Leverage the New SAP S/4HANA 'Predictive Accounting' Functionalities to Get Deeper and Better Financial Insights

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SAPinsider Las Vegas

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In This Session

- Understand the new functionalities of S/4HANA Predictive Accounting (PA)
- Review integration of predictive accounting across various other SAP logistics' modules
- Analyze the flow of accounting postings for various predictive accounting scenarios
- Understand key business benefits that can be derived by using predictive accounting

What We'll Cover

- Predictive Accounting Introduction / Background
 - Key Features of S/4HANA Financials
 - Predictive Analytics vs Predictive Accounting
 - Predictive Accounting Benefits
- Overview of Predictive Accounting Scenarios
- Configuration Set up for Predictive Accounting
- Predictive Accounting in Sales Order Cycle Detailed Example
- Analytical Apps in Predictive Accounting
- Predictive Accounting in Procurement Cycle (Predictive Commitments) – Detailed Example
- Special Topics (Restrictions/Limitations, Profit Center Reorganization)
- Wrap-Up

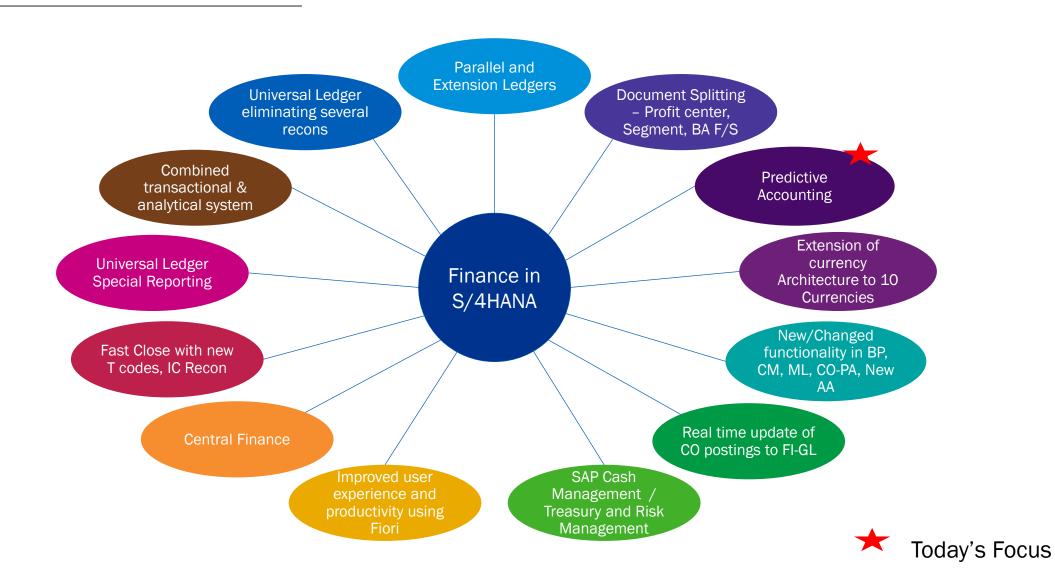


1. Predictive Accounting (PA)-Introduction / Background

- Key Features of S/4HANA Financials
- Predictive Analytics vs Predictive Accounting
- Predictive Accounting Benefits



Key changes in S/4HANA Finance



Predictive Analytics vs Predictive Accounting

- Predictive Analytics is used to analyze and estimate future values (revenues, costs, KPIs, etc.) mainly based on historical data using
 machine learning algorithms, statistical models / techniques such as time series, regression analysis, etc.
 - Enables to get visibility on the leading KPIs and drive financial decisions
 - Provides top-down input to drive operational decisions (medium to long term)
- Predictive Accounting is a framework to post, maintain and report on the future values (revenues, costs, etc.) based on existing
 upstream data that is already known to us
 - For example, posting Cost of Goods Sold (COGS), Revenues, and Tax amounts based on the sales orders that have been received
 - Provides visibility on financial results based on committed revenue and costs
 - Enables proactive financial decisions (e.g., key operational and strategic decisions in treasury, tax and for working capital, etc.)
 - Provides Bottom-up approach input for future predictions (Short to medium term)
 - Posts the prediction entries in a 'non-GAAP' Extension Ledger (as these are prediction postings)
 - Has been introduced in S/4HANA 1809 Several add-on improvements are made in the following releases (including 'Predictive Commitments Management' and 'Profit Center Reorganization of Predictive Journal Entries' in S/4HANA2022)

Predictive Accounting – Additional features / Benefits

- Multi dimensional analysis of Incoming orders:
 - Committed revenue by profit center, product group, customer group etc.
 - Gross Margin Plan vs. Predictive vs. Actual by profit center, product group, customer group etc.
- Continuous accounting and effective Period end closing
 - Leverage visibility on Presumed (Actual + Predictive) income and balance sheet for provisions, accruals etc.
- Management analysis
 - Insights on KPIs based on predictive Sales, COGS, AR items (e.g. DSO, Gross Margin, Product Operating Profitability etc.)
- Annual financial planning
 - Growth factor can be not just with reference to the Actual YTD financial numbers but also with reference to committed revenue and committed costs
- Predictive tax planning
 - Tax planning based on committed revenue (e.g. domestic, international etc.), relevant COGS and committed other operating expenses

2. Overview of Predictive Accounting Scenarios

- Predictive Accounting in Sales Processes
- Predictive Accounting in Procurement Processes Predictive Commitment Management
- Predictive Accounting in Time and Expense Management
- Predictive Accounting in Service Contracts (Only available in S/4HANA Public Cloud – expected to be brought into S/4HANA On-Premise / Private edition in future)



Predictive Accounting - Scenarios

Order to Cash Cycle

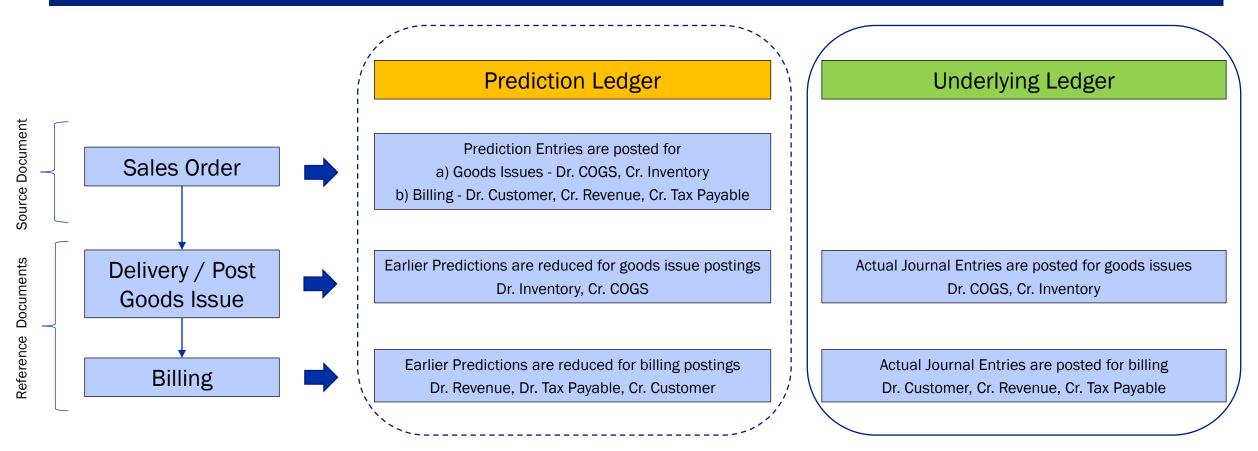
- Based on Sales Orders that have been created, the system
 - Predicts and posts the future period's COGS and Inventory related Journal entries (Delivery / Post goods issue related)
 - Predicts and posts the future period's Revenue, Freight, Tax, and Accounts Receivable Journal entries (Billing related)
 - Can deal with Partial deliveries and partial billing
 - Accounts for several later changes (e.g., price / quantity changes) in Sales Orders
 - As the actuals get posted during deliveries / billing, the earlier predictions are reduced

Predictive Accounting – Obsolete Reason Code

- Predictive Accounting assigns "Obsolete Reason (OR)" code for line items to track and identify what line items are current vs out dated. Generally following 4 Obsolete Reason Codes are used
 - Blank Current line items (will be used for initial full quantities / amounts)
 - 1 Outdated
 - 2 Cancelled
 - 3 Reduced (will be used for partial or full reductions e.g., goods issues)
- If there is a change in price / quantity or if the line items are removed in the source document, the system will assign OR=1 (outdated) for the original line and OR=2 (cancellation) for the line with which the cancellation is being made. So, the total of quantities for OR =1 & OR=2 will be zero.
- Initially, when line items are posted in PA, they will be assigned with OR= Blank. At this time, those are the most current items. For example, let's say, the full quantity is 20 for this OR=Blank assignment.
- When partial goods issue happens (for example, in sales processes), those partial lines will be assigned with OR=3. Let's say, this partial quantify is 6. This line item will be assigned with OR=3.
 - Please note that, even after partial or full deliveries / billing, the original line item will still be kept with OR=Blank.
 - Hence, for current status of open quantities or values, we need to combine both OR=Blank and OR=3 (reduced). This is 14 (20-6) open quantity in the above example.

Predictive Accounting - Sales Processes

Combination of Values from both Prediction and Underlying ledgers will allow us to analyze and get deeper insights on "Presumed Revenues" / "Presumed Costs" / "Presumed Margins" (Presumed = Prediction + Actuals).



Predictive Accounting - Scenarios

Procure to Pay Cycle

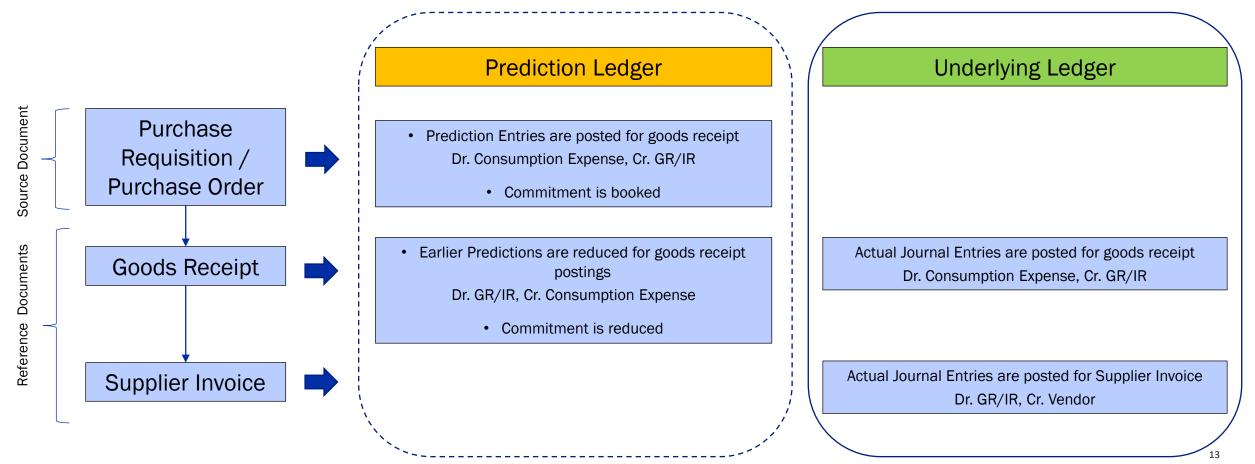
- Based on Purchase Requisitions / Purchase Orders, the system
 - o Predicts and posts the future consumption and / other expenses, provision for GR/IR (for payable amounts) Goods Receipt related
 - No prediction postings are made in relation to Accounts Payable (IR related)
 - Creates / Maintains the commitment of budget for cost centers / WBS elements
 - Can deal with partial receipt of goods
 - Accounts for several later changes (e.g., price / quantity changes) in purchase requisitions / purchase orders
 - As the actuals get posted during goods receipt, the earlier predictions are reduced

Travel and Expense Management

- Based on travel request created in Concur, the system will create prediction postings in S/4HANA for future business trip related expenses
- Creates Prediction postings for both Cost center and WBS related expenses
- Budget / Commitment tracking is available only for cost center based travel requests
- Accounts for several later changes in travel requests
- As the actuals get posted (after submission of expense reports), the earlier predictions are reduced

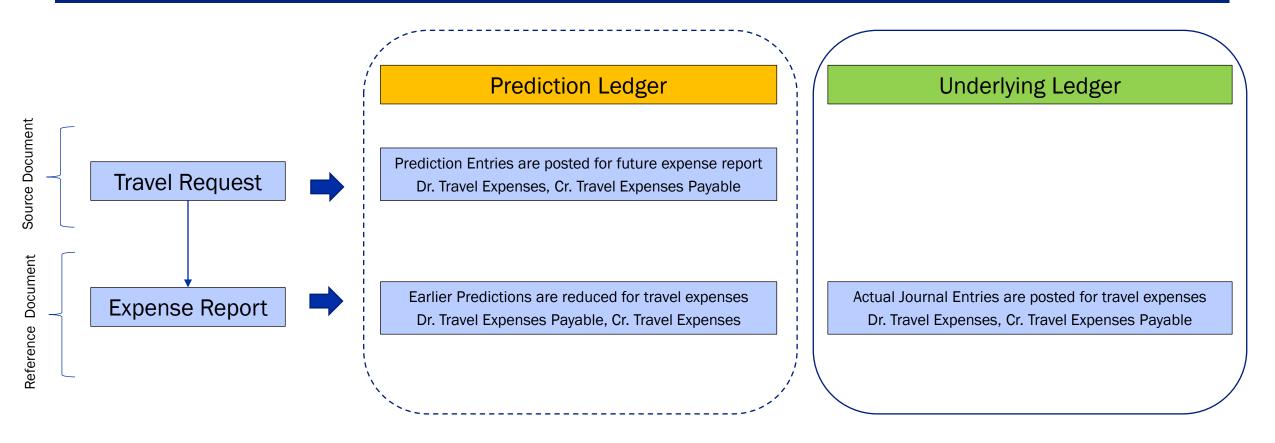
Predictive Accounting – Purchase Processes

Combination of Values from both Prediction and Underlying ledgers will allow us to analyze and get deeper insights on "Presumed Revenues" / "Presumed Costs" / "Presumed Margins" (Presumed = Prediction + Actuals).



Predictive Accounting – Travel and Expense Management

Combination of Values from both Prediction and Underlying ledgers will allow us to analyze and get deeper insights on "Presumed Revenues" / "Presumed Costs" / "Presumed Margins" (Presumed = Prediction + Actuals).

