

2176823 - FAQ on CO-PA issues in S/4 HANA Finance (SFIN)

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Symptom

1. At what stage during S/4H migration should the operating concern be generated ? Why do we get error message FCO_COPA006 ?
2. Can the changes mentioned in Q1 be transported to production ?
3. Which tables are used ?
4. Why do we get error message FCO_COPA058 when trying to run realignment (KEND) in account based COPA in SFIN ?
5. Why do we get a PA segment on the sales order and corresponding goods issue after upgrading to SFIN ? Why do the variances during settlement of production order get posted to a PA segment after upgrading to SFIN ?
6. After upgrade to SFIN 2.0 unable to generate the operating concern. Why do we get error message KE606 / FCO_COPA014 ?
7. KEQ3 is not available. Why ?
8. Why CO document is created in SFIN in case of postings involving a PA segment ? What's the use of this document ? Can we deactivate creation of CO document ?
9. Why do we get errors when trying to change or delete operating concern SFIN ?
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18. How to archive account based COPA entries in table ACDOCA ?
19. Why transaction currency is ignored during KE28 ?
20. Why does the customizing for template allocation not work ?
21. Why when posting to a PA segment both ACDOCA-MSL and ACDOCA-VMSL are populated while posting without a PA segment only ACDOCA-MSL is populated ? What additional quantities are available ?
22. How are parallel ledgers processed during transactions KE28 and KEU5 ?
23. Is it possible to get Price Difference Split in group valuation ?
24. Why is the field AWTP(Reference procedure) not available in KE30/KE35?
25. Why are XXXXX_PA fields (such as LAND1_PA) no longer filled in ACDOCA after upgrade?

Environment

- Controlling (CO)
- SAP S/4HANA
- SAP S/4HANA Finance

Resolution

1. At what stage during S/4H migration should the operating concern be generated ? Why do we get error message FCO_COPA006 ?

Please refer the documentation of the migration IMG "Migration to SAP Accounting powered by SAP HANA" -> "Preparations and Migration of Customizing" -> "Preparations and Migration of Customizing for Controlling" -> "Maintain operating concern".

-> "Activate Account Based profitability analysis"

You should do this activity before you do the data migration.

The activation of account-based CO-PA in your operating concern is a prerequisite for using the new CO-PA features in SAP Accounting for SAP Business Suite powered by SAP HANA. Of course, you can further only use costing-based CO-PA or both in parallel. Error message FCO_COPA 006 is meant as a reminder to not forget activating the account-based variant. For that you first need to set flag "Account-based" in the operating concern maintenance (transaction KEA0) on tab "Data structures". Having set this flag the error message should be gone. If you do not want to use account-based CO-PA, but only the costing-based variant on the other hand, you can switch off this error message in customizing as described in the longtext of message FCO_COPA 006. Having performed either of the two actions, report

FCO_ADD_COPA_FIELD_TO_ACDOCA should run without problems. The purpose of this report is to generate the CO-PA characteristics of your operating concern into the new G/L line item table for the case that account-based CO-PA has been activated.

2. Can the changes mentioned in Q1 be transported to production ?

Transaction OBA5, where you maintain the entry for switching off error message FCO_COPA 006, is transportable, as is the activation of the flag "Account-based" by using transaction KE3I. If you furthermore use transaction KE3I to transport the data structures the generation of the characteristics into table ACDOCA should work automatically. You can also use report FCO_ADD_COPA_FIELD_TO_ACDOCA if you run into time-outs during generation of the operating concern.

3. Which tables are used in account based CO-PA ?

In account based CO-PA the line items are stored in table ACDOCA.

The initial design did not use table CE4XXXX_ACCT. Only real profitability segments from table CE4XXXX were used.

For all releases currently in maintenance, i.e. up to S/4 HANA OP 1610 and sFIN3.0, this changes with the implementation of note 1955893. Then again for all application tables PA segments from table CE4XXXX_ACCT are determined, including a corresponding profitability segment in table CE4XXXX (via field CE4XXXX_ACCT-CE4KEY). After implementation of this note table ACDOCA however still contains only real profitability segments from table CE4XXXX (ACDOCA-OBJNR and ACDOCA-PAOBJNR both contain PA segments from table CE4XXXX). Otherwise ACDOCA summarization would not have worked any more. The reason for this change is that by using only real profitability segments from table CE4XXXX we encountered problems with certain characteristics getting lost in the account-based line items due to profitability segment summarization settings in transaction KEQ7. Furthermore performance problems occurred with the determination of re-used PA segments.

