



White Paper (RUN Phase)

Tackling the Universal Journal (ACDOCA) data challenge

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1 Foreword

The information in the following chapters is intended to assist users in understanding why SAP created the Universal Journal table (ACDOCA), the drivers of data volumes therein and the options and techniques available to reduce those volumes in terms of growth and existing size.



2 Version Management

Date	Version	Description
Feb 2021	1.0	Original Version

3 Introduction to the Universal Journal

With the introduction of the new Financial Accounting data model (New General Ledger and with sFIN 2.0 Unified Journal Entry (ACDOCA), the central task of General Ledger (G/L) accounting is to provide a comprehensive picture of both external and internal (Management) accounting. Recording all business transactions (primary postings as well as settlements from internal accounting) in a software system that is fully integrated with all the other operational areas of a company ensures that the accounting data is always complete and accurate.

Beyond fulfilling the legal requirements, General Ledger Accounting also fulfills other requirements for modern accounting:

- **Parallel Accounting**

G/L accounting allows you to perform parallel accounting by managing several parallel ledgers for different accounting principles.

- **Integration of Legal and Management Reporting**

In G/L accounting, you can perform internal management reporting in parallel with legal reporting. For this purpose, the Profit Center Accounting functions are integrated with G/Ledger accounting. Furthermore, you can generate financial statements for any dimension (such as profit center).

- **Segment Reporting**

G/L accounting supports the segment reports required by the accounting principles IFRS (International Financial Reporting Standards) and US GAAP (Generally Accepted Accounting Principles). For this purpose, G/L accounting contains the Segment dimension.

- **Cost of Sales Accounting**

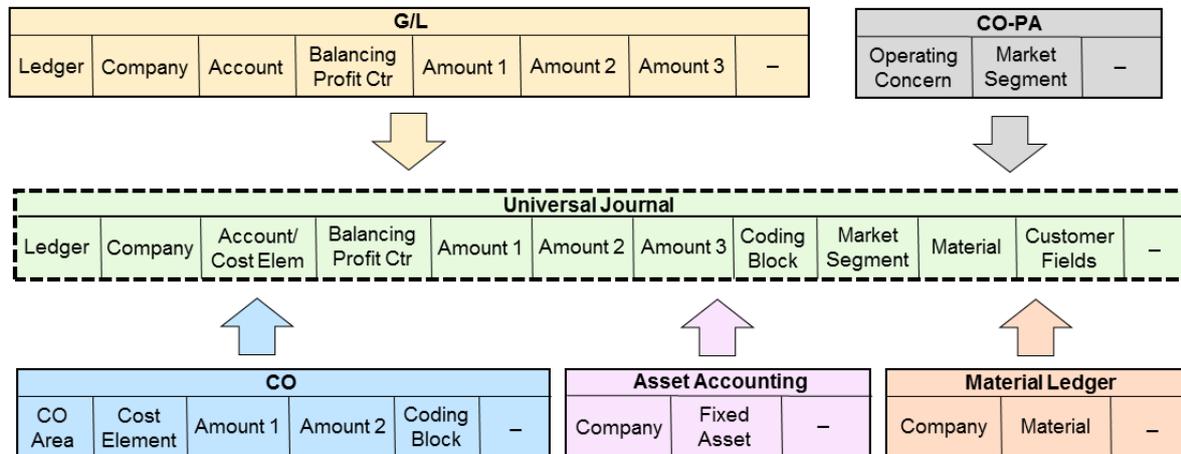
You can perform cost of sales accounting in G/L accounting. For this purpose, G/L accounting contains the Functional Area dimension.

The Universal Journal is the book of original entry for business transactions in Financial Accounting (FI) and Controlling (CO). It contains the journal entries generated by these transactions and thus represents the single source of truth in SAP S/4HANA. Integrity of financial data is guaranteed by design, eliminating reconciliation effort between FI and CO and ensuring that everyone can always access the most current data.

Line items are written only once, keeping the memory footprint at a minimum and optimizing system throughput rates.

Totals are calculated on-the-fly when needed, further reducing the memory footprint while ensuring high performance for analytics and period closing processes.

