

Angles for SAP Release Notes

Version: 2020SP7

Contents

End user – Highlights.....	4
P2P: Better Understand Price and Quantity changes in Purchase Orders	4
F2R/PM: Getting insight in cost for internal order hierarchies	4
O2C: Better understand changes made to Shipments	5
O2C: Better understand changes made to Batches.....	5
QM: Better understand changes made to Quality Inspection Lots	6
Support automatic distribution to network storage	6
End user - Fixes and improvements.....	6
P2P: New reference added from Material on Plant to Standard MRP Vendor from Source list.....	6
Address info: Getting insight in all e-mail addresses.....	7
PM: Getting full traceability on your equipment using serial numbers	7
F2R: New references added from object Invoice Receipt Header/Item to Accounting Document Header	7
Fixed issues	7
O2C / P2P - Load ALL Schedule lines of SD/PD items that are partially loaded	7
S2D - Production order should not be consuming when scrap + yield > item quantity.....	7
F2R - Table positioning BSET record to Accounting Document Tax Items incorrect.....	8
Missing help texts for fields Rounded Goods Issue Date and Requested Order Due Date....	8
Reference from Invoice Receipt Changes to the Invoice Receipt Header / Receipt not always correct.....	8
Simplified Ask at Execution for Dashboards	8
S/4 HANA - Material Number length when using change documents with Material as object	8
Warning in error log 'Main Table not available in Object Class Batch'	8
ONC - Third Party Orders must be excluded from stock projection calculations.....	8
Users getting logged out before token expired.....	9
S2D: Projected Stock intercompany inflow incorrect.....	9
Incorrect language when exporting to Excel	9
Direct link to Angle/Display not working with SSO and no active session	9
Incorrect model time stamp in Web Client	9

- S2D - Object type Operation is not unique (operations with same ID) 9
- System Insights / EA4IT - Error on EA4IT Template Angle 10
- IT user – Highlights 10
 - Updated Clover DX ETL engine to the latest version 10
 - Updated Clover DX ETL engine to the latest version 10
 - Updated SOLR to latest version 10
- IT user - Usability improvements 10
 - Modeling Workbench: Copy help texts for easy maintenance 10
 - IT Management Console Angle Warnings: Upload / Download Forwarding Rules 10
- IT user - Fixes and improvements 10
 - Angle warnings could not be fixed 11
 - Generic help text prefixes in Modeling Workbench 11
 - Synchronization of authentication providers on upgrade 11
 - Updated prerequisites section in Installation Manuals 11
 - Improved delegation for managing users 11
 - SAP permission RFC_METADATA_GET required after update 11
 - Dynamic filters (Configuration Extensions) show <> \$Invalid\$ 11

End user – Highlights

P2P: Better Understand Price and Quantity changes in Purchase Orders

Which critical changes impact the successful delivery of my purchase orders? Have there been any price changes? Or maybe the quantity has been changed? These, and many more questions arise daily when managing your daily operations. To make this information easy to access, we have introduced new fields in the object Purchase Document (PD) Changes. These new fields will give you a direct insight into the most critical changes made to your orders. The fields can be added to your Angles and Dashboard and can be of great value when you create exception reporting on these fields. The following fields have been introduced:

- Type of Change: This field shows the different types of critical changes that occur on purchase documents. When selecting based on the type of change, it is possible to drill down to the details of the specific change. The following critical purchase order changes have been identified:
 - Planning changes to quantity
 - Price Changes
- Quantity Change: This field indicates whether the Purchase Order quantities have increased (Up) or decreased (Down). These changes can have consequences for the planning and/or stock levels.
- Price Change: This field indicates whether the price in Purchase Orders has increased (Up) or decreased (Down).

These types of changes will have consequences for the resulting margin.

F2R/PM: Getting insight in cost for internal order hierarchies

To improve detailed management reporting, the SAP internal order hierarchies have been added to the Angles for SAP model. In SAP, internal orders can be created and assigned to internal order groups to capture the costs for their respective activities. You can set up a structure using as many levels as you wish. The internal order group with the highest level represents the project. The lowest level of the hierarchy is always where the internal orders themselves reside. Additionally, an internal order may be assigned to multiple SAP internal order groups at the same time, optimizing reporting dynamics.

To start using the internal order hierarchies for internal orders, activate the following item in the Modules overview in the Modeling Workbench: **FiCo Basic configuration and masterdata > Controlling hierarchies > Controlling Hierarchies for Internal Order**

This can be done by your consultant at upgrade, by Angles for SAP functional support, or by your own Angles for SAP administrator. After this module is activated, the Cost Element Structure fields will be available for use in the objects *Hierarchy Group Node*, *Controlling Cost Totals*, *Actual Costs Document Item* and *Work Order*.

O2C: Better understand changes made to Shipments

Which changes have been made to the planned shipment start dates? Are there any changes to the planned end time of shipment activities? Is the shipment expedited or delayed? These and many more questions arise daily when managing your daily operations. All the information needed to answer these delivery questions is stored in the change documents in SAP. To make this information easy to access and use, a new change data object including the related references has been added to our Angles for SAP model: *Shipment Document Changes* [Objectclass: TRANSPORT].

This object contains the most common tables and fields for this area. Since the amount of changed data can be substantial, you can customize the data you need for your business processes. The different change objects can be activated or deactivated, including their underlying tables and fields. This way, you can limit the amount of data to be loaded, while answering all your SAP change related data questions. This can be customized by your consultant at upgrade, by Angles for SAP functional support, or by your own Angles for SAP administrator.

Here is a summary of the tables included in this delivery document change object:

TRANSPORT	Tables	Description
Shipment Changes	VTTK	Shipment Document Header

O2C: Better understand changes made to Batches

Have batch expiration dates been changed? Which batches have moved to restricted stock and vice versa? Who has marked batches for deletion? These and many more questions arise on a daily basis when managing your daily operations. All the information needed to answer these delivery questions is stored in the change documents in SAP. To make this information easy to access and use, a new change data object including the related references has been added to our Angles for SAP model: *Batch Document Changes* [Objectclass: CHARGE]

This object contains the most common tables and fields for this area. Since the amount of changed data can be substantial, you can customize the data you need for your business processes. The different change objects can be activated or deactivated, including their underlying tables and fields. This way, you can limit the amount of data to be loaded, while answering all your SAP change related data questions. This can be customized by your consultant at upgrade, by Angles for SAP functional support, or by your own Angles for SAP administrator.

Here is a summary of the tables included in this delivery document change object:

CHARGE	Tables	Description
Batch Changes	MCHA	Batches
	MCHX	Valuation Types for Cross-Plant Batches

QM: Better understand changes made to Quality Inspection Lots

Has the inspection start date on the inspection lot been changed? How many times has the end date on the quality inspection lot been changed? Who has made changes to quality inspection lots? These and many more questions arise on a daily basis when managing your daily operations. All the information needed to answer these delivery questions is stored in the change documents in SAP. To make this information easy to access and use, a new change data object including the related references has been added to the Angles for SAP model: *Inspection Lot Changes* [Objectclass: QPRUEFLOS].

This object contains the most common tables and fields for this area. Since the amount of changed data can be substantial, you can customize the data you need for your business processes. The different change objects can be activated or deactivated, including their underlying tables and fields. This way, you can limit the amount of data to be loaded, while answering all your SAP change related data questions. This can be customized by your consultant at upgrade, by Angles for SAP functional support, or by your own Angles for SAP administrator.

Here is a summary of the tables included in this delivery document change object:

QPRUEFLOS	Tables	Description
Inspection Lot Changes	QALS	Inspection lot record Table

Support automatic distribution to network storage

With Angle Automation, you can schedule reports and automatically write them to the server or share them by e-mail. You can now also send your reports straight to a Windows network drive, a SharePoint site, or an Amazon S3 bucket. Subfolders are supported, to facilitate organizing your documents.

End user - Fixes and improvements

P2P: New reference added from Material on Plant to Standard MRP Vendor from Source list

There is now a reference available from the object *Material on Plant* to the *Standard MRP Vendor from Source List* in the Angles for SAP model. The standard MRP vendor is based upon the *SAP Purchasing Source List* table [EORD], where the first Source List *Usage in Materials Planning indicator* [AUTET] is equal to 1.

Starting from the object *Material on Plant*, you can now expose any related MRP vendor information. You can also answer questions like 'for which materials is the standard vendor from the source list not equal to the standard MRP vendor?'.
[Address info: Getting insight in all e-mail addresses](#)

[Address info: Getting insight in all e-mail addresses](#)

E-mail addresses are an important part of your address information. In the object Address, you can find the default e-mail address for SAP address numbers. The additional object *E-mail Addresses* has been added to give insight into all e-mail addresses that have been created per SAP address number [ADR6].

[PM: Getting full traceability on your equipment using serial numbers](#)

A new reference from the object *Serial Number* to the object *Equipment* has been added to the Angles for SAP model. With this reference, you can expose all equipment related to a serial number, creating full traceability based upon serial numbers.

[F2R: New references added from object Invoice Receipt Header/Item to Accounting Document Header](#)

References to Accounting Document Header have been added to the objects *Invoice Receipt Header* and *Invoice Receipt Item*. With these references, you can see to which accounting document an invoice receipt has been booked. To use this functionality, add the new reference to (the first) Accounting Document Header in the objects *Invoice Receipt Header* and *Invoice Receipt Item*.

Fixed issues

[O2C / P2P - Load ALL Schedule lines of SD/PD items that are partially loaded](#)

In Angles for SAP, the loading of individual schedule lines is limited by the execution status and the history lower bound (set in the IT Management Console under **Models > Enterprise Configuration**). This logic could result in an incomplete load, which affects the results of many derived fields in Angles for SAP, like for example Execution Status, Sales Value, Quantity Closed, Quantity Closed %, etc.

This problem has been fixed. New logic has been implemented, loading all schedule lines or none for an SD/PD item, so all aggregations on SD/PD item level are now based on all related schedule lines.

[S2D - Production order should not be consuming when scrap + yield > item quantity](#)

In previous versions, work orders that had scrap and/or yield quantities that, combined, exceeded the quantity of the work order itself, were still deemed open and MRP relevant. Now, when the combined quantities for scrap and yield exceed the work order quantity (negative), the work

order is closed (no longer MRP relevant). Consequently, the work order will no longer be consuming in the order network calculation.

F2R - Table positioning BSET record to Accounting Document Tax Items incorrect

Due to an incorrect table positioning of the SAP table [BSET], incorrect Tax Data Document Segment data was shown in the object Accounting Document Tax Item. This has now been resolved.

Missing help texts for fields Rounded Goods Issue Date and Requested Order Due Date

In release R2020SP6, functionality has been added in the object *Sales Document Schedule Line* for *Rounded Quantity* (field VBEP-CMENG). Two new fields were introduced without helptext: *Rounded Goods Issue Date* and *Requested Order Due Date*. A helptext has now been added.

Reference from Invoice Receipt Changes to the Invoice Receipt Header / Receipt not always correct

The reference from the Invoice Receipt Changes (change documents) to the Invoice Receipt Header and Invoice Receipt Item was not always filled correctly. This has been resolved.

Simplified Ask at Execution for Dashboards

When **Ask at Execution** was combined with Dashboard filtering, it could lead to unexpected results. This has been improved and documented.

S/4 HANA - Material Number length when using change documents with Material as object

In S/4 HANA, the material number (MATNR) changed from 18 to 40 positions. This could result in missing records when using Change Documents with a reference to Material. This has been resolved.

Warning in error log 'Main Table not available in Object Class Batch'

In the general log, the following warning was shown: 'Main Table not available in Object Class Batch'. This was caused by including the required field WERKS incorrectly: it does not exist in table MCH1. This has now been resolved.

ONC - Third Party Orders must be excluded from stock projection calculations

Angles for SAP calculates many derived fields on material on plant level to show the stock projection, based on current stock, planned goods receipts, and planned goods issues. Examples of these calculated fields are Open Goods Receipt Quantity/Value Fixed/Planned/Total and Open Goods Issue Quantity/Value Fixed/Planned/Total.

All MRP-relevant documents were included in the calculations. Third-party orders (also called 'drop shipments') are MRP-relevant in Angles for SAP as well. Third-party sales order are related to the third party purchase requisition/purchase document, to calculate Angles for SAP delivery reliability and bottleneck related fields.

However, the third-party orders don't have impact on the inventory levels in the plant/storage locations. This resulted in incorrect calculations in stock projection. This has been corrected by excluding all third-party sales and purchase documents from all stock projection field calculations. As a consequence, third-party orders have also been removed from the Jump to the *stock requirements lists*.

Users getting logged out before token expired

In some scenarios, users experienced frequent 'session expired' messages despite having logged in quite recently. This has been fixed.

S2D: Projected Stock intercompany inflow incorrect

In the case of intercompany inflow on stock, the projected stock calculation was incorrect. This has been corrected.

Incorrect language when exporting to Excel

Under specific circumstances, Export to Excel would show the number of days as 'Tage' instead of 'Days'. This has been resolved.

Direct link to Angle/Display not working with SSO and no active session

When using Single Sign On, it was not possible to use a URL to directly run an Angle or Display. After logging in, you would be redirected to the Welcome Page instead of to the item in the URL. You can now execute items using a URL when you use Single Sign On.

Incorrect model time stamp in Web Client

In scenarios where different time zones are involved between server and user, an incorrect model timestamp could be displayed. The model timestamp is now adjusted to match the user's time zone.

S2D - Object type Operation is not unique (operations with same ID)

The object type operation was not always unique. This could result in inconsistencies between Angles for SAP and SAP. Angles for SAP would, for example, show two operation lines for two work centers, while SAP would only show one. This issue has been resolved.

System Insights / EA4IT - Error on EA4IT Template Angle

For customers running on a SQL Server with a version older than 2016, System Insights Templates could return an error when executed. This has now been resolved.

IT user – Highlights

Updated Clover DX ETL engine to the latest version

The ETL engine has been updated to the latest version. This includes official support for Log4J 2.17 and Adoptium OpenJDK 11.

After this upgrade, the CloverDX Database and Licence must be upgraded. See upgrade notes for details.

Updated Clover DX ETL engine to the latest version

The ETL engine has been updated to the latest version. This includes official support for Log4J 2.17 and Adoptium OpenJDK 11.

After this upgrade, the CloverDX Database and License must be upgraded. See the upgrade notes for details.

Updated SOLR to latest version

Apache SOLR has been updated to the latest version, so all the latest fixes and security improvements are included.

IT user - Usability improvements

Modeling Workbench: Copy help texts for easy maintenance

When creating or maintaining the model definition in the Modeling Workbench, you can now copy existing help texts to serve as a starting point for new help texts. This improves the efficiency of your workflow.

IT Management Console Angle Warnings: Upload / Download Forwarding Rules

You can automatically resolve Angle warnings using an input file. This file can now be uploaded or downloaded in the IT Management Console directly via Models > Model > Angle Warnings.

IT user - Fixes and improvements

Angle warnings could not be fixed

Sometimes, Angle warnings could not be resolved by the Angle warnings tool. The reason for that was that the link to the Angle or Display was missing. This has been fixed.

Generic help text prefixes in Modeling Workbench

When creating a new helptext in the workbench, the customer ID is no longer used as the default prefix. You can now choose between EA, EA4IT or CUST.

Synchronization of authentication providers on upgrade

When upgrading the system, authentication providers could sometimes get out of sync, which could lead to login issues. The upgrade process has been improved to prevent this from happening.

Updated prerequisites section in Installation Manuals

The Installation Manual now contains an updated list of prerequisites and their supported versions.

Improved delegation for managing users

Creating users required full system privileges in some scenarios with specific default roles. This has been improved, and error messages have been made clearer.

SAP permission RFC_METADATA_GET required after update

After updating from SAP JCo 3.0 to SAP JCo 3.1, additional permissions were needed in SAP. This additional permission is no longer required.

Dynamic filters (Configuration Extensions) show <> \$Invalid\$

When adding 'Configuration Extensions' in the Modelling Workbench (like, for example, partner roles, longtexts, etc.), the dynamic filter was not always built up correctly. In release 2020 this could cause the issue that if you added a longtext, the filter was changed to <> '\$Invalid\$'. This has now been resolved.