

Original Article

Usage of SAP Actual Costing - COGM in Global Manufacturing Industries to enable USGAAP / IFRS and Local Statutory Inventory Valuation in SAP S4 HANA On-Premise

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Abstract - Manufacturing companies with a Global geographic presence require external and Internal reporting for actual inventory valuation to meet US GAAP (Leading Ledger) and Local GAAP (Non-Leading Ledger). In some countries, such as Brazil, Spain, and Turkey, it is mandatory to provide an inventory valuation in accordance with the local accounting standard to meet statutory requirements if the company's headquarters are in another country. SAP S4 HANA Product Costing and Actual Costing - COGM (COST OF GOODS MANUFACTURED) provides a solution to record all production goods movements, purchase price variances, and direct – indirect expense cost allocation for actual inventory valuation for US GAAP and Local GAAP by executing the actual closing – alternative valuation run separately for each valuation view (Legal Valuation, Group Costing at Group Valuation, and Group Costing at Profit Center Valuation)

- Expense Postings with a significant difference in US GAAP and LOCAL GAAP due to accounting standards of IFRS and Local Statutory.
- Common General Ledger Accounts are mapped for both Ledgers and Accounting Principles.
- The Actual Inventory Valuation approach is different as per accounting standards to meet the local statutory requirements.

Originality / Review - This article contributes to the field by detailing the functional and technical configuration steps required to operationalize Parallel COGM in S/4HANA 2023, highlighting how these capabilities improve multi-view inventory valuation efficiency in multinational corporations.

Keywords - SAP, SAP S4, SAP S/4 HANA, Parallel COGM, ML, Actual Costing, CO-PC, Multi-Inventory Valuation.

1. Introduction

The Parallel Cost of Goods Manufactured (COGM) is an SAP S/4HANA Product Cost Planning (CO-PC-PCP) capability that enables the calculation of manufacturing costs across multiple valuation views. COGM considers material ledger elements to collect material and cost center or process variances and determines what portion of the variances corresponds to the next level of production through the actual Bill of Materials.

This enables variances to be rolled up to the finished product for inventory valuation. It also determines the portion of variances that corresponds to internal consumption (the next level of production) and sales (Cost of Goods Sold), and enables the revaluation of this consumption along with Inventory valuation.

This article outlines new configuration dimensions introduced in the S/4HANA 2023 on-premises version for splitting the actual costing execution between material ledger currencies, Legal Valuation, Group Valuation, and Profit Center valuation. Global companies can close their Legal valuation/ Local GAAP inventory valuation on Day 2 or 3 for book-closing purposes.

The following key functional and technical configurations are required to implement Parallel COGM in SAP S/4HANA, with a focus on the activation parameters needed to support multiple inventory valuation views.

- Activation of the Business Function FIN_CO_COGM
- Subsequent Activation of Parallel COGM
- Assign Accounting Principles to respective Ledgers.



- Define new CO versions for the alternative Valuation run, depending on the inventory valuation requirement.
- Enable Group Currency profile and Actual costing
- Enable COGM functions for Legal Entity
- Enable transfer of specific Depreciation area to the COGM valuation method.
- Assign the cost component structure to the Accounting principle.
- Assign WIP RA version
- Reporting

2. Data Architecture Flow in S4 HANA

SAP Parallel COGM functionality allows the execution of Actual Costing based on Legal Valuation, Group Valuation at Group Currencies, and Group Valuation at Profit Center Currencies to close the Books.

Key Benefits: Businesses can close the accounting books for Legal valuation and Local GAAP at the company code level, in accordance with the closing schedule.

Another key advantage is the value of material stock at a period unit price, which provides the actual inventory value at the month-end price, thereby avoiding problems associated with using the moving-average price.

A centralized team can later close the Group and Profit Center valuations for all company codes and plants for internal reporting purposes.

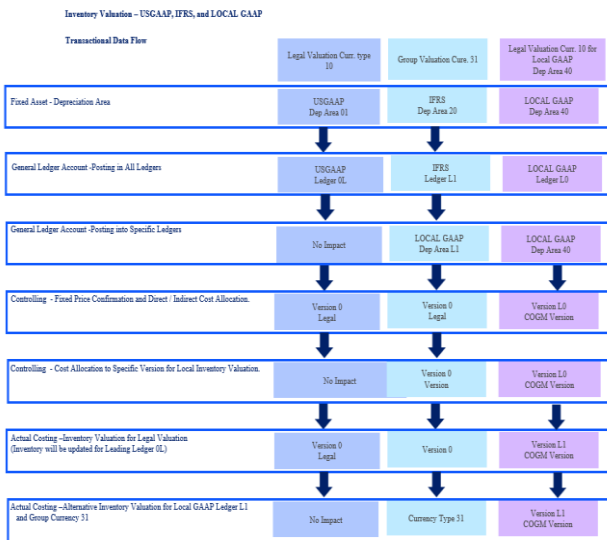


Fig. 1 Actual Costing Data Flow for Inventory Valuation

3. System Integration and Activation

3.1. Activation of the Business Function

FIN_CO_COGM SAP S/4HANA can help achieve a Parallel COGM solution through business function activation, specifically FI_CO_COGM (Transaction code SFW5), as per SAP Note #1852519.

3.2. Subsequent Activation of Parallel COGM

SAP Note # 1849877 needs to be implemented as manual activities for when an active currency and valuation profile (8KEM) is used.

3.3. Financial Accounting – Global Ledger

Configuration (Transaction code– FINSC_LEDGER). To implement the Parallel COGM, a separate ledger must be created alongside the leading ledger to store parallel values.

0L (Leading ledger) + Company Code (ZCCC) is assigned to accounting principle -USGA (USGAAP)

Change View "Company Code Settings for the Ledger": Overview

Dialog Structure	Ledger	0L	Leading ledger * (0L)
Company Code Settings for the Ledger	CoCd	Company Name	Local Curr. Type Global Curr. T... FreeD
	3067		30 31
	3068		30 31
	3070		30 31

Fig. 2 Company Code Assignment to Currency Types.

Change View "Accounting Principles for Ledger and Company Code"

Dialog Structure	Ledger	0L	Leading ledger * (0L)
Accounting Principles for Ledger and Company Code	Company Code		
	Accounting Principle	Name of Accounting Principle	
	USGA	US GAAP	

Fig. 3 Company Code Assignment to Accounting Principles

Non-Leading ledger (Existing in the system)

Display View "Ledger": Overview

Dialog Structure	Ledger	Ledger Name	Leading	Ledger Type	Extn. Ledger Type	Underlying Ledger
	0C	Management Accounting		A Extension Led...	F Line item...	0L
	0E	Commitment/Order Entry		A Extension Led...	F Line item...	0C
	0L	Leading ledger * (0L)		Standard Ledger	Standard j...	
	2L	Local Ledger		Standard Ledger	Standard j...	
	AL	Ledger AL		Standard Ledger	Standard j...	
	11	India representative ledger		Standard Ledger	Standard j...	
	11	Non Leading Ledger 1 (L1)		Standard Ledger	Standard j...	
	12	Non Leading Ledger 2 (L2)		Standard Ledger	Standard j...	

Fig. 4 Non-Leading Ledgers definition.

L1 (Non-Leading ledger) + Company Code (ZCCC7) is assigned to accounting principle -LG (Local Group)

Display View "Company Code Settings for the Ledger": Overview

Dialog Structure	Ledger	L1	Non Leading Ledger 1 (L1)
Company Code Settings for the Ledger	CoCd	Company Name	Local Curr. Type Global Curr. T... FreeDef Crcy 1 F
	504		10 30 60
	504		10 30 60
	505		10 30 60

Fig. 5 Non-Leading Ledgers assignment to Currency Types.

Display View "Accounting Principles for Ledger and Company Code"

Dialog Structure	Ledger	L1	Non Leading Ledger 1 (L1)
Accounting Principles for Ledger and Company Code	Company Code		
	Accounting Principle	Name of Accounting Principle	
	LG	Local GAAP	

Fig. 6 Non-Leading Ledgers assignment to Accounting Principles

3.4. Define Accounting Principals

An Accounting Principle in SAP is a configuration object that represents external reporting standards, such as IFRS, US GAAP, Local GAAP, or industry-specific rules, enabling financial postings to be managed and reported in accordance with different regulatory requirements.