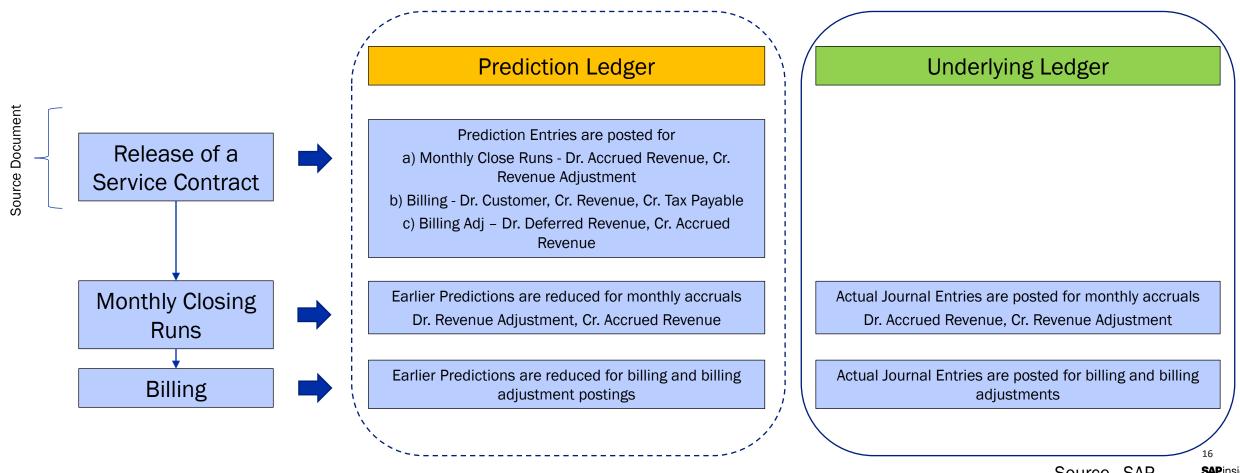


Predictive Accounting - Scenarios

- Service Contracts (Only available in S/4HANA Public Cloud expected to be brought into S/4HANA On-Premise / Private edition in future)
 - Based on Service Orders that have been created & released, the system will predict and post the journal entries for
 - WIP Accrued Revenue and Revenue Adjustments accounts (during the regular monthly closing runs)
 - Revenue Adjustment and Deferred Revenue postings (during billing)
 - Customer, Revenue and Tax related postings (during billing)
 - o Adjustment between Deferrals Revenue and WIP Accrued Revenue (during the monthly closing run)
 - WIP Accrued Revenue or Deferred Revenue adjustment to Revenue adjustments (depending on if the billing amount is less than
 or equal to Recognized Revenue or not) posted during monthly closing runs
 - o Accounts for several later changes in Service contract line items
 - As the actuals get posted during monthly closing runs / billing, the earlier predictions are reduced

Predictive Accounting – Service Contracts

Combination of Values from both Prediction and Underlying ledgers will allow us to analyze and get deeper insights on "Presumed Revenues" / "Presumed Costs" / "Presumed Margins" (Presumed = Prediction + Actuals).



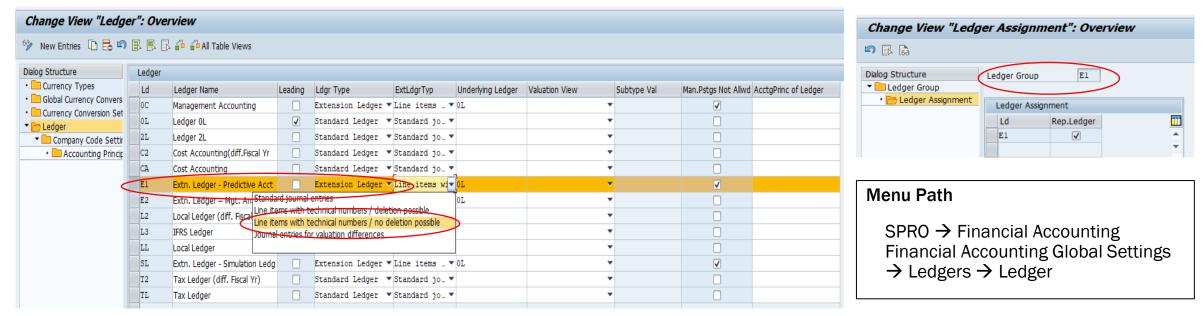
3. Configuration set up for Predictive Accounting

- Ledger level configurations
- Activation of Prediction Accounting
- Configuration for Predictive Commitments

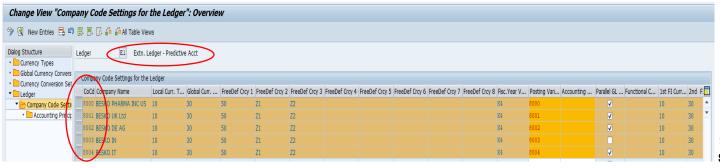


Set up required for Predictive Accounting

- Creation of Extension ledger as the "Prediction Ledger"
 - System automatically creates the Ledger Group with same name and with only that ledger as the member

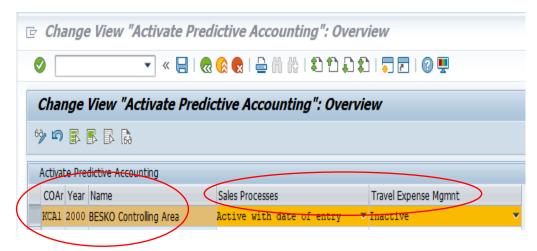


- Assignment of all relevant company codes to the Prediction Extension Ledger
 - Since activation of prediction ledger is done at controlling area level, all company codes of that controlling area must be assigned to the above prediction extension ledger

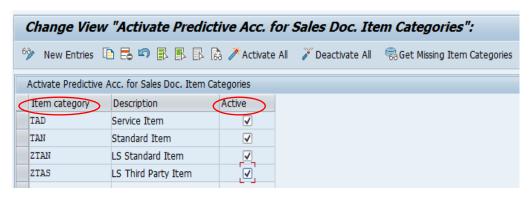


Set up required for Predictive Accounting (Cont..)

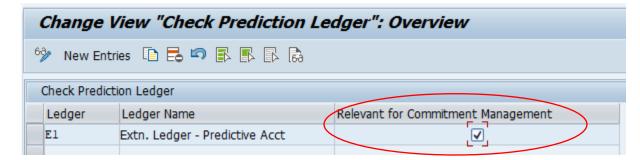
Activate Predictive Accounting



Activate Predictive Accounting for Sales Order Item Categories



Check Prediction Ledger



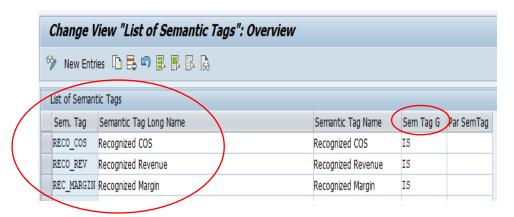
- Menu Paths
 - SPRO → Financial Accounting → Predictive Accounting
 - SPRO → Controlling → Profitability Analysis → Flow of Actual Values → Transfer of Incoming Sales Orders → Activate Predictive Accounting
- In addition to configurations / set-up shown this presentation (for all scenarios), the other core configurations relevant to the respective process areas have to be in place.
- For time and expense management, in addition to core settings within Concur, integration between S/4HANA and Concur should be set up

Set up required for Predictive Accounting (Cont..)

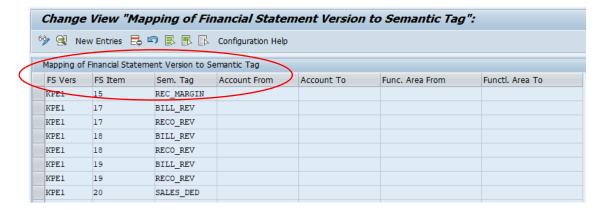
Define Semantic Tag Group



Define Semantic Tags for Financial Statement Versions



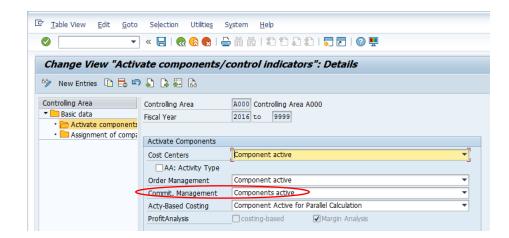
Assign Semantic Tags to Financial Statement Versions



- Menu Path
 - SPRO → Financial Accounting → General Ledger
 Accounting → G/L Accounts → Financial Statement
 Versions → Semantic Tags for Financial Statement Versions

Set up required for Predictive Accounting – Predictive Commitments

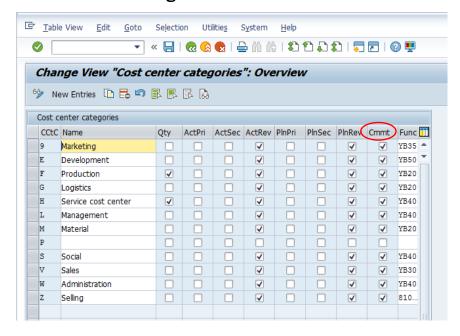
Activation of 'Commitment Management' at controlling area level



 Activation of Lock / Unlock in Cost Center Master Data (In order for commitment reporting to work properly, this must remain unlocked)



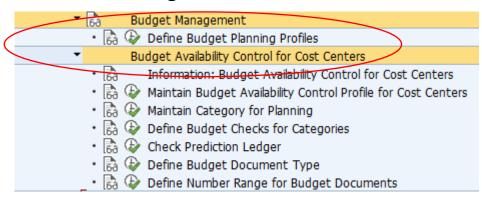
Maintaining Default values for Commitment Lock / Unblock in cost center categories



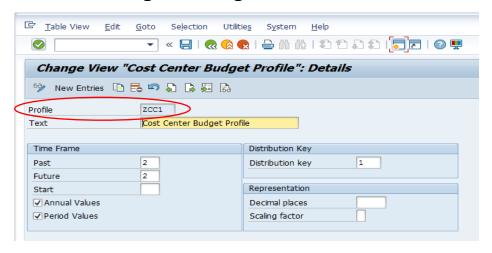
- Menu Paths
 - SPRO → Controlling → General Controlling → Organization
 → Maintain Controlling Area
 - SPRO → Controlling → Cost Center Accounting → Master
 Data → Cost Centers → Define Cost Center Categories

Set up required for Predictive Accounting – Predictive Commitments (Cont..)

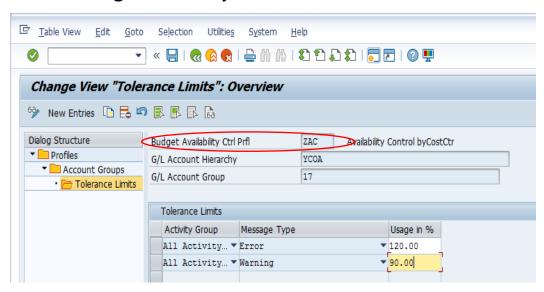
Screenshot of Budget Planning Profiles / Budget Availability Control for cost center configurations is shown below



Definition of Budget Planning Profiles for cost centers



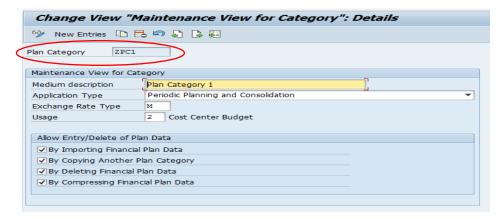
Maintain Budget Availability Control Profile for Cost Centers



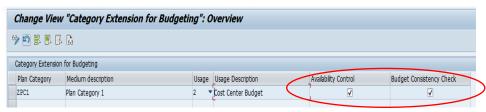
- Menu Paths
 - SPRO → Controlling → Cost Center Accounting → Budget Management → Define Budget Planning Profiles
 - SPRO → Controlling → Cost Center Accounting → Budget Availability Control for Cost Centers

Set up required for Predictive Accounting – Predictive Commitments (Cont..)

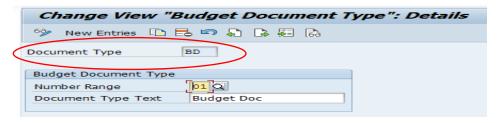
Maintain Category for Planning



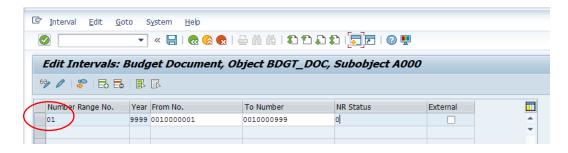
Define Budget Checks for Categories



Define Budget Document Types

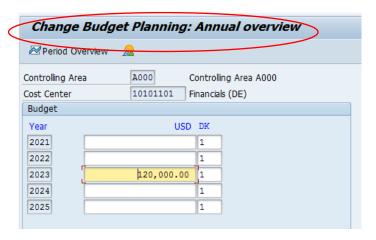


Define Number Range for Budget Documents



Maintain Cost Center Budgets (Annual and / or Period levels)

- T-Code: KPZ2



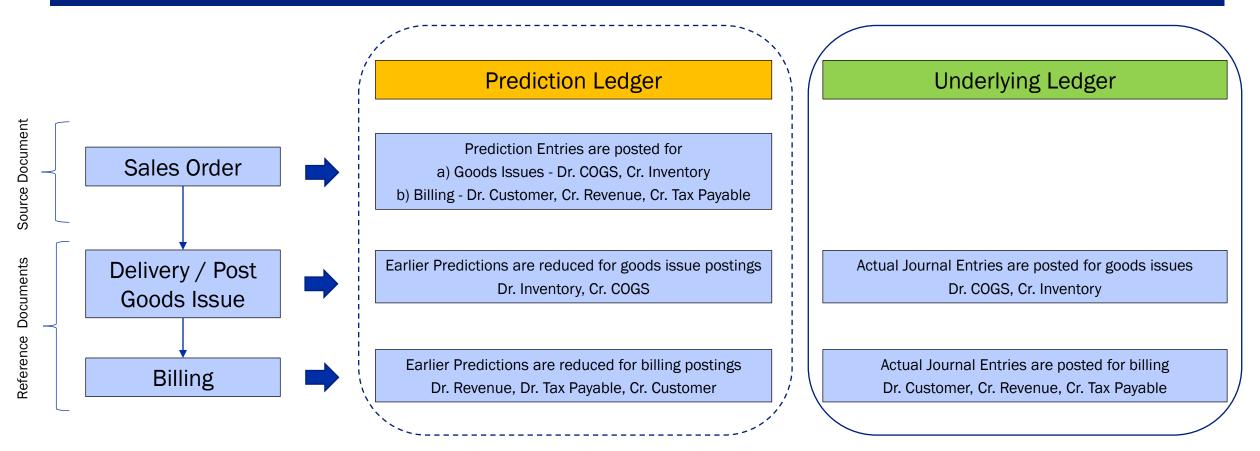
4. Predictive Accounting in Sales Order Cycle – Detailed Example