From release S/4 HANA OP 1709 we will only use PA segments from table CE4XXXX_ACCT in most cases (except for planning and assessment). The reason is that we want to overcome the performance problems that are incurred by the determination of re-used profitability segments from table CE4XXXX. From this release COEP(ACDOCA)-OBJNR and COEP(ACDOCA)-PAOBJNR will contain a PA segment from table CE4XXXX_ACCT except for assessment. For COEJ-OBJNR still real profitability segments from table CE4XXXX will be used and for COEJ-PAOBJNR accounting objects from table CE4XXXX_ACCT.

Starting S/4 HANA Finance 1605 and S/4 HANA OP 1610 account based KE30 and KE24 reports read solely from table ACDOCA.

4. Why do we get error message FCO_COPA058 when trying to run realignment (KEND) in account based COPA ?

Realignment will be available from S/4 HANA OP 1610. Realignment can be implemented in S/4HANA Finance OP 1605 via notes 2344759 and 2350123. The realignment functionality is not supported for account based CO-PA in SFIN for the lower releases. If only costing based CO-PA is active then realignment is possible.

5. Why do we get a PA segment on the sales order and corresponding goods issue after upgrading to SFIN ? Why do the variances during settlement of production order get posted to a PA segment after upgrading to SFIN ?

As mentioned earlier (Q1) account based CO-PA would have been activated during upgrade to SFIN. When account based CO-PA is active a PA segment gets automatically created on the sales order. This PA segment gets forwarded to the goods issue as the goods issue must post to profitability segment as otherwise the COGS would be missing in account based CO-PA because VPRS condition on the billing document will only update costing based CO-PA.

Also a PA segment gets created automatically for the settlement of the production order variances if account based CO-PA is active in order for CO-PA to be reconciled with FI. If additionally the costing based CO-PA is active then due to PA segment account assignment the record type B gets posted to costing-based COPA in addition to the record type C during settlement. This can result in error message "Complete PA transfer structure FI - KF018" if the cost element involved is not part of the PA transfer structure FI needed for the record type B.

6. After upgrade to SFIN 2.0 unable to generate the operating concern. Why do we get error message KE606 / FCO_COPA014 ?

At least one new characteristic which is not known in database table ACDOCA (Universal Journal Entry Line Items) was added to operating concern XXXX. The runtime required to activate the database table is so long that it needs to be performed in the background. For this reason, the client-independent environment with transaction KEA0 cannot be executed in the foreground. The step for adding new CO-PA characteristics to database table ACDOCA was therefore transferred to program FCO_ADD_COPA_FIELD_TO_ACDOCA. The client-independent environment can only be fully activated without errors after the characteristics are added to database table ACDOCA and the database table is activated without errors.

Execute program FCO_ADD_COPA_FIELD_TO_ACDOCA for operating concern XXXX in the background. When the program has been executed without errors, generate the client-independent environment for operating concern XXXX again. Operating concern XXXX will then be available again.

7. KEQ3 is not available. Why ?

KEQ3 is no longer used as there is no concept of segment level and non-segment level characteristics in SFIN. All characteristics are now segment level characteristics. With S/4 HANA 1511 OP Edition we created a new summarization concept comprising ACDOCA and profitability segment summarization – refer SAP note 2179270 and the referenced documentation in the IMG. This was mainly developed for high volume customers like big retailers who need to handle huge data volumes. The default still is and shall remain that most customers have no need for summarizing data.

8. Why CO document is created in SFIN in case of postings involving a PA segment ? What's the use of this document ? Can we deactivate creation of CO document ?

Account based CO-PA would have been activated during upgrade to SFIN (refer Q1). Once account based COPA is active and there is posting to a PA segment then automatically a CO document with account assignment to PSG will be created in the releases prior to SFIN. In case of SFIN there is no physical CO document in the sense that there is no entry in table COEP with the document number. However we want to keep the compatibility with the previous releases and hence we display the CO document as a HANA

compatibility view redirected to read data from table ACDOCA and map it to the COEP structure. You cannot deactivate creation of the CO document since no CO document is really created as in the past i.e. no physical entry in COEP table. In this case it's just a view from table ACDOCA so that users get the same look and feel that they are used to in previous releases.

