



What's New in SAP Integrated Business Planning 2105 (Planned) / Part 2 Applications and Business Processes

SAP Product & Solution Management
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PUBLIC

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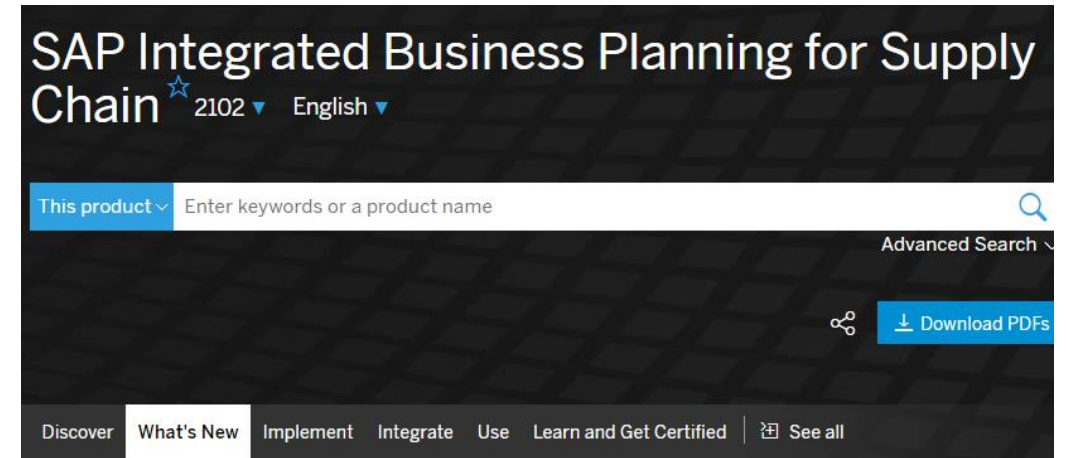
This is a sneak preview

The What's New webinars as well as the What's New documentation on the SAP Help Portal at <http://help.sap.com/ipb> are available some weeks before the actual release date.

The release of SAP Integrated Business Planning 2105 is currently planned for May 5, 2021. The system upgrades for the customer test systems are scheduled the following weekend.

BUT... things can happen ... and features might still be delayed.

Therefore: „This is the current state of planning and may be changed by SAP at any time.“



What's New

What's New in SAP IBP for Supply Chain 2102?

Detailed overview of new and changed features, including links to more information in the application help and guides.

What's New in the Unified Planning Area?

(PDF)

Find the configuration enhancements in the unified planning area (sample planning area SAPIBP1) related to new features in 2102.

Upcoming and Recorded Events and Webinars



Find the recording and the slides for the What's New webinar for 2102, planned for January 2021, plus a vast list of upcoming and recorded webinars with our experts.

What's New for Previous Releases?

Get an overview of new features provided with earlier releases.

Sneak Preview

Explore here what is planned for the release 2105 (scheduled for May 2021).

Release Information Note (SAP Note 2977809)



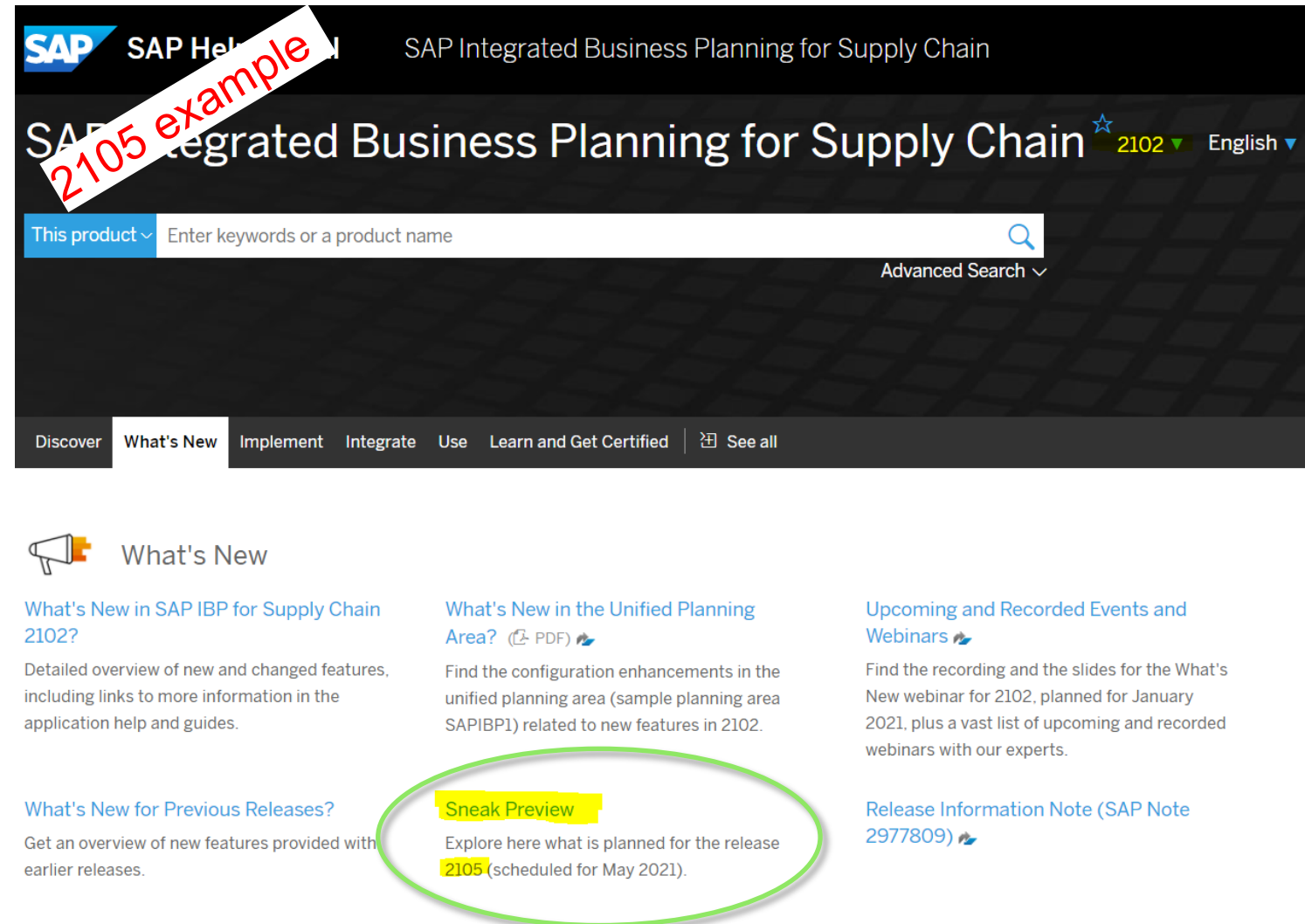
How early birds get to know about news and changes in the next release ;)

Around 3 to 4 weeks before the next release, you can find a sneak preview (preliminary What's New) on SAP Help Portal under <http://help.sap.com/ibp>.

For 2105, we have published the sneak preview on **April 12**.

For 2108, we are planning to make it available on **July 9**, around 4 weeks before the planned RTC on August 4.

Feedback welcome any time.



The screenshot shows the SAP Help Portal for SAP Integrated Business Planning for Supply Chain. A red diagonal banner with the text "2105 example" is overlaid on the top left. The page title is "SAP Integrated Business Planning for Supply Chain" with a star icon and "2102" next to it, and "English" as the language. Below the title is a search bar with the placeholder "Enter keywords or a product name" and a magnifying glass icon. To the right of the search bar is a link for "Advanced Search". Below the search bar is a navigation bar with tabs: "Discover", "What's New", "Implement", "Integrate", "Use", "Learn and Get Certified", and "See all". The "What's New" tab is selected. Below the navigation bar is a section titled "What's New" with a megaphone icon. It contains three main sections: "What's New in SAP IBP for Supply Chain 2102?", "What's New in the Unified Planning Area?", and "Upcoming and Recorded Events and Webinars". The "What's New in SAP IBP for Supply Chain 2102?" section has a detailed overview of new and changed features. The "What's New in the Unified Planning Area?" section has a link to a PDF. The "Upcoming and Recorded Events and Webinars" section has a link to a webinar. Below these sections is a "Sneak Preview" section, which is highlighted with a green oval. It contains the text "Explore here what is planned for the release 2105 (scheduled for May 2021)." and a link to "Release Information Note (SAP Note 2977809)".

Information about Licensing

None of the material presented include any indication of licensing required, which you can discuss with your individual account team. You can also visit “[Applications and Features of SAP Integrated Business Planning for Supply Chain](https://help.sap.com/viewer/6b0a6820ebf94ff4a15d68af6db7745b/latest/en-US)” for more details or get in contact with your Customer Engagement Executive.

Link to “Applications and Features of SAP Integrated Business Planning for Supply Chain”
<https://help.sap.com/viewer/6b0a6820ebf94ff4a15d68af6db7745b/latest/en-US>

Q&A: Chat is open for questions throughout the session with experts online to answer

Agenda

Yesterday

Part 1: Planning UIs, Foundation, ...

- Normalization Migration
- Analytics & Dashboards
- Web-based Planning
- Attribute as Key Figure Statistics
- Application Job Templates Enhanced Authorizations
- Manage Editability Horizons for Key Figures
- SAP IBP, add-in for Microsoft Excel
- Change History Analysis App
- Machine Learning for Master Data Consistency
- Configuration
- Activation & Simplified Key Figures
- Copy Operator
- Integration

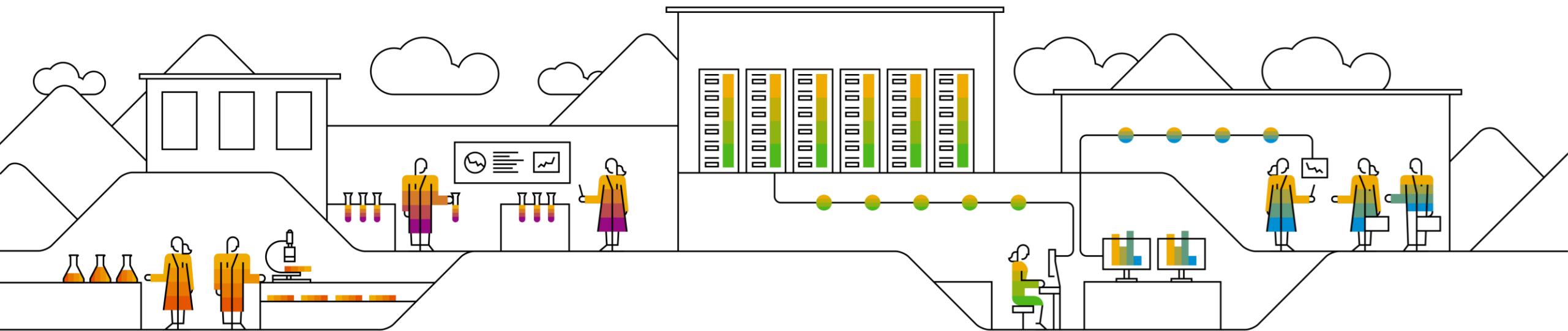
Today

Part 2: Applications and Business Processes

- Best Practices
- Exception Management
- Intelligent Visibility
- S&OP
- Demand Planning
- Demand Sensing
- Inventory Optimization
- Business Network Collaboration
- Order-based Planning

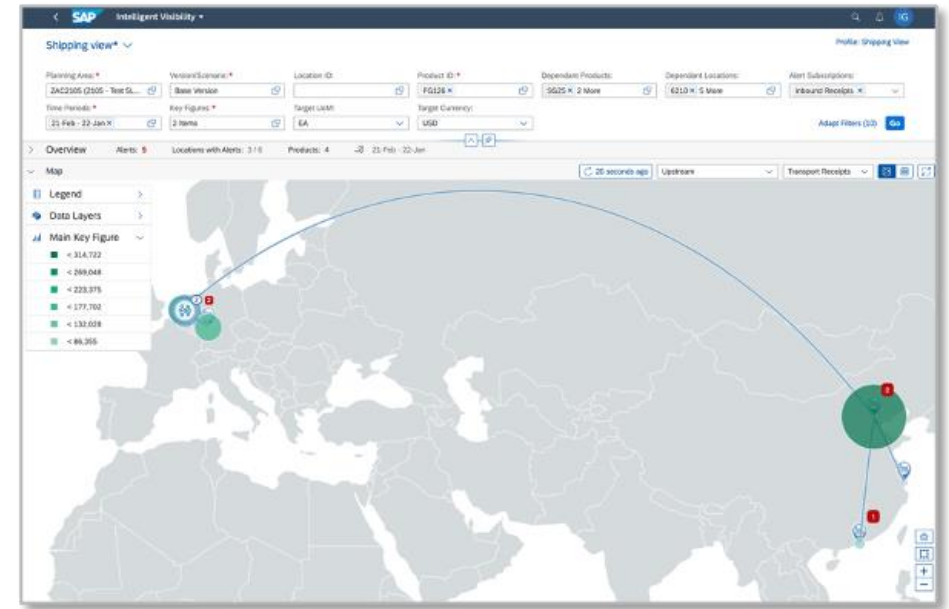
Best Practices

Ina Glaes



New scope and changes in V23.2105

- ❑ Technical upgrade to SAP Integrated Business Planning for Supply Chain 2105
- ❑ The SAPIBP1 sample planning area has been simplified as follows: the planning level descriptions and the explanatory key figure descriptions have been reworked to allow a better understanding of their meaning and usage; a new BestFit forecast model has been added to cover segment C products.
- ❑ The new *IBP – order-based planning outbound integration for deployment planning* scope item describes how to run the integration of the distribution plan from SAP IBP to the SAP S/4HANA system as a follow-up activity for the *IBP for response and supply – deployment planning – optimizer* scope item.
- ❑ The new *IBP for sales and operations – receipts analysis* scope item describes how to monitor the propagated demand from receiving locations to delivering locations as well as the demand supplied from a location to a customer on a geographic map with the *Intelligent Visibility* app
- ❑ The *IBP - Integration of planned independent requirements to SAP S/4HANA* scope item has been enhanced with a planning filter that can be created in SAP IBP to select only the relevant data sets for the integration back to SAP S/4HANA. The integration can be started from the SAP Integrated Business Planning, add-in for Microsoft Excel or from the *Application Jobs* app.
- ❑ All preconfigured Excel planning views have been updated based on the 2105 version of the SAP Integrated Business Planning, add-in for Microsoft Excel to simplify the formatting sheet and to provide more options for the editability of key figures.
- ❑ The *IBP for demand – demand planning* scope item has been updated and now uses the *Manage Master Data* app in *New Product Introduction* process steps. We've also added an example that shows you how to enhance a chart with a *Web-Based Planning* view.



Intelligent Visibility app: Receipts analysis

The screenshot shows the 'Run Application Job Template Once' dialog box. The 'Filter' tab is selected, showing a 'Filter: Product PIR Integration SAT2105' dropdown. Below this, there are buttons for 'Add', 'Update', 'Delete', and 'Organize'. A table with columns 'Attribute', 'Operator', and 'Values' is visible. The table contains one row with 'Product ID' as the attribute, '=' as the operator, and 'TG0011' as the value. There is an 'Add Attribute' button below the table. At the bottom right, there are 'Next' and 'Cancel' buttons.

Planned Independent requirements – planning filter in Excel

SAP Best Practices for SAP Integrated Business Planning for Supply Chain

Where to get it

<http://help.sap.com/ibp>

http://rapid.sap.com/bp/rds_ibp

Download the following assets:

- ❑ Test scripts
- ❑ Process flow charts
- ❑ Scope item recordings
- ❑ Configuration guides
- ❑ Excel planning view templates
- ❑ Sample data CSV files

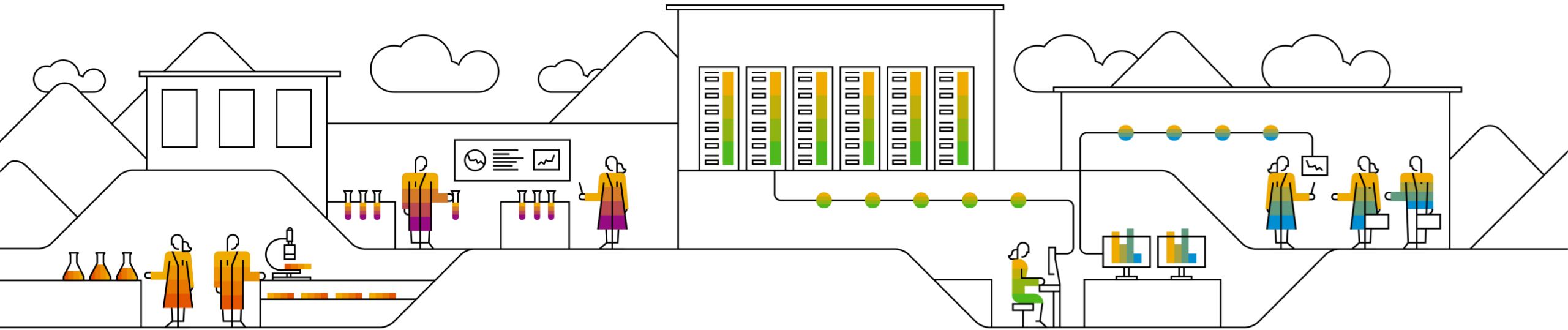
SAP IBP Best Practices 2011: Fundamentals to jump-start your implementation project [PDF](#) | [Recording](#)

The image displays two screenshots of SAP web portals. The top screenshot is the SAP Help Portal for SAP Integrated Business Planning for Supply Chain. It features a search bar, navigation tabs (Discover, What's New, Implement, Integrate, Use, Learn and Get Certified, See All), and sections for Configuration, SAP Best Practices, and Security. The bottom screenshot is the SAP Best Practices Explorer, showing the SAP Best Practices for SAP Integrated Business Planning for Supply Chain (IBP2011) package. It includes a description, version (IBP2011), language (English), and a table of scope item groups.

Name	Description
Integrated Business Planning for sales and operations	Align demand and supply plans with executive financial targets and key performance indicators.
Integrated Business Planning for demand	Manage and analyze demand streams to feed operational planning and drive greater productivity and customer satisfaction.
Integrated Business Planning for inventory	Determine the optimal inventory levels to drive supply planning, maximize customer service levels, and minimize working capital investments.
Integrated Business Planning for response and supply	Improve the agility of your global supply network by optimizing response and supply planning.
Supply Chain Control Tower and Business Network Collaboration	Quickly identify and resolve supply chain problems with an end-to-end visibility, real-time monitoring, analytics, alerting, and exception management. Share information with your business partners in a controlled manner.
Integrated Business Planning for demand-driven replenishment	Define strategic decoupling points

Order-based Planning

Claus Bosch, Thomas Fiebig, Ralf Heimbürger



Interactive Planning with Key Figures

Use case

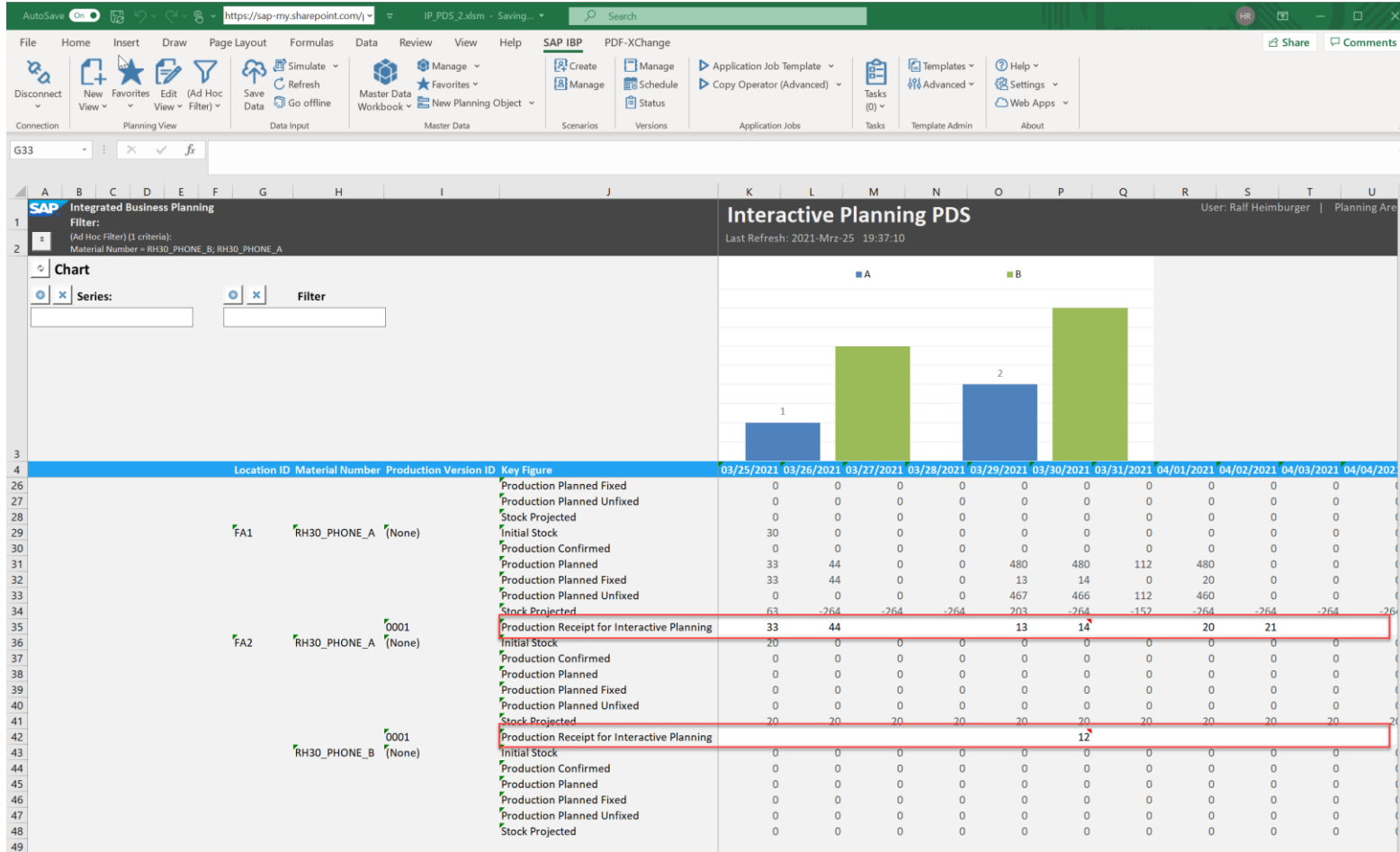
- Planner wants to manually create additional fixed planned receipts using the Excel add-in / Web-Based Planning app.
- The planned receipts should be added infinitely (single-level order creation ignoring all constraints)

Solution approach

- Planner creates additional supply using a new interactive key figures
- New application job takes (manually entered) key figure data
- New application job creates planned receipts
- Same process as in interactive planning for single orders
 - Scheduling service is called and planned receipts are created infinitely
 - PR, STR, planned orders are created
 - Orders are fixed
- New application job template to fix/unfix planned receipts
- New application job template to delete planned receipts

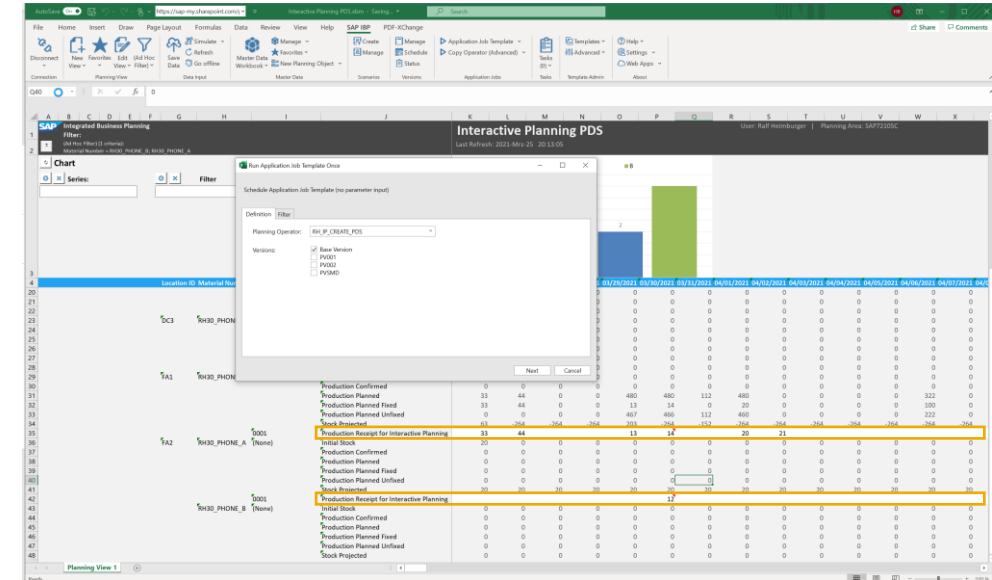
Example: Create planned orders on key figure data

- Maintain interactive planning key figure **Production Receipt for Interactive Planning** in Excel add-in or Web-Based Planning app



Example: Create planned orders on time series data

- Run your own application job template from the Excel add-in
 - Based on job template Create Planned Receipts from Interactive Key Figures
- You can also start an application job using the Application Jobs app
 - Based on job template Create Planned Receipts from Interactive Key Figures

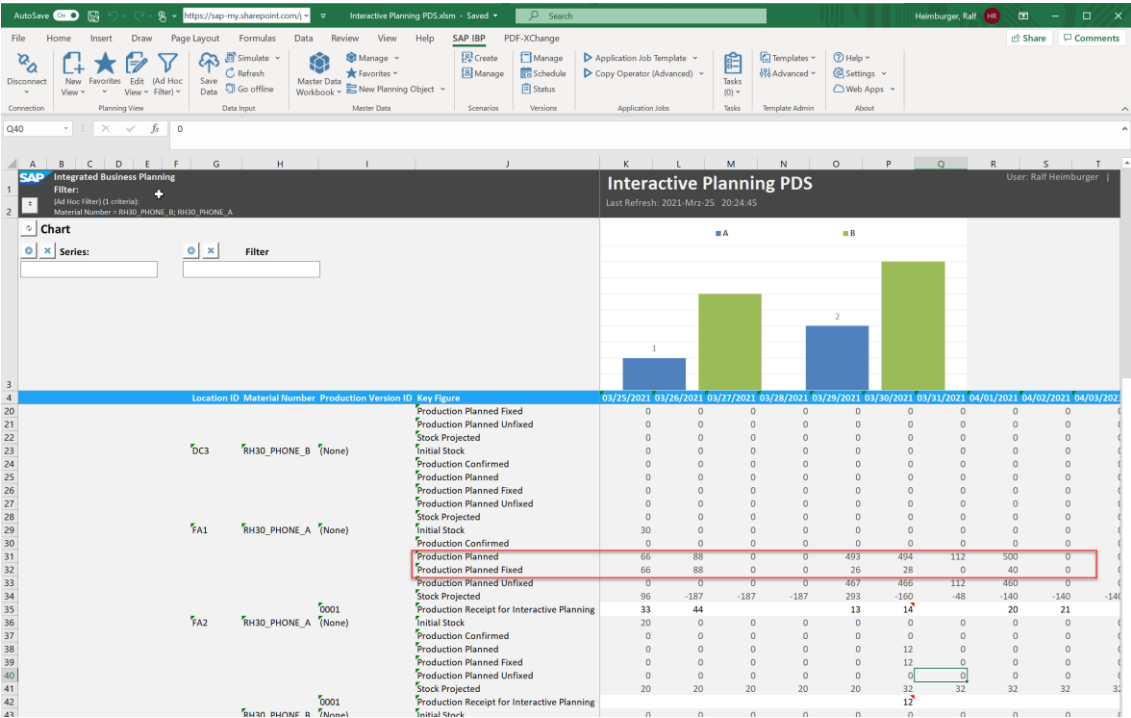


The screenshot shows the SAP 'New Job: Order-Based Planning: Create Planned Receipts from Interactive Key Figures' configuration screen. The interface is divided into three main sections: 1. Template Selection, 2. Scheduling Options, and 3. Parameters. The 'Parameters' section is currently active and includes the following fields:

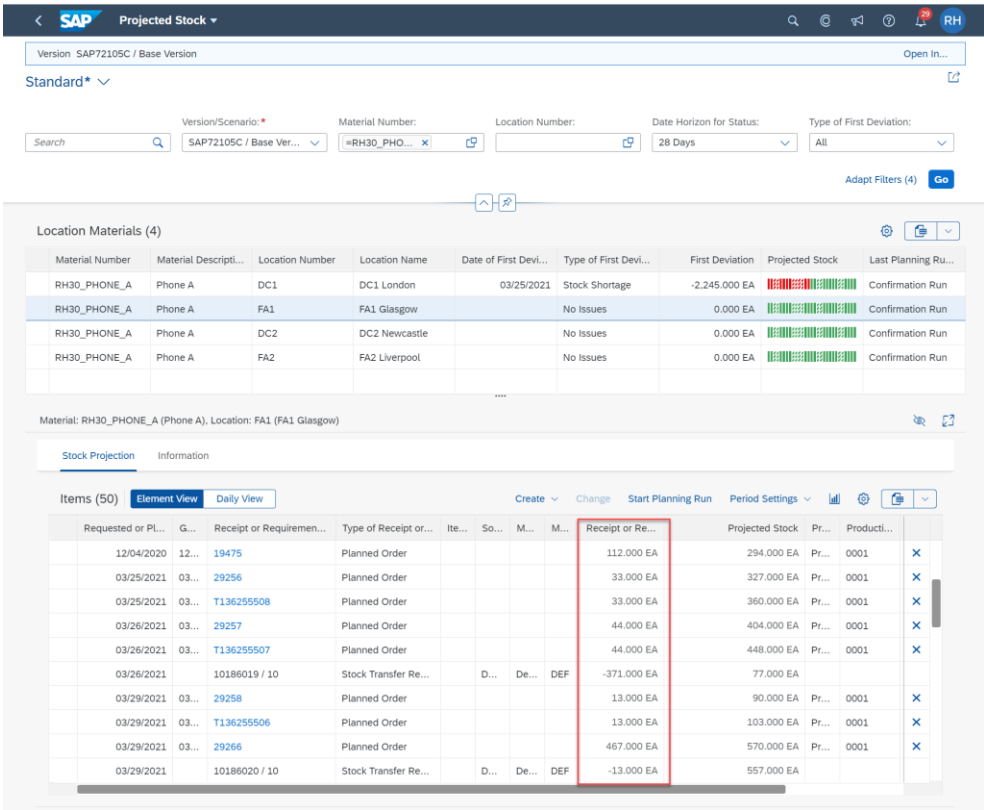
- Control Parameters:**
 - Version or Scenario: SAP72105C / Base Version
 - Run from Excel Add-in: No
- Order Types:**
 - Purchase Requisitions: ☐
 - Stock Transfer Requisitions: ☐
 - Planned Orders: ☒
- Scope:**
 - Planning Filter: [Empty field]
- Time Selection:**
 - First Period: Today
 - Time Zone: UTC
 - Number of Periods: 0

Example: Check the planned receipts

- Excel add-in



- Projected Stock app



New application job templates

The following application job templates are available:

- Order-Based Planning: Create Planned Receipts from Interactive Key Figure
- Order-Based Planning: Delete Planned Receipts
- Order-Based Planning: Fix or Unfix Planned Receipts

Templates can be created to be run as an operator in the Excel add-in.

Set Run from Excel Add-In to Yes.

The screenshot shows the 'Edit Job Template' dialog for 'RH10_Create'. The 'General Information' section shows 'Job Template: RH10_Create' and 'Steps: 1. Order-Based Planning: Create Planned Receipt...'. The 'Scheduling Options' section shows 'Recurrence Pattern: Single Run'. The 'Parameter Section' is divided into 'Control Parameters' (Version or Scenario: SAP72105C / Base Version, Run from Excel Add-In: No) and 'Order Types' (Purchase Requisitions: checked, Stock Transfer Requisitions: unchecked, Planned Orders: unchecked). The 'Scope' section shows 'Planning Filter:'. The 'Time Selection' section shows 'First Period: Today', 'Time Zone: UTC', and 'Number of Periods: 0'.

The screenshot shows the 'Run Application Job Template Once' dialog box overlaid on a data table. The dialog box has tabs for 'Definition' and 'Filter'. The 'Definition' tab is active, showing 'Planning Operator: Create Planned Receipts from Interactive Key Figure' and 'Versions: Base Version (checked), PV001, PV002, PVSMD'. The data table below shows the following data:

Location ID	Material Number	Production Version ID	Key Figure	12/16/2020	12/17/2020
FA71	PHONE_A	0001	Production Planned (PDS)	100	100
			Production Confirmed (PDS)	300	300
			Interactive Production Receipts	50	

Application job template: Create Planned Receipts from Interactive Key Figures

- **Selection parameters:**
 - Planning area / Planning version/scenario
 - Dependent on parameter Run from Excel Add-In
 - Planning filters (Source of supply is selected)
 - Order types
 - Purchase Requisitions
 - Stock Transfer Requisitions
 - Planned Orders
 - Time Selection

The screenshot shows the SAP 'Display Job Template' interface for the job template 'Order-Based Planning: Create Planned Receipts from Interactive Key Figures'. The interface is organized into several sections:

- General Information:** Displays the Job Template name and a list of steps. The first step is '1. Order-Based Planning: Create Planned Receipts from Int...'. A 'Shared Template' checkbox is checked.
- Scheduling Options:** Shows the 'Recurrence Pattern' set to 'Single Run'.
- Parameter Section:**
 - Control Parameters:** Includes fields for 'Version or Scenario' (SAP72105C / Base Version), 'Run from Excel Add-In' (No), and 'Version'.
 - Order Types:** Includes checkboxes for 'Purchase Requisitions', 'Stock Transfer Requisitions', and 'Planned Orders'.
 - Scope:** Includes a 'Planning Filter' field.
 - Time Selection:** Includes fields for 'First Period' (Today), 'Weekday' (Monday), 'Time Zone' (UTC), and 'Number of Periods' (0).

At the bottom right, there are buttons for 'Check', 'Maintain Steps', 'Save', 'Cancel', and a link icon.

Application job template: Delete Planned Receipts

- **Selection parameters:**
 - Planning area / Planning version/scenario
 - Dependent on parameter Run from Excel Add-In
 - Planning filters (Source of supply is selected)
 - Order Types
 - Purchase Requisitions
 - Stock Transfer Requisitions
 - Deployment Requisitions
 - Planned Orders
 - Planned Orders in DPS (Detailed Planning and Scheduling)
 - Fixing Status
 - Do Not Delete Receipts in Freeze Horizon
 - Distribution freeze horizon, production freeze horizon, DPS horizon
 - Time Selection

Logic: All planned receipts in a bucket are deleted

The screenshot shows the SAP 'Display Job Template' interface for the job template 'Order-Based Planning: Delete Planned Receipts'. The interface is organized into several sections:

- General Information:** Shows the job template name and a list of steps, with the first step being '1. Order-Based Planning: Delete Planned Receipts'.
- Scheduling Options:** Includes a 'Recurrence Pattern' dropdown set to 'Single Run'.
- Parameter Section:**
 - Control Parameters:** Fields for 'Version or Scenario' (SAP72105C / Base Version), 'Run from Excel Add-In' (No), and 'Version'.
 - Order Types:** A list of checkboxes for 'Purchase Requisitions', 'Stock Transfer Requisitions', 'Deployment Requisitions', 'Planned Orders', and 'Planned Orders in DPS'.
 - Order Fixing:** A 'Fixing Status' dropdown set to 'Fixed and Unfixed'.
 - Time Selection:** Fields for 'First Day' (Today), 'Weekday' (Monday), 'Number of Days' (1), and 'Time Zone' (UTC).
 - Receipts in Freeze Horizon:** A checkbox for 'Do Not Delete Receipts'.
 - Scope:** A 'Planning Filter' field.

At the bottom of the screen, there are navigation buttons: 'Check', 'Maintain Steps', 'Save', 'Cancel', and a help icon.

Application job template: Fix or Unfix Planned Receipts

- **Selection parameters:**
 - Planning area / Planning version/scenario
 - Dependent on parameter Run from Excel Add-In
 - Planning filters (Source of supply is selected)
 - Order Fixing operation (Fix, Unfix, Both)
 - Order Types
 - Purchase Requisitions
 - Stock Transfer Requisitions
 - Planned Orders
 - Consider Receipts in Freeze Horizon
 - Distribution freeze horizon, Production freeze horizon
 - Time Selection

The screenshot shows the SAP 'Display Job Template' interface for the job template 'Order-Based Planning: Fix or Unfix Planned Receipts'. The interface is organized into several sections:

- General Information:** Displays the Job Template name and the current step in the sequence.
- Scheduling Options:** Includes a 'Recurrence Pattern' dropdown set to 'Single Run'.
- Parameter Section:** This section is divided into four main areas:
 - Control Parameters:** Fields for 'Version or Scenario' (SAP72105C / Base Version), 'Run from Excel Add-In' (No), and 'Version'.
 - Order Fixing:** A 'Fixing Operation' dropdown set to 'Fix Order'.
 - Order Types:** Three checkboxes for 'Purchase Requisitions', 'Stock Transfer Requisitions', and 'Planned Orders', all of which are currently unchecked.
 - Receipts in Freeze Horizon:** A 'Consider Receipts' checkbox, which is unchecked.
- Scope:** A 'Planning Filter' input field.
- Time Selection:** Fields for 'First Day' (Today), 'Weekday' (Monday), 'Number of Days' (1), and 'Time Zone' (UTC).

At the bottom right, there are navigation buttons: 'Check', 'Maintain Steps', 'Save', 'Cancel', and a link icon.

Job template with multiple steps

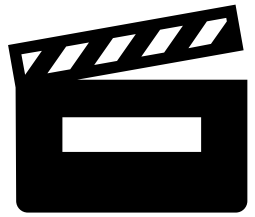
- The “create on top” approach does not clear the interactive planning key figure nor consume quantities of existing fixed elements.
- Customers who want to make sure that the planned receipts are created exactly once and not accidentally another time have different options in order to achieve this.

The screenshot displays the SAP 'Edit Job Template' interface for the job template 'RH_IP_DELETE_AND_CREATE_PDS'. The interface is divided into several sections:

- General Information:** The 'Job Template' field is set to 'RH_IP_DELETE_AND_CREATE_PDS'. The 'Shared Template' checkbox is unchecked.
- Scheduling Options:** The 'Recurrence Pattern' is set to 'Single Run'.
- Steps:** A red box highlights the 'Steps' section, which contains two steps:
 1. Order-Based Planning: Delete Planned Receipts
 2. Order-Based Planning: Create Planned Receipts...
- Parameter Section (Step 1):**
 - Control Parameters:**
 - 'Planning Area' is set to 'SAP72105C'.
 - 'Run from Excel Add-In' is set to 'Yes'.
 - Order Types:**
 - 'Purchase Requisitions' is unchecked.
 - 'Stock Transfer Requisitions' is unchecked.
 - 'Deployment Requisitions' is unchecked.
 - 'Planned Orders' is checked.
 - 'Planned Orders in DPS' is unchecked.

- Create own job template that includes 2 steps:
 - Step 1: Order Based-Planning: Delete Planned Receipts
 - Step 2: Order Based-Planning: Create Planned Receipts
- Run application job template from Excel add-in
- Result:
 - Planned receipts are deleted based on selection
 - Planned receipts are created based on interactive key figure



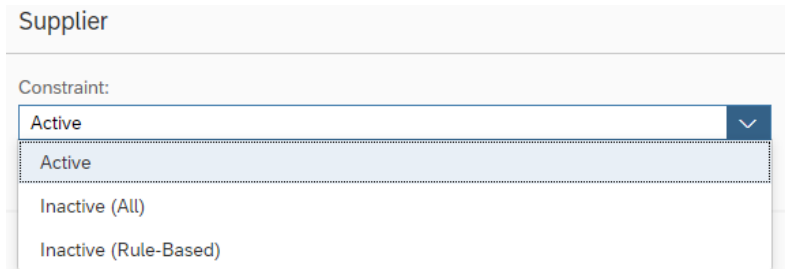


System Demo

Switchable Constraints – Rule based

The following constraints are switchable (individually)

Supplier Constraints	Capacity Constraints	Allocations
Max. Receipts / Requirements	Lot Sizes	Planning Start
Distribution Freeze Horizon	Production Freeze Horizon	Detailed Planning and Scheduling Horizon



The screenshot shows a SAP interface for a 'Supplier' record. A dropdown menu is open for the 'Constraint' field. The menu has a search bar and four options: 'Active' (selected), 'Inactive', 'Inactive (All)', and 'Inactive (Rule-Based)'. The 'Active' option is highlighted with a blue bar.

Settings for Constraints

- All constraints are by default „Active“. Only exception is Detailed Planning and Scheduling Horizon
- If for a specific constraint type the „Inactive All“ option has been selected, all constraints of this type won't be considered during a planning run
- If for a specific constraint type the „Inactive (Rule-Based)“ option has been selected, you need to maintain rules that define for which objects (e.g. Supplier and Material) the constraint type shall not be considered during a planning run

Define Rules for Switchable Constraints

1st: Choose option „Inactive (Rule-Based)“

Supplier

Constraint:

Inactive (Rule-Based) ▼

Active

Inactive (All)

Inactive (Rule-Based)

2nd: Create one or multiple segments

Supplier Rule

Create Delete Copy ^ v

☐ Segment Description Condition Preview

☐ Supplier 72 SupplierMaterial.SupplierID = 'SUPPLIER72' >

3rd: Maintain segment condition

< SAP Planning Run Profiles ▼

PRP_SC_OBJ_SO

Profile Description: PRP SC Switched Off

Rule: Supplier Rule

Segment Description: Supplier 72

Condition

Add Item Add Sub-Condition

SupplierMaterial ▼ SupplierID ▼ Equal to ▼ SUPPLIER72 □ ⊗

Example

- Due to significantly increased demand we reached out to SUPPLIER72 and requested to provide basically unlimited supply
- SUPPLIER72 committed to actually deliver whatever we need
- Any constraints that have been in place so far shall not be considered anymore

Note: If the condition has been defined as you see in this example the constraints of all other suppliers are still taken into account during the planning run

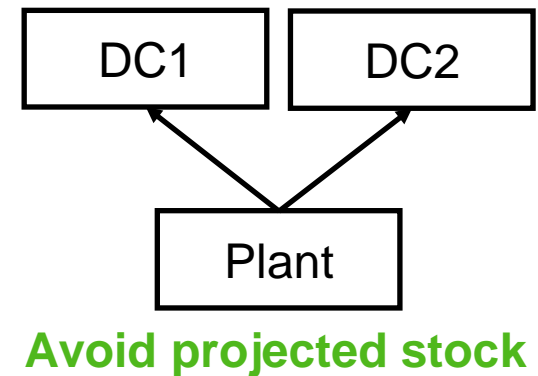
Push Excess Stock in Finite Heuristic

With release 2105 the finite heuristic supports push of excess stock.

Using this feature the heuristic will push supply, which exceeds the maximum stock level, to the next level in the supply chain using stock transfer requisitions.

Use Case: Supply from production should be shipped to the next distribution center as soon as available

- to react faster to demand changes
- instead of accumulating more inventory at the factory than preferred



How does push of excess stock works?

Planning situation after demand fulfillment

Stock transfer requisitions are typically planned as late as possible. Supply in the DCs is in line with the independent demands.

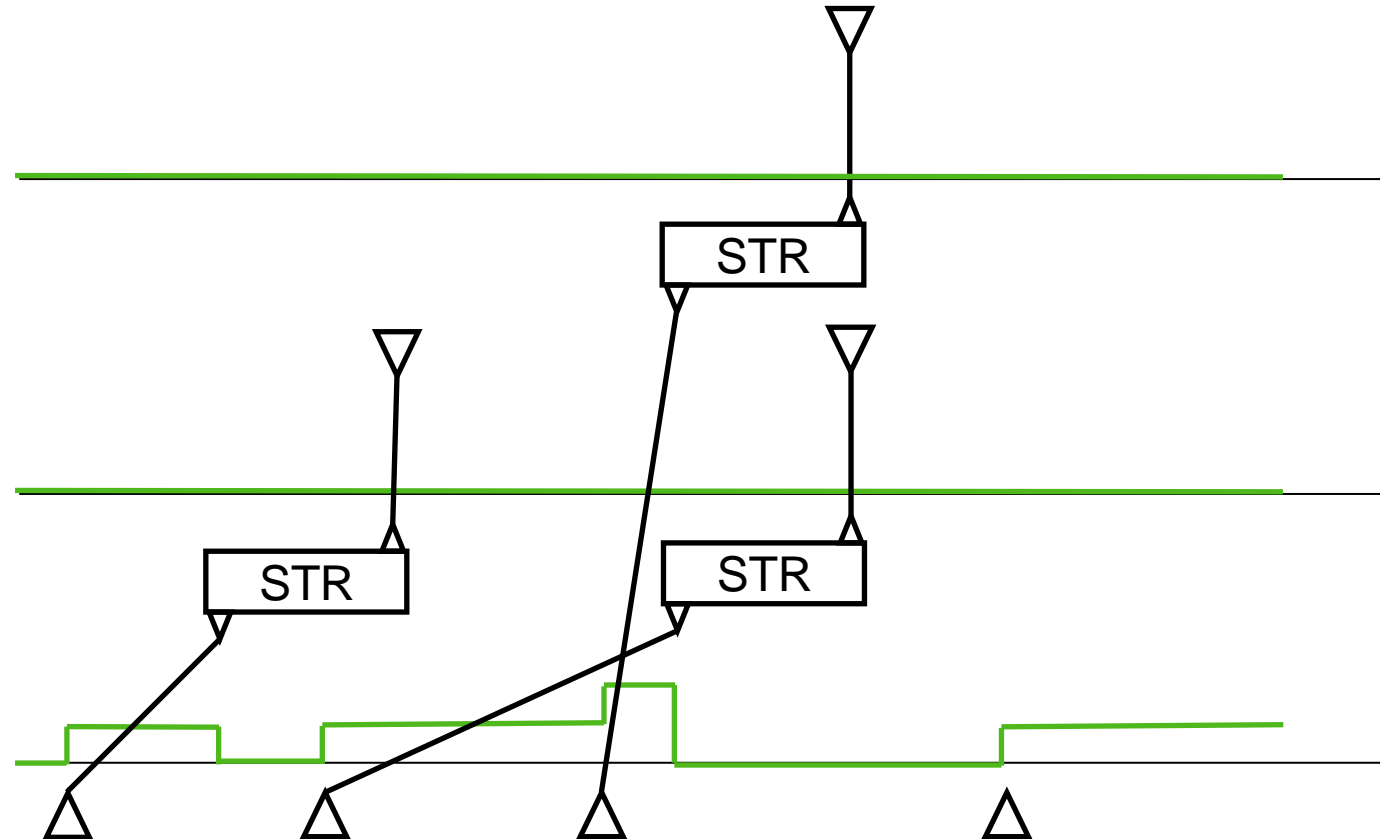
Projected Stock is build up at the plant e.g. because of limited resource capacity.

Unpegged supply might appear at the end of the horizon e.g. because of production lot sizes.

Mat A at DC1:
Projected Stock

Mat A at DC2:
Projected Stock

Mat A at Plant:
Projected Stock
Build & Ship



How does push of excess stock works?

Planning situation after push of excess stock

Supply at the plant is considered as fixed for push of excess stock.

Stock transfer requisitions are planned as early as possible. Dependent distribution demand is in line with the supply.

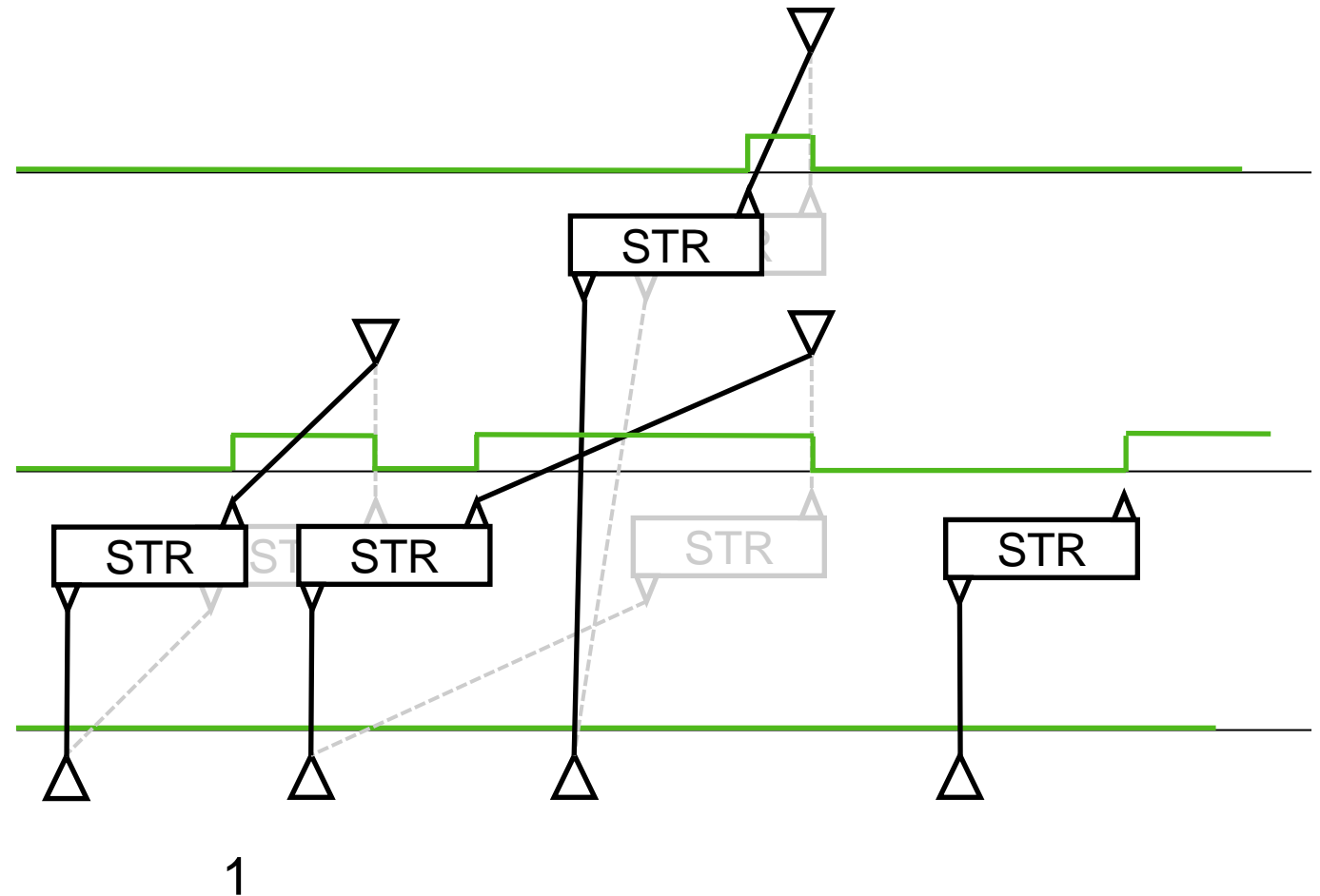
Projected Stock is build up at the DC.

Unpegged supply is pushed to one of the DCs.

Mat A at DC1:
Projected Stock

Mat A at DC2: Projected Stock

Mat A at Plant: Projected Stock Build & Ship

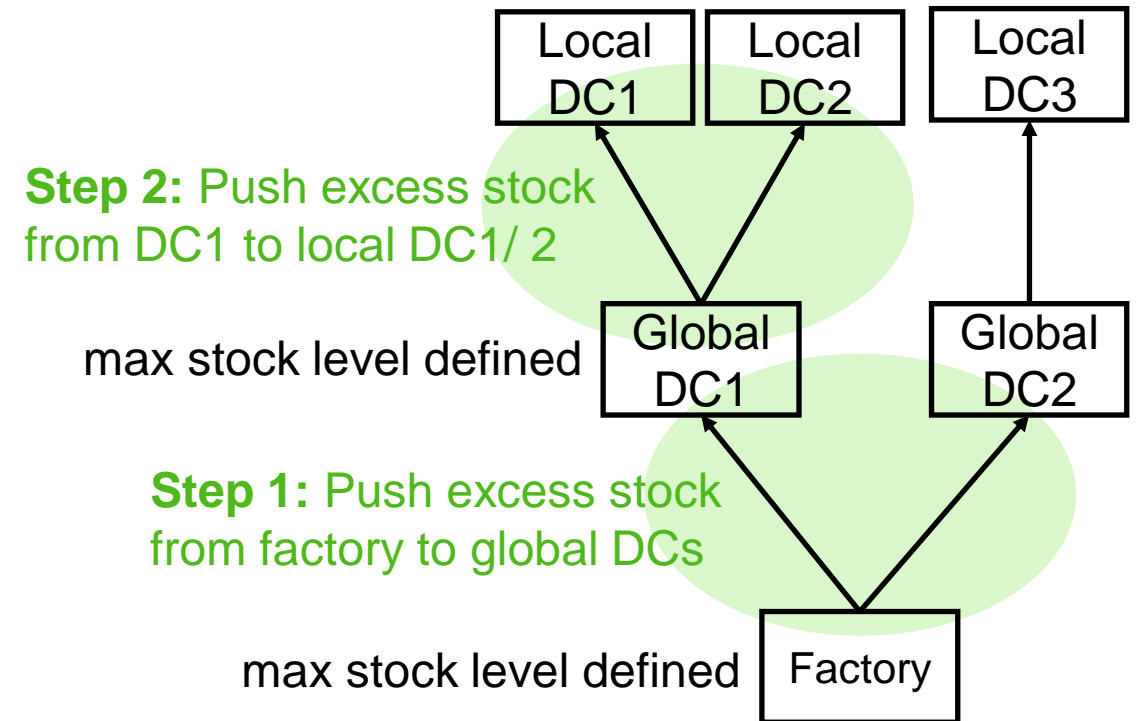


Push of excess stock through multiple levels of the supply chain

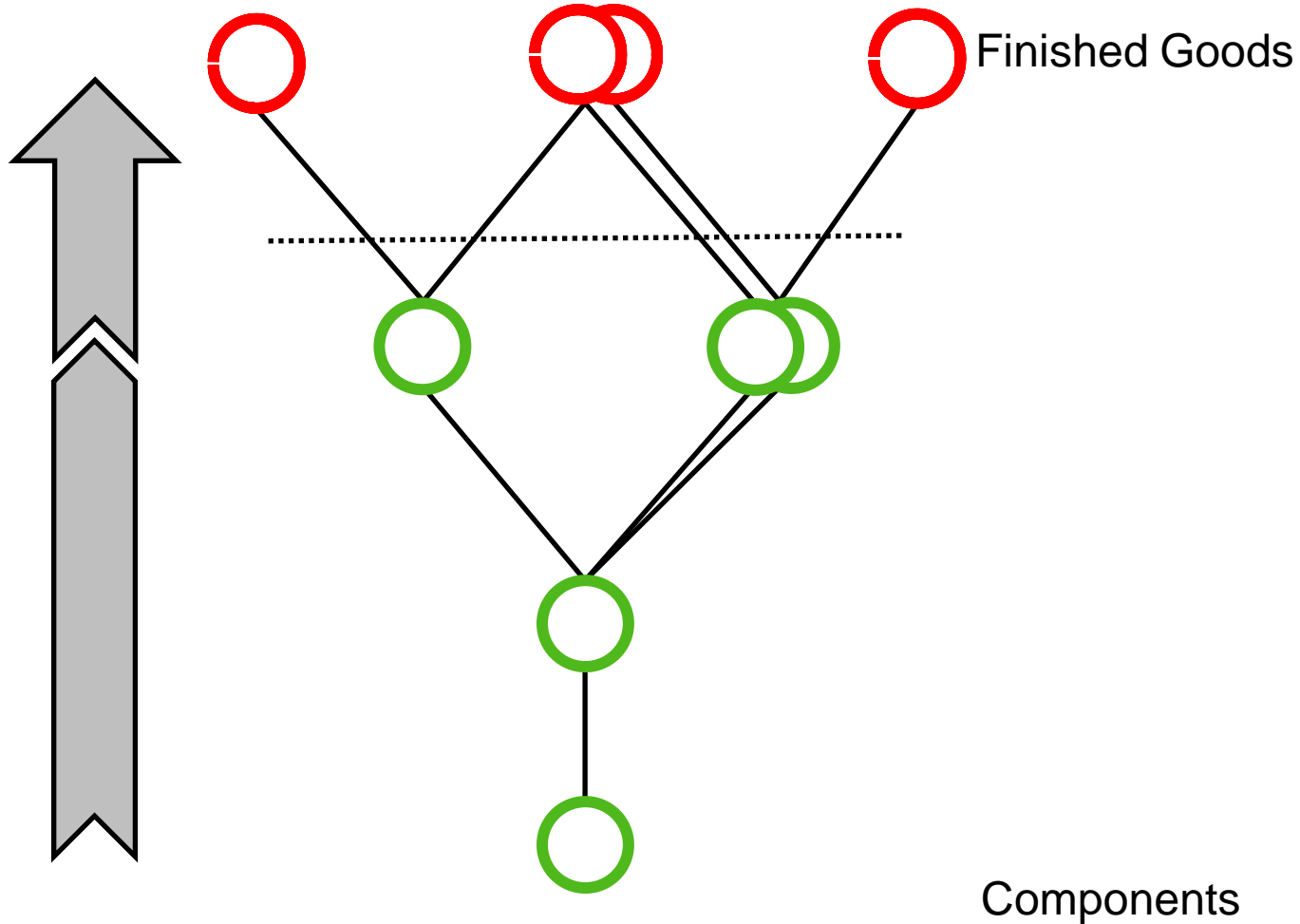
Push of excess stock is processed for each location material one by one, which has a maximum stock level defined

Push of excess stock is based on the projected stock for the given location material, the maximum stock level and the procurement priorities of the t-lanes. Push of excess does not do a multi-level stock optimization.

However, the location materials are processed in the opposite sequence of the low-level code. This means if push of excess stock is performed e.g. on the factory which leads to excess stock at the global DC1, then push of excess stock could be defined for the global DC1 as well, to push the supply further to the local DCs.



Planning behavior – Subnetwork Downstream Planning

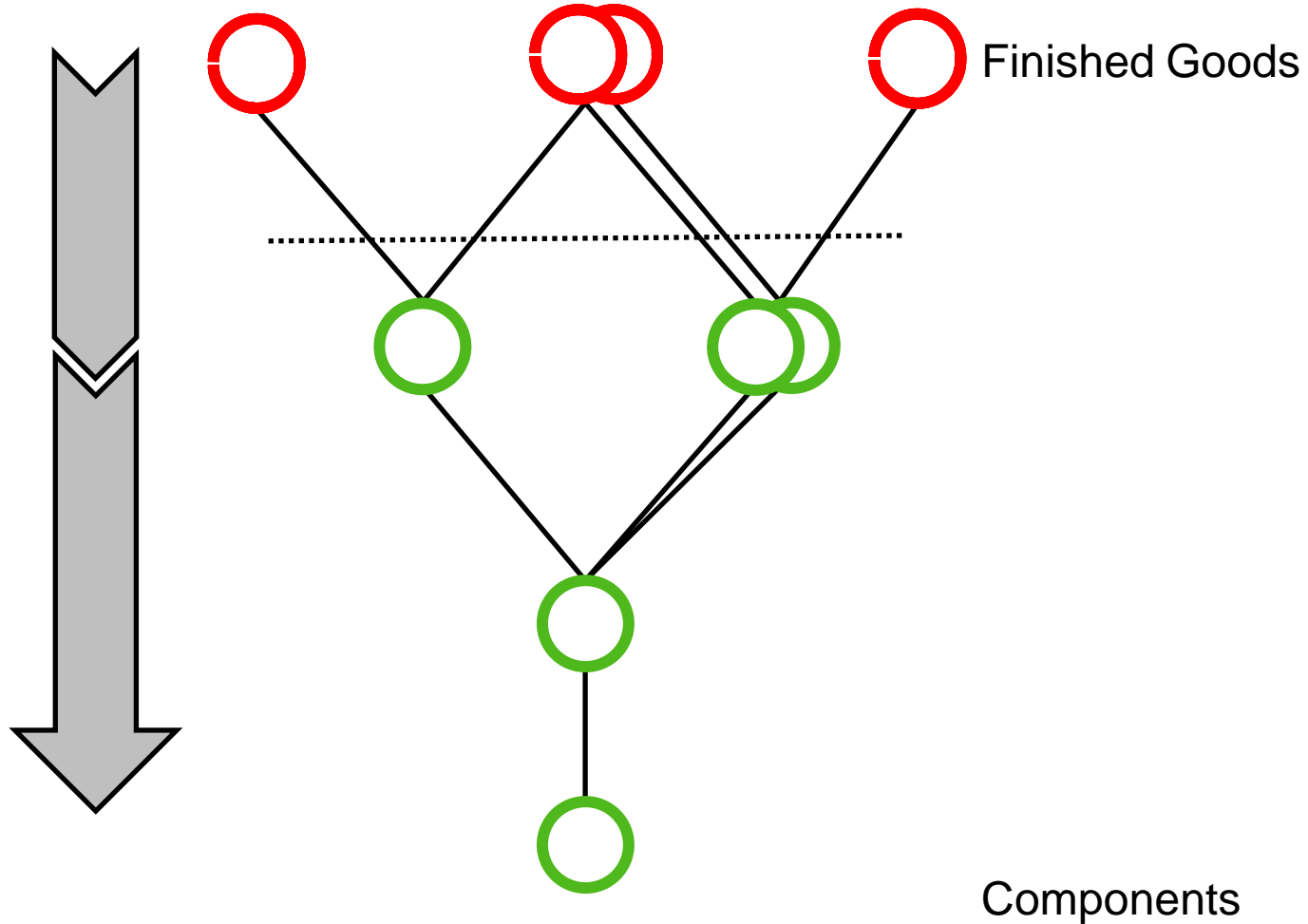


Downstream Planning e.g. Deployment, typically finite.

The red subnetwork should consider green components as finite.

The green subnetwork should consider dependent demands calculated by the red subnetwork.

Planning behavior – Subnetwork Upstream Planning



Upstream planning e.g. “Demand Propagation”, typically infinite.

The red subnetwork should consider green components as infinite.

The green subnetwork should consider dependent demands calculated by the red subnetwork.

How to use Upstream Planning for Subnetworks?

When planning with subnetworks the parameter “Direction of Planning” is available in the planning job templates with the options:

- Upstream Planning –
Consider Upstream Supply as Infinite
- Downstream Planning –
Consider Upstream Supply as Finite

Downstream Planning reflects the planning behavior in the releases prior to 2105.

SAP New Job: Order-Based Planning: Confirmation Run

Order-Based Planning: Confirmation Run

1 Template Selection 2 Scheduling Options 3 Paramet... (Optional)

3. Parameters

Parameter Section

General

Planning Run Type: Confirmation Run

Version or Scenario: SAP72105C / Base Version

Planning Algorithm: Finite Heuristic

Run from Excel Add-In: No

Control Parameters

Planning Run Profile:

Direction of Planning: Downstream Planning - Consider Upstream Supply as Finite

Upstream Planning - Consider Upstream Supply as Infinite

Downstream Planning - Consider Upstream Supply as Finite

Planning Start Settings

Planning Start: Job Execution Time

Planning Scope

Network/Subnetwork Selection: Subnetwork by Subnetwork ID

Subnetwork:

Schedule Check Template Cancel

Detailed Information for Upstream Planning

When using upstream planning demands are planned (propagated to next levels in the supply chain), even if there is no supply in upstream subnetworks. Supply from upstream subnetworks is considered as infinite.

Upstream planning is supported in supply planning runs

- Order-Based Planning: Confirmation Run (*not in combination with “Run from Excel Add-In = yes”*)
- Order-Based Planning: Constraint Forecast Run (*not in combination with “Run from Excel Add-In = yes”*)

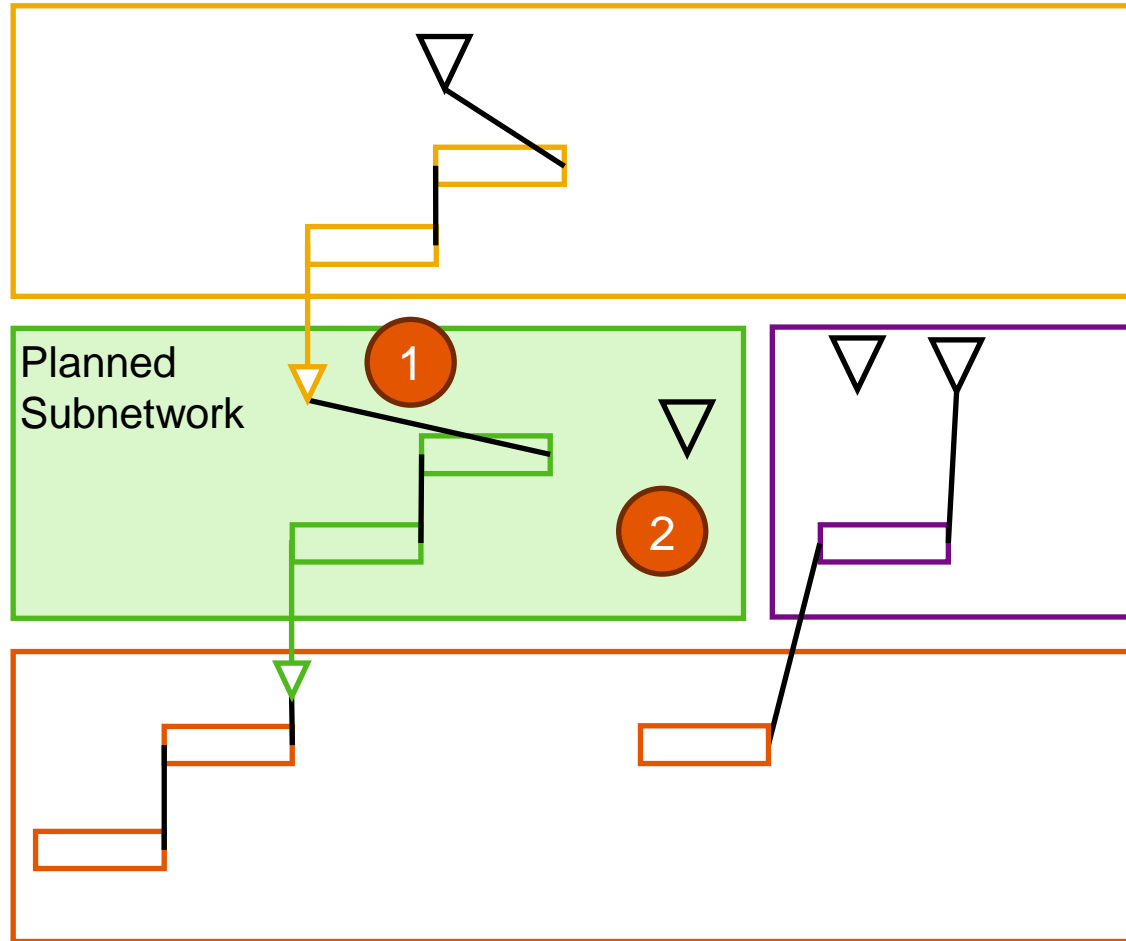
Upstream planning is not be supported in

- “as Operator” runs
- Deployment runs.

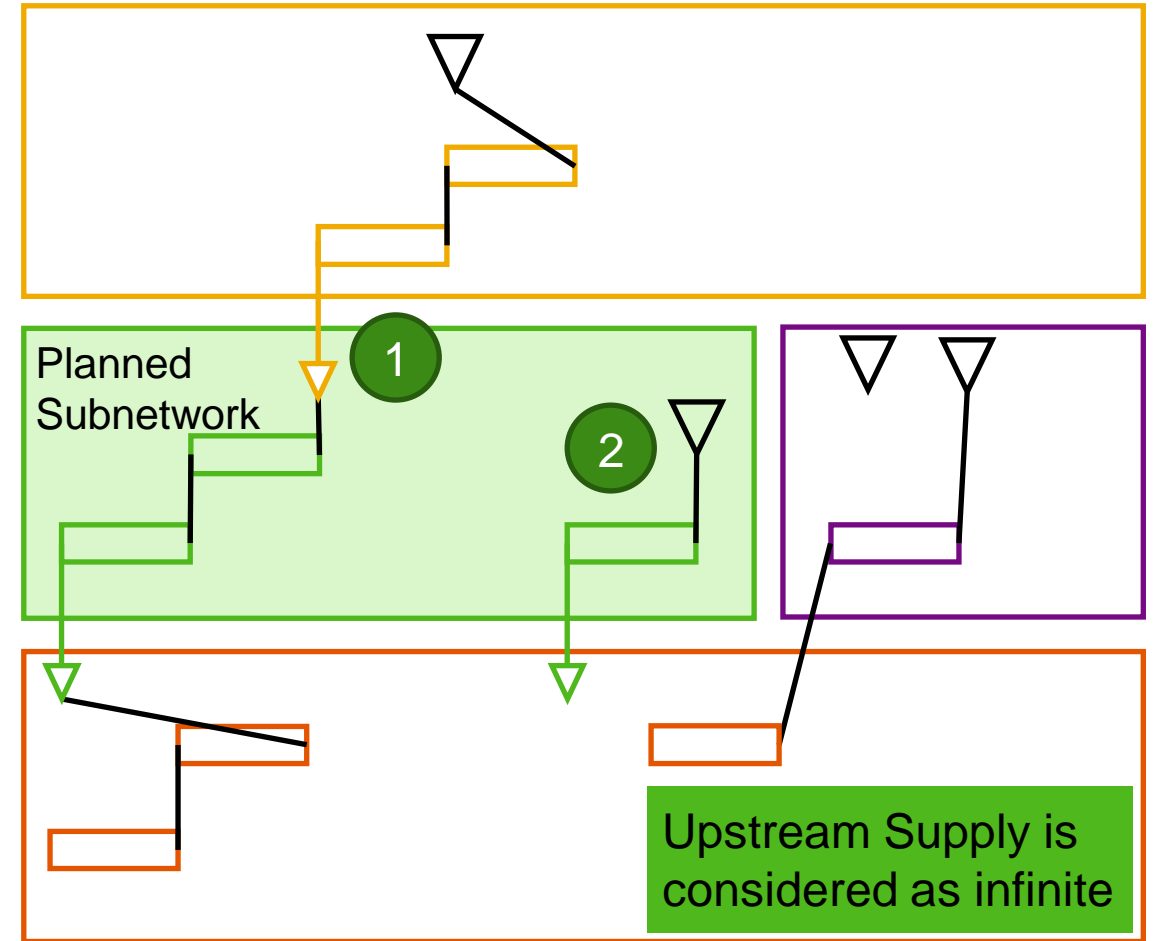
“Simulation Run” considers upstream supply as infinite in case the last planning run was an upstream planning run for the relevant subnetwork.

Comparison between Downstream-/ Upstream Planning

Downstream Planning



Upstream Planning



Substitution Cost Rule - Planning Run Profiles

To define substitution costs, you can now maintain substitution cost rules in planning run profiles as an alternative to using the SUBSTCOSTRATE key figure. A new tab was added in the **Planning Run Profiles** app called **Substitution Costs**.

<

n Costs

▼

Procurement Costs

▼

Production Costs

▼

Substitution Costs

▼

Demand Costs

▼

Optimizer Parameters

▼

General Parameters

▼

Support Parameters

▼

Substitution Cost Rule

CreateDeleteCopy^v

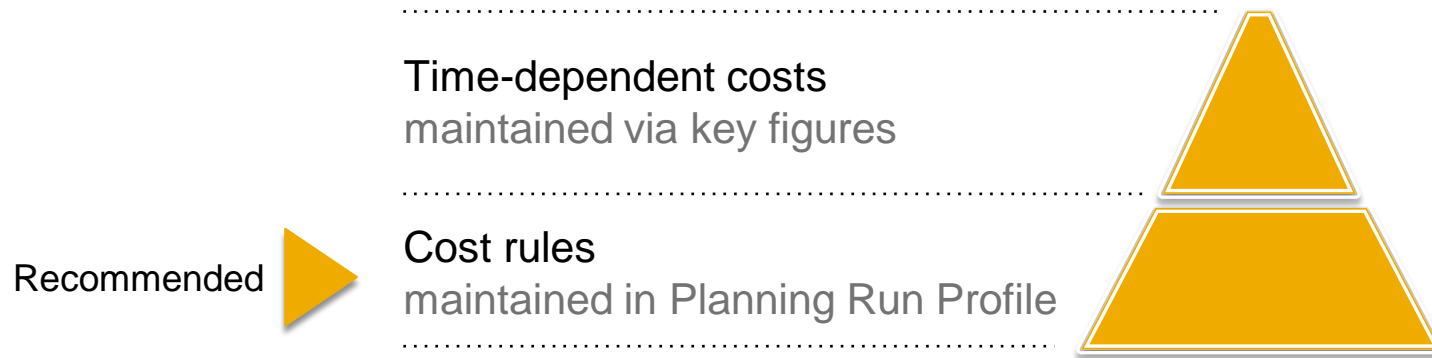
<input type="checkbox"/> Sequence Number	Segment Description	Condition Preview	Cost Value
<input type="checkbox"/> 1	Subst CR Phone_A - Phone_B	SubstitutionProcedure.MaterialNumber = 'CB...	0.000000 >
<input type="checkbox"/> 9999	Catch-All Segment		0.000000

The following objects and attributes are available in the condition editor for substitution cost rules

Object	Attributes
Location	All attributes that are available for this object
Material	All attributes that are available for this object
LocationMaterial	All attributes that are available for this object
LocationSubstituteMaterial	All attributes that are available for this object
SubstituteMaterial	All attributes that are available for this object
SubstitutionProcedure	Priority Reason SubstituteMaterialNumber SubstitutionVersion

Consider: Cost Rules/Cost key figure

There are different levels/ways how to maintain costs for order-based optimizer.



The time-dependent costs always overwrite the costs from the rule.

Key figure: If only for a part of the periods/buckets values are maintained in the key figure, all periods with “NULL” get the cost value “0”.

Planning on key figures

In transactional OBP apps, the key figure names from the planning area are now shown for multiple forecast key figures that have been assigned in the **Settings for Order-Based Planning** app.

Filters and column headings in the following apps have been enriched with this information:

- **Projected Stock**
- **Analyze Supply Usage**
- **View Gating Factors**
- **View Demands by Priority**

Material: CRT03_PHONE_A (Phone A), Location: DC72 (DC72 Newcastle)

Stock Projection Information

Items (5) **Element View** Daily View Create ▾ Change Start Planning f

	Requested or...	Goods Recei...	Receipt or Require...	Type of Receipt or Requirement	Item Category	Receipt or Requirement Quantity	Projected Stock	Production
			Stock	Stock		0.000 EA	0.000 EA	
	04/16/2021		F922337203685477...	Forecast Demand (Forecast)	PR1	-100.000 EA	-100.000 EA	
	04/16/2021		F922337203685477...	Sales Order Demand (Forecast)	PR2	-250.000 EA	-350.000 EA	
	04/21/2021		F922337203685477...	Forecast Demand (Forecast)	PR1	-50.000 EA	-400.000 EA	
	04/21/2021		F922337203685477...	Sales Order Demand (Forecast)	PR2	-150.000 EA	-550.000 EA	

- **Order Network** screen, accessible from the **View Confirmations**, **Projected Stock**, **Analyze Supply Usage**, **View Gating Factors**, and **View Demands by Priority** apps

Use of Production Calendars in Days of Supply Calculations

In the **Settings for Order-Based Planning** app, if the period type for the stock-related key figures is **Day**, you can now choose whether or not the production calendar of a location is considered in days of supply calculations.

In previous releases the production calendar was always considered if the period type was day.

The screenshot shows the SAP interface for the 'Settings for Order-Based Planning' app. The header bar includes the SAP logo, a search icon, and a user profile icon labeled 'TK'. The main header displays 'SAP72105C' and 'SAP Sample Model 7'. Below this, there are two tabs: 'Planning-Area-Specific Settings' and 'Version-Specific Settings'. The 'Version-Specific Settings' tab is active. A green rectangular box highlights the 'Stock' section, which contains the following settings:

- Stock**
- Stock Key Figure Period Type:** A dropdown menu set to 'Day'.
- Use Production Calendar to Calculate Days of Supply:** A toggle switch set to 'YES'.

Below the highlighted section, there are several input fields for stock-related parameters, each with a copy icon:

- Safety Stock:** SAFETYSTOCK
- Target Stock:** TARGETSTOCK
- Maximum Stock:** MAXSTOCK
- Safety Days of Supply:** SAFETYDAYSOFSUPPLYTS
- Target Days of Supply:** TARGETDAYSOFSUPPLY
- Maximum Days of Supply:** MAXDAYSOFSUPPLY

Synchronized Planning - Production Planning Integration in IBP 2105

Synchronized Planning provides scenarios for two-stage planned order integration between Order-based Planning and PPDS on SAP S/4 HANA. It envisions a one-system user experience by leveraging a growing set of **Planning Workspace (PWS)** capabilities step by step.

The first integration scenario named **Detailed Scheduling delegated** is available since IBP release 2008 for SAP S/4 HANA 2020.

Further integration scenarios as well as PWS-based use cases are on the 4-quarter roadmap.

SAP IBP Order Based Planning

Operational Supply Planning for procurement, production and distribution across the supply chain



SAP S/4HANA embedded PPDS

Detailed Planning and Scheduling for refined and feasible production plans in the plant

Continuous Improvements in IBP release 2105

1. Use Mixed Resources

- With SAP S/4 HANA 2020 FPS1 mixed resources are enabled in transaction PDS_MAINT. That is, Production Data Structures used in both IBP (type S) and PPDS (type P) may have the same work center.

2. Leverage rule-based Switchable Constraints to protect the Detailed Planning and Scheduling horizon

- Filter location materials by Production Planning Integration Mode

3. PPDS integration in Interactive Planning

Planned orders in Detailed Planning and Scheduling stage....

- ...cannot be changed
- ...cannot be fixed or unfixed
- ...can be deleted from IBP on an exceptional basis

The first screenshot shows the 'Change Work Center Capacity: Header' screen. The 'Resource Type' dropdown is set to '4 Single Mixed Resource'.

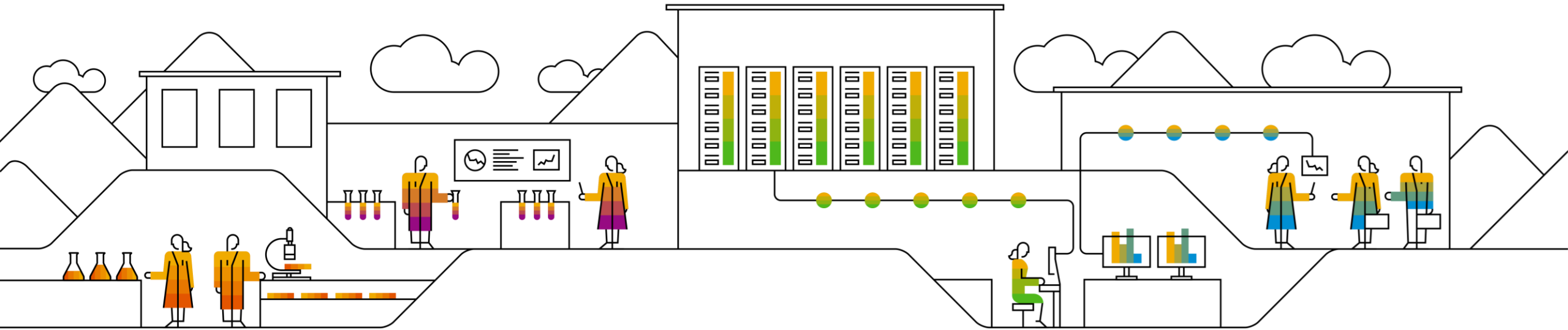
The second screenshot shows the 'Planning Run Profiles' screen. The 'Switchable Constraints' dropdown is set to 'Detailed Planning and Scheduling Horizon'. The 'Constraint' is set to 'Active (Rule-Based)'. The 'Condition Preview' shows the rule 'LocationMaterial.ProductionPlanningIntegrationMode = '1''.

The third screenshot shows the 'Projected Stock' screen. The 'Change' button is highlighted. The table below shows the data for the 'Planned Order' stage.

PP Stage	DPS Handover Date/Time	Requested or Planned Date/Time	Receipt or Re...	Projected Stock	Receipt...	Type of Receipt or Requirement	Fix
Detailed Planning and Scheduling	07.03.2021, 00:00:00 GMTUK	11.04.2021, 14:58:30 GMTUK	142.000 EA	69.000 EA	53211	Planned Order	✓
Detailed Planning and Scheduling	08.03.2021, 00:00:00 GMTUK	11.04.2021, 14:58:30 GMTUK	142.000 EA	211.000 EA	53212	Planned Order	✓
Detailed Planning and Scheduling	09.03.2021, 00:00:00 GMTUK	11.04.2021, 14:58:30 GMTUK	142.000 EA	353.000 EA	53213	Planned Order	✓

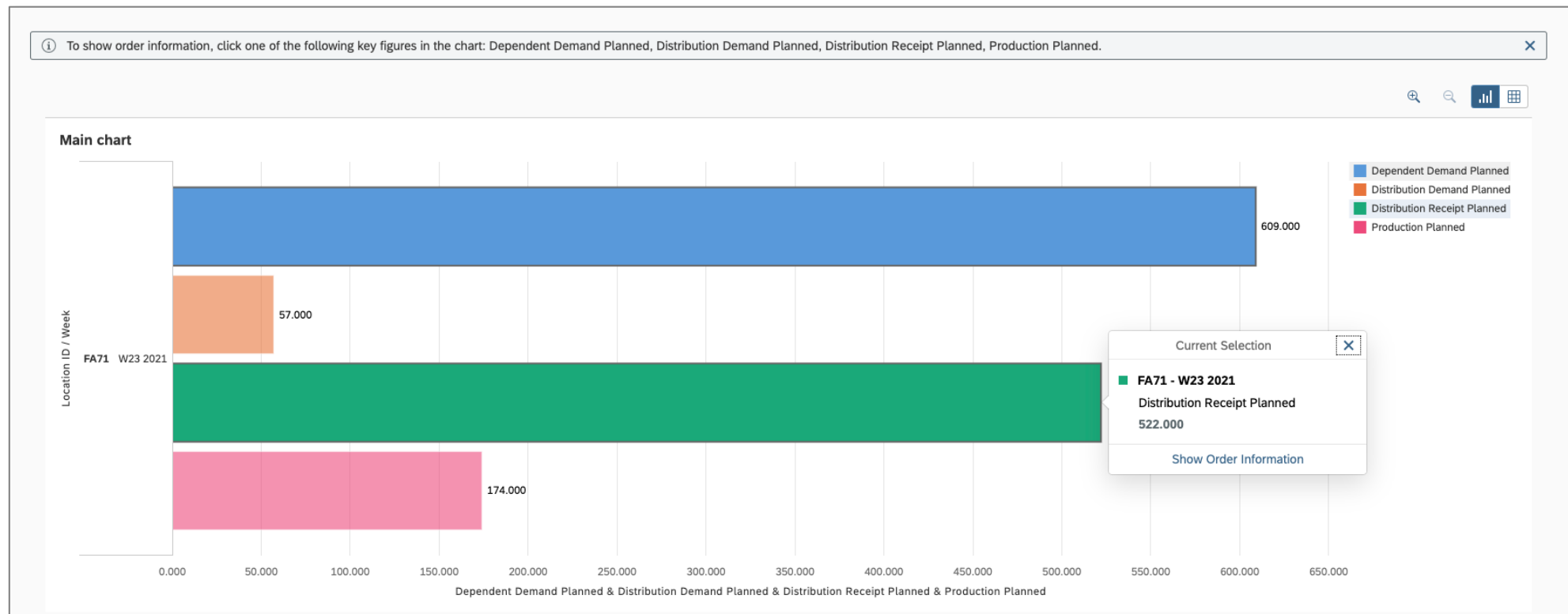
Exception Management & Intelligent Visibility

Malika Boubguel & Jean Sebastien Boileau



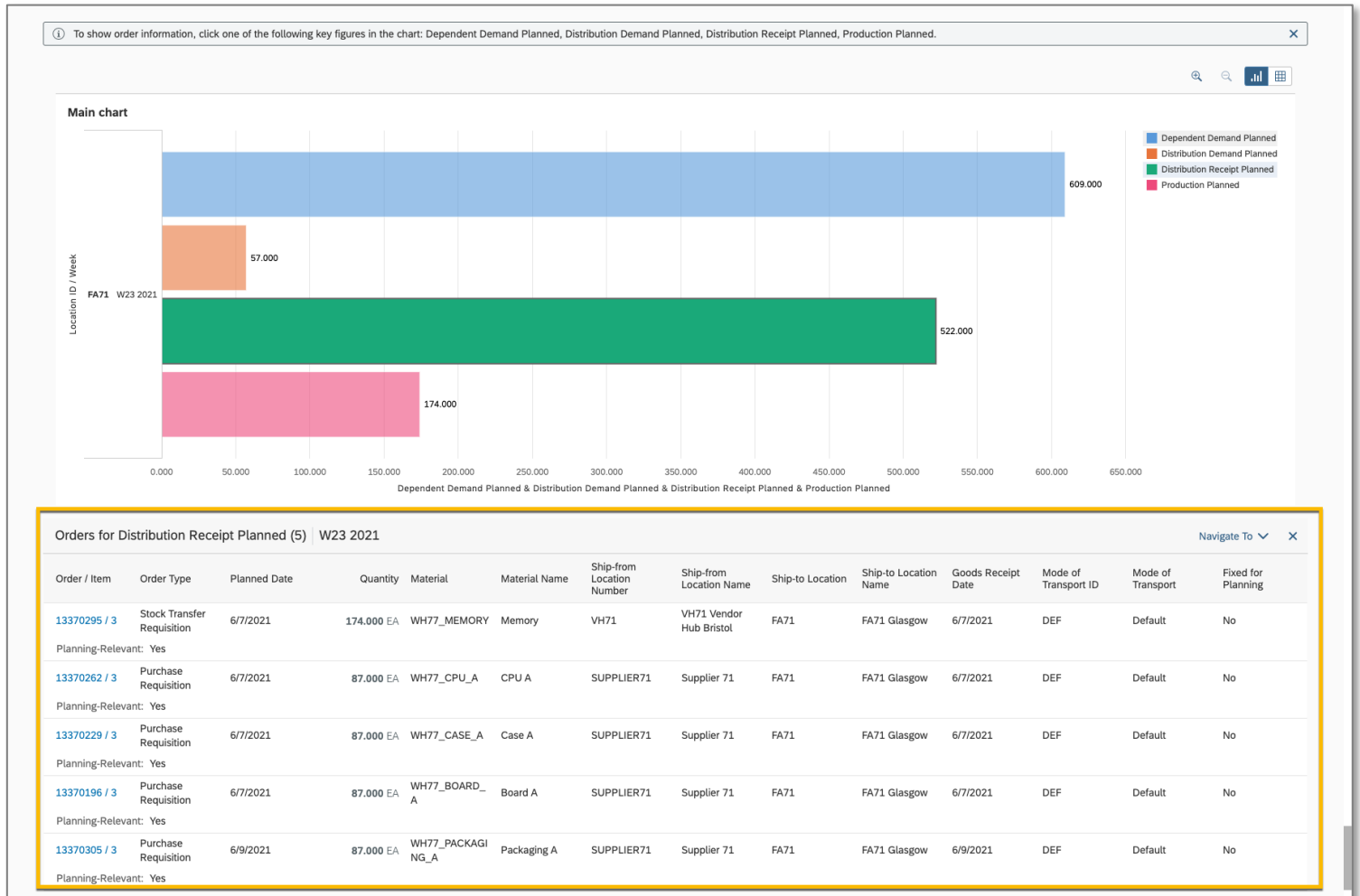
Order Information for External Key Figures (1)

In the **Monitor Custom Alerts** and **Intelligent Visibility** apps, for order-based external key figures you can now drill down from the alert chart to get information about the orders that sum up to the key figure. You can view the information for any calculation level attributes of the key figure allows, making it possible to access the information on different levels of detail.



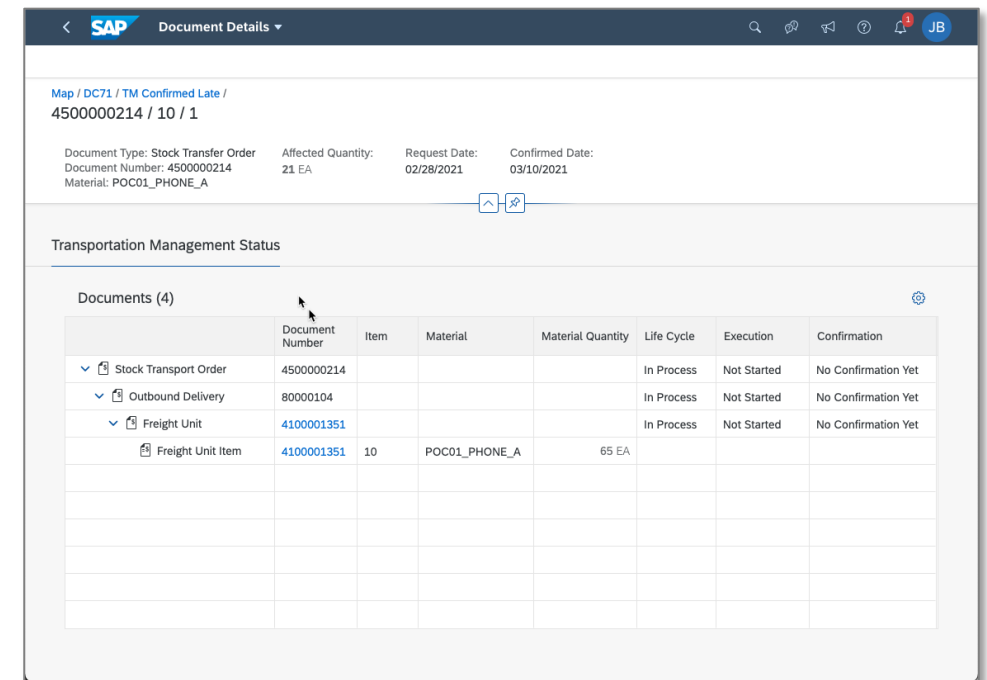
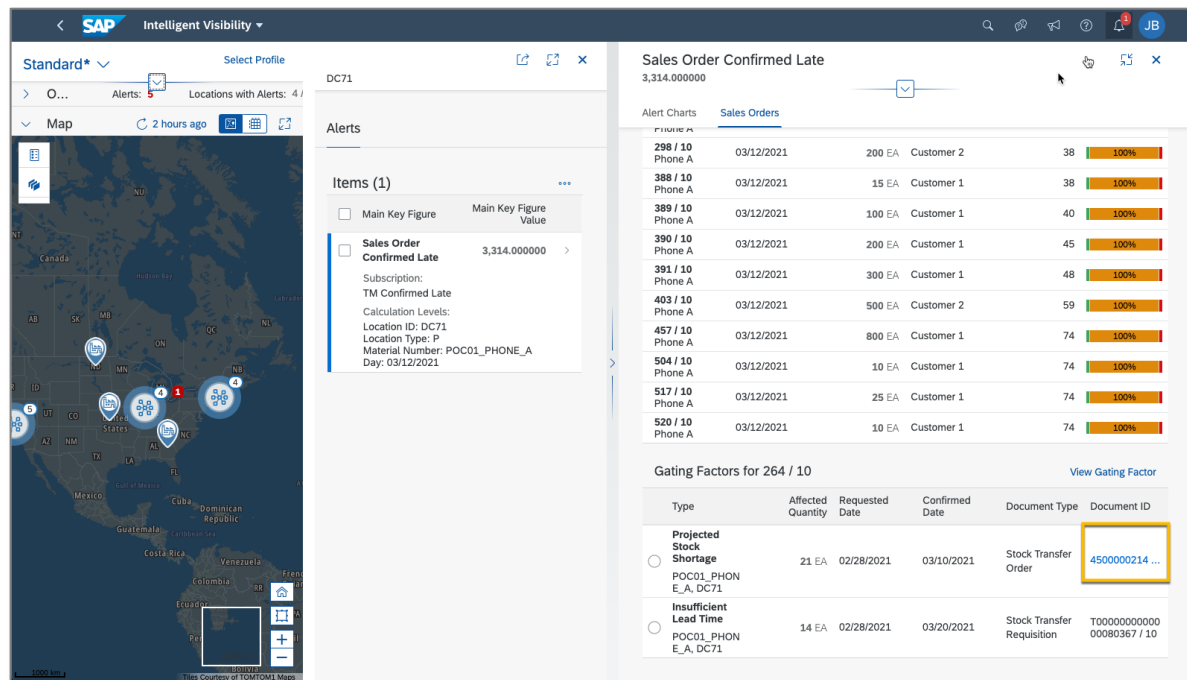
Order Information for External Key Figures (2)

- Depending on the type of key figure, you can see different order information.
- If the order number in the table is displayed as a link, you can select it to navigate to the relevant app if you want to get even more information (**Analyze Supply Usage** app or **View Confirmations** app, depending on the order type).
- You can also navigate to an external system to get more details for an order if a navigation has been enabled by your administrator.



Intelligent Visibility - Transportation Management Status (1)

For certain gating factors, you can now see a new page that provides information about the related SAP Transportation Management documents with their current status.



Intelligent Visibility - Transportation Management Status (2)

If you have access to the target system, you can navigate to the transportation management document to see more details.

SAPDocument Details

Map / DC71 / TM Confirmed Late / 4500000214 / 10 / 1

Document Type: Stock Transfer Order
Document Number: 4500000214
Material: POC01_PHONE_A

Affected Quantity: 21 EA
Request Date: 02/28/2021
Confirmed Date: 03/10/2021

Transportation Management Status

Documents (4)

	Document Number	Item	Material	Material Quantity	Life Cycle	Execution	Confirmation
Stock Transport Order	4500000214				In Process	Not Started	No Confirmation Yet
Outbound Delivery	80000104				In Process	Not Started	No Confirmation Yet
Freight Unit	4100001351				In Process	Not Started	No Confirmation Yet
Freight Unit Item	4100001351	10	POC01_PHONE_A	65 EA			



SAPDisplay Freight Unit 4100001351

Edit Refresh Follow Up Check Direct Shipment Split/Merge Unassign Default Route Remove Unplanned Stages Cancel Document Display Settings

General Data Business Partner Stages Document Flow Notes Attachments Direct Shipment Options Statuses Administrative Data Execution Customs Output Management

Standard Merge Route Schedule Capacity Document Set Of Status Determine Distance and Duration

Stage Description	Stage Type	Mode of Transp...	Source Location	UNI/LO... (Source)	IATA Code (Source)	City (Source)	Requested Pick-Up Date	Reque... Pick-Up Time	Reque... Pick-Up Time Z...	Departure Date	Depart... Time	Depart... Time Zone	Destination Location
Stage 1			SP_FA71			Glasgow		00:00:00	GMTUK		00:00:00	GMTUK	PORT_SHENZHI
Stage 2			PORT_SHENZHEN			Shenzhen		00:00:00	UTC+8		00:00:00	UTC+8	PLNTC_DC71

Items

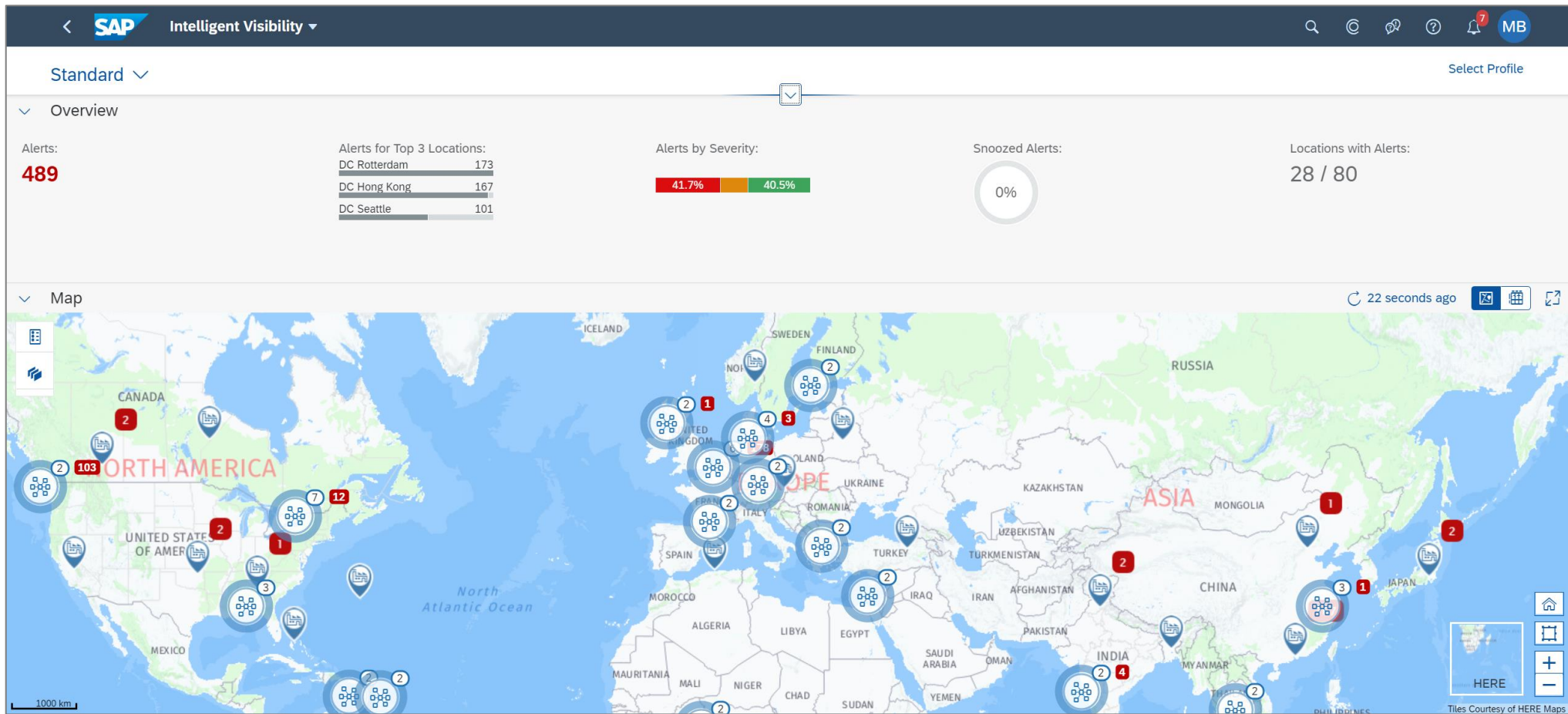
Standard Change Hierarchy: All Items

Item Hierarchy	Item	Product	Package ID	External Package ID	Gross Volu... UoM	Gross Wei... UoM	Qua... UoM	Resource
Product 10 Phone A	10	POC01_PHONE_A			65 M3	65 KG	65 EA	

Save Cancel

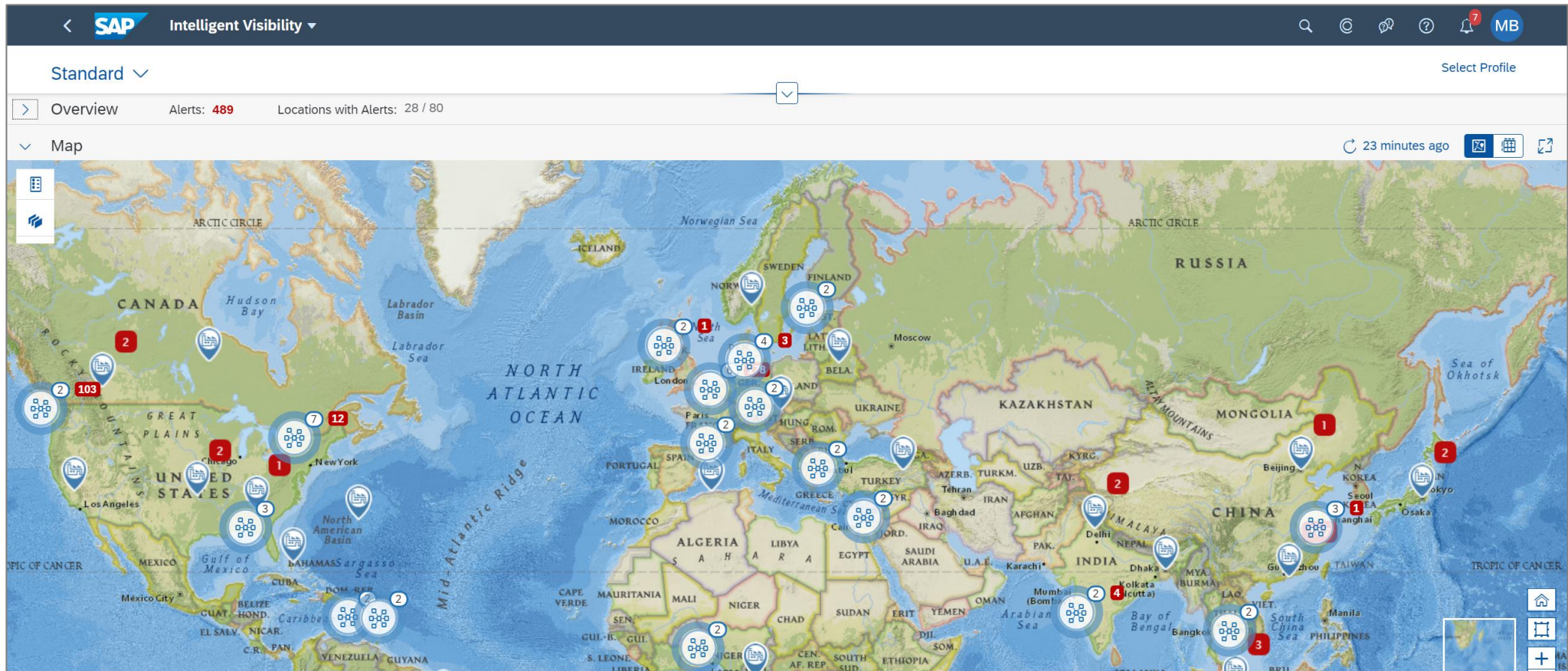
Overview section for alerts

- A summary of the alerts is displayed in a new overview section
- The overview gives the current situation at a glance based on the filtered data




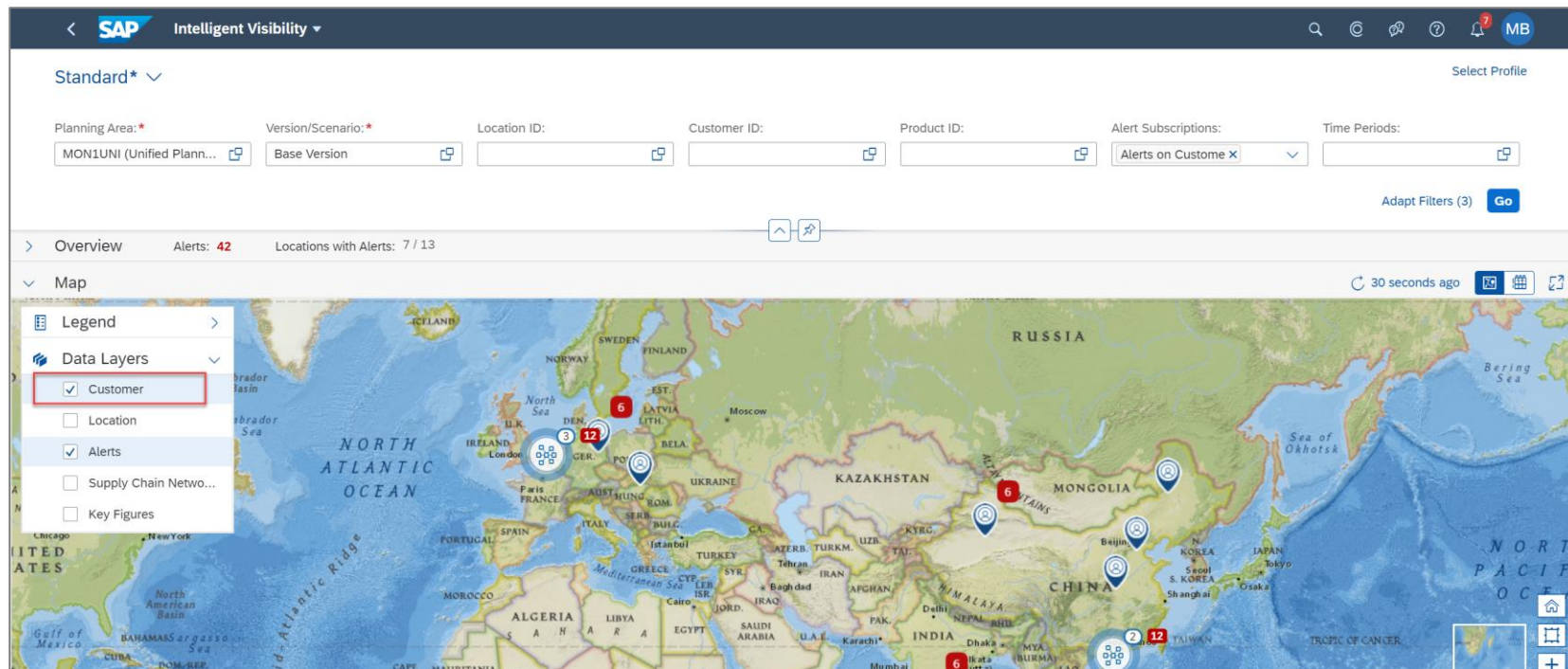
Support ESRI map provider

- Mapping content integration from ESRI is now supported. Customers must have a license before configuring the communication scenario **SAP_COM_0583**



Display of customer locations on geographic map (Time Series)

- Customer locations are represented on the map with a new icon 
- You can display alerts on a customer node if they are defined on a customer ID level
- Customer master data shall have geo coordinates maintained in the master data type Customer in the planning area



Procedure Playbooks app

Abstract

Customers have identified a need to standardize responses to situations. Often these responses are captured outside of SAP IBP in separate documents that are used as reference.

The **Procedure Playbooks** app is now able to provide these best practices where it is needed, for example, by adding them to custom alerts.

With this app, you can create procedure playbooks for helping solve supply chain planning issues. A playbook can contain a detailed description of the issues, the reasons for the issues, and activities and actions to be taken to resolve them.

Example: **Negative Projected Inventory at DC**

Cause: Projected Inventory < 0 at DC

Actions:

1. Check location source to verify internal transportation lane from plan to DC exists
2. Check if Production Source Header with source type 'U' exists if DC is externally procuring
3. If within frozen horizon, check if firm STO from legacy system exists

Procedure Playbook

The Procedure Playbook allows the definition of the description of the issue, steps to resolve it, and actions in other parts of IBP or external applications.

You can format the text, use different styles and colors, and insert different types of elements within the text, such as images and hyperlinks. You can also copy text from an external source and paste it into the detailed description.

You can create activities to help the planner solve issues. Actions can be used to show a link so that the user can navigate to Web-based apps to find more information about a particular supply chain issue.

SAP

Procedure Playbook

Confirmed Late Alert Resolution

Resolution steps for customer demands that cannot be fulfilled

Revision Note:
Planning Area: SAP72102C (SAP Sample Model 7)

Available In:
Custom Alerts

Shared:
↻

Status:
Active

Edit

Copy

Delete

Detailed Description

Activities (4)

Sharing

Administrative Information

This alert type monitors customer demands that cannot be fulfilled.

It is possible that the demand cannot be fulfilled when supply coming in the DC and the stock is not able to cover sales orders that has been requested by customers.

This alert focuses only on the actual demand and doesn't consider forecast that might impact real customer demands.

Since the alert has been created with templates the orders that are impacted by the missing supply are directly displayed in the screen.

Activities (4)

Name	Description	Action
Verify the status in Transportation Management	Take a look at the transportation management status. You should see a link in the gating factor if the STO or PO is managed via transportation management.	
Look at the supply at other DC	See if there are other DC's that has inventory. Take a look at the complementary chart in the alert to get an overview of the situation.	Inventory Overview Chart
Accept delay and contact customer	Look at the number of days that the sales order is confirmed late. If it's less than 2 days contact sales to see if the customer can accept it.	Email Sales
Review the Gating Factors	Gating factors are usually a good indicator where the problem occurs in the supply chain.	View Gating Factor

Sharing

Users (1)

Name

Email

Phone

[Kenton Harman](#)

User Groups (0)

Name	Description	Users
No user groups have been added		

Administrative Information

Created By:
[Jean Boileau](#)

Changed By:
[Jean Boileau](#)

Created On:
19.02.2021, 08:43:20 am

Changed On:
25.03.2021, 12:04:18 pm

Alert Definition

You can include procedure playbooks that you created or have been shared with you in an alert definition.

They will be displayed when alerts have been triggered.

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SAP

Edit Custom Alert Definition ▾

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JB

2

3 Alert Rules

4 Display Options

5 Procedure Playboo... (Optional)

6 Sharing (Optional)

5. Procedure Playbooks

Assign one or more procedure playbooks that can be used to solve issues detected in the custom alerts calculated for the custom alert definition.

Procedure Playbooks (1)

Add ↑ ↓

Name	Description	Revision Note	Status	Created By	
Confirmed Late Alert Resolution	Resolution steps for customer demands that cannot be fulfilled		Active	Jean Boileau	⊗

6. Sharing

Share the custom alert definition with users and user groups so that you can share the subscription with them or they can create their own subscriptions to monitor the custom alerts.

Users

Search 🔍 Add

Name	Email	Phone	
Fred D			⊗

Cancel

Alerts with Procedure Playbooks (1)

If procedure playbooks are assigned to an alert definition, you can see the procedure playbooks in a new section for the alert in the **Intelligent Visibility** and **Monitor Custom Alert** apps.

The screenshot displays the SAP Intelligent Visibility interface. On the left, a map shows the US Midwest with a blue circle highlighting the Chicago area. The top navigation bar includes the SAP logo and 'Intelligent Visibility'. Below the map, a table lists alerts for 'Sales Order Confirmed Late'.

Items (4)	Main Key Figure	Main Key Figure Value
<input type="checkbox"/> Sales Order Confirmed Late	50	>
Subscription: GF Confirmed Late Calculation Levels: Location ID: DC71, Location Type: P, Material Number: FR213_PHONE_A, Day: 29.04.2021		
<input type="checkbox"/> Sales Order Confirmed Late	4	>
Subscription: GF Confirmed Late Calculation Levels: Location ID: DC71, Location Type: P, Material Number: FR213_PHONE_A, Day: 19.05.2021		
<input type="checkbox"/> Sales Order Confirmed Late	38	>
Subscription: GF Confirmed Late Calculation Levels: Location ID: DC71, Location Type: P, Material Number: MI01_PHONE_A, Day: 23.03.2021		
<input type="checkbox"/> Sales Order Confirmed Late	3,314	>

The right panel shows the 'Sales Order Confirmed Late' alert details. It includes a 'Confirmed Late Alert Resolution' section with a description: 'Resolution steps for customer demands that cannot be fulfilled'. Below this, there are three activity cards:

- Verify the status in Transportation Management**: Take a look at the transportation management status. You should see a link in the gating factor if the STO or PO is managed via transportation management.
- Look at the supply at other DC**: See if there are other DC's that has inventory. Take a look at the complementary chart in the alert to get an overview of the situation.
- Accept delay and contact customer**: Look at the number of days that the sales order is confirmed late. If it's less than 2 days contact sales to see if the customer can accept it.

At the bottom, there is a 'Review the Gating Factors' section with the text: 'Gating factors are usually a good indicator where the problem occurs in the supply chain.'

Alerts with Procedure Playbooks (2)

You can click the detailed description to see more information about the procedure playbook.

The screenshot displays the SAP Intelligent Visibility interface. On the left, a map shows the United States with a blue circle highlighting the Chicago area. The main panel is titled 'Sales Order Confirmed Late' and shows a 'Confirmed Late Alert Resolution' section. A modal window titled 'Detailed Description' is open, providing information about the alert type and its resolution steps.

Detailed Description

This alert type monitors customer demands that cannot be fulfilled.

It is possible that the demand cannot be fulfilled when supply coming in the DC and the stock is not able to cover sales orders that has been requested by customers.

This alert focuses only on the actual demand and doesn't consider forecast that might impact real customer demands.

Since the alert has been created with templates the orders that are impacted by the missing supply are directly displayed in the screen.

Sales Order Confirmed Late

Subscription: GF Confirmed Late
Calculation Levels:
Location ID: DC71
Location Type: P
Material Number: EP213, PHONE A

Look at the supply at other DC
See if there are other DC's that has inventory. Take a look at the complementary chart in the alert to get an overview of the situation.

[Inventory Overview Chart](#)

Alerts with Procedure Playbooks (3)

You can click one of the actions to open the configured link.

Activities

Verify the status in Transportation Management
Take a look at the transportation management status. You should see a link in the gating factor if the STO or PO is managed via transportation management.

Look at the supply at other DC
See if there are other DC's that has inventory. Take a look at the complementary chart in the alert to get an overview of the situation.

[Inventory Overview Chart](#)

Accept delay and contact customer
Look at the number of days that the sales order is confirmed late. If it's less than 2 days contact sales to see if the customer can accept it.

[Email Sales](#)

Review the Gating Factors
Gating factors are usually a good indicator where the problem occurs in the supply chain.

[View Gating Factor](#)



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SAP

View Gating Factors ▾

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JB

Version SAP72102C / Base Version

Open In...

Standard* ▾

Search

🔍

Version/Scenario: *
SAP72102C / Base Version ▾

Material Number:

🔗

Location Number:
DC71

🔗

Date Horizon:
28 Days ▾

Gating Factor Type: *
8 Items ▾

Gating Factor For:

🔗

Adapt Filters (4)

Go

⬆️ ⬇️ ⬆️

Demands with Gating Factors (39)

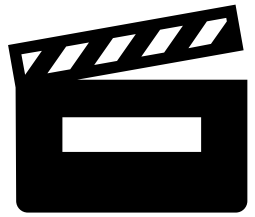
Period Settings ▾

Analyze Demands ⚙️

📄

▾

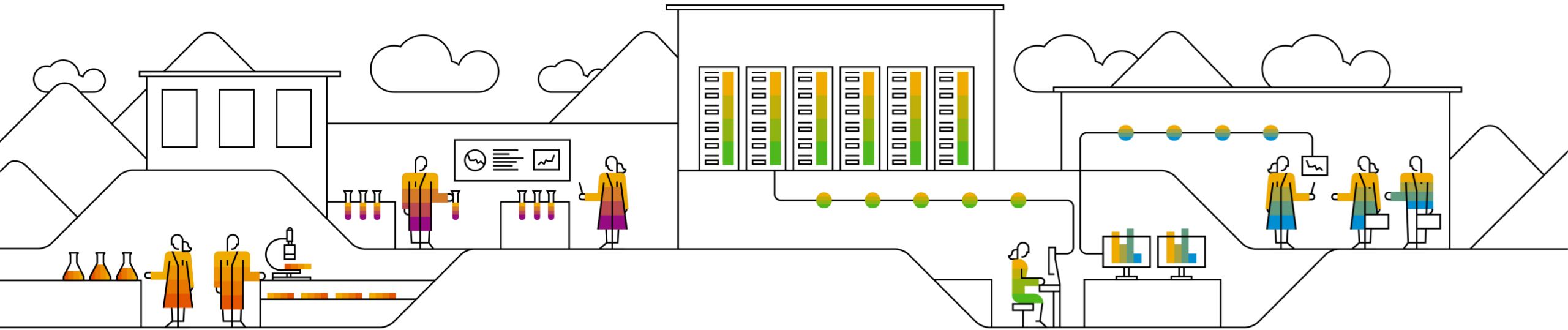
Gating Factor Type	Gating Factor For	Affected Quantity	Gat
Insufficient Lead Time	POC01_CASE_A, FA71	24 EA	
Insufficient Lead Time	POC01_CASE_A, FA71	47 EA	
Insufficient Lead Time	POC01_CPU_A, FA71	24 EA	
Insufficient Lead Time	POC01_CPU_A, FA71	47 EA	
Insufficient Lead Time	POC01_PACKAGING_A, FA71	89 EA	
Insufficient Lead Time	POC01_PACKAGING_A, FA71	47 EA	
Insufficient Lead Time	POC01_PHONE_A, DC71	24 EA	
Insufficient Lead Time	POC01_PHONE_A, DC71	35 EA	
Insufficient Lead Time	POC01_PHONE_A, DC71	50 EA	
Insufficient Lead Time	POC01_PHONE_A, DC71	40 EA	
Insufficient Lead Time	POC01_PHONE_A, DC71	80 EA	
Insufficient Lead Time	POC01_PHONE_A, DC71	120 EA	
Insufficient Lead Time	POC01_PHONE_A, DC71	15 EA	



System Demo

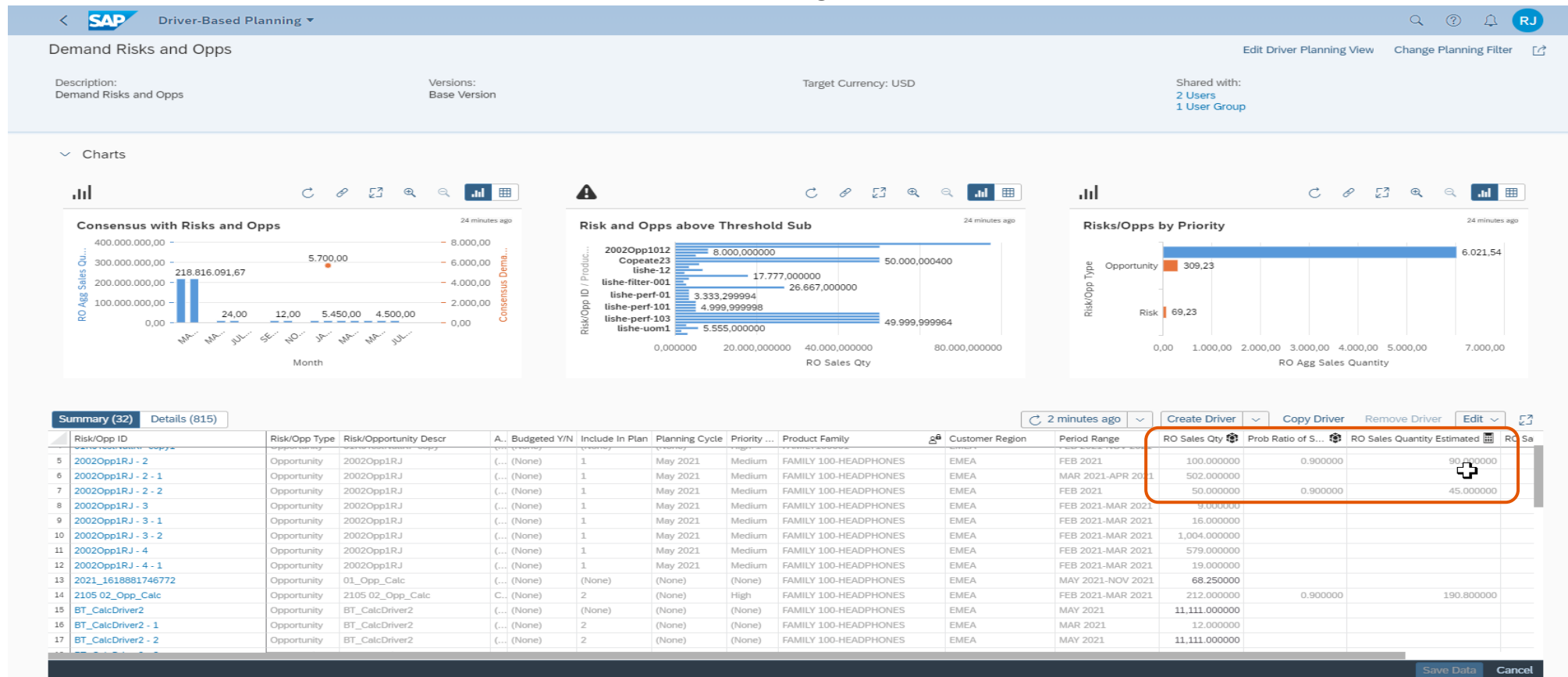
S&OP

Raghav Jandhyala



Driver Based Planning – Calculated Key Figures for Driver Impact Visibility

- Calculated Key Figures can be added to a driver planning view to gain visibility into impact of the Driver
Example : $\text{Risk Impact} = \text{Risk Volume} * \text{Price}$; $\text{Estimated Risk} = \text{Risk Volume} * \text{probability}$
- Criteria: Like stored driver key figure, the calculated key figured should have Driver Attributes, Planning Level Attributes and Time level in its base planning level



Driver Based Planning – Calculated Key Figures for Driver Impact Visibility




- In Driver Planning View Settings, the Key Figures selection is reduced to stored and calculated Key Figures that have the Driver ID as a root attribute in their base planning level.
- The type of the key figure (stored / calculated / stored and calculated) is indicated by an icon in various places throughout the app for better readability.

Driver Planning View

DBP Calc KF

General Information
Time Settings
Attributes
Planning Level Attributes (2)
Key Figures (3)
Charts
Filter
Sharing








Key Figures (3)

ID	Name	Type
ROLSQTY	RO Sales Qty	
ROLSQTYPROBABILITY	Prob Ratio of Sales Qty	
ROLSQTYESTIMATED	RO Sales Quantity Estimated	

Charts

Add

Key Figures

ID	Name	Type
ROACCEPTSTATUS	RO Accept Status	
ROCALCSALESQTY	RO Distr Sales Qty	
RONETSALESNOCONV	RO Net Sales No Conv	
<input checked="" type="checkbox"/> ROLSQTY	RO Sales Qty	
<input checked="" type="checkbox"/> ROLSQTYESTIMATED	RO Sales Quantity Estimated	
<input checked="" type="checkbox"/> ROLSQTYPROBABILITY	Prob Ratio of Sales Qty	
<input type="checkbox"/> ROLSQTYUOM	RO Sales Qty UOM	
<input type="checkbox"/> ROLSREVCLC	RO Sales Rev Calc	
<input type="checkbox"/> ROLSREVCURR	RO Sales Revenue Currency	
<input type="checkbox"/> VWCONSENSUSROPRDCUST	CONSENSUSDEMANDQTY@MTHROPRDCUST	
<input type="checkbox"/> VVHDEMANDRATIO	Demand Ratio	

Process Management – API to extract Process Management Data

Improve Visibility, Transparency and Adherence to Process

- You can extract various process management related data such for external reporting on information about the processes, individual steps, tasks, or other details on process-step level.
- Using this information, you can keep track of all or specific processes to see if you need to take immediate action and assess whether there is a risk of missing any deadlines.
- New OData v4 service **/IBP/API_PROCMGMT_MANAGE** to extract information about processes from SAP IBP
- Setup communication arrangement based on the new **Planning - Process Management (SAP_COM_0749)** communication scenario.

Process Management - SAP_COM_0749 Edit Display Changes Delete

Scenario ID: SAP_COM_0749 Changed By: Editing Status: Active
 Scenario: Planning - Process Management Integration Changed On: 03/16/2021, 05:05:03

Common Data

Arrangement Name: Own System:

Communication System: Display

Additional Properties

Property Name	Property Value
Corresponding Business User	<input type="text" value=""/>

Inbound Communication Supported Authentication Methods

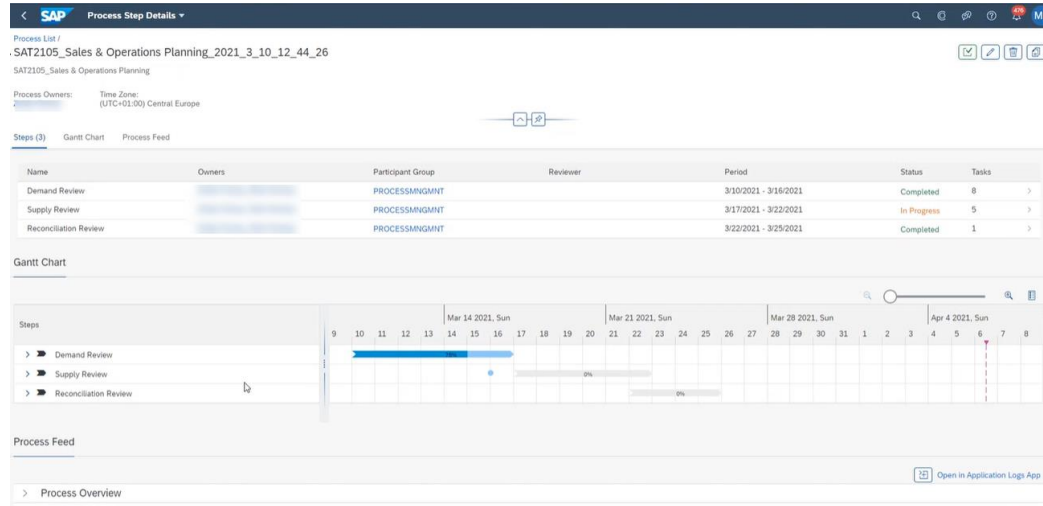
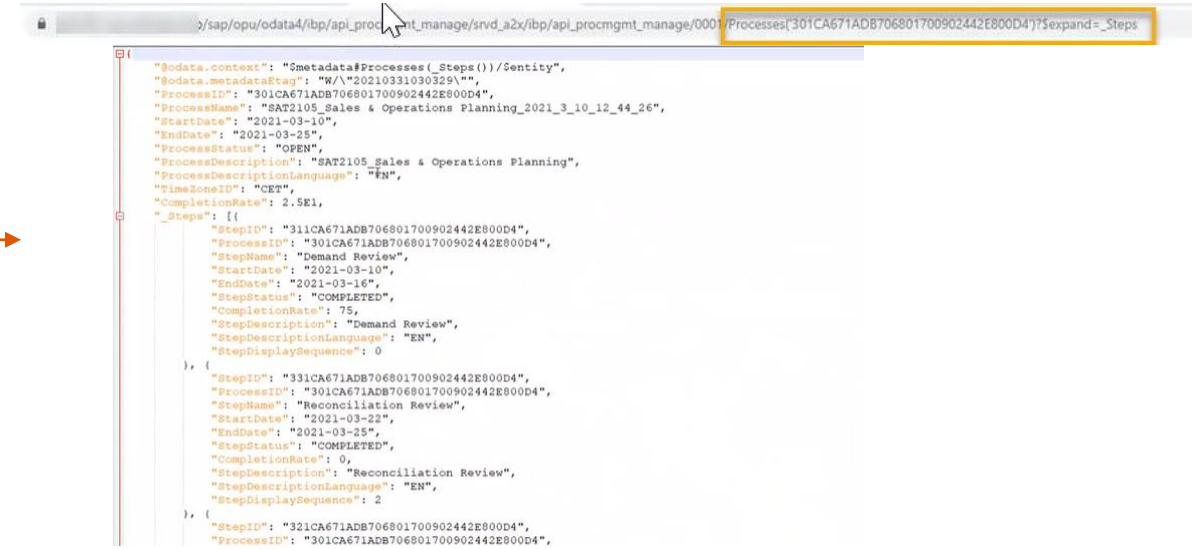
User Name: Authentication Method:

Inbound Services

Service	Application Protocol	Service URL/Service Interface	WSDL/Service Metadata	Additional Properties
IBP Planning - Process Management	OData V4	https:// api.wdf.sap.corp/sap/opu/odata4/ibp/api_procmgmt_manage/sr vd_a2x/ibp/api_procmgmt_manage/0001/		

Process Management – API to extract Process Management Data

Extract Process and Step Details

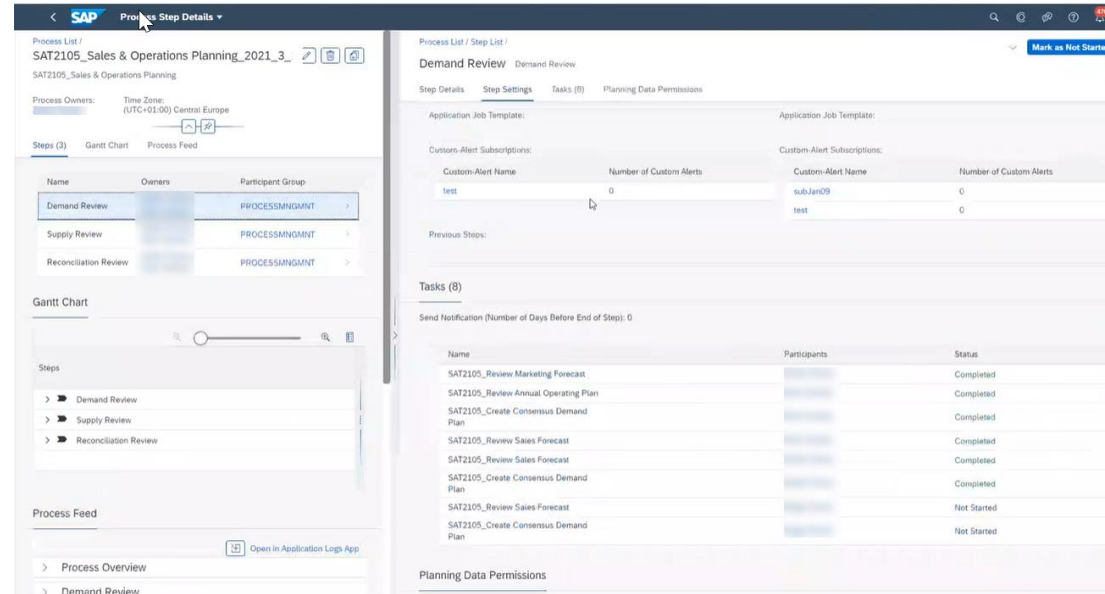
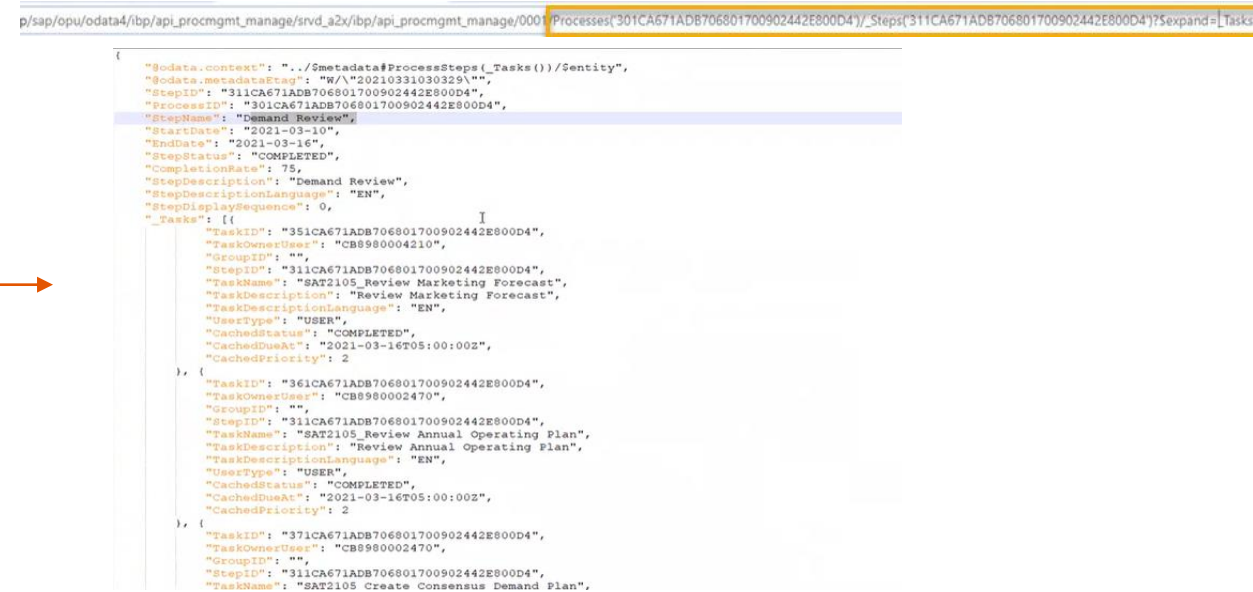
The screenshot shows the SAP API response for the process details. The response is a JSON object containing metadata and a list of steps.

```

{
  "odata.context": "$metadata#Processes(_Steps())/Entity",
  "odata.metadataetag": "W/\"2021031030329\"",
  "ProcessID": "301CA671ADB706801700902442E800D4",
  "ProcessName": "SAT2105_Sales & Operations Planning_2021_3_10_12_44_26",
  "StartDate": "2021-03-10",
  "EndDate": "2021-03-25",
  "ProcessStatus": "OPEN",
  "ProcessDescription": "SAT2105_Sales & Operations Planning",
  "ProcessDescriptionLanguage": "EN",
  "TimezoneID": "CET",
  "CompletionRate": 2.5,
  "Steps": [
    {
      "StepID": "311CA671ADB706801700902442E800D4",
      "ProcessID": "301CA671ADB706801700902442E800D4",
      "StepName": "Demand Review",
      "StartDate": "2021-03-10",
      "EndDate": "2021-03-16",
      "StepStatus": "COMPLETED",
      "CompletionRate": 75,
      "StepDescription": "Demand Review",
      "StepDescriptionLanguage": "EN",
      "StepDisplaySequence": 0
    },
    {
      "StepID": "331CA671ADB706801700902442E800D4",
      "ProcessID": "301CA671ADB706801700902442E800D4",
      "StepName": "Reconciliation Review",
      "StartDate": "2021-03-22",
      "EndDate": "2021-03-25",
      "StepStatus": "COMPLETED",
      "CompletionRate": 0,
      "StepDescription": "Reconciliation Review",
      "StepDescriptionLanguage": "EN",
      "StepDisplaySequence": 2
    },
    {
      "StepID": "321CA671ADB706801700902442E800D4",
      "ProcessID": "301CA671ADB706801700902442E800D4",
      "StepName": "Supply Review",
      "StartDate": "2021-03-17",
      "EndDate": "2021-03-22",
      "StepStatus": "IN_PROGRESS",
      "CompletionRate": 0,
      "StepDescription": "Supply Review",
      "StepDescriptionLanguage": "EN",
      "StepDisplaySequence": 1
    }
  ]
}

```

Extract Process Step -Task Details

The screenshot shows the SAP API response for the task details. The response is a JSON object containing metadata and a list of tasks.

```

{
  "odata.context": "$metadata#ProcessSteps(_Tasks())/Entity",
  "odata.metadataetag": "W/\"2021031030329\"",
  "StepID": "311CA671ADB706801700902442E800D4",
  "StepName": "Demand Review",
  "StartDate": "2021-03-10",
  "EndDate": "2021-03-16",
  "StepStatus": "COMPLETED",
  "CompletionRate": 75,
  "StepDescription": "Demand Review",
  "StepDescriptionLanguage": "EN",
  "StepDisplaySequence": 0,
  "Tasks": [
    {
      "TaskID": "351CA671ADB706801700902442E800D4",
      "GroupID": "CB8980004210",
      "TaskOwnerUser": "CB8980004210",
      "StepID": "311CA671ADB706801700902442E800D4",
      "TaskName": "SAT2105_Review Marketing Forecast",
      "TaskDescription": "Review Marketing Forecast",
      "TaskDescriptionLanguage": "EN",
      "UserType": "USER",
      "CachedStatus": "COMPLETED",
      "CachedDueAt": "2021-03-16T05:00:00Z",
      "CachedPriority": 2
    },
    {
      "TaskID": "361CA671ADB706801700902442E800D4",
      "TaskOwnerUser": "CB8980004270",
      "GroupID": "CB8980004270",
      "StepID": "311CA671ADB706801700902442E800D4",
      "TaskName": "SAT2105_Review Annual Operating Plan",
      "TaskDescription": "Review Annual Operating Plan",
      "TaskDescriptionLanguage": "EN",
      "UserType": "USER",
      "CachedStatus": "COMPLETED",
      "CachedDueAt": "2021-03-16T05:00:00Z",
      "CachedPriority": 2
    },
    {
      "TaskID": "371CA671ADB706801700902442E800D4",
      "TaskOwnerUser": "CB8980004270",
      "GroupID": "CB8980004270",
      "StepID": "311CA671ADB706801700902442E800D4",
      "TaskName": "SAT2105_Create Consensus Demand Plan",
      "TaskDescription": "Create Consensus Demand Plan",
      "TaskDescriptionLanguage": "EN",
      "UserType": "USER",
      "CachedStatus": "NOT_STARTED",
      "CachedDueAt": "2021-03-16T05:00:00Z",
      "CachedPriority": 2
    }
  ]
}

```


Process Management – API to extract Process Management Data

For more information about how to use the service, see SAP Note [3033483](#)



SAP Note 3033483 | PUBLIC

SAP Integrated Business Planning for Supply Chain

Document Version: 1.0 – 2021-05-05

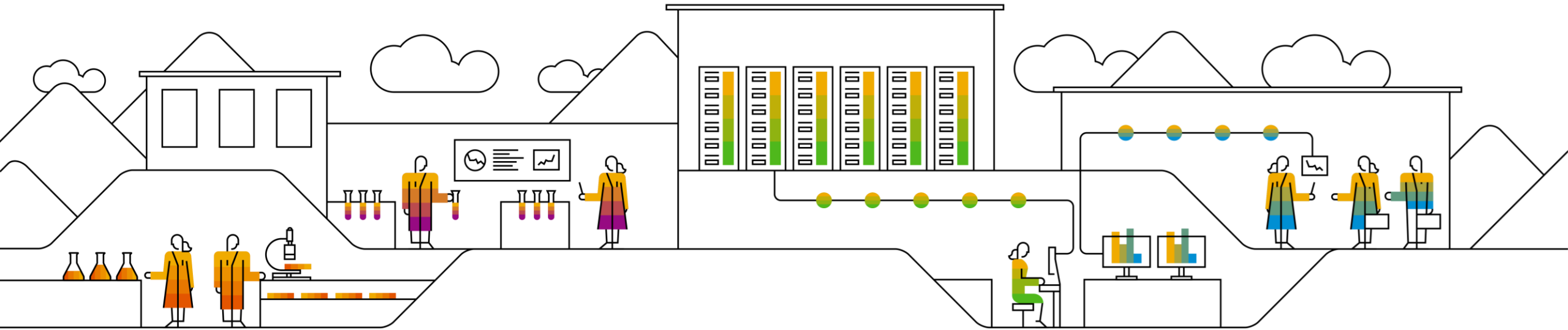
Extracting Process Management Data with OData API

OData Service Details with Examples

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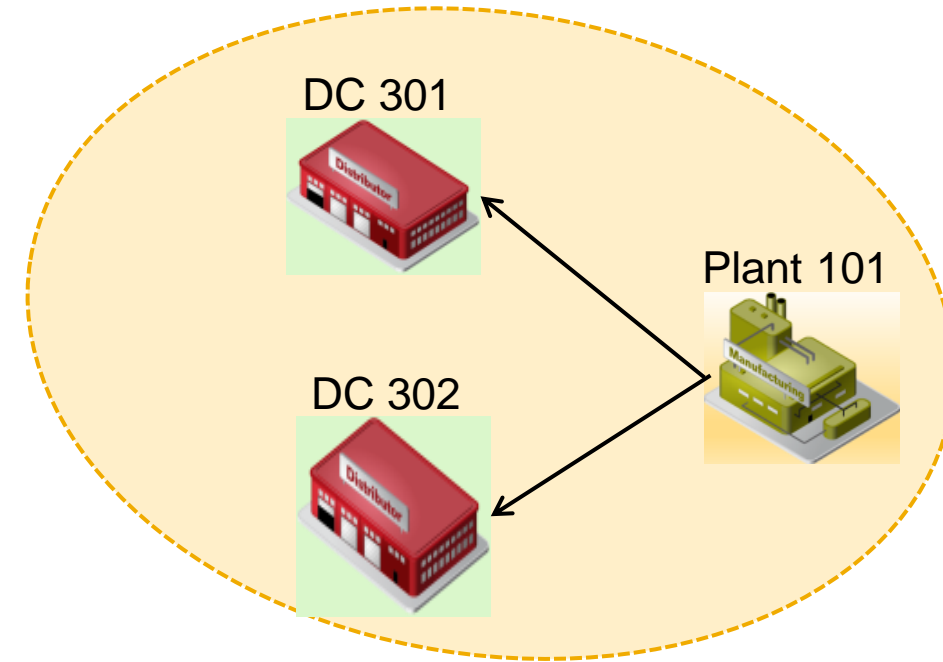
TS-Supply Planning

Pramod Mane



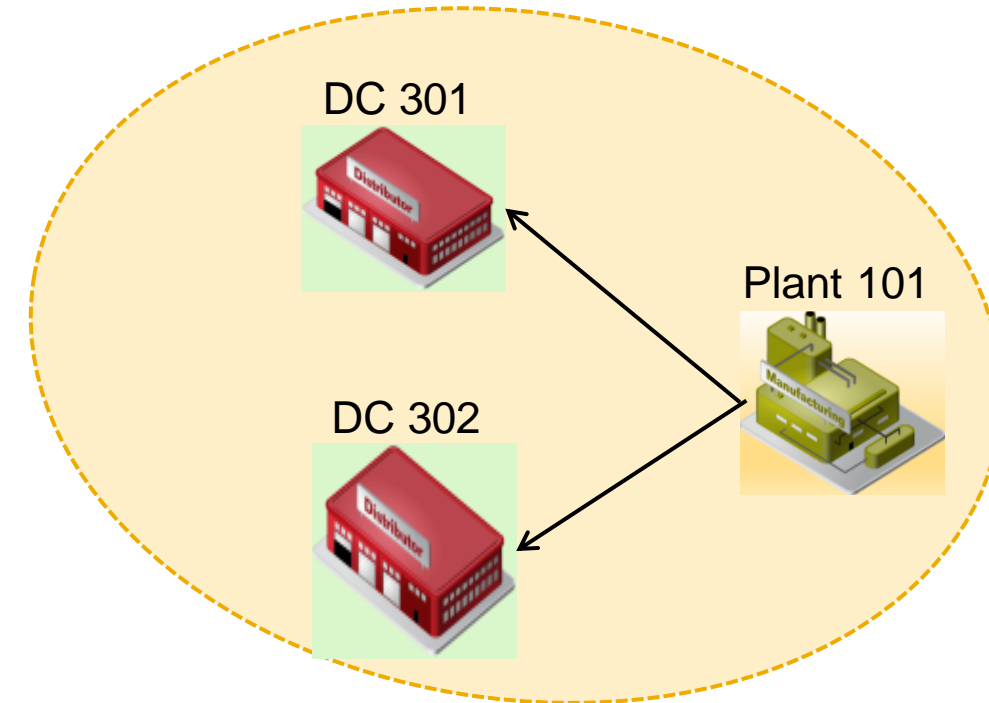
Non-Storable Customer and Location Products

- The time-series-based supply planning finite heuristic now supports non-storable customer products and location products (considered as a soft constraint) *(Already supported in Optimizer)*
- In the time-series finite heuristic, only transports are used to push the stock. Production is still planned as late as possible.
- MAXINVENTORY key figure and the INVHOLDINGPOLICY attribute of the Location Product master data type with the finite heuristic are used to model.
- Outgoing transports of a location product are brought forward so that in each period, projected stock remains at or below the value defined in MAXINVENTORY.
- Business scenario:
 - Storage Constraints at the production plant.
 - Production quantities should be pushed to DC 301 and DC 302 immediately after Production



Non-Storable Customer and Location Products

- If stock may be pushed to several locations, heuristic will take a local decision and use transport with lowest costs. Optimizer considers complete picture, e.g. stock levels and different cost factors.
- Customer-Products are implicitly non-storing. There, no materials will be stored.



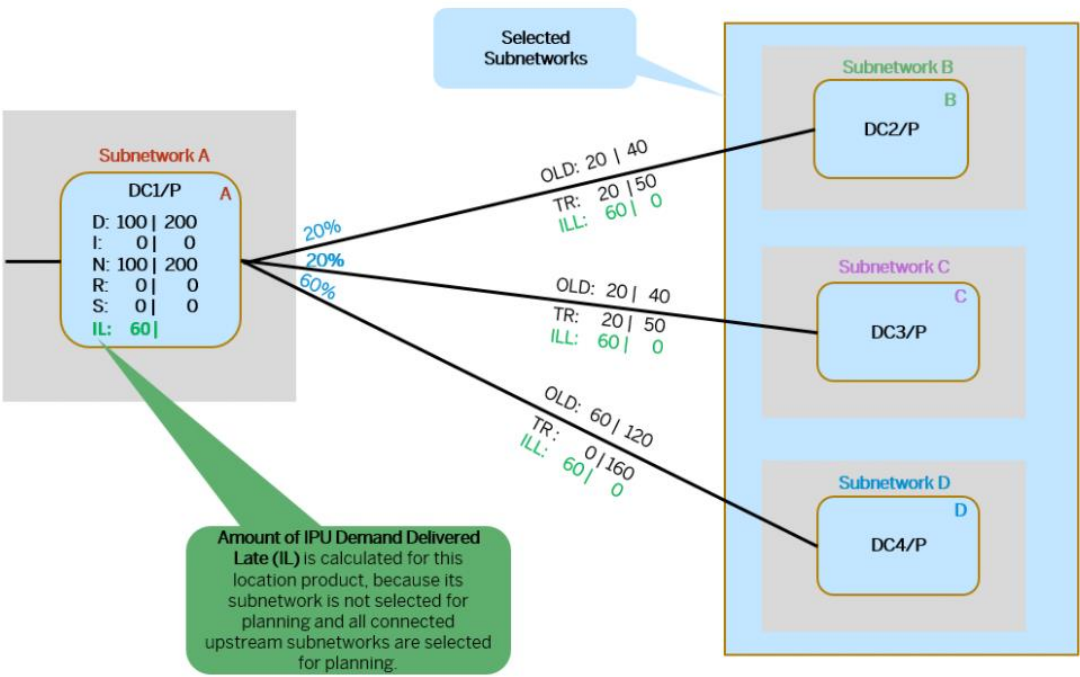
Aggregated Constraints During Time Aggregation

- Aggregated constraints during time aggregation are now respected by the time-series-based supply planning optimizer. They are only supported in normalized systems
- For example,
 - if you've defined minimum and maximum aggregated constraint key figures for the weekly time-aggregation horizon, they're added up and set as the minimum or maximum aggregated constraint key figure for the weekly period.
 - But if, for at least one day in a week, no maximum aggregated constraint key figure has been set, this doesn't happen. The values are only added up and set as the maximum aggregated constraint key figure for the week if a maximum aggregated constraint key figure has been set for each day of the week.
- For both minimum and maximum aggregated inventory constraints, no changes are applied for aggregated weeks because the inventory itself isn't being aggregated; the aggregated inventory constraints are considered as they are.

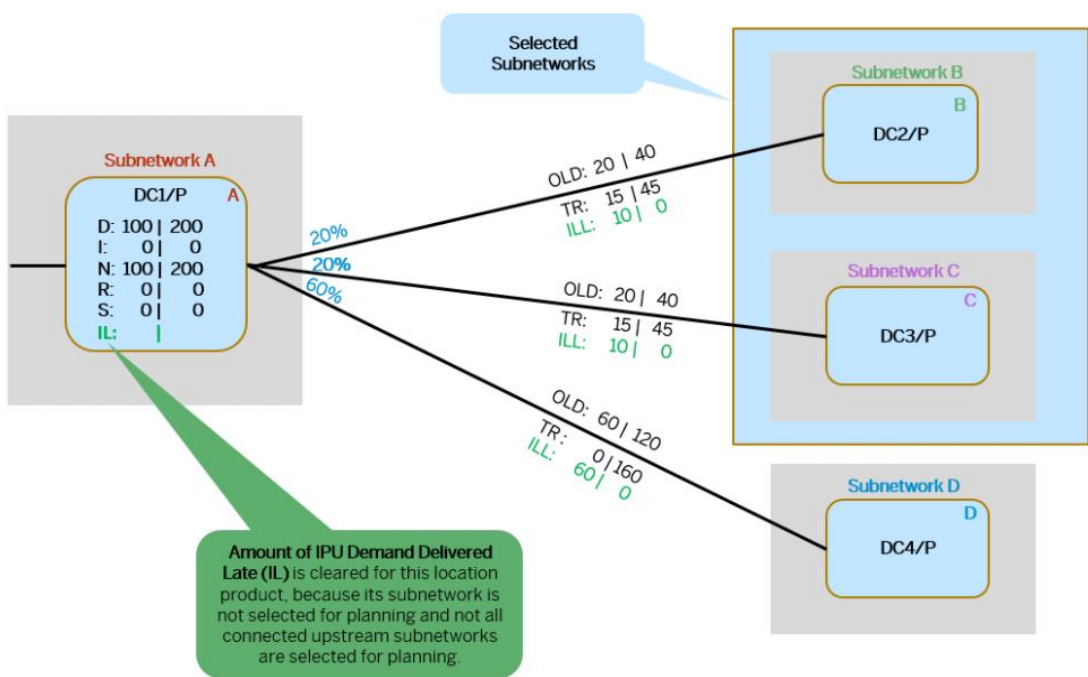
Late Delivery for Inter-Subnetwork Demand

- We've made some changes to the late delivery for inter-subnetwork demand feature (only available with the time-series-based supply planning optimizer and the time-series-based supply planning finite heuristic).
- There's a new key figure Amount of IPU Demand Delivered Late at Lane (IPUDELIVEREDLATