Release Notes for SAP ME 6.1

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Technical Data

Product Version	SAP ME 6.1
Area	SAP Manufacturing Execution
Country Relevance	Valid for all countries

SAP Manufacturing Execution (SAP ME) 6.1 contains new functions and enhancements. These updates are summarized in the following notes.

For more information, see the relevant sections of the SAP ME 6.1 application help that is available on SAP Help Portal at http://help.sap.com → *SAP Business Suite → SAP Manufacturing → SAP Manufacturing Execution → SAP Manufacturing Execution 6.1*.

SAP ME ERP Integration (SAPMEINT) (Enhanced)

SAP ME and SAP MII NetWeaver Co-Location (New)

SAP ME system requirements now allow you to install SAP NetWeaver, SAP MII, and SAP ME on the same server to be used in a live production environment. This configuration can lower hardware and maintenance costs. For more information about co-location, see the *SAP ME 6.1 System Landscape Recommendations Guide*, attached to SAP Note 1409811.

Profiling (New)

Profiling is a diagnostic tool within *Queue Monitor* that allows you to diagnose performance issues related to integration. For more information, see *SAP ME ERP Integration (SAPMEINT) → Monitoring → Queue Monitor → Profiling* in SAP ME 6.1 application help.

SAPMEINT Configuration Diagnostic Tool (New)

You can use the *SAPMEINT Configuration Diagnostic Tool* to troubleshoot configuration issues related to system setup required for integration between SAP ME and SAP ERP. For more information, see *SAP ME ERP Integration (SAPMEINT) → Monitoring → SAPMEINT Configuration Diagnostic Tool* in SAP ME 6.1 application help.

Transfer of Routing with Operation Document Info Records (New)

You can transfer document info records attached to routing operations in SAP ERP to SAP ME as master work instruction records without defined attachment points. For more information, see *SAP ME ERP Integration (SAPMEINT) → Integration of Master Data → Transfer of Routing → Transfer of Routing from SAP ERP to SAP ME → Transfer of Routing with Document Info Records* in SAP ME 6.1 application help.

Transfer of Routing from SAP ME to SAP ERP (New)

You can create a master routing in SAP ME and transfer it to SAP ERP. While creating the routing master in SAP ME, you define the control key, the SAP ERP work center, and the reporting step for SAP ERP-related operations. Only operations identified as SAP ERP-related operations are sent to SAP ERP. For more information, see *SAP ME ERP Integration (SAPMEINT) → Integration of Master Data → Transfer of Routing → Transfer of Routing from SAP ME to SAP ERP* in SAP ME 6.1 application help.

Transfer of Production Order with Document Info Records (New)

You can transfer the document info records attached to a production order in SAP ERP to SAP ME as work instructions. These document info records defined to a routing operation or shop order are then attached to an SAP ME work instruction against the routing operation or shop order. Any work instruction attached to a specific shop order will be archived in SAP ME when the shop order is archived.

For more information, see *SAP ME ERP Integration (SAPMEINT) → Integration of Transaction Data → Integration of Production Orders → Transfer of Production*

Order → Transfer of Production Order with Document Info Records in SAP ME 6.1 application help.

Transfer of Production Order with BOM and Routing (New)

You can transfer a production order with a BOM from SAP ERP to create or update the corresponding BOM record assigned to the *Production* shop order in SAP ME. The initial BOM created in SAP ME is of *Master* BOM type. Upon creation of the next order, the system compares the BOM assigned to the *Production* shop order with the Master BOM in SAP ME. If BOMs match, the shop order uses the existing *Master* BOM. If the BOMs do not match, a new version of the *Master* BOM is created and assigned to the *Production* shop order.

The only time now a shop order-specific BOM of the *Shop Order* type is created, is when the production order is assigned to a sales order, indicating that this production order is used for make-to-order manufacturing.

Additionally, the BOM can now contain information about co-product, by-product, phantom, and alternate components.

For more information, see *SAP ME ERP Integration (SAPMEINT) → Integration of Transaction Data → Integration of Production Orders → Transfer of Production Order Transfer of Production Order with BOM and Routing* in SAP ME 6.1 application help.

Transfer of Planned Order with BOM and Routing (New)

You can transfer a planned order with a BOM and routing from SAP ERP to create the corresponding BOM with defined assembly operations assigned to the Repetitive shop order in SAP ME.
Additionally, the BOM can now contain information about co-product, by-product, phantom, and alternate components.

Integration of Quality Inspection Lot (New)

You can transfer quality inspection characteristics defined for a production order to a SAP ME as a *Production* shop order that includes the quality inspection lot, the inspection characteristics defined as parameters within a Data Collection group attached to the specific shop order and routing step and the sample size required at each routing step.

The new *Quality Inspection Lot* function performs the random selection of SFC numbers from a shop order then assigned to a SFC group for data collection. The inspection characteristic collection is performed on the sample SFC numbers while the remaining shop order SFC numbers are waiting for the evaluation results at the inspection operation. The recorded values are sent to SAP QM where evaluation is performed. The overall *SFC Group Status* (*Accept* or *Reject*) is evaluated in SAP ME and determines the further processing of the shop order. The *Quality Inspection Lot* function is triggered when the user has chosen a POD button that includes the *Complete* activity and the new *Sample Inspection Lot* activity.

For more information, see *SAP ME ERP Integration (SAPMEINT) → Integration of Transaction Data → Integration of Quality Inspection Lot* in SAP ME 6.1 application help.

Transfer of Direct Labor Records (New)

You can transfer the direct labor records from SAP ME to SAP ERP. This allows you to export the rolled-up and approved work time for operations to SAP ERP as activity confirmation for a production order. For more information, see *SAP ME ERP Integration (SAPMEINT) → Integration of Transaction Data → Integration of Labor Records* in SAP ME 6.1 application help.

SAPMEINT Change Management (New)

The new *ERP Field Maintenance* activity defines how an object that has been updated in SAP ERP, is handled in SAP ME. The activity, via the *Update Indicator*, controls how object fields where SAP ERP is the master are handled during an update of an SAP ME record. This change ensures that SAP ME-specific fields will be no longer set back to their default values.

You can choose one of the following *Update Indicator* options:

- *Restricted*

- *Upversion*

- *Update*

When a new routing version is created in SAP ME, a merge of the existing routing to the new routing version occurs. SAP ME copies any existing routing step to the new routing along with the routing step attributes and then adds or deletes routing steps in the new version. In addition, SAP ME links new routing steps during this update.

For more information, see *SAP ME ERP Integration (SAPMEINT) → SAPMEINT Change Management* in SAP ME 6.1 application help.

Control Key Maintenance (New)

You use this activity to create a control key that defines ERP reporting steps for a routing created in SAP ME.

SAPMEINT Enhancements

A separate SAP MII scheduler for queued inbound SAPMEINT messages was added. By default the name of this dispatcher is `InboundMessageEnqueuer.`

In addition, a single processing rule, `<Name of the IDoc Listener>_ALL_MESSAGES`, is now used. These enhancements make use of the SAP MII category queue instead of the SAP MII JMS queue in order to improve stability and performance. SAPMEINTCTC creates and configures SAP MII schedulers and the processing rule. For more information, see *SAP ME ERP Integration (SAPMEINT) → SAPMEINT Configuration → Configuration of SAPMEINT Standard Interfaces* in SAP ME 6.1 application help.

Inventory ID Format (Changed)

The format of inventory ID will now use the *Floor Stock Receipt Number* type for a defined material in *Next Number Maintenance*. The fields that previously composed the inventory ID are now data fields that will be members of a default assembly data type `ERP_INV_RCPT_DATA`. The key fields are required for SAPMEINT are: `MAT_DOC_YEAR`, `MAT_DOC_NUM`, and `LINE_NUM`.

Enhanced Activities

The following activities were enhanced to include new SAPMEINT-related fields:

Activity Name	New Field or Rule
Material Maintenance	• *Backflush in ERP* checkbox on the *Build* tab page • *ERP Putaway Storage Location* field on the *Build* tab page • *Routing Sent to ERP* checkbox on the *Main* tab page
NC Code Maintenance	*ERP Code* checkbox on the *Main* tab page enabling the following SAPMEINT-related fields: • *ERP QN Code* • *ERP Catalog* • *ERP Code Group*
Work Instruction Maintenance	• *ERP WI* checkbox on the *Main* tab page • *ERP File Name* on the *Instruction* tab page
Routing Maintenance	• *Effective Start Date* on the *Main* tab page • *Effective End Date* on the *Main* tab page • *ERP Control Key* on the *Routing Step Properties* screen • *ERP Work Center* on the *Routing Step Properties* screen • `ERP_REP_STEP_STARTSEQ_INCR` activity rule
Operation Maintenance	• *ERP Control Key* on the *Main* tab page • *ERP Work Center* on the *Main* tab page
System Rule Maintenance	*Enable Replication of ME Routing to ERP* system rule under *ERP Integration Rules*
Shop Order Maintenance	*ERP Putaway Storage Location* checkbox on the *Build Status* tab page

Activity Name	New Field or Rule
User Maintenance	• *ERP User* on the *Main* tab page • *ERP Personnel Number* on the *Main* tab page
Work Center Maintenance	• *Is ERP Work Center* checkbox on the *Main* tab page • *ERP Work Center* on the *Main* tab page
Data Field Definition Maintenance	Default data fields for ERP inventory: • MAT_DOC_YEAR • MAT_DOC_NUM • LINE_NUM
Data Field Assignment Maintenance	ERP_INV_RCPT_DATA *Assembly* data type with the following data fields: • CENTRAL_STORAGE_LOCATION • BATCH_NUMBER • VENDOR_LOT • VENDOR_DATE_CODE • VENDOR • MAT_DOC_YEAR • MAT_DOC_NUM • LINE_NUM
Collaboration Directive Maintenance	ERP_DIRECT_LABOR_CONFIRMATION directive

Custom Data Fields (Changed)

The following table lists SAPMEINT-related custom data fields that are now standard SAPMEINT-related fields:

Custom Data Field Category	Old Custom Data Field	New Field/Tab Page
Material	STORAGE_LOCATION	*ERP Production Storage Location* on the *Build* tab page of *Material Maintenance*
Routing Step	• SEQUENCE • IS_LAST_REPORTING_STEP	The following new fields appear on the *Routing Step Properties* screen of *Routing Maintenance*: • *ERP Sequence* • *Is Last Reporting Step*
Resource	MEASUREMENT_POINT	The new *Measurement Points* tab page in *Resource Maintenance*
Tool number	MEASUREMENT_POINT	The new *Measurement Points* tab page in *Tool Number Maintenance*
User	ERP_USER	*ERP User* in SAP NetWeaver UME
NC Code	• ERP_CATALOGUE_TYPE • ERP_CODE_GROUP • ERP_QN_CODE	The following new fields appear on the *Main* tab page of *NC Code Maintenance*: • *ERP QN Code* • *ERP Catalog* • *ERP Code Group*

Production Operator Dashboard (Enhanced)

Support of Touch Screen Devices (New)

The Production Operator Dashboard (POD) functionality was enhanced to support touch screen devices. The *Operation* and *Work Center* POD types can now be displayed on a touch screen monitor or a large or medium tablet.

POD Plug-Ins

The following POD plug-ins were modified to be displayed on a touch screen device:

- *NC Selection*

- *Log NC*

- *Tool List*

- *Log Tool Entry*

- *Data Collection List*

- Data Collection Entry

- *Create Message*

- *Component List*

- *Assembly Point* (*Assemble Components*)

- *Change Equipment Status*

- *Work Instruction List*

- *Work Instruction Viewer*

- *Work List*

- *Operation List*

Work Instruction Viewer Plug-In (Enhanced)

The *Work Instruction Viewer* (WI500) plug-in can now display 2D and 3D models using SAP Visual Enterprise Viewer 7.0. This allows shop floor operators to view a 2D or 3D model in context of what they are doing in the POD. As with other work instructions, the model can be displayed either in the *Work Instruction Viewer* plug-in or in a separate pop-up window.

POD Navigation (Enhanced)

- The *Clear* button was replaced with the *Home* button in the *Work Center* POD Selection area. This button allows the user to return the POD to its default state.

- The POD Work List now uses a paginator for the touch navigation

- The *POD Selection Operation 1 Row* plug-in (PS_OPERATION_1ROW) was added to support touch screen PODs.

- The new activity rule `DISPLAY_LABELS` was added for the *POD Selection Operation 1 Row* and *POD Selection Operation 2 Rows* plug-ins.

- The *POD Selection Work Center* (`PS_WORK_CENTER_TOUCH`) plug-in was added.

- The *Message Board Selection Panel* (`MESSAGE_BOARD_PANEL`) plug-in was added.

POD Maintenance (Enhanced)

- The following fields were added to the *Main* tab page:

    o *Display Device*

    o *Display Size*

- The *Sound with Error Messages* checkbox replaced the *Error Dialog* field.

- A new value for the POD button location *Page Bottom* was added.

- The *Top* button location was renamed to *Above the POD Selection*.

- The *Bottom* button location was renamed to *Below the POD Selection*. You can now define a button to display only an icon (no label).

- The following POD layout types were added to the *POD Layout* tab page:

    o *1 Panel Horizontal (with popover)*

    o *2 Panel Horizontal (with popover)*

- *POD Selection* has been added as a *Panel* to the *Layout* tab page. This panel allows to configure the *POD Selection* area for each POD.

- The *Options* tab page was renamed to *List Options* tab page.

- The new *POD Selection* tab page was added for the *Operation* POD type. All POD Selection related fields were moved from the *Options* tab page to the *POD Selection* tab page.

- The *Session Info Line 1* and *Session Info Line 2* fields were renamed to *Info Line 1* and *Info Line 2* accordingly.

    Additional fields were added to the *Info Line* list of fields that may be displayed.

List Maintenance (Enhanced)

New default touch lists were added for the following categories:

- *Main Input*

- *Browse Work List*

- *POD Work List*

- *Assembly List*

- *DC Collect List*

- *Tool List*

- *Work Instruction List*

- *DC Entry List*

POD Selection (Enhanced)

- A new activity type *POD Selection* was added. This activity type allows you to define a *POD Selection* plug-in.

- The *POD Selection Operation* (`PS_OPERATION`) plug-in was renamed to *POD Selection Operation 2 rows* (`PS_OPERATION_2ROW`).

Order Management (Enhanced)

Shop Order Schedule (New)

You can upload a schedule for a shop order which specifies operation's start time and resource via a Java API or a public API web service. You can also schedule part of the shop order quantity to be processed at a different resource.

Shop Order Schedule Report (New)

You use this report to obtain scheduling information about a shop order quantities processed at various times for optimal performance.

POD Work List (Enhanced)

The *POD Work List* can be configured to display the following additional fields for the SFCs of a shop order at an operation:

- *Schedule Start Date*

- *Schedule End Date*

- *Resource Schedule*

This schedule is just a proposal and the shop floor operator can choose any SFC number shown in the *POD Work List.*

List Maintenance (Enhanced)

The following lists of the WORKLIST category were added:

- SFD_SFC_TASK

- SFD_SFC_ACTIVE

SAP ME Integration with External Systems (Enhanced)

New Activities

The following activities support SAP ME integration with external systems based on the new unified business process extensibility model:

HTTP Transporter

The `HTTP_TRANSPORTER` activity allows you to send messages from SAP ME to an external system over an HTTP or HTTPS communication channel.

For more information, see *HTTP Transporter* in *System Configuration* of SAP ME 6.1 application help.

Web Service Transporter

The `WEBSVC_TRANSPORTER` activity allows you to communicate with external systems by invoking a web service.

For more information, see *Web Service Transporter* in *System Configuration* of SAP ME 6.1 application help.

SAPMEINT Database Transporter

The `MII_MESSAGE_DB_TRANS` activity allows you to send messages from SAP ME to SAPMEINT.

For more information, see *SAPMEINT Database Transporter* in *System Configuration* of SAP ME 6.1 application help.

Transfer of Master and System Configuration Data (Enhanced)

System Rule Maintenance (Enhanced)

Two new system rules were added under the *System Setup* category to support the ability to export data to an enhanced change and transport system (CTS+):

- *Enable CTS+ Export*

- *Enable CTS+ Import*

Configuration Data Transfer Export (Enhanced)

A new export type of CTS+ allows the system to automatically update your destination sites with the master and configuration data.

Master Data Configuration (Enhanced)

Routing Maintenance (Enhanced)

You can assign one or more materials to a routing for use with *Production* shop orders on the new *Material Assignment to Routing* screen of *Routing Maintenance*.

Data Field Definition Maintenance and Data Field Assignment Maintenance (Changed)

The data type pre-save logic was modified to allow pre-save activities to modify the collected data.

ADS Printing (Enhanced)

ADS printing now supports SAP ME public API services for the execution of data acquisition, formatting, and transport. As a result SAP ME *Data Binding* value names and XML structure are not compatible with Adobe LiveCycle templates created for prior SAP ME releases, although these templates are still supported using legacy integration plug-ins.

For more information, see *Printing of Production-Related Documents* in *System Configuration* of SAP ME 6.1 application help.

System Extensibility (Enhanced)

SAP NWDI/NWDS Support (New)

Customers and partners can use the SAP NetWeaver Development Infrastructure (SAP NWDI) and SAP NetWeaver Developer Studio (SAP NWDS) environment to develop extensions for SAP ME.

This enhancement provides the following benefits:

- A single SAP standard development platform is used for all custom development projects.

- In previous releases extensions were packaged within the SAP ME component, making it impossible to control the lifecycle of extensions separately from SAP ME core. Now extensions are packaged in their own component, allowing standard lifecycle operations such as deploy and undeploy, and application start and stop.

- The deployment time of extensions is greatly reduced compared to SAP ME 5.2 and 6.0.

Unified Business Process Extensibility Model (New)

In previous releases you could extend SAP ME business processes through the following extension mechanisms:

- Activity hooks

- Collaboration plug-ins

- Service plug-ins

While these mechanisms are still available in SAP ME 6.1, they are unified into one mechanism called the *Service Extension*. Service extensions are based on the service plug-in concept and allow developers to customize SAP ME by attaching custom code to any one of the hundreds of SAP ME business service Application Programming Interfaces (APIs). APIs collectively form core manufacturing business processes such as routing, assembly, inventory, and nonconformance.

Service extensions also incorporate the following features found in activity hooks and collaboration plug-ins:

- Activity-based definition

  Each service extension is defined in SAP ME as an activity, providing activity configuration options such as *Enable/Disable* and activity rules

- *Synchronous* or *Asynchronous* execution modes

  Service extensions can be configured to execute within the scope of the parent transaction (synchronous execution mode) or after the parent transaction has been completed (asynchronous execution mode).

- Extension-specific parameters

Similar to activity hook point user arguments, each type of service extension may define its own set of parameters.

- Execution filters

  Service extensions can be executed every time the associated business service method is executed or conditionally based on filter criteria. Filters are similar to activity hook contexts, such as site, operation, or routing step, but are more powerful since it is possible to filter execution based on more than one context for a given service extension.

You can configure and view service extensions using the new *Service Extension Maintenance* activity.

For more information, see *Service Extension Maintenance* in *System Configuration* of the SAP ME 6.1 application help.

Public Business Service APIs (Enhanced)

New public APIs were added to provide more out-of-the-box functions that can be reused to build new manufacturing applications.

For more information about public APIs available in SAP ME 6.1, see *SAP ME Javadoc* at http://service.sap.com/instguides → *SAP Business Suite Applications* → *SAP Manufacturing* → *SAP Manufacturing Execution 6.1* .

Initial Data Load (Enhanced)

The XML initial data load file format has been changed so that all default master data can be created by public configuration service APIs. This enhancement provides the following benefits:

- Software developers can define more than one type of data within a single data load file, allowing them to organize logical groupings of data according to its overall purpose or function.

- References between objects are automatically verified, avoiding invalid references between related objects.

Developers can use the *View Input/Output* function in *Service Extension Maintenance* to help create data load XML definitions.

System Configuration (Enhanced)

HTML Viewer (New)

You use this POD plug-in to view images or HTML pages generated by a servlet. The plug-in is primarily used to view reports and dashboards generated by an SAP MII servlet.

For more information, see *HTML Viewer* in *System Configuration* of SAP ME 6.1 application help.

Post Split/Serialize - Copy SFC Data (New)

You use the `SFC999` hook point activity to copy or move the SFC data from the original SFC number to the new SFC numbers that result from a serialization, split, or relabel.

For more information, see *Post Split/Serialize - Copy SFC Data* in *System Configuration* of the SAP ME 6.1 application help.

Copy SFC Data (New)

This system rule allows you to copy or move the SFC data from the original SFC number to the new SFC numbers that result from a serialization, split, or relabel.

For more information, see *Serialization Rules* in *System Configuration* of SAP ME 6.1 application help.

Activity Maintenance (Enhanced)

The *External URL* activity type was added to the *Type* dropdown list on the *Main* tab page. You can assign an activity of this type to a button in *POD Maintenance* to open an external URL in a new browser window when a user chooses the button in the POD. Some customers have web sites that they want to allow employees to have access to while running the POD. These web pages might not be running on the same servers that the POD is running on. For example, a customer may have a web site that contains company policies and procedures that the employee needs to view while running the POD.

Visual Test and Repair (VTR) Feature (Changed)

As of SAP ME 6.1, the Product Visualization viewer is no longer used and is replaced by SAP Visual Enterprise Viewer (VE Viewer). The VE viewer is a successor version of the Product Visualization viewer. The VE Viewer is available at no cost from SAP Service Marketplace.
To view ECAD models, a licensed ECAD Add-in module is required (see SAP Note 1701381).

Platform Availability

For a list of all supported combinations of databases and operating systems for SAP ME 6.1, see the SAP Service Marketplace at http://service.sap.com/pam.