9. Why do we get errors when trying to change or delete operating concern SFIN ?

SFIN operating concern was provided by SAP as template operating concern in S/4 Hana Financials. Operating concern SFIN was shipped with sFIN 1.0 and its structure should not be changed, as the structure of table CE4SFIN needs to coincide with the field catalog of this operating concern. Changes normally result in problems. Operating concern SFIN furthermore shall not be used in S/4 HANA Finance 1503 any more at all, as mentioned in note 2042464. Therefore from support package SPS 1508 its data structures can only be activated but not adapted any more in transaction KEA0. Changes unfortunately are still possible in a support package before 1508. However it is advised not to make any changes. Since this is a template operating concern it should not be deleted or changed.

10. In SAP S/4 HANA some field length's have been increased to 40 characters. Why has the characteristic length in CO-PA not been increased ?

In SAP S/4 HANA, on-premise edition 1511 the maximum field length of the material number (MARA-MATNR) has been extended from 18 to 40 characters. The material number (ARTNR) in CO-PA being a fixed characteristic is an exception and is the only characteristic in CO-PA with a length of 40 from S/4 HANA, on-premise edition 1511. There is a logical limit on maximum length of CO-PA characteristic to 18 characters. The limit is set due to limitation of length of database table, this has dependency on maximum number of characteristics and value fields that can be defined in an operating concern. Therefore an extension of this length for other characteristics is not possible due to technical constraints.

11. Why is the characteristic 'SEGMENT' grayed out on the PA segment screen ?

In SFIN characteristic SEGMENT was added to the operating concern as fixed characteristic in order to be able to report on it. SEGMENT is a characteristic which is derived directly from the profit center and hence shall not be changeable manually on the PA segment screen. Furthermore a manual entry would only be visible in the profitability segment but would not be returned from the CO-PA account assignment screen to the document item to be posted (the only fields you can enter on the CO-PA account assignment screen which are transferred back are the PRCTR, FKBER and for one special case GSBER). This would result in inconsistency between FI and CO-PA for an important characteristic like SEGMENT and hence it is not open for manual entry.

12. In the classical account based CO-PA it is possible to plan only in CO area currency in KEPM. In SFIN using Integrated Business Planning (IBP) is it possible to plan in other currencies ?

Yes, in IBP the user can enter any currency he wants to. Nevertheless, the default currency is derived from the controlling area currency. Also, later on in reporting, the controlling area currency is used for comparing Plan/Actuals.

13. Is the COGS split functionality available in account based CO-PA ?

Yes, in S/4 HANA Financials the COGS split functionality is available in account based COPA as well. This is similar to what is available in costing based COPA the difference being that we map the cost elements to the cost components. With COGS split functionality COGS is available in account based CO-PA and financials in more detail (like material costs, labour costs, production costs, ...). Refer note [2399030](#) for more information. From 1610 we decided to create a separate CO document for COGS split (which results in a separate corresponding FI document for COGS Split) for the following reasons

- Its easier for the end user to verify that the COGS split took place if we have a separate document and also its easier to analyze.
- We introduced the repost functionality for the COGS split. Only the COGS split should be reposted in case of any issues with the original postings. We do not want to touch the main posting in this case.

- In case the COGS split does not take place for any reason it should not interfere with the original posting. The COGS split is a separate process from the original posting and should remain so since we do not want to interfere with the original posting and not all customers use COGS Split.

14. What is maximum no of characteristics available ?

In S/4HANA Financials the maximum no of characteristics in an operating concern has been increased to 60 (previously 50 was the limit).

15. Summarization levels (tcode KEDV) are no longer used ?

Yes, summarization levels are obsolete in S/4 HANA since the HANA DB is very fast in retrieving data. The only exception was the extraction of account-based data to BW. Starting release S/4HANA Finance 1605 and S/4HANA OP 1610 (note [2565838](#)) it is possible to extract to BW directly from account-based line items in table ACDOCA so summarization levels are not needed. If however you need summarization levels in S/4HANA then refer note [2348226](#) - KEHC: Reading of totals records in the SoH system.

16. Are G/L allocations such as FAGLGA15 relevant to CO-PA ? What are attributed PA segments ?

G/L allocations in general never post to CO-PA. In order allocate costs to CO-PA you can use cost center allocation via transaction KEU5. The reason for a profitability segment being written by transaction FAGLGA15 is that in S/4 HANA (Finance) so-called "attributed" profitability segments can be determined for certain G/L line items. This logic does not create an account-based document though but is only able to determine additional attributes for the G/L line items written to G/L line item table ACDOCA. This is achieved by mapping all CO-PA fields of a G/L line item to their corresponding CO-PA characteristics and calling the CO-PA derivation tool. The result is written back to the corresponding fields of table ACDOCA. In S/4 HANA Finance 1503 and S/4 HANA OP 1511 this logic affects all income statement items. From S/4 HANA Finance 1605 and S/4 HANA OP 1610 only line items activated in customizing (IMG -> Controlling -> Profitability Analysis -> Master Data -> Activate Derivation for Items without Profitability Segment) and only such line items carrying a true CO account assignment are considered. Hence from these two releases no attributing should take place any more for G/L allocations since in G/L allocations CO account assignments are not relevant – except maybe as attributes in table ACDOCA but not in a sense of a true or statistical CO account assignment. The underlying real CO objects which support attributed PA segments are cost centers, internal orders, WBS elements and projects, sales orders, maintenance orders and production orders. Networks and network activities are currently not supported in attributed profitability segments. Process orders cannot be customized using transaction KEATTR but it should be possible to activate the attribution logic by implementing BADI BADI_FIN_COPA_ATTRIB_PAOBJNR and setting parameters CB_ATTRIBUTE_PAOBJNR and CB_READ_SETTLEMENT_RULE there as described in note [2439201](#), item 6.

17. After migration to S/4 HANA Finance why are 3 new fields (Functional Area, Segment and Cost Center) added to the CE1XXXX table ?

The CO-PA characteristics COPA_KOSTL (cost center), SEGMENT and FKBER (functional area) have been introduced as fixed CO-PA characteristics from release S/4 Hana Finance 1503 (sFIN 2.0). Hence these will be part of the Operating Concern data structure and added to the CO-PA tables. These characteristics are fixed characteristics and will be automatically filled if the values have been populated in the coding block (COBL) by the source application. Segment is only populated during posting to table ACDOCA so it would not be populated during VA01.

18. How to archive account based COPA entries in table ACDOCA ?

Use transaction KE0H for object COPA2_XXXX. ACDOCA field XPAOBJNR_CO_REL is set to 'A', fields OBJNR and CO_BUZEI will be initialized.

19. Why transaction currency is ignored during KE28 ?

The KE28 processor is unable to differentiate the currency keys when distributing due to which it can happen transaction currency amounts with different currency keys are distributed to the same receiver line item which

would result in inconsistent data. Hence the transaction currency has been switched off in KE28 account based.

20. Why does the customizing for template allocation not work ?

Template allocation in account-based CO-PA is currently not supported. You will get error SFIN_FI004 (function is unavailable) if you try to run transaction CPPE.

21. Why when posting to a PA segment both ACDOCA-MSL and ACDOCA-VMSL are populated while posting without a PA segment only ACDOCA-MSL is populated ? What additional quantities are available ?

Field ACDOCA-MSL corresponds to the classical ERP field COEP-MBGBTR which is the quantity you enter in a "sender" document, for example in an invoice or when performing a manual reposting in CO. This is always transferred to table ACDOCA, if entered in the sender document.

The other question is, if the quantity shall also be recorded and displayed in the CO sums which are built from the ACDOCA line items in S/4 HANA (Finance). Then you have to consider field ACDOCA-VMSL which corresponds to field COEP-MEGBTR in the classical ERP world. If this field is filled depends indeed on flag "Record quantities" in the cost element / cost center master and on flag "Material origin" on tab "Costing 1" in the material master for postings where a material is involved.

The difference is that field VMSL should always contain the same UoM for all postings whereas you can have different UoMs for field MSL, if you have different UoMs in the billed quantity of different billing documents posting to the same G/L account. The logic for field VMSL is that the first posting to the mentioned G/L account determines the UOM. For subsequent billing documents the system would try to convert the billed quantity to this UoM, if the UoM of the billed quantity differed from the one in the first posting. This is the same logic as in classical ERP with fields COEP-MBGBTR and COEP-MEGBTR.

An exception to this logic are postings to profitability segments where both quantities are always recorded. This is because in case of account based profitability analysis, the unit of measure is part of the PA segment, i.e. for units of measure that cannot be converted among each other, different PA segment with the same characteristics but with a different UoM are created.

Please refer note [352610](#) for more information.

Additional quantity / unit of measure fields QUANT1 / QUNIT1, QUANT2 / QUNIT2 and QUANT3 / QUNIT3 are available in S/4HANA. To populate these you need to implement BADI FCO_COEP_QUANTITY. However these fields are only available for actual postings and not for planning.

22. How are parallel ledgers processed during transactions KE28 and KEU5 ?

Top-down-distribution only distributes data from the legal view (version 000) according to reference data from the legal view. There is no way to influence that. Other valuation views are ignored. In assessment to PA the receiver tracing factors are selected from the legal view but sender data from all valuation views are implicitly distributed according to the legal view.

The valuation view is not directly stored in table ACDOCA. This can only be seen from the ledger customizing which decides which currency / valuation types are stored in which ledger. For our purpose when reading data we perform a join with the CO version table TKA09 that contains the valuation type and table FINSC_CMP_VERSNC which shows for company code and version in which amount fields the corresponding CO amount fields (WTGBTR, etc.) are stored.

In case of account-based CO-PA COGM parallel valuation data is stored under certain CO versions, but in the processing of "pure" CO-PA transactions like KE28 or KEU5, these COGM versions are not handled. The processing of the COGM data during allocation/topdown is planned within the new "one allocation" based on ACDOCA.

23. Is it possible to get Price Difference Split in group valuation ?

Price difference split is based on variance calculation. The results of variance calculation are only available for version '0' (plan/actual version).

Version '0' is almost always linked to legal valuation (tcode OKEVN). Hence Price Difference Split is almost

always done for legal valuation only.

In a few exceptional cases if the version '0' is linked to group or profit center valuation then the Price Difference Split will be posted in that valuation.

24. Why is the field AWTYP(Reference procedure) not available in KE30/KE35?

AWTYP is available only for actual data, but not for plan data. KE24 displays actual data only hence why AWTYP is available here.

As KE30 is not restricted to actual data, it doesn't make sense to make the field available for KE30 (or KE91 – line item bases drilldown reports) as the field is not available for all kinds of data.

Therefore from an application point AWTYP is available for actual line items, but not for drilldown reporting.

25. Why are XXXXX_PA fields (such as LAND1_PA) no longer filled in ACDOCA after upgrade?

Initially the fields LAND1, BRSCH, BZIRK, KUNRE, KUNWE & KONZS didn't exist as fixed fields in ACDOCA so the values were stored in field LAND1_PA, BRSCH_PA, BZIRK_PA, KUNRE_PA, KUNWE_PA & KONZ_PA.

After upgrade to SAP_FIN 730 the structure ACDOC_SI_COPA_FIX contains fixed fields LAND1, BRSCH, BZIRK, KUNRE, KUNWE & KONZS so that old generated fields LAND1_PA, BZIRK_PA, KUNRE_PA & KUNWE_PA are no longer filled.

These corresponding '_PA' fields only exist in ACDOCA if LAND1, BRSCH, BZIRK, KUNRE, KUNWE & KONZS were part of the operating concern before upgrade.

Keywords

add-on finance KX622 KX865 FCO_COPA006 FCO_COPA058 Kend KE606 FCO_COPA014 Keq3
FCO_COPA 006 acdoca coep Zuordnungsänderung, Fehlermeldung, Tabelle, kalkulatorisch, buchhalterisch, Transaktion, Ergebnisrechnung, Ergebnisnummer, Abrechnung, Fertigungsauftrag, neu generieren, Beleg, Dokument, Planung, Konten, Aufteilung, Kosten des Umsatzes, Merkmal, Länge, Währung, maximale Anzahl, Verdichtung, Verdichtungsebene

Products

SAP S/4HANA Cloud all versions

SAP S/4HANA Finance all versions

SAP S/4HANA all versions

Other Components

Component	Description
CO-OM	Overhead Cost Controlling
FIN-MIG-CO	Data migration for Controlling

This document refers to

SAP Note/KBA	Title
2399030	Splitting the costs of goods sold in SAP S/4HANA