If you are used to an ERP environment, the following diagram will help give a visual interpretation of what data is written into ACDOCA.



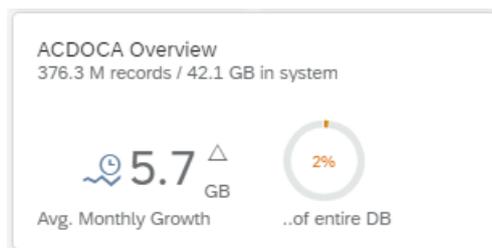
3.1 Identify ACDOCA situation in your system

An easy and convenient way to check the ACDOCA table in your system(s) is to use the DVM App available via the SAP ONE Support Launchpad:

<https://launchpad.support.sap.com/#/dataoverview/>

The DVM App has a tile dedicated solely to the ACDOCA table that provides high level KPI figures such as:

- Number of Records
- Size
- Average Monthly Growth
- Growth Trend
- Percentage of entire DB (i.e. Total Allocated Memory) occupied by ACDOCA



To manage the data in this table, read the information provided in the following chapters or contact SAP if you need further assistance. Dedicated services are available for this specific topic. Transaction SE16H provides a powerful analysis tool that can be used to interrogate this and other tables. For more details on the functionality of SE16H refer to SAP Note 1636416 - CO-OM tools: Functions of transaction SE16H.

4 Data Reduction

Table ACDOCA can rapidly become very large and requires early intervention and application of reduction techniques to prevent it from having an adverse affect on business process/system performance and user experience.

There are a few techniques that can be used to stabilise system performance and fulfil data privacy requirements:

- Avoidance
- Partitioning (no data reduction)
- Summarization
- Archiving
- FI Compression
- Deferred Summarization

4.1 Available DVM Options

4.1.1 Avoidance

Avoiding unnecessary data is the most effective method for ensuring that table ACDOCA does not grow needlessly. To that end there are two specific topics that should be addressed.

- Ledgers
- Balance Carried Forward

Ledgers

Ledgers are used for accounting and reporting purposes. As mentioned in the introduction chapter “Parallel Ledgers” can be used for reporting on different accounting principles. As each additional ledger has the potential to replicate the data stored on the Leading Ledger (e.g. 0L), care must be exercised in the creation of additional/parallel ledgers.

Balance Carried Forward

At the End of each accounting period, as part of the period end closing procedures, the balances in the accounts are carried forward as opening balances in the new period. Based on the defined BCF criteria, you can execute your required reporting. The SAP system comes with pre-delivered attributes. Some attributes can be selected or deselected.

The importance of the selection of attributes for the Balance Carried Forward (BCF) procedure, on the data volume comes into play when the FI Compression run (transaction: *FINS_ARC*) is executed. The more attributes that are activated the less likely the FI Compression run will be able to find compressible [entries](#).

Transaction *FINS_FCT* is used to maintain the attributes.

4.1.2 Partitioning

Implement Partitioning to ensure that the technical limit (~2 Bn records) is not reached. SAP Note 2154870 provides more information on the technical limit. ***This is not a data reduction measure, but it does ensure that you will not encounter the technical limit issue.***

4.1.3 Summarization

You can summarize the data posted to table BSEG where the Financial Accounting application is not the origin application of the posting e.g. postings coming into FI from Sales can be aggregated. This means there will be fewer entries in table BSEG and consequently fewer entries in table ACDOCA.

The system will only summarize/total items in the FI document if you made the proper settings for this action in Customizing (= sending application, for example: VBRK for SD, MKPF for MM Position Management, RMRP for MM Logistics Invoice Verification).

There is no summarization for documents that are entered in FI (object type BKPF) application (for example EDI invoice receipt, FB01) or in invoice verification (MR01) (with object type BKPF).

The system can only total items in the FI document if they have the same account assignments and only differ in the value fields.

Only G/L account line items can be summarized or totaled, but not customer line items or vendor line items. In addition, it is not possible to total across different G/L accounts.