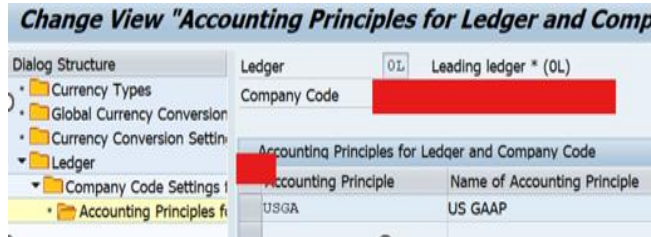


Fig. 7 Company Code Assignment to Accounting Principles

3.5. Define New COGM Version for COGM

Create an additional version for the alternative valuation in accordance with the additional accounting principle LG (Local GAAP). Specify for the relevant controlling area that one of the valuation views for the parallel cost of goods manufactured is used. In the General Version, define a new version only for the actual data to be used for parallel valuation.

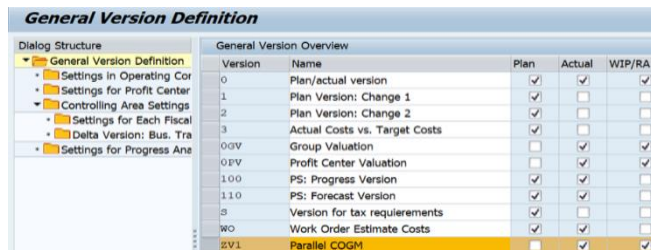


Fig. 8 Maintain Controlling Version for Parallel Cost of Goods Manufactured (COGM)

Maintain the data for your new version in the Controlling area settings. Here, we assign your version to the valuation view of 5 for parallel valuation.

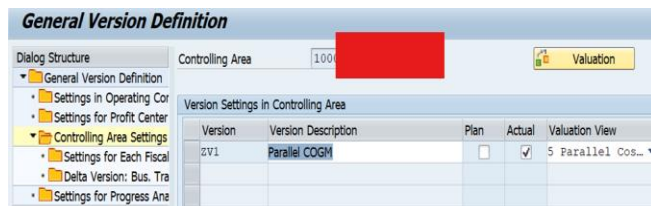


Fig. 9 Assign Inventory Valuation View for Parallel Cost of Goods Manufactured (COGM) version

3.6. Activation of Activity Consumption in the Quantity Structure and Credit of the Cost Center

For the update of activity consumption in the quantity structure, you have to choose entry 2 (activity update relevant to price determination) for the field 'Actual activities update' (Act). This is the only setting supported by Parallel COGM and settlement to materials.

In the Credit Cost Center field, you must select the option to run the periodic calculation that credits the cost centers. Working in parallel valuation, these settings mean that both the periodic calculation run and the alternative valuation run will credit the cost centers.

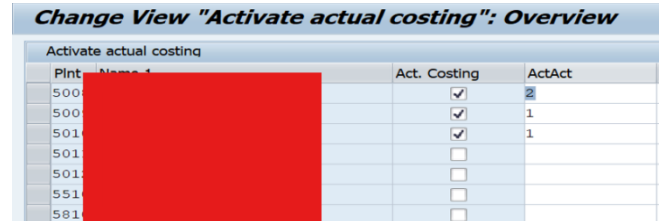


Fig. 10 Activate Actual Costing 2 for Plants that are relevant for COGM processes

3.7. Set Up Parallel Valuation of Cost of Goods Manufactured for Company Code

In this step, we have decided which stock values we want to transfer from the material ledger to the controlling. At the company code level, you choose which accounting principle should be populated with data from a specific version and valuation. The entries we have to make here depend on the scenario regarding actual costs: working with actual costs in general, or working with actual costs only in a single country.

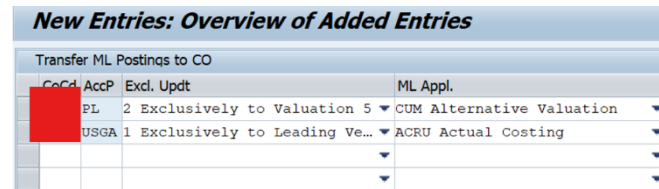


Fig. 11 Maintain the Chart of Depreciation and Depreciation Area to the COGM type

3.8. Transfer of Depreciation from Assets Accounting to Controlling

Each country has its own accounting rules for reporting (local GAAP, US GAAP, and IFRS). Depreciation posted under the local accounting principle represents the legal and statutory cost of using the production machinery.