- Creation of Sales Order (10 Qty)
- Change of Sales Order (Quantity Change from 10 to 20)
- Partial Deliveries (12 qty + 8 qty)
- Partial Billings (12 qty + 8 qty)

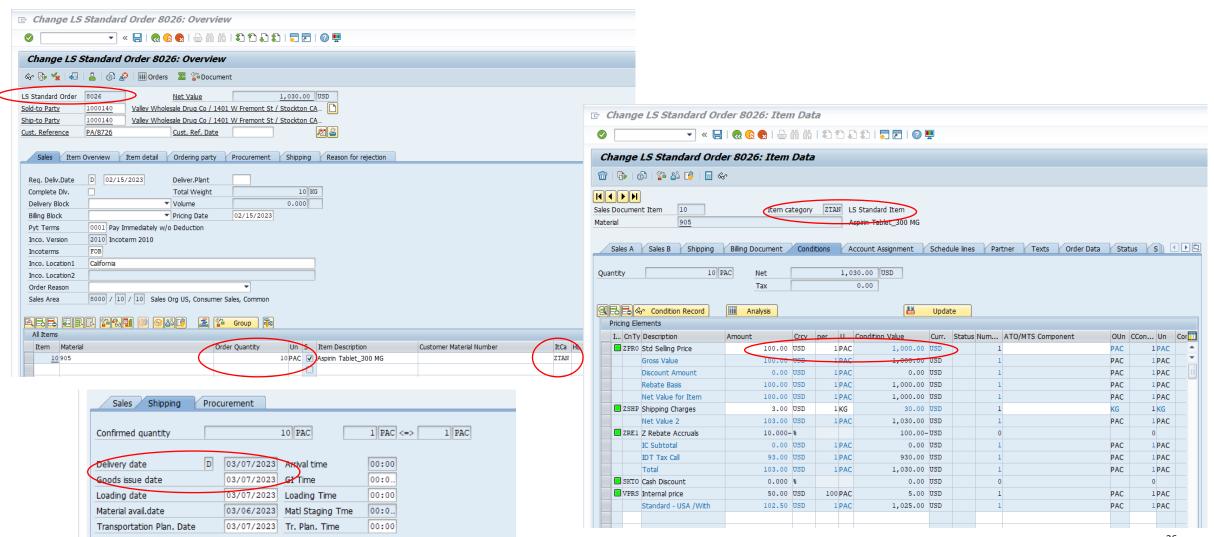


Predictive Accounting - Sales Processes

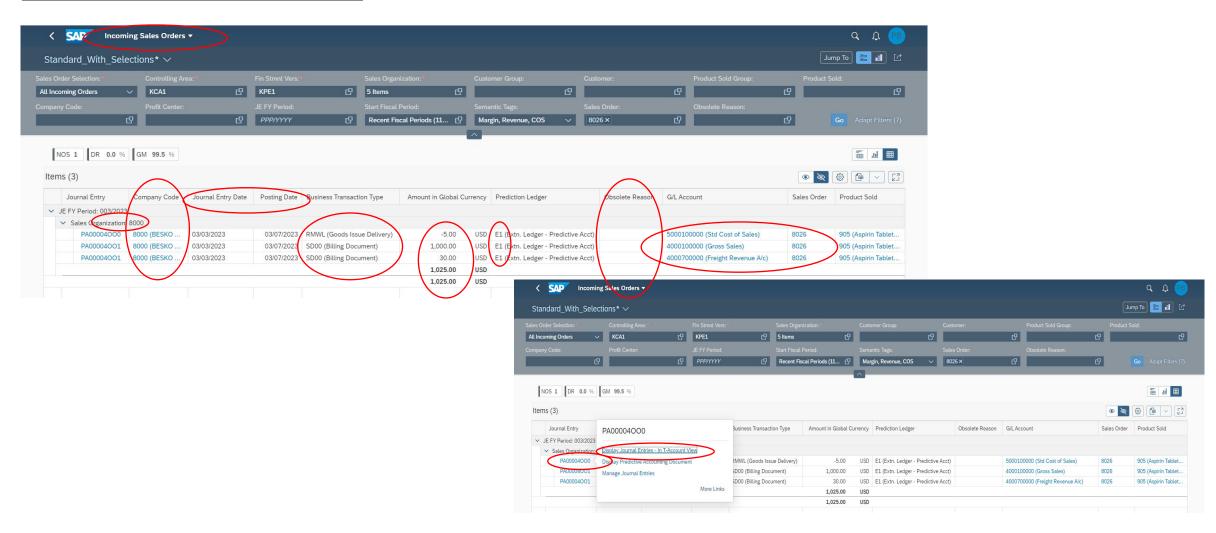
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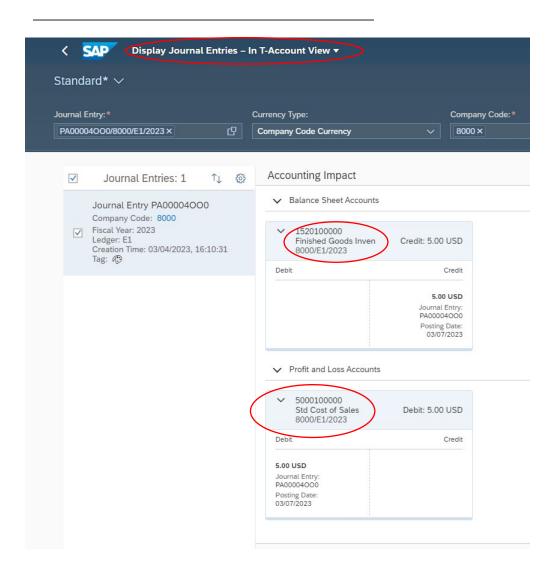
Creation of Sales Order

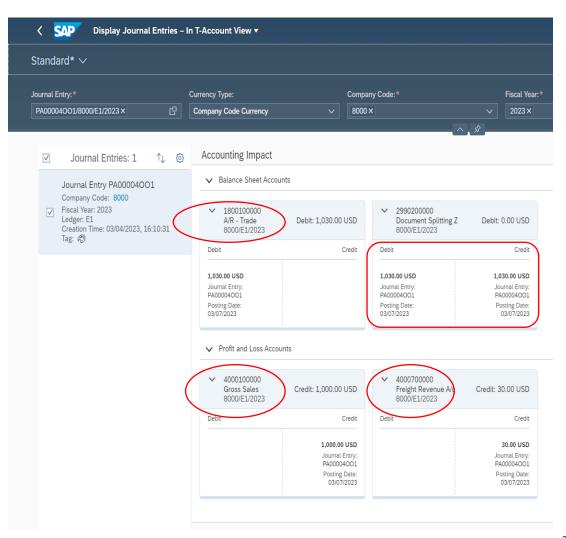


Predictive entries posted for goods issues and billing documents

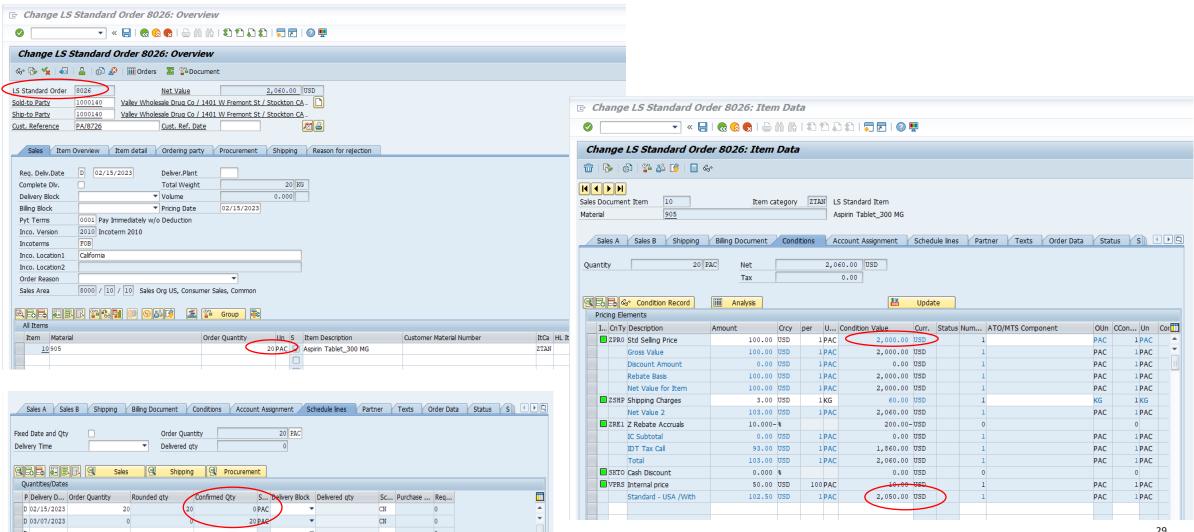


Predictive Accounting Journal entries in T-Account View (Goods Issues and Billing)

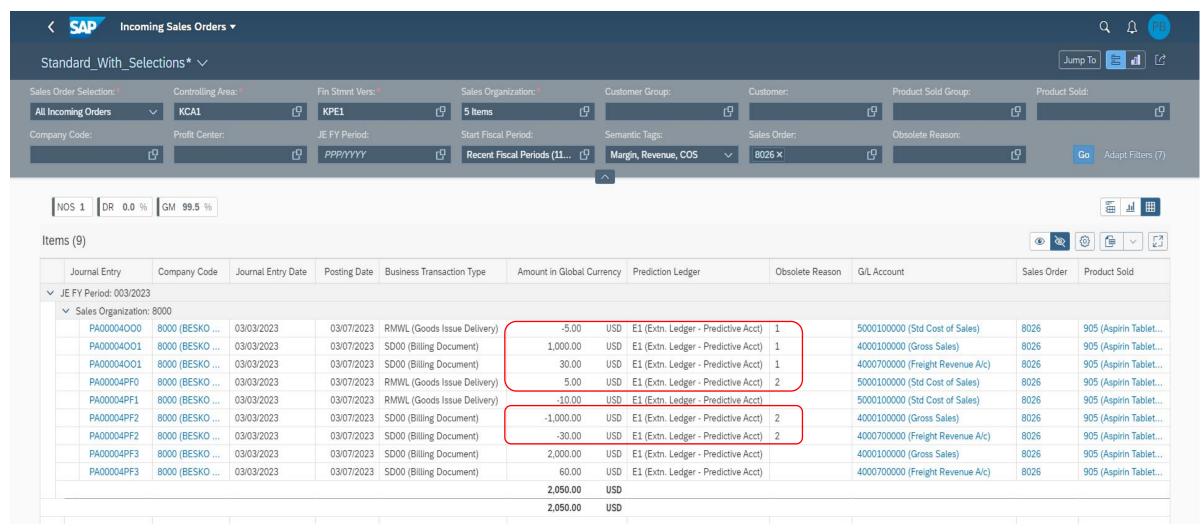




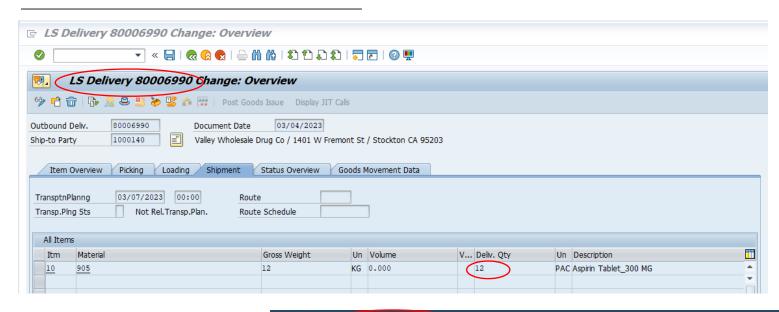
Sales order changed (Quantity change from 10 to 20)

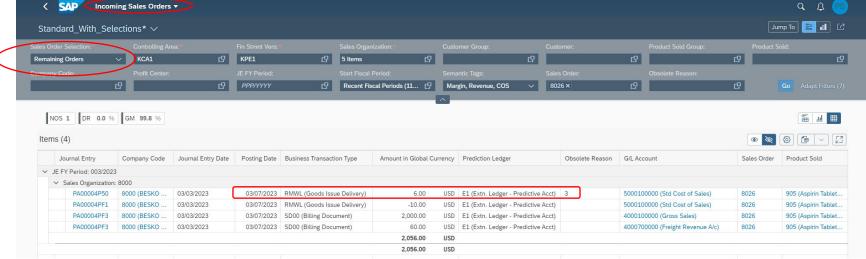


Impact of sales order quantity change on PA documents – Reposting done by cancelling the earlier predictions

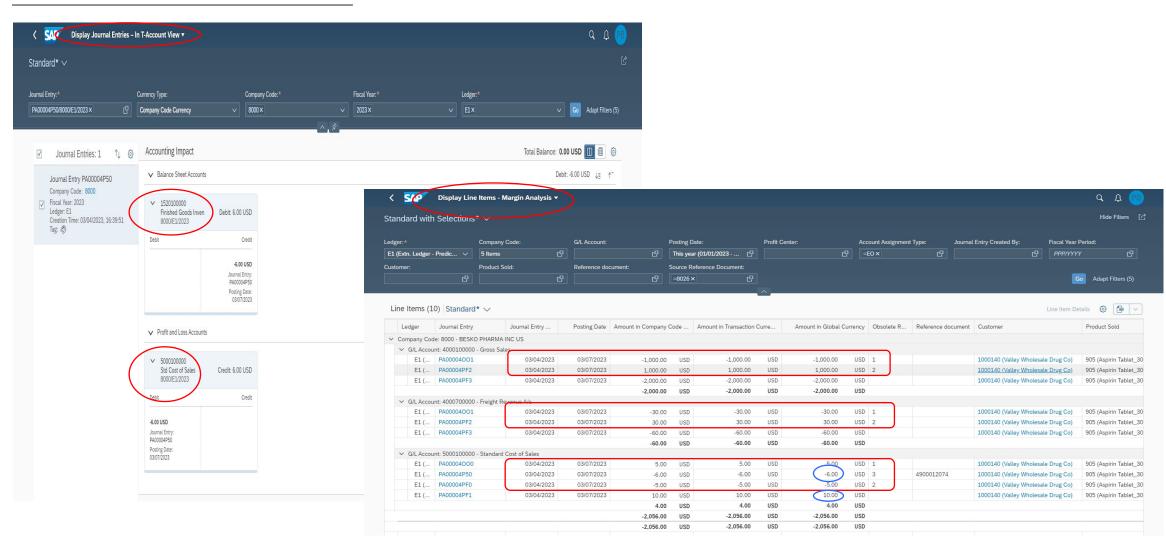


Impact of partial deliveries on Predictive Accounting documents

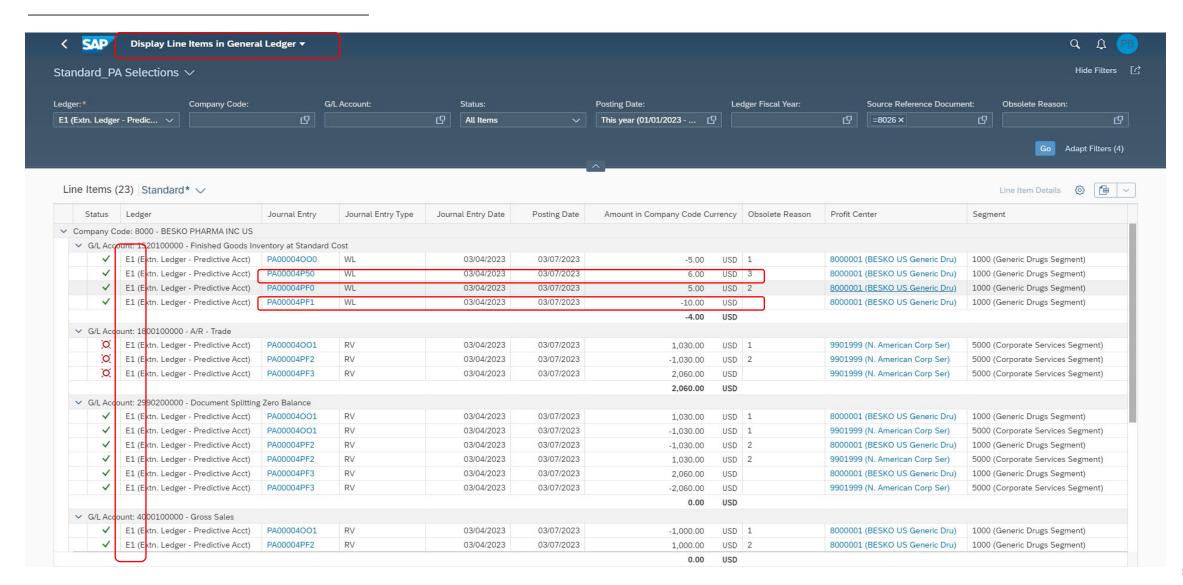




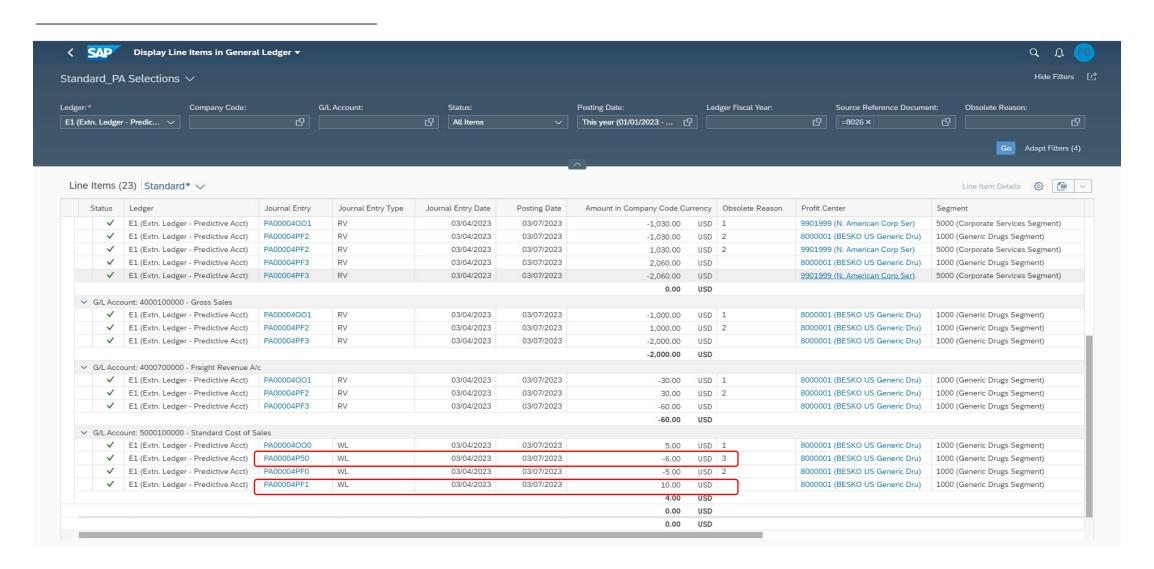
T-Account and Margin Analysis view of partial delivery done



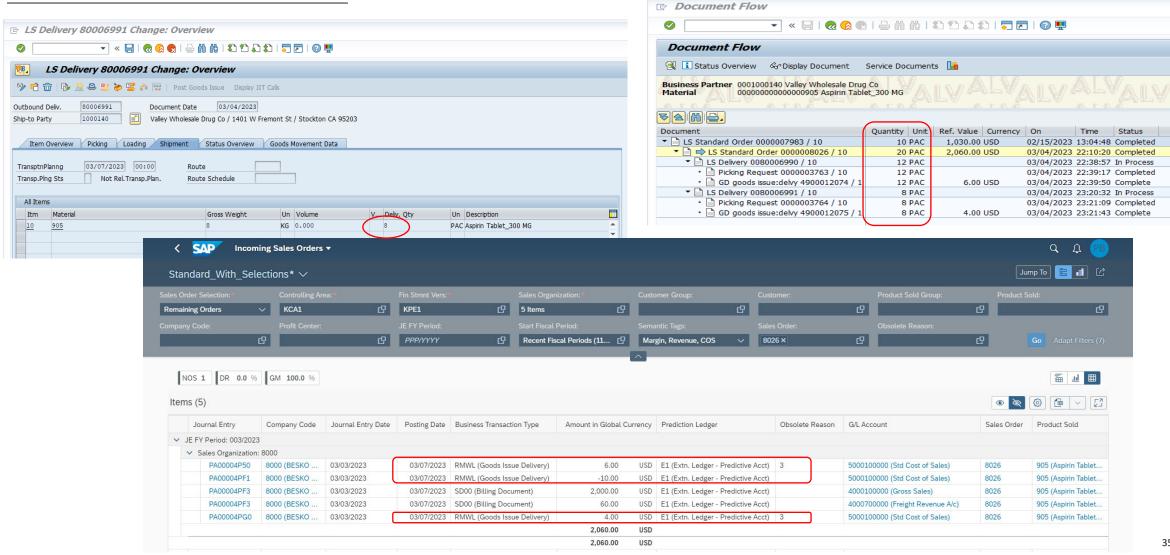
Analysis of Predictive Accounting documents using GL line item display app



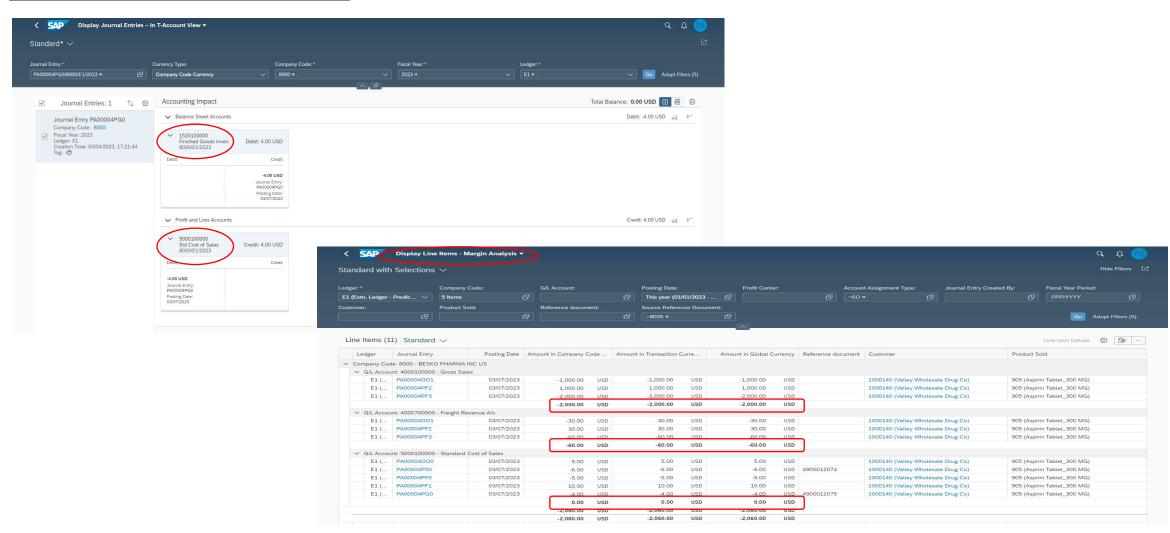
Analysis of Predictive Accounting documents using GL line item display app (Cont..)



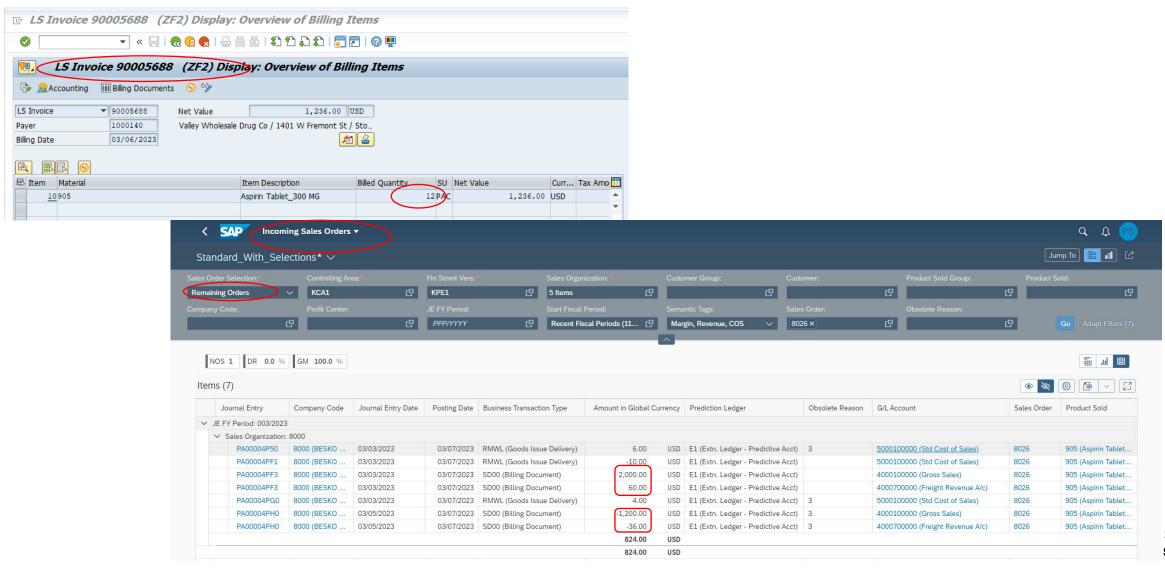
Delivery and Post goods issue (for remaining quantity)



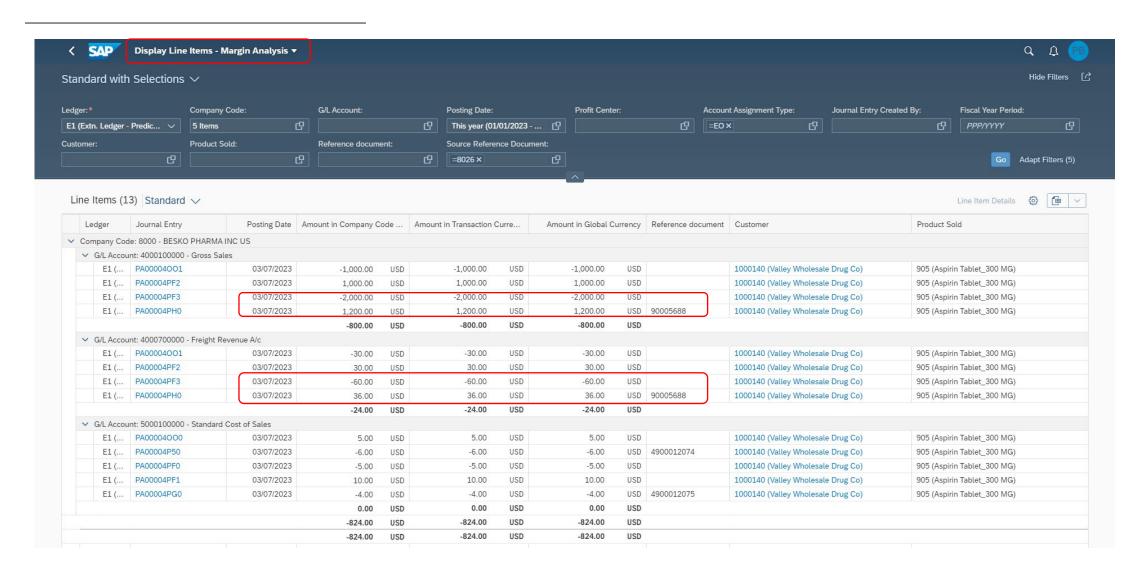
T-Account and Margin analysis view of completed deliveries



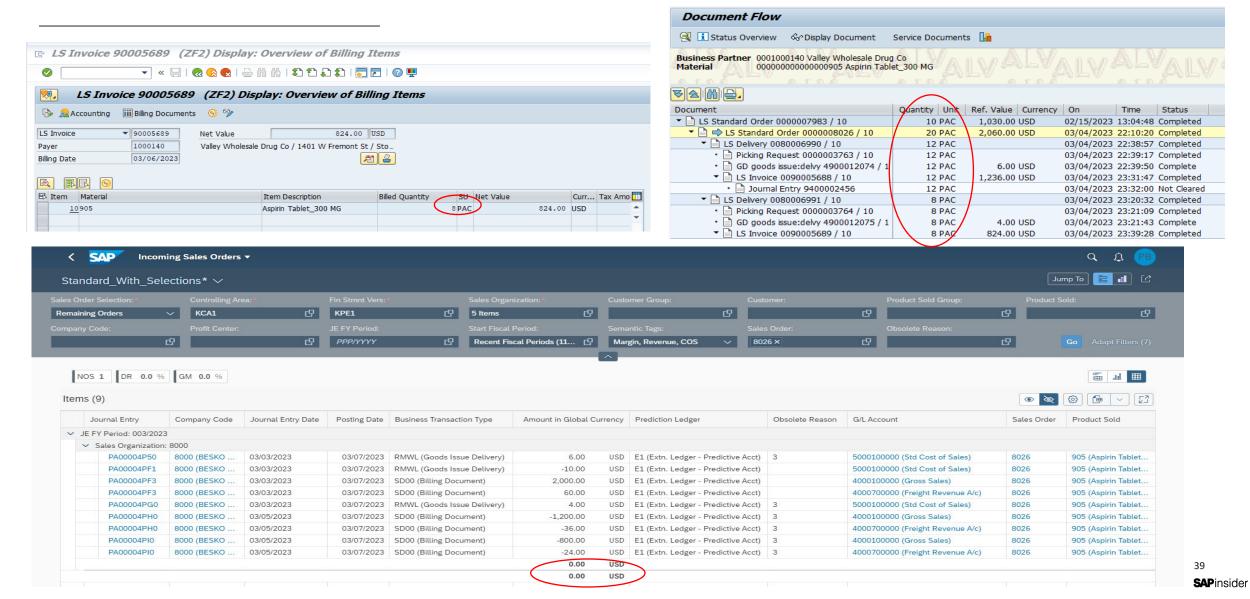
Partial Billing based on deliveries – Impact for Predictive Accounting documents (2 partial deliveries / 2 billings)



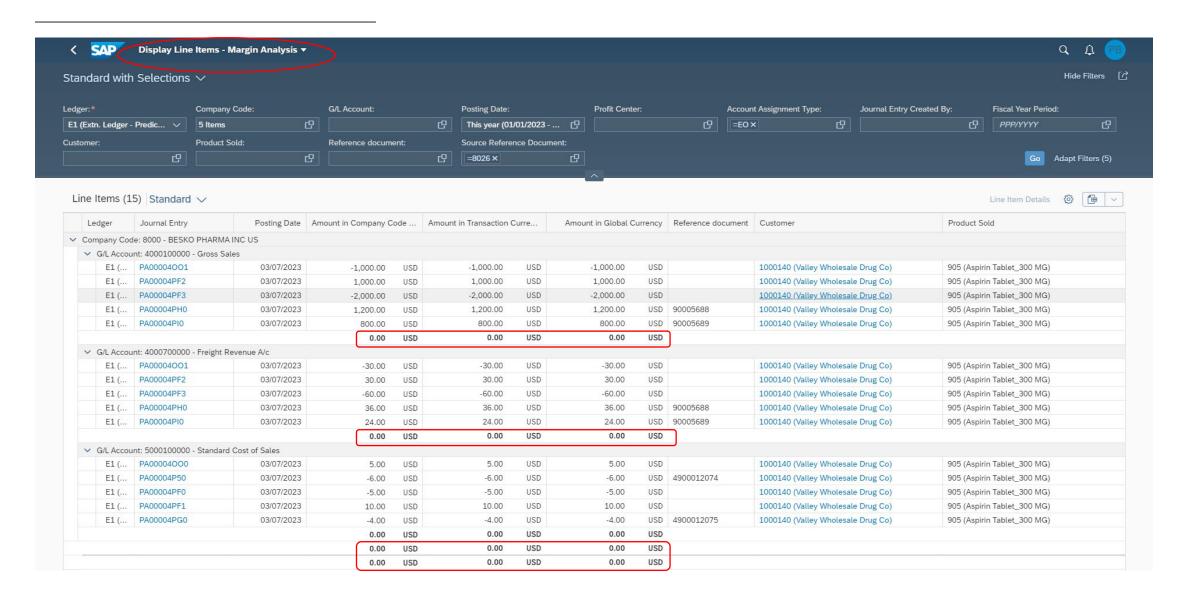
Analysis after 1st billing in Margin Analysis app



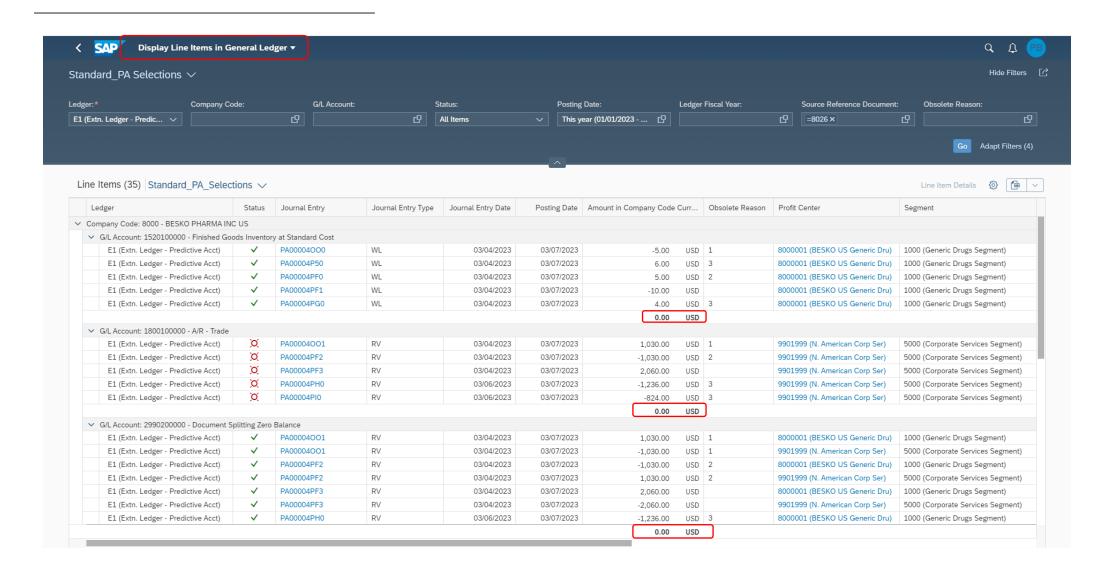
Billing for remaining quantity – Impact on PA documents



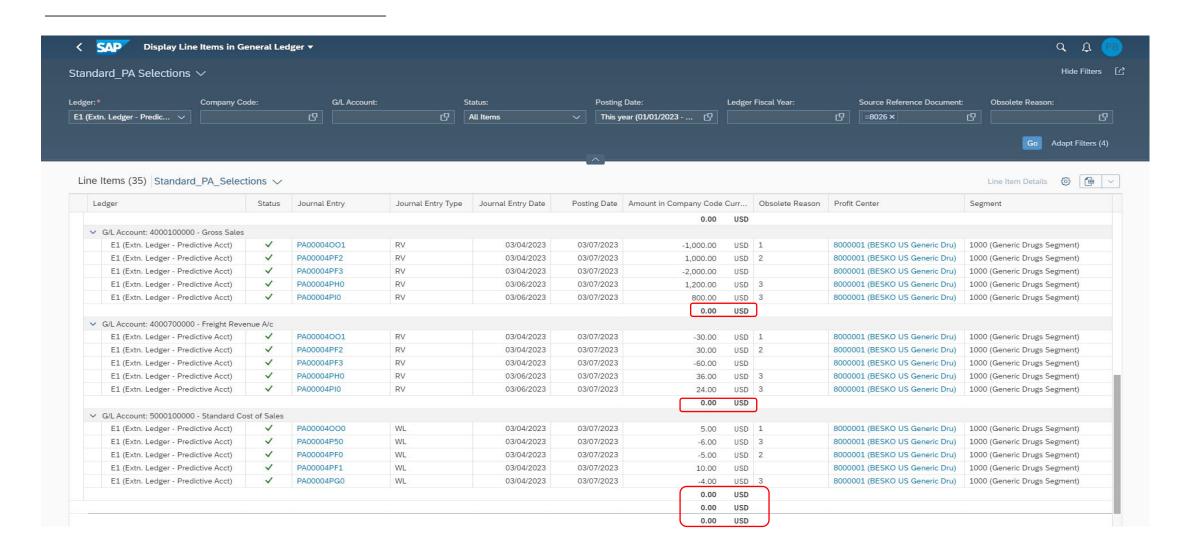
Analysis after 2nd billing in Margin Analysis app



Predictive Accounting documents can also be analyzed on GL line item display app



Predictive Accounting documents can also be analyzed on GL line item display app

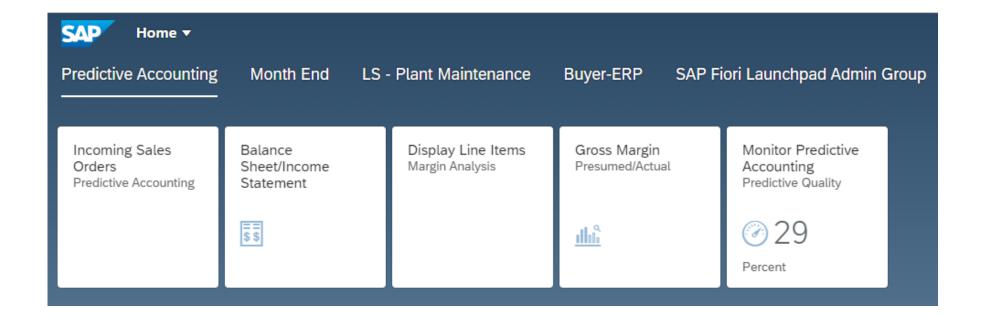


5. Analytical apps in Predictive Accounting

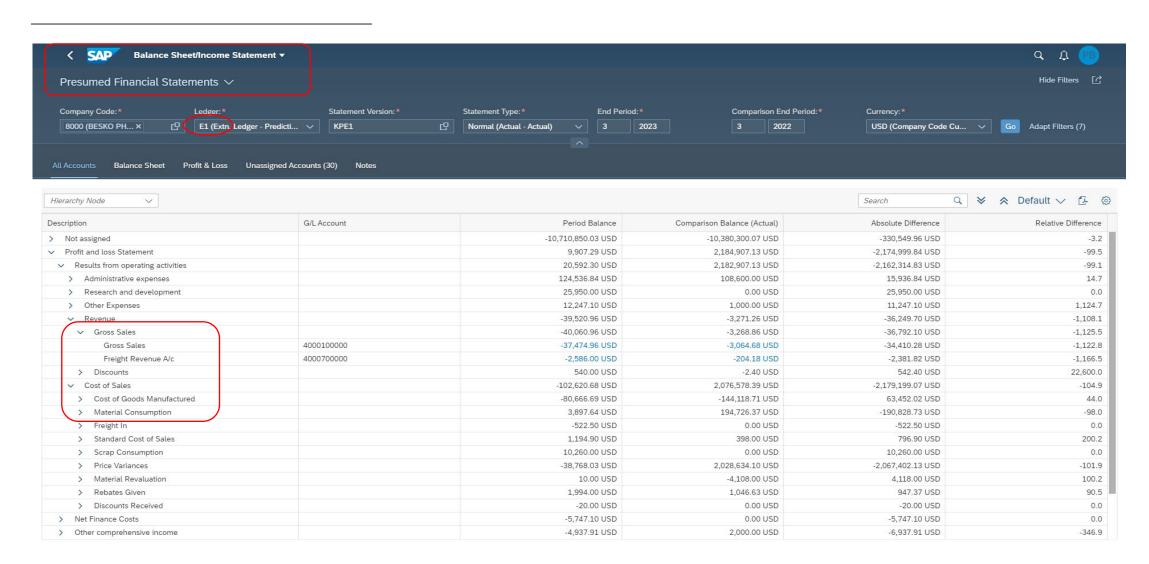
- Analytical apps
- Monitoring app



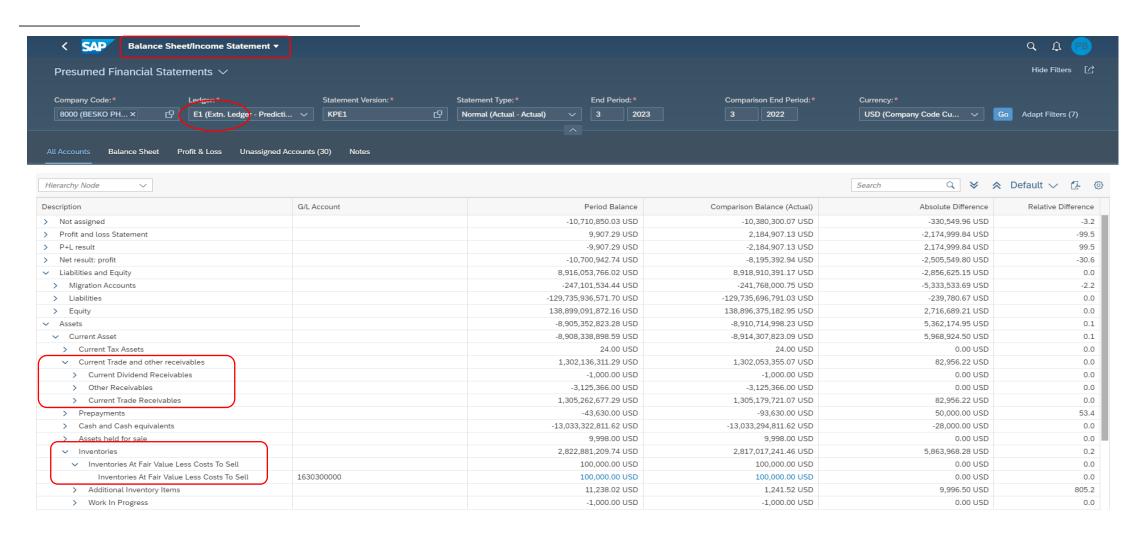
Reporting in Predictive Accounting – Fiori Apps



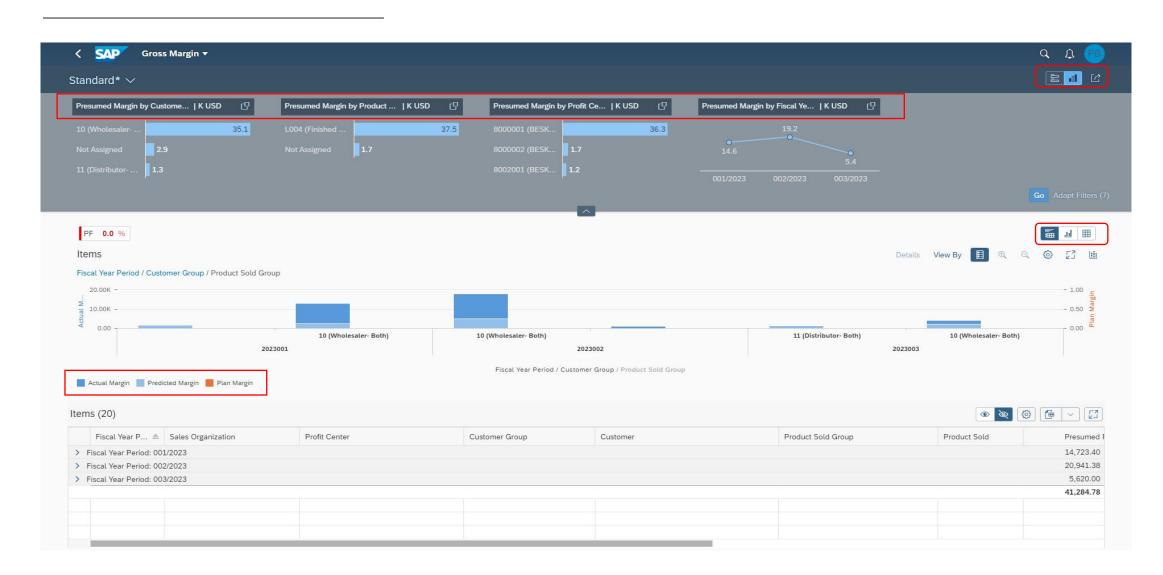
Presumed Financial Statements through "Balance Sheet / Income Statement" App



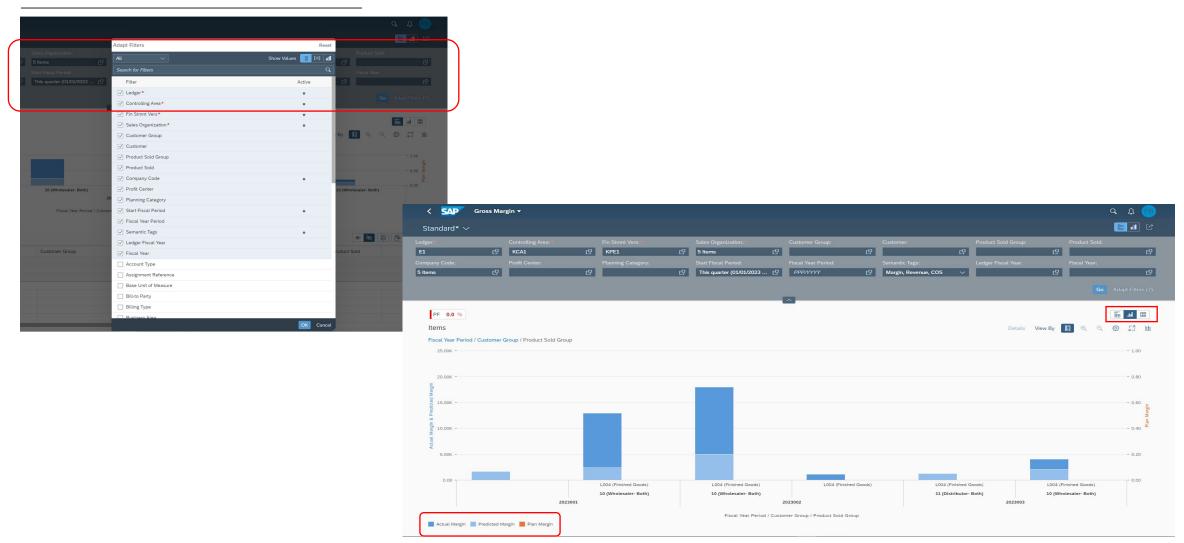
Presumed Financial Statements through "Balance Sheet / Income Statement" App (Cont..)



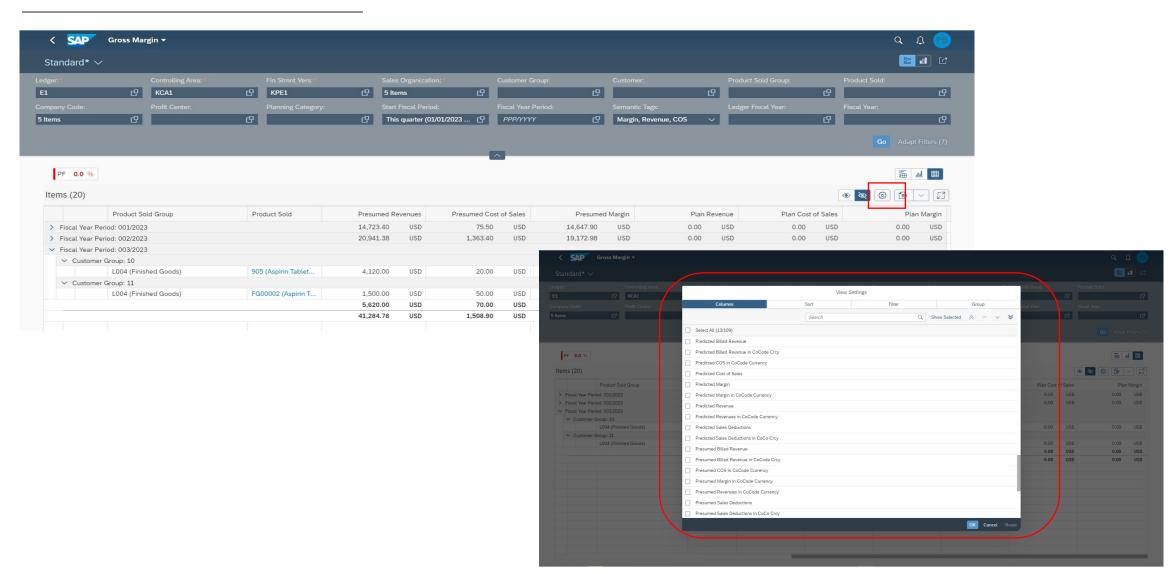
Gross Margin App for analysis of predictive accounting results



Gross Margin App for analysis of predictive accounting results (Cont..)

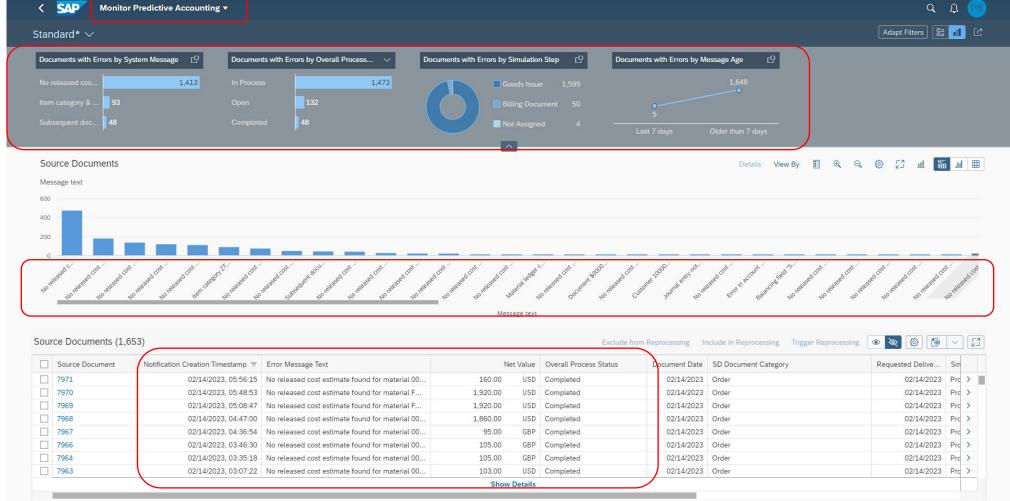


Gross Margin App for analysis of predictive accounting results (Cont..)

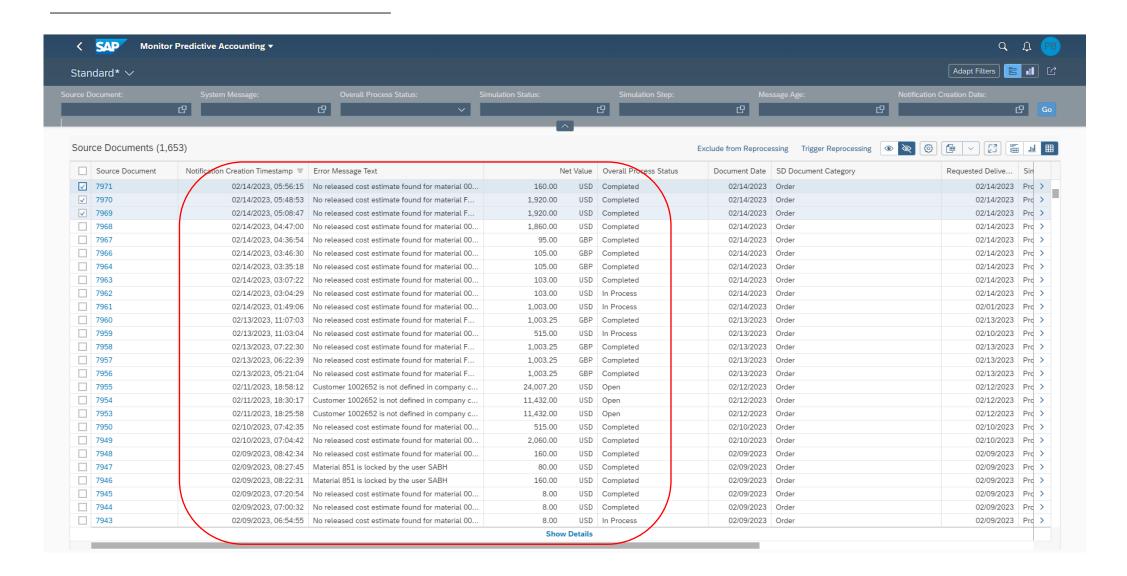


Monitor Predictive Accounting App





Monitor Predictive Accounting App

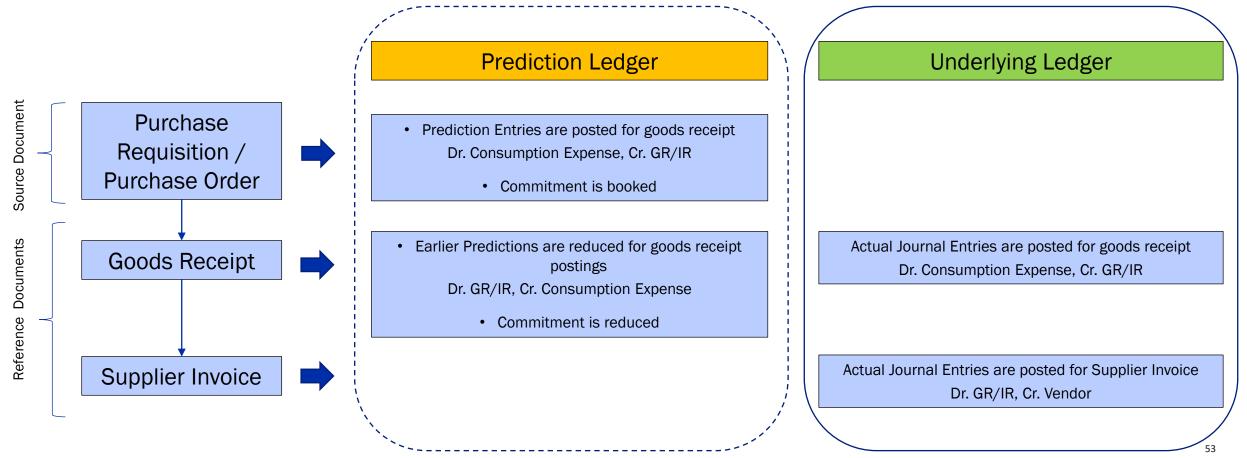


6. Predictive Accounting in Procurement Cycle (Predictive Commitments) – Detailed Example

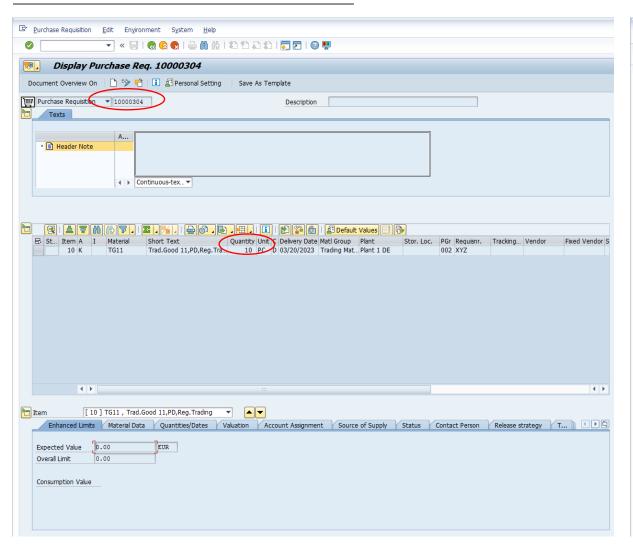
- Creation of Purchase Requisition (10 qty)
- Change in Qty of Purchase Requisition (10 to 20qty)
- Conversion of Purchase Requisition into Purchase Order (with Change in Amount from \$270 to \$10k)
- Change in Amount in Purchase Order (\$10k to \$12k)
- Partial Goods Receipts (5 qty + 15 qty)
- Supplier Invoice booking

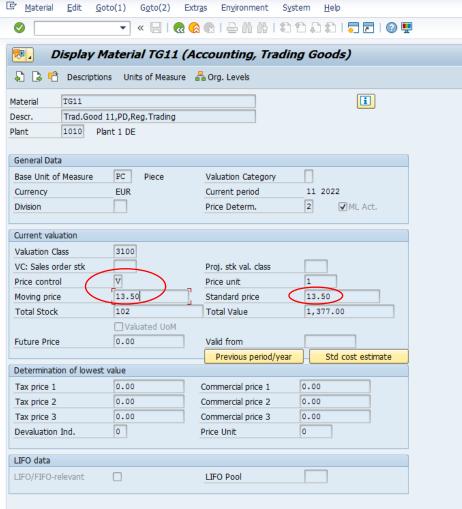
Predictive Accounting – Purchase Processes

Combination of Values from both Prediction and Underlying ledgers will allow us to analyze and get deeper insights on "Presumed Revenues" / "Presumed Costs" / "Presumed Margins" (Presumed = Prediction + Actuals).

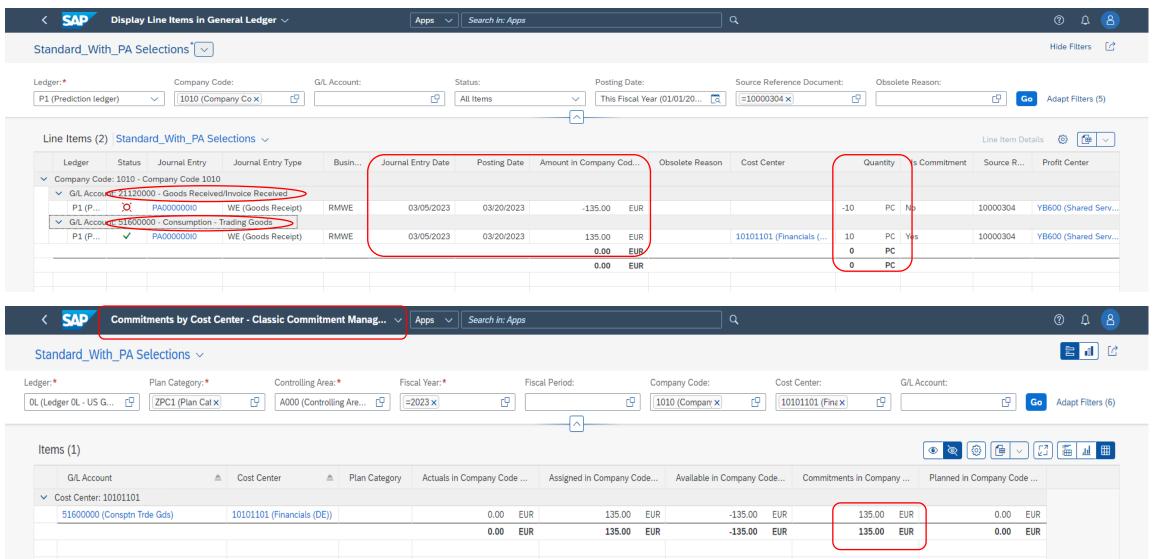


Creation of Purchase Requisition (PR)

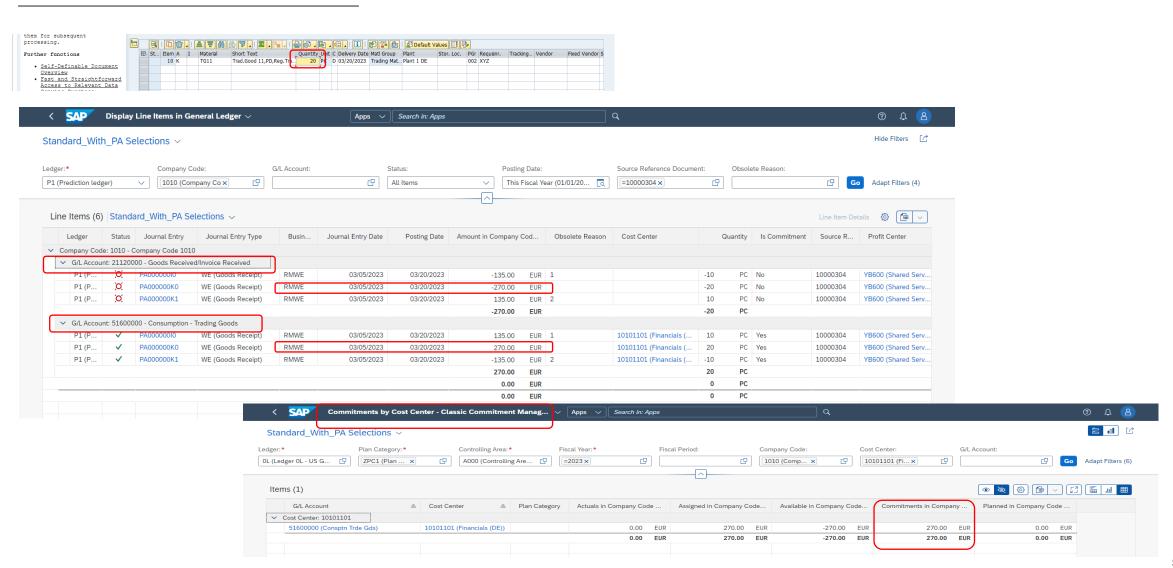




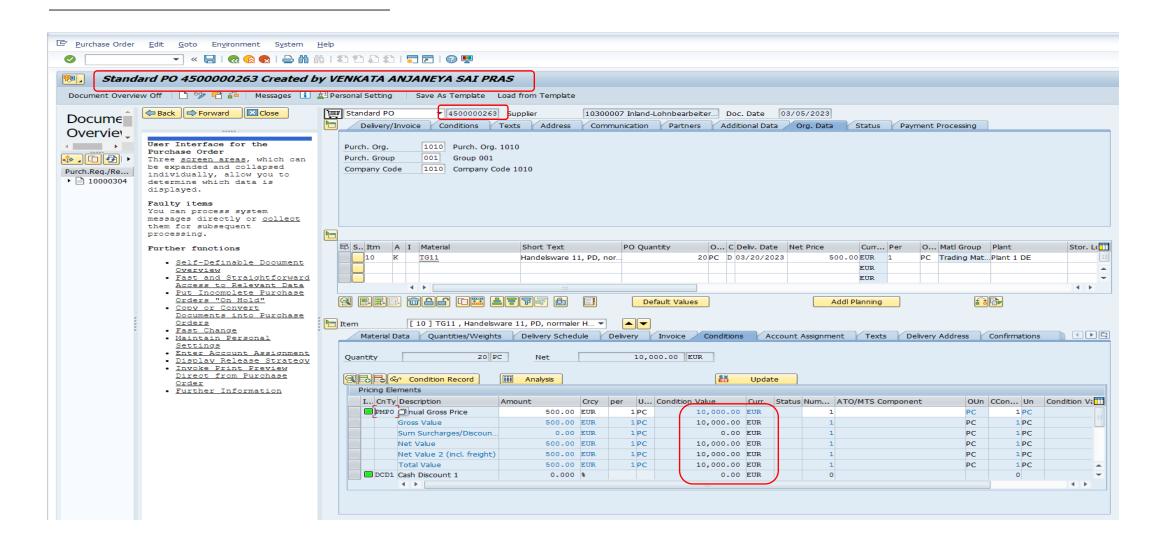
Creation of Purchase Requisition – Posting of PA document



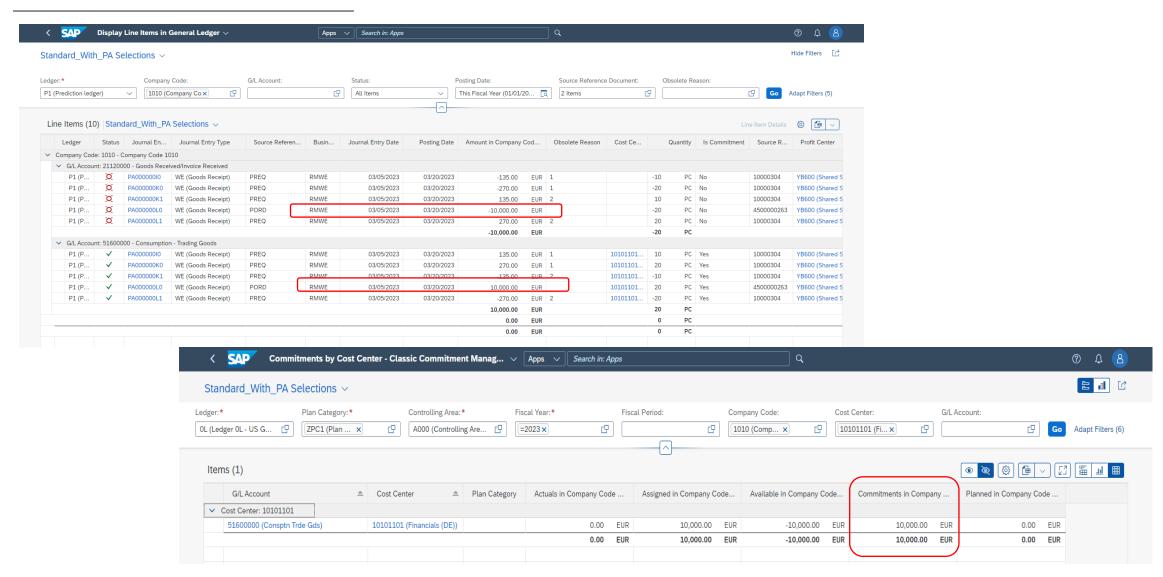
Change of purchase requisition quantity from 10 to 20 – Impact on PA document and commitment values



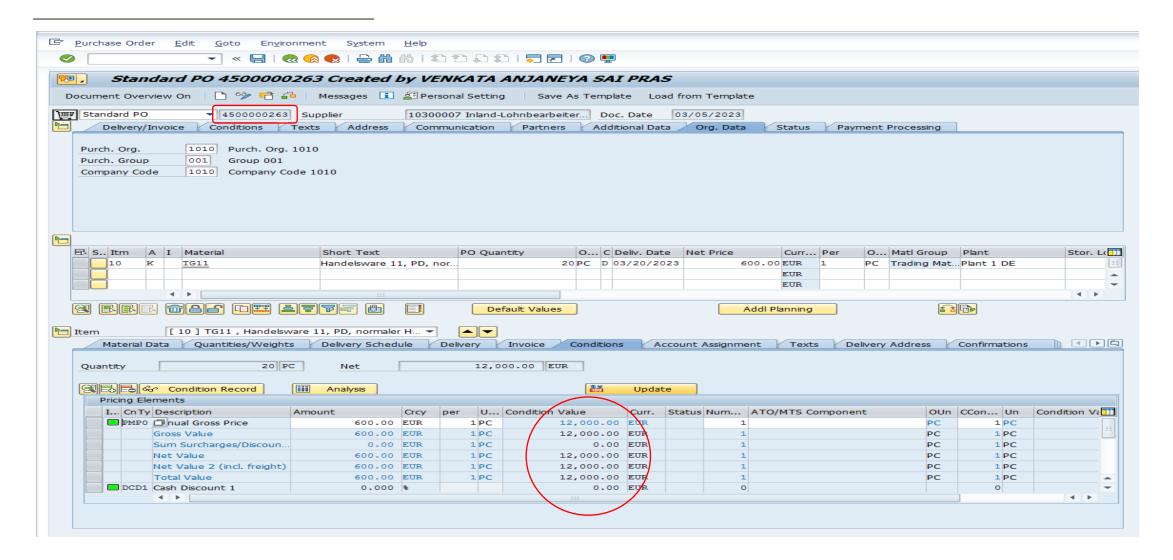
Conversion of Purchase Requisition (PR) to Purchase Order (PO) - Change in Dollar Amount from \$270 to \$10k



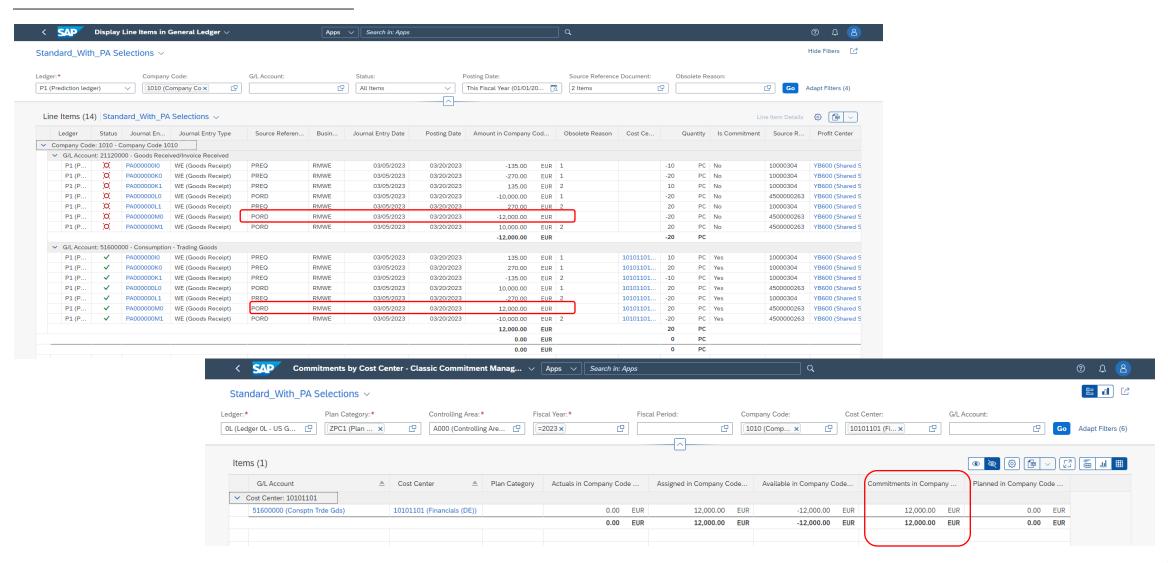
Impact of creation of PO on PA document and commitment values



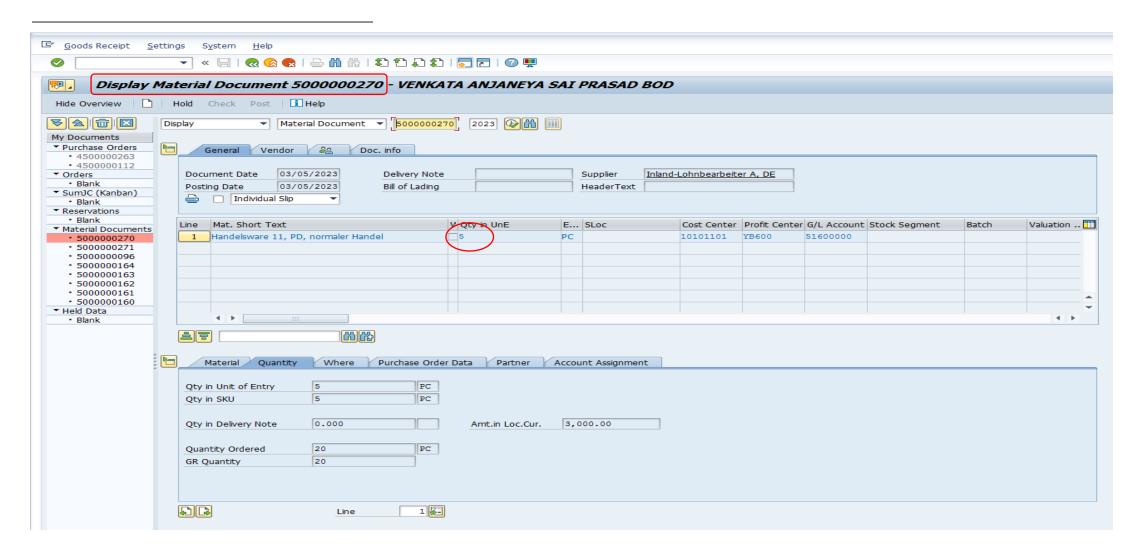
Change of amount on PO from \$10k to \$12k



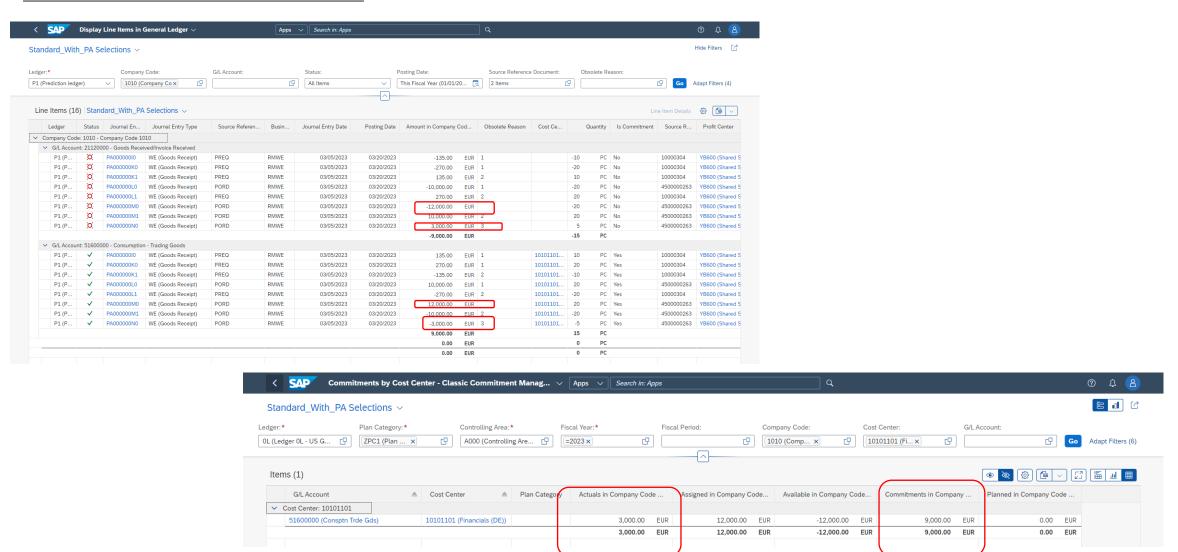
Impact of PO amount change on PA documents and commitment values



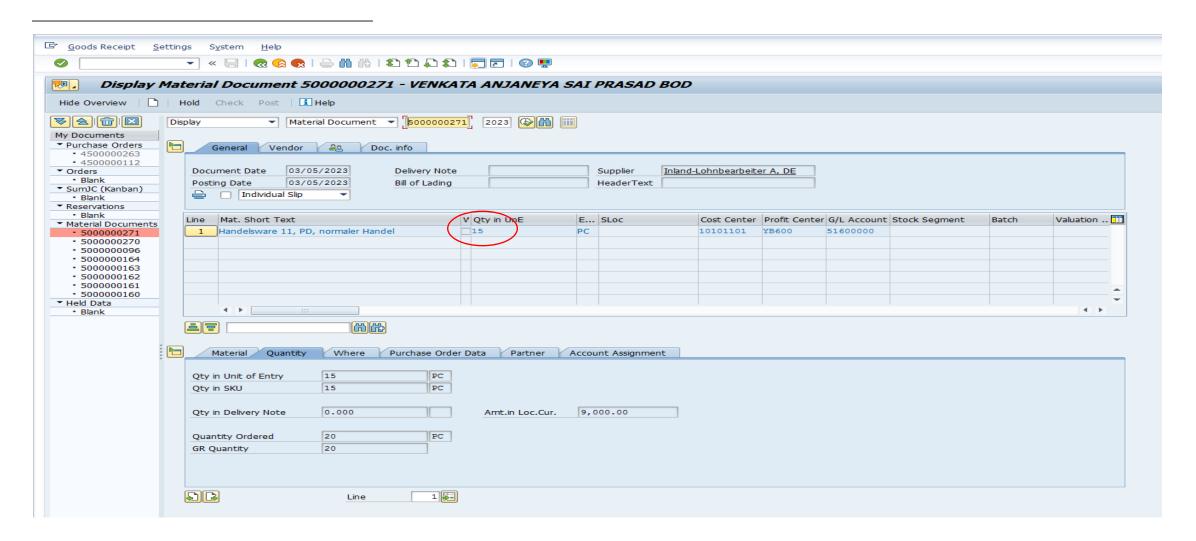
Posting of Goods Receipt (partial quantities - 5 + 15)



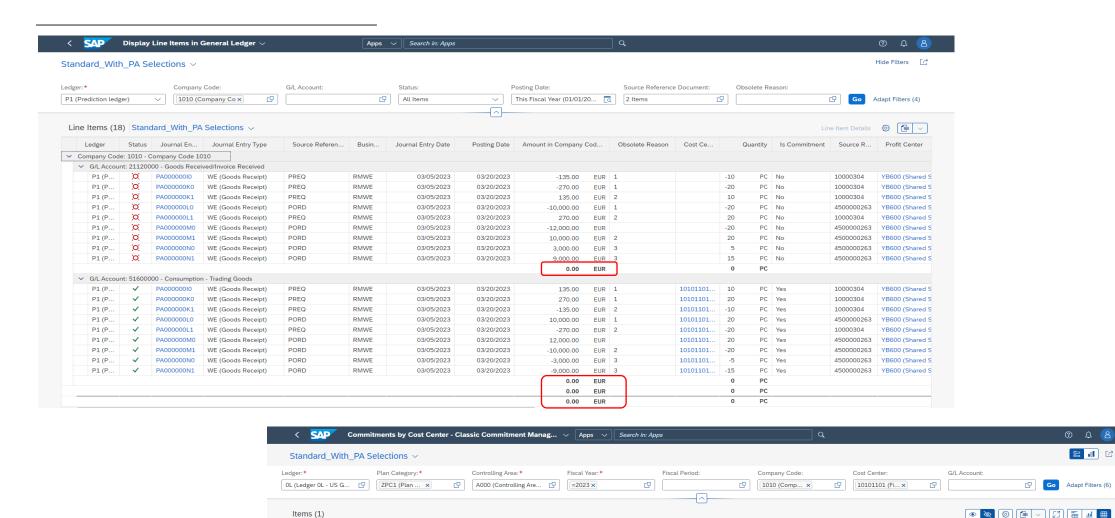
Impact of Goods Receipt posting on PA documents and commitment values



Posting of Goods Receipt (remaining quantity)



Impact of good receipt (for remaining quantity) posting on PA documents and commitment values



10101101 (Financials (DF))

✓ Cost Center: 10101101

51600000 (Consett Trde Gds)

Actuals in Company Code .

12.000.00 EUR

12,000.00 EUR

Assigned in Company Code...

12.000.00 EUR

12,000.00 EUR

Available in Company Code...

-12.000.00 FUR

-12,000.00 EUR

Commitments in Company ...

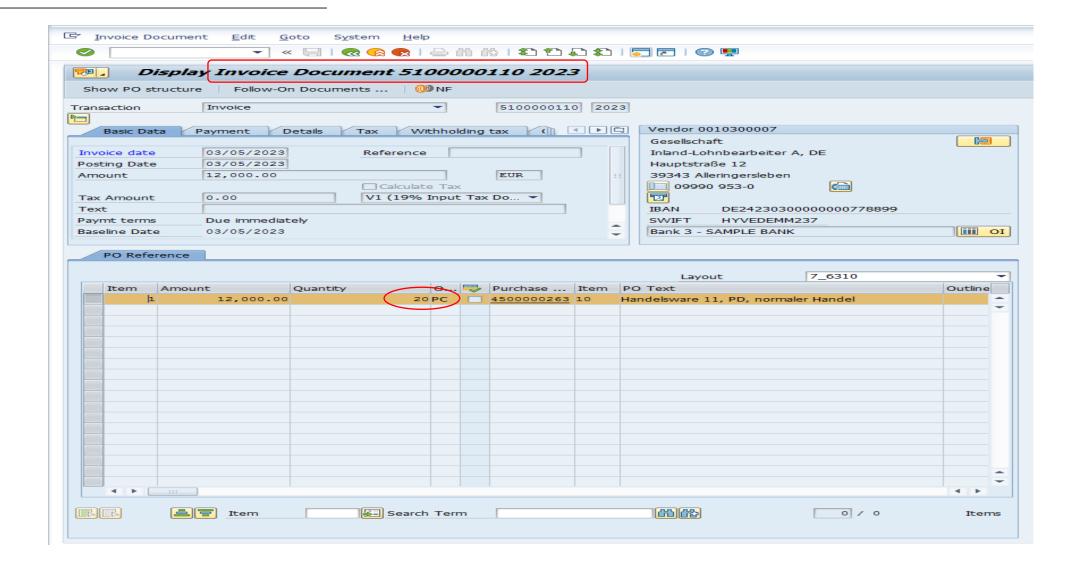
0.00 EUR

0.00 EUR

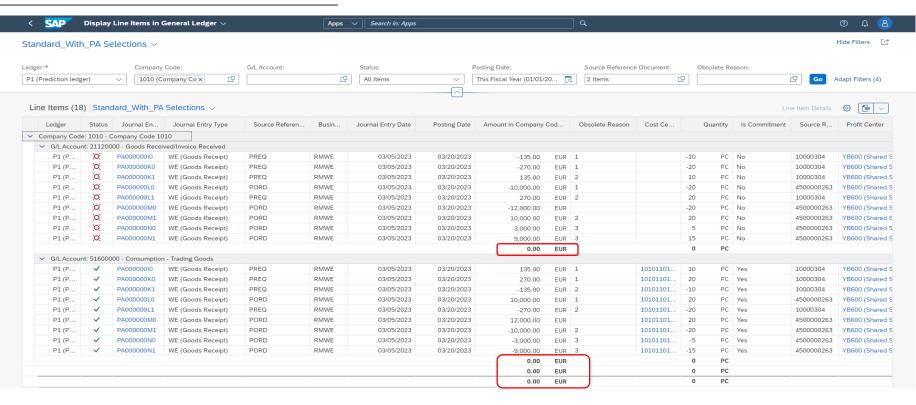
0.00 EUR

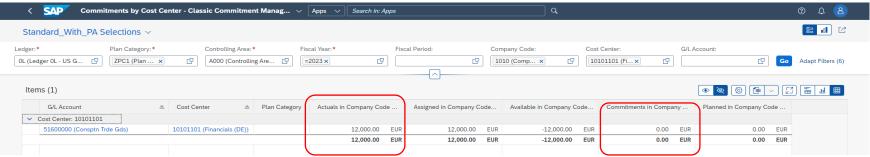
0.00 EUR

Posting of Vendor Invoice



Impact of Vendor Invoice posting on PA documents and commitment values





7. Special Topics (Restrictions/Limitations, **Profit Center Re-organization)**

- **Restrictions / Limitations**
- **Impact of Profit Center Re-organization**

Predictive Accounting – Restrictions / Limitations

- Predictive Accounting supports only processes the following SD document categories
 - C Order, H- Returns, I- Order without charge, K-Credit Memo Request, L-Debit Memo Request
- Predictive Accounting doesn't support sales orders with WBS and Internal Order account assignments. This means, currently customer project management, project based services are not supported
- For third party direct shipment (including drop shipments), predictions for the goods issues are not supported
- There are some additional restrictions for intercompany sales within selling company
- Predictive Accounting doesn't support changes to items in a sales order after a corresponding partial delivery / partial billing. For sales Orders with a billing plan, only the still open billing documents are simulated after a partial delivery / partial billing
- When a material price is changed in the master data and if PA entries are already posted for a sales order, there will not be any new or corrected PA posting based on the changed price from material master
- PA doesn't support Maintenance centric service orders or corrective maintenance services
- PA doesn't support travel request items created by users without employee number in concur (as employee number is needed to determine employee's cost center)
- PA creates Journal entries in all available prediction ledgers based on material master information from leading ledger. So, different material prices from non-leading ledgers are not reflected in predictive journal entries. Further details can be seen in SAP Note 3033604.
- For additional and complete details on Predictive Accounting functionalities, Process impacts, Restrictions and Limitations, please refer to SAP note. 3223551 and help.sap.com

Predictive Accounting – Re-organization

- In S/4HANA 2022 FPS01, SAP has introduced profit center reorganization for predictive journal entries.
- Predictive Accounting Data is considered during the "Processing Step" of a profit center reorganization. Predictive accounting checks if the Journal entries are fully reduced, partially reduced or not at all reduced due to actual postings in later business processes
 - For line items that are not yet reduced (which means they will have Obsolete Reason (OR) as Blank),
 - the system will mark them as outdated (OR =1) and cancels them with OR=2 (cancellation) with old profit center. For OR=1 line items (old ones) there will be no assignment of "organizational change ID". For OR-2 line items (being cancelled), system assigns "organizational change ID" for reference. Finally, new line items with OR=Blank will be created with new profit center and with the assignment of "organizational change ID".
 - For the line items which are partially reduced,
 - similar to above logic, the system first marks original items (for full quantity) with OR=Blank as OB=1 Outdated (with old PC and without "organizational change ID" assignment) and cancels them with OB=2 (with old PC and with "organizational change ID" assignment with reference).
 - Then it cancels the earlier reduced OB=3 items with OB=Blank new lines (with old PC and no "organizational change ID" reference).
 - o Finally, it creates fresh line items with OB=Blank for open quantity with new PC and the "organizational change ID" reference
 - Predictive journal entries which are fully reduced are not changed as there is no open amount

Predictive Accounting – Additional Details

- The report "Repost Predictive Accounting Data Report" "FINS_PRED_REPOST" can be used to insert
 the missing predictive Journal entries for sales orders created in the current period before activation of
 "Predictive Accounting". More details on this can be found in the related report/program
 documentation.
- FINS_PRED archiving object has been provided for archiving predictive journal entries that have sales
 orders as the source document
- With the Predictive journal entry Mange (Synchronous) web service, journal entries can be created by importing the needed data from external system (e.g., for goods issues and billing documents or for reduction journal entries)

Wrap Up



Where to Find More Information

- Predictive Accounting Controlling
 - https://help.sap.com/docs/SAP_S4HANA_ON-PREMISE/5e23dc8fe9be4fd496f8ab556667ea05/c78ce92ab96346f7ab2722b79756ffc1.html
- Predictive Accounting S/4HANA Cloud, Public Edition
 - https://help.sap.com/docs/SAP_S4HANA_CLOUD/bd39d476d1e34b48afed98759286efd6/c78ce92ab96346f7ab2722b79756f fc1.html
- Predictive Accounting Videos
 - https://help.sap.com/docs/SAP_S4HANA_CLOUD/6b39bd1d0e5e4099a5b65d835c29c696/88f886260fff4944b9375d7a671c 4572.html
- Predictive Accounting SAP S/4HANA 2022 Restriction Note
 - https://launchpad.support.sap.com/#/notes/3223551
- What's new in S/4HANA 2022
 - https://help.sap.com/docs/SAP_S4HANA_ON-PREMISE/c17592f7055f4dea86c2b890ef483da8/24a86e4e4c8c4763b91ba25fcd872d66.html

Key Points to Take Home

- Predictive Accounting is a new functionality in S/4HANA. It is a framework to post, maintain and report on the future values (revenues, costs, etc.) based on existing upstream data that is already known to us
- Predictive Accounting enables proactive financial decisions (e.g., key operational and strategic decisions in treasury, tax, and for working capital, etc.)
- Predictive Accounting is currently enabled for Sales Processes, Purchasing Processes (Predictive Commitments) and Travel & Expense Management
- Predictive Accounting has few Fiori apps for reporting, analysis and monitoring of related processes
- Predictive Accounting has some restrictions / limitations (more details in the main presentation and in 'where to find more information')

Thank you! Any Questions?

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Please remember to complete your session evaluation.

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