The summarization can be achieved by deleting certain fields in all items (can be configured in Customizing). As a consequence, these fields will not contain data in the FI document. They are therefore no longer available for selection, clearing or reconciliation with other applications.

You can use program RSUMSIFI to simulate document summarization. Based on currently available documents, it calculates what the effect of summarization in the past would have been. This approximation is not useful if your business processes have changed

SAP Note 36353 (release-independent): FI document items are only totaled if this has been set up in Customizing for the sending application, and if the items are the same in all account assignments.

4.1.4 Archiving

The data in table ACDOCA can have many origins. Meaning that a single record could be relevant for multiple applications e.g. CO, AA & FI. Totals records are no longer stored in separate tables but are calculated on-the-fly using the individual records from ACDOCA. To ensure the correctness of the G/L totals, entries in ACDOCA are not deleted, but are marked as no longer relevant for line item reporting or for the corresponding application (i.e. CO, AA, FI documents, G/L totals) by the archiving run.

The origin of the data determines which archiving object(s) need to be executed before records can be archived with FI_DOCUMNT. Executing these archiving objects can be seen as steps to prepare the data for final removal via the FI Compression run.

To determine which archiving objects, need to be executed, you need to perform a detailed analysis of table ACDOCA.

The **existing dependencies** remain the same and are still valid. (These are not discussed in this document). They are:

- Document Type life

- Account type life
- Minimum number of days in the system
- Documents with withholding tax information rest at least 455 days in the system
- Recurring documents, parked documents or sample documents are not considered
- No open items within the document

What's new

- Archiving of different sub-ledgers (e.g. Asset Accounting (AA), Controlling (CO)) is required for FI archiving
- Archiving of Material Ledger documents is no longer a pre-requisite for FI archiving (SAP note 2659820)
- Archiving objects CO_ITEM and CO_TOTAL are replaced with CO_TRANS
- Archiving with CO_TRANS can only be performed for complete fiscal years

4.1.4.1 Dependencies in more detail – subledger CO

Archiving objects

- CO_TRANS
- CO_ALLO_ST
- CO_ORDER
- COPA2*

Archiving class

- K_COSTS

→ Successful CO archiving will initialize the following content in ACDOCA:

- Entries with filled CO_BELNR: fields CO_BUZEI and OBJNR will be initialized
- Entries with BSTAT = "C" AND MIG_SOURCE = "C": field OBJNR will be initialized

The corresponding entries in ACDOCA still remain, but are no longer CO relevant

Preparing migrated CO data for Compression

Migrated CO documents need to be prepared for final ACDOCA compression with the following transactions (in addition to archiving with CO_TRANS and others)

Transactions

- FINS_AR1_ANALYZE: this report gives you the number of CO entries that can be marked for deletion / as 'no longer CO relevant' in ACDOCA.
- FINS_AR1: will update ACDOCA for the above selected documents
- FINS_AR1_MONITOR: transaction to monitor the procedure

Execution

Each time you have archived migrated CO data with relevance to ACDOCA (e.g. after CO_TRANS archiving).

4.1.4.2 Dependencies in more detail – subledger AA (Asset Accounting)

Archiving object

- AM_ASSET
- AM_STEUER

→ Successful AA archiving won't set any special marker within ACDOCA

→ FI_DOCUMENT will check for the existence of asset master record (table ANLA)

The corresponding entries in ACDOCA still remain, but are no longer AA relevant

Why is AA archiving required?

Consistency reason

- By only archiving table ACDOCA without archiving in Asset Management itself, the statistical line item of asset accounting would remain (table FAAT_DOC_IT) and also asset master data.
- To ensure data consistency, only complete business scenarios can be archived.

Reporting reason

- By only archiving table ACDOCA without archiving in Asset Management itself, no valid asset reporting would be possible any longer.

4.1.4.3 FI-AP/AR documents archiving – further details

Archiving Object

- FI_DOCUMENT

Archiving Reports

- FI_DOCUMENT_WRI (write program):
 - Writes entries in archive file (also for ACDOCA)
- FI_DOCUMENT_DEL (delete program):
 - Deletes tables entries (e.g., BKPF, BSEG) but not in ACDOCA!
 - Updates ACDOCA-BSTAT with value "C"
 - Optional: creates secondary index entries in BSIS_BCK, BSAS_BCK, BSAD_BCK, BSAK_BCK tables
 - Creates total records in LFCX_DIF / KNCX_DIF
- FI_DOCUMENT_PST (postprocessing program):
 - Will delete secondary index entries in tables BSIS_BCK, BSAS_BCK, BSAD_BCK, BSAK_BCKs and BSIP
 - Will handle "old" secondary index entries, i.e., entries for which the original documents were archived before this run and secondary index entries were built in _BCK tables

Additional information to ACDOCA

- Entries still remain in table ACDOCA.
- But with ACDOCA-BSTAT = "C" system knows that these are archived entries / only total relevant and therefore they won't be shown in line item reporting.

Additional information to AP/AR totals

- AP/AR archived entries will create a total record in tables LFCX_DIF or KNCX_DIF
 - i.e. AP/AR totals = sum of all documents in database + entries in LFCX_DIF / KNCX_DIF
- LFCX_DIF / KNCX_DIF can be archived with FI_TF_CRE or FI_TF_DEB

SAP note

- SAP Note 2346296 - Technical details about financial accounting archiving

4.1.4.4 FI-GL documents archiving – further details

Archiving Object

- FI_DOCUMNT

Archiving Reports

- FI_DOCUMNT_WRI (write program):
 - Writes entries in archive file (also for ACDOCA)
- FI_DOCUMNT_DEL (delete program):
 - Deletes tables entries (e.g. BKPF, BSEG) but not in ACDOCA!
 - Updates ACDOCA-BSTAT with value "C"
 - Optional: creates secondary index entries in BSIS_BCK, BSAS_BCK tables
- FI_DOCUMNT_PST (postprocessing program):
 - Will delete secondary index entries in tables BSIS_BCK, BSAS_BCK, BSAD_BCK, BSAK_BCK & BSIP
 - Will handle "old" secondary index entries, i.e., entries for which original documents were archived before this run and secondary index entries were built in _BCK tables

Additional information to ACDOCA

- Entries still remain in table ACDOCA as they are needed for GL totals calculation.
- But with ACDOCA-BSTAT = "C" the system knows that these are archived entries / only total relevant and therefore they won't be shown in line item reporting.

SAP note

- SAP Note 2346296 - Technical details about financial accounting archiving

4.1.4.5 FI-AP/AR totals archiving – further details

Archiving Object

- FI_TF_CRE (vendor totals)
- FI_TF_DEB (customer totals)

Archiving Reports

- FI_TF_CRE_WRI / FI_TF_DEB_WRI
- FI_TF_CRE_DEL / FI_TF_DEB_DEL

Remark

- During AP/AR totals archiving, the values of tables LFXC_DIF / KNCX_DIF will be adapted so that the values of these tables and non-archived documents from ACDOCA will balance to zero.
- Where all documents (referring to one total record) are already deleted, there is no longer any amount in *_DIF tables and therefore the entry in *_DIF can also be deleted.
- Totals archiving is not a pre-requisite for the FI Compression run. It is needed to fulfill Data Privacy & Protection requirements.

4.1.4.6 FI-GL totals archiving – further details

Archiving Object

- FI_TF_GLF

Archiving Reports

- FI_TF_GLF_WRI
- FI_TF_GLF_DEL

Remark

- As the GL totals will no longer be saved in a separate totals table in the system, each GL total will be calculated on-the-fly when needed. Calculation is based on entries in table ACDOCA. When archiving GL totals, entries in ACDOCA won't be deleted as they might still be needed. Therefore, during the archiving delete run no deletion takes place, but an entry with inverted sign is inserted into ACDOCA to set the resulting balance to zero.
- A real data record reduction will take place by executing the FI Compression run.
- Totals archiving is not a pre-requisite for the FI Compression run. It is needed to fulfill Data Privacy & Protection requirements.

4.1.5 FI Compression

The FI Compression run replaces all entries of ACDOCA fulfilling certain criteria with aggregated entries. This aggregation takes place on the granularity of the balance carry forward (BCF) criteria, and thereby does not change this balance. In case the balance is zero (i.e. all documents and totals are already archived), no aggregated entry will be written. In this case, the FI Compression run will only delete old entries.

In case the FI Compression run is executed **after document archiving**, the effect is mainly a memory footprint reduction.

In case it is executed **after the totals archiving**, the DPP requirements of deleting privacy relevant data is fulfilled. (In the simplest case by not having an entry in the system, because the balance would be zero. When single line items remain, we keep the aggregated values of these entries with inverted sign.)

The Balance Carriedforward (BCF) process is executed during period/year end closing. The level of detail (granularity/criteria) that are applied to the balances can be adjusted (changed), but certain criteria are required and cannot be changed. The FI Compression run will replace multiple line items in ACDOCA with their aggregated entry based on the granularity of the balance carry forward.

The consequences of using more BCF criteria is that the system will find it more difficult to find matching entries for compression.

Further information can be found in the following link: [Balance Carryforward](#)

If you have CO data originating from a migration to SAP S/4HANA (MIG_SOURCE = "C" or "S") that is not attached to an FI document (i.e. no BKPF) an additional preparation report (transaction FINS_AR1 etc.) has to be executed to mark the entry as ready for deletion (ACDOCA-FUP_ACTION = "D").

Further information can be found in the following [link](#)

Recommendation:

This preparation report needs to be executed initially after the migration and then each time you archive migrated CO Data.

4.1.5.1 FI Compression Run – Example

FI Compression run – what do compressed ACDOCA lines look like?

ACDOCA **before** FI compression run:

- Document number (field: BELNR) and Text (field: SGTXT) have values from original posting

Client	Ledger	Company Code	Fiscal Year	Document Number	Line Item	Document Status	Text	Migr. Source
002	0L	0001	2013	1800000000	000001	C		
002	0L	0001	2013	1800000000	000002	C		
002	0L	0001	2013	1800000140	000001	C		
002	0L	0001	2013	1800000140	000002	C		
002	0L	0001	2013	8000000014	000001	C		
002	0L	0001	2013	8000000014	000005	C		
002	0L	0001	2013	8000000014	000009	C		

ACDOCA **after** FI Compression run:

- Former ACDOCA lines are deleted
- New, compressed ACDOCA lines are created, can be distinguished by:
 - Document number (field: BELNR) starting with 'DR...'
 - &
 - Text (field: SGTXT) incl. 'Compression Run (run id)'

RCLNT	RLDNR	RBUKRS	GJAHR	BELNR	DOCLN	BSTAT	SGTXT
002	0L	0001	2013	DR01000001	000001	C	Compression Run 00001
002	0L	0001	2013	DR01000001	000002	C	Compression Run 00001
002	0L	0001	2013	DR01000001	000003	C	Compression Run 00001
002	0L	0001	2013	DR01000001	000004	C	Compression Run 00001
002	0L	0001	2013	DR01000001	000005	C	Compression Run 00001
002	0L	0001	2013	DR01000001	000006	C	Compression Run 00001

4.2 Emerging Options

As the adoption of SAP's latest technologies gains pace amongst industry sectors, we see the growth rate of entries in the ACDOCA table being driven by different business processes. In response to this fact, SAP

continues to devise solutions to reduce data volumes. Consequently, our solutions for reducing the data volumes (in extreme cases) also expands. A case in point being the emergence of the Deferred Summarization technique. Currently Deferred Summarization is available for Material Handling in relation to ACDOCA, but it will likely be expanded to include Retail and others.

4.2.1 Deferred Summarization

For exceptionally large data volumes, the **standard summarization options** for journal entries may not suffice in the area of material ledger items, where journal entries must be created on detailed (material) level.

In this case, you can activate **deferred summarization** for material ledger items if the following conditions are met:

- The data volume in the ACDOCA table causes or would cause critical performance or data storage issues, especially related to material balance sheet items.
- Independent or dependent summarization of entry view is active for the MATNR field.
- Movements of goods are posted in large material management documents with at least 10 items on a material balance sheet account in the ACDOCA table, for each item in the BSEG table. This means that 10 or more items in the ACDOCA table share the same value in the BUZEI field within a single journal entry.
- Several journal entries of this type with the same material / plant combination are posted in each fiscal period.

When deferred summarization is active, journal entries that fulfil the following conditions can be processed by the **deferred summarization run** after a retention time of a few fiscal periods:

- Detailed items in the ACDOCA table, with the main condition: KTOSL = 'BSX', are removed from the ACDOCA table if there are 10 or more of these items with the same FI line item number (BUZEI) in a journal entry.
- These items are copied to the ACDOCD table and deleted from the ACDOCA table.
- To ensure that the material balances for each fiscal period in the ACDOCA table are unchanged, additional period totals items are added to the ACDOCA table for all the items that are moved to the ACDOCD table.
- Inverted period total items are added to the ACDOCD table to ensure that, after deferred summarization, a query in the ACDOCA and ACDOCD tables, provides the same result as a query in the ACDOCA table (only) before deferred summarization.
- After the deferred summarization run, only periodic information is kept, instead of storing a detailed history of transactions in the ACDOCA table. However, apart from the posting date and other time related information, all record details are kept. If, for example, you post 20 goods issues for a given material and plant combination per month, a data compression of almost 20 can be reached for the material ledger items that are processed by the deferred summarization run.
- To ensure a zero-balance in the affected journal entries, an additional pair of aggregated items is created in the journal entry for each group of items in the ACDOCA table that is removed by the deferred summarization Run. When deferred summarization is active, these items are created when the journal entry is posted. The deferred summarization run moves one of the aggregated items, together with the detailed items, to the ACDOCD table. This ensures a zero-balance in both the journal entry remaining in the ACDOCA table as well as in the ACDOCD table.
- After you activate deferred summarization, you can prepare journal entries from previous fiscal periods with the preparation run for deferred summarization so that these journal entries can be processed by the deferred summarization run.

Use

- If you consider using **deferred summarization** of journal entries, you should first check whether it is useful in your particular situation.
- Please note that this function is intended only for exceptionally large data volumes that are causing critical performance and data storage issues. You should only use deferred summarization when absolutely necessary and you have already used other available summarization options, since it restricts the flexibility of reporting.
- To help you with this decision, you can run the **Analyze Journal Entry Items for Deferred Summarization** report (**FINS_DEFSUM_ANALYZE**).
- This report provides you with an estimate of the amount of data reduction that you can achieve by using deferred summarization.
- **If you decide to use this function, keep in mind that its effects cannot normally be reversed. The effects can be undesirable if the function is used incorrectly.**

4.2.1.1 Archiving Deferred Summarization

Entries that were deleted from ACDOCA and moved to ACDOCD by means of deferred summarization can be archived with archiving object FI_DEFSUM.

Prerequisites

The following prerequisites must be fulfilled before a deferred summarization run can be archived:

- The data has existed for a length of time that is equal to or greater than the residence time that was assigned to it. As a reference, the current period of material management, for each company code, is used.

ILM-Related Information for the Archiving Object

You can use this archiving object with the FI_DESUM ILM object as part of SAP Information Lifecycle Management. In transaction IRMPOL, you can create policies for residence or retention rules, depending on the available policy category. Here you can also see the available time references and which condition fields exist and decide which of them shall be used in which order to define your rule structure.

The following condition fields are available:

- Company Code
- Country from Company Code
- Plant

The following time references are available:

- Posting Date with Offset
 - End of Year
 - End of Fiscal Year

For more information, see [SAP Information Lifecycle Management](#).

Legal Holds

It is possible to set a legal hold on this archiving object. For more information, see [Setting Legal Holds](#).

Performing Application-Specific Configuration

Before you can use the FI_DEFSUM archiving object, you must first check the settings under **Financial Accounting - Global Settings – Document – Summarization - Activate Deferred Summarization - Deferred Summarization**. The first residence period defines when the data is moved into the ACDOCD table by deferred summarization. The second residence period defines when these entries can be archived.

Defining Write Variants

When you schedule the archiving run, you must enter an existing variant or create a new one. You can do so in transaction SARA.

A write variant contains the parameters for the deferred summarization that you want to archive.

SAP delivers the following parameters:

- Ledger
- Company Code

Dependencies of FI_DEFSUM

There are no explicit dependencies for archiving object FI_DEFSUM. This includes archiving object FI_DOCUMNT, which can be archived independently.

Note

Deferred summarization can be run only after:

- A document has been posted and it has existed for a length of time equal to or greater than the residence time that was assigned to it
- The data has been moved to ACDOCD.

Displaying Deferred Summarization Archived with FI_DEFSUM

Archived data cannot be displayed in business transactions. However, it is possible to display archived data in transaction **SARI** based on the field catalog SAP_FI_DEFSUM and archiving infostructure SAP_FI_DEFSUM01.

5 Appendix

5.1 FAQ

5.1.1 What is the Universal Journal?

The Universal Journal captures all accounting-relevant transactions in Financial Accounting (FI) and Controlling (CO) as journal entries. It thus represents the single source of truth for both financial accounting and management accounting. The result is a fully integrated accounting system in which all line items from business transactions, regardless of where they occur, are located in one place. The Universal Journal contains all fields (columns) required by the business processes and the individual components.

5.1.2 Why was the Universal Journal introduced?

The Universal Journal was developed in order to guarantee the integrity of financial data, eliminate redundancy and reconciliation effort between FI and CO, and provide significantly higher levels of performance, transparency, and financial insight. Combining the data structures of the different components into a single line item table (ACDOCA) results in a single source of truth that replaces the previously separate physical tables.

5.1.3 What application areas within FI and CO are integrated with the Universal Journal?

Each business transaction in the following application components generates a journal entry:

- General Ledger Accounting (FL-GL)
- Asset Accounting (FI-AA)
- Controlling (CO)
- Profitability Analysis (CO-PA), except costing-based*
- Material Ledger (CO-PA-ACT)

*Only account-based CO-PA is fully integrated with the universal journal. Costing-based CO-PA can nevertheless be used in parallel.

5.1.4 How does the Universal Journal affect Controlling?

Cost elements are not stored as separate master data in CO, as was the case before the Universal Journal was implemented. They are a special type of G/L account, maintained as master records within General Ledger.

5.1.5 How many parallel currencies can the Universal Journal handle?

The Universal Journal can handle up to 10 currency fields. Two of them are preconfigured, while 8 are freely definable currencies.

The preconfigured currencies are company code currency and controlling area currency. These two currencies cannot be changed. Controlling area currency is only available if you use the Controlling application component.

You can use the freely-defined currencies to configure further local currencies and to map transfer prices, for example.

Each posting fills all currency fields according to the configured currency conversion rules.

5.1.6 What happened to New General Ledger Accounting (also known as "New G/L" or "FI-GL (new)")?

The New General Ledger Accounting functions (which are still available for SAP ERP) were at the time introduced to enable parallel accounting as well as planning and reporting on the basis of profit centers, segments, and business units. These functions are now available using the Universal Journal which combines FI and CO within table ACDOCA.

5.1.7 Doesn't the real-time integration of FI and CO exist anymore?

Statements such as "the FI-CO real-time integration is obsolete" may sound confusing, since real-time integration of the two application components FI and CO is essential in an integrated accounting system. But such statements only mean that the technical communication technique between the two components is not needed anymore because they are inherently integrated within the same table ACDOCA. Since the two components are no longer separated, the data is always available in real time.

5.1.8 Have all Accounting-relevant tables been replaced by table ACDOCA?

No. Many tables have been replaced by table ACDOCA but not all.

For example, the former G/L-only table BSEG still exists as it is needed to store the source documents that serve as the basis for journal entries into table ACDOCA. In addition, it stores entries relating to open item management.

Also, table BKPF that stores the header for journal entries remains unchanged.

The entries of the following tables are now completely contained in table ACDOCA:

- The tables making up New General Ledger Accounting known in classical ERP: FAGLFLEXA, FAGLFLEXT, JVGLFLEXA, JVGLFLEXT, FMGLFLEXA, and FMGLFLEXT
- The actual data of the Controlling tables: COEP, COSS, COSP

The data for statistical postings and target data remain in the tables COEP, COSS, and COSP.

- The Material Ledger table: MLIT
- The Fixed Assets table: ANEP

Note

The above list is not exhaustive and only includes some of the most important tables.

5.1.9 Why is there no primary key on the database for table ACDOCA?

In order to reduce its memory footprint and allow flexible partitioning as described in Note [2289491](#), table ACDOCA is created without a primary key on the database.

Although fields RCLNT to DOCLN are marked as primary keys in SE11, there is a special setting in the DDIC that prevents creation of the primary key on the database. To verify that there is no inconsistency (that is, the primary key does not exist on the database), use **Database object Check** in transactions SE11 or SE14.

The primary key of table BKPF is always inserted in the same transaction when new journal entries are posted. This prevents the unintended insertion of duplicate document numbers in table ACDOCA.

5.1.10 What is the difference between journal entries and accounting documents?

Before the introduction of the Universal Journal, accounting documents (also known as G/L account documents, G/L documents, or simply documents) represented the Financial Accounting view of business transactions. They were complemented by CO documents which represented the Controlling view. It was not possible to navigate directly between an accounting document and the corresponding CO document as they were stored in different parts of the system.

With the Universal Journal, accounting documents and CO documents have been superseded by journal entries.

5.1.11 What has changed in relation to Archiving?

- SAP S/4HANA Finance 1503 onwards, new FI_DOCUMNT archiving object is used
- Archiving different sub-ledgers (e.g. Asset Management, Controlling) is required for FI archiving
- Archiving Material Ledger documents is no longer a pre-requisite for FI archiving (SAP note 2659820)
- Archiving objects CO_ITEM and CO_TOTAL were replaced with CO_TRANS
- Archiving with CO_TRANS can only be performed for complete fiscal years
- Archiving object FI_TF_GLC was replaced with FI_TF_GLF
- Archiving of totals (FI_TF_GLF, FI_TF_CRE & FI_TF_DEB) might be required for Data Privacy & Protection reasons
- ACDOCA will physically be reduced ONLY
 - by using FI Compression run (transaction: FINS_ARC), not by archiving with FI_DOCUMNT
 - by using Deferred Summarization

5.2 Useful Notes

SAP Note / Knowledge Based Article	Description
SAP Knowledge Based Article 1976487	Information about adjusting customer-specific programs to the simplified data model in SAP Simple Finance
SAP Note 2190137	S/4HANA Finance: Reduce memory footprint of obsolete tables
SAP Knowledge Based Article 2185026	Compatibility views COSP, COSS, COEP, COVP: How do you optimize their use?
SAP Note 2027048	Archiving objects CO_ITEM, CO_TOTAL, CO_ALEITEM, CO_TOTL_AO can no longer be used
SAP Knowledge Based Article 2221298	Notes about using views GLT0, FAGLFLEXT, FMGLFLEXT, PSGLFLEXT, and JVGLFLEXT in custom programs in SAP S/4HANA Finance
SAP Knowledge Based Article 2226134	SAP S/4HANA Simplification Item: Funds Management master data dimensions in General Ledger
SAP Knowledge Based Article 2190848	FAQ - Aging for Journal Entry in SAP Simple Finance (please note aging should not be used !)
SAP Note 2230377	Implementation of CO_TRANS
SAP Note 2342347	Implementation of ACDOCA_M_EXTRACT
SAP Note 2346296	Technical details for FI_DOCUMENT
SAP Note 2818267	Data Volume Management during migration to SAP S/4HANA

5.3 More Information:

If you require further information on any of the topics above you can contact us in SAP at the following email address. Please ensure to reference this document in your email, to help us provide a more targeted response.

Email: Data_Volume_Management@sap.com

White Paper Document

Tackling the Universal Journal (ACDOCA) data challenge



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