Here, we assign the LOCAL GAAP depreciation area to Parallel COGM for local inventory valuation.

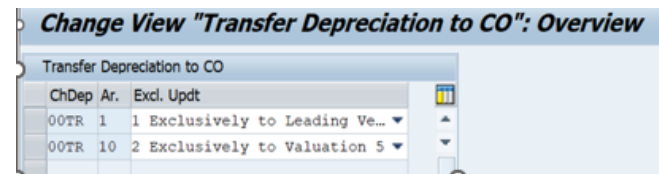


Fig. 12 Maintain the Chart of Depreciation and Depreciation Area to the COGM type

3.9. Revaluation by Company Code

This is a limitation in Parallel COGM for the month-end process "Revaluation of Process Order". For companies that

decided to go with COGM, we configured the actual costing price determination “2”. If we define 'yes', the system will reallocate the fixed cost variance again to process the order, resulting in a double calculation at the end of the month for inventory valuation. Hence, we need to ensure we update the configuration below to set Revaluation Active = FALSE to avoid duplicate calculations.



Change View "CO Revaluation per Company Code": Overview			
CO Revaluation per Company Code			
Company Code	Accounting Principle	Excl. Update	Revaluation Active
10	USGA	2 Exclusively to Valuation 5	false
		1 Exclusively to Leading Ve...	false

Fig. 13 CO Revaluation definition

4. Reporting of Inventory Valuation

SAP R/3 and SAP S/4HANA provide comprehensive inventory valuation reports for data recorded in the following currencies, depending on the Material Ledger currency type customization.

4.1. ABAP View Reports

SAP standard applications provide ALV reports, which are typically two-dimensional, table-like reports that display data in a row-and-column list format. These reports are very user-friendly and contain built-in functionalities, such as sorting, subtotaling, Excel download, and the ability to drill down to the original documents.

Key Features

- **Sorting and Filtering:** Users can dynamically sort and filter data directly in the output list.
- **Summarizing and Subtotaling:** Automatic calculation of totals and subtotals for numeric columns.
- **Layout Management:** Users can save and reuse personalized layouts (column selection, order, and sorting preferences).
- **Export Options:** Data can easily be downloaded to Excel, CSV, or other formats.
- **Drill-Down Functionality:** Users can navigate to underlying transactions or original SAP documents.
- **Color and Formatting:** Conditional formatting can highlight essential data (e.g., overdue items).
- **Integrated Toolbar:** Standard toolbar with buttons for refresh, print preview, and layout options.

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4.1.1. SAP Fiori Application

SAP Fiori is SAP's modern User Experience (UX) framework that provides a consistent, role-based, and device-independent interface across all SAP applications — including SAP S/4HANA, SAP S/4HANA Cloud, and SAP ERP (on-premise) systems. In the context of reporting and analytics, Fiori apps transform traditional SAP reporting (like ALV lists and SAP GUI transactions) into intuitive, visual, and interactive reports that integrate directly with the underlying HANA in-memory database for real-time insights.

Currency Type	Description
10	Company code currency
11	Company code currency, group valuation
12	Company code currency, profit center valuation
20	Controlling area currency
30	Group currency
31	Group currency, group valuation
32	Group currency, profit center valuation
40	Hard currency
50	Index-based currency
60	Global company currency

Fig. 14 Currency Type available in S4 HANA for selection.

5. Conclusion

In this article, we have taken an in-depth look at the SAP S4 HANA Product Costing COGM functionality that provides enhanced multi-view inventory management reporting for Finance and Controller stakeholders. This process supports processing millions of transactions—such as production qty, purchase qty, and sales qty—in the fastest way possible during month-end closing. It offers a comprehensive view of Production Variances and Gross Profit Margin at the Product level, along with key attributes of Inventory Valuation for US GAAP, IFRS, and Local GAAP, for Both Internal and External stakeholders. We have covered all key topics, from COGM Parallel valuation configuration to enabling the functionality.