Number Procedure** is relevant for warehouse management
Serial Number Handling in Warehouse Management

- Improve serial number capabilities for cloud warehouse management
- Visibility: See which customers received which serial numbers
- Integration: Handle serialized products in receiving and shipping processes
- Efficiency: Only enter serial numbers when they arrive at or leave the warehouse
SAP S/4HANA Cloud - Warehouse Management
Attachment Services – Motivation

Why can’t we just take a picture to prove that we loaded the cargo properly?

We need visual proof that delivery items were packed/staged/loaded correctly!

Inbound Delivery
Outbound Delivery
Documents
Pictures

Tap to take picture!
Attachment services in Warehouse Management

- Enable connection of all kinds of media to business documents as additional information
- Improve traceability as related documents from externals can be attached to cloud business objects in warehouse management
- Create, read, update or delete attachments using the SAP Fiori apps
  - Change Inbound Deliveries
  - Run Outbound Process
Reduce manual efforts by running warehouse task creation in the background

- Reduced manual effort by running warehouse task creation in the background
- Create pick warehouse tasks automatically in the background with defined time intervals
- Creation of single run or recurring background warehouse task creation jobs
SAP S/4HANA Cloud - Warehouse Management

Overview of APIs in the Warehouse Management area

SAP S/4HANA Cloud – Warehouse Management

- **Process Warehouse Tasks**
  - Read
  - Update

- **Warehouse Resource**
  - Create
  - Read
  - Update
  - Delete

- **Warehouse Outbound Delivery Order**
  - Read
  - Update

- **Handling Unit**
  - Read
  - Update

- **Physical Inventory Counting**
  - Read
  - Update

**Mobile Device / App**

- Confirm Task 1000002607
  - SOURCE BIN
  - EXPECTED SOURCE BIN
  - SCANNED SOURCE BIN
  - PRODUCT
  - EXPECTED PRODUCT
  - SCANNED PRODUCT
  - REQUESTED QUANTITY
  - ACTUAL QUANTITY

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Release Highlights

Inventory Management
Inventory Management: Cycle counting as part of the physical inventory process

- Improve operational efficiency by classifying materials for cycle counting as part of the physical inventory process
- Increase inventory accuracy; for instance, because fast movers can be counted more often
- Manage classifications for materials in stock based on the cycle-counting settings maintained in the self-service configuration UI “Cycle Counting”
Release Highlights
Quality Management
Quality Management: Resolve internal problems by using the 8D methodology

- Consistent and standardized handling of problems by using the 8D methodology and its predefined process steps
- Achieve transparency on all processes related to the issue
- Identify, correct, and eliminate recurring problems
- Create the problem-solving process with reference to a defect
Quality Management: Inspection results recording for serialized materials

- Record the results for characteristics flexibly and effectively in inspection lots for both serialized and non-serialized materials.
- Results recording for characteristics with single results in an inspection lot with a serialized material is done on the result details page.
Release Highlights
Production Planning and Execution
SAP Fiori app to reprocess failed material movements

- List of unsuccessful materials movements along with the related error messages
- Identify why the material movements failed
- Replace the storage location, batch, posting date
- Reprocess failed material movements
Enhancements for predictive material and resource planning (pMRP)

Manage component forecasts for suppliers

- The **Simulation Components** view lists all material components of a simulation
- Switch between the **Materials** and the **Supply** perspectives
- Review **Planned component consumption** based on simulated changes
- Export to **Excel** to share forecast with stakeholders
Enhancements for predictive material and resource planning (pMRP)
Aggregated capacity plan for work center groups

- Choose to **group** the capacity plan
- Review the **aggregated** remaining capacity
Enhancements for predictive material and resource planning (pMRP)
Transfer Component Forecast (PIRs) for subassembly planning

- Choose **PIR version** to decide if they are considered for operative MRP
Enhancements for Schedule Production

New Filters: Setup Group Key and Category
Enhancements for Schedule Production

Setup Group Information
# Enhancements for Schedule Production

## Insert Operation

### SAP Schedule Production Interface

![SAP Schedule Production Interface](image)

- **Planning Mode:** Sequence
- **Scheduling Control:** Forward

### enhancements

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<th>Product</th>
<th>Source of Supply</th>
<th>Quantity</th>
<th>Work Center</th>
<th>Operation</th>
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Enhancements for Schedule Production
Advanced Variant Configuration (AVC) integration
Enhancement for Manage Work Center Capacity

New Filter for Work Center Group + Reschedule Button

<table>
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<th>Work Center Group Details</th>
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Enhancement for Monitor Work Center Schedules
Non working time
Enhancement for Monitor Work Center Schedules
Process Industry – Operation Detail
Production Execution: Integration

- **SOAP API** *Manufacturing Order – Send* enhanced to handle characteristics, long texts, operation status, additional fields like `MaterialsCoProduct`, `DebitCreditCode`, `InventorySpecialStockType`

- **ODATA API** *Production Order (Version 2)*
  This API is the successor of the deprecated API *Production Order (Deprecated)*. Note: Some improvements in version 2 are incompatible changes compared to version 1.

- OData service based Read API for *Master Recipe*
- OData service based Read API for *Production Routing*
Release Highlights
Asset Management
SAP S/4HANA Cloud for Asset Management
Resource Scheduling for Maintenance Planners

- New SAP Best Practices scope item 43R
- Added value to Asset Management
- Maintenance Scheduling
- Simulations and Versioning
- Collaboration
Resource Scheduling for Maintenance Planners

- Overview of important KPIs like due maintenance orders, schedules and work center utilization in real time at a glance
- Monitor important KPIs for your work centers
- Navigation into transactional data
Manage Work Center Utilization

- Analyze and manage the utilization of your work centers
- Visualize utilization based on various attributes, such as work center, processing status, priority, or order type
- Navigate to orders, technical objects, and functional location data
- Dispatch order operations
Schedule Maintenance Order Operations

- Set up schedules for the maintenance order operations
- Monitor and review schedule execution
- Level work center utilization
- Use a graphical view to identify scheduling conflicts
Maintenance Scheduling Board

- Visualize on a timeline the maintenance orders, order operations, and suboperations in your work centers via Gantt chart
- View relationships between order operations and relationship violations
- Dispatch order operations and suboperations
- Navigate to orders, equipment, and functional location
Assign Maintenance Order Operations

- Manage the personal responsibility of maintenance order operation
- Assign maintenance order operations to a person responsible
- Change or delete assignments
SAP S/4HANA Cloud 2002
Localization

43 Countries **

Australia, Austria, Belgium, Brazil, Canada, China, Czechia, Denmark, Finland, France, Germany, Hong Kong, Hungary, India, Indonesia, Ireland, Italy, Japan, Luxembourg, Malaysia, Mexico (partial scope), Netherlands, New Zealand, Norway, Philippines, Poland, Portugal Romania, Russia, Saudi Arabia, Singapore, Slovakia, South Africa, Spain, South Korea, Sweden, Switzerland, Taiwan, Thailand, Turkey, United Arab Emirates, United Kingdom, United States

25 languages

Arabic, Chinese (simplified), Chinese (traditional), Czech, Danish, Dutch, English, Finnish, French, German, Hungarian, Italian, Japanese, Korean, Malay, Norwegian, Polish, Portuguese, Romanian, Russian, Spanish, Slovak, Swedish, Thai, Turkish

** Localized country versions might not include all available solution scope. Please select your country version in the SAP Best Practices Explorer to see the available solution scope for a specific country. For localization specific features please see the SAP Help Portal for SAP S/4HANA Cloud and navigate to Product Assistance and Country-Specific Functions.

More Information available on Country Versions: Release Information & Restriction Note: 2785449
Preparing for 2002: Next Steps

- **Sign up** to watch other 2002 early release webinars live or on demand
- Listen to our on demand webinar on how to **get prepared for your quarterly release upgrade**

- View latest **SAP S/4HANA Cloud Release Info**
- View **upgrade schedule for SAP S/4HANA Cloud**
- View **SAP service level agreement**
- Read about **upgrade specific frequently asked questions**
Where to go for more information?

**Learn**

- **SAP S/4HANA Cloud Release Info**
  Latest release highlights including videos and blogs

- **Learning Journeys**

- **Learning Room**

- **Stay Current Program**
  Learn more about [digital learning opportunities](#)

**Engage**

- **SAP S/4HANA Cloud Community**
  Ask questions, share experiences, and build your knowledge of our next generation business suite

- **SAP Help Portal**

- **Join the SAP S/4HANA Movement**

- **New Podcast**
  “Inside SAP S/4HANA”

**Implement**

- **Best Practices Explorer**
  Benefit from predefined business processes & search, browse and consume SAP Best Practices

- **SAP Transformation Navigator**

- **Roadmap Viewer**

- **SAP S/4HANA Cloud Trial**
Thank you.

Contact information:

**Gerhard Welker**
SAP S/4HANA Product Management – Manufacturing & Supply Chain & Asset Management

[@GerhardWelker](https://twitter.com/GerhardWelker)
[LinkedIn](https://www.linkedin.com/in/gerhard-welker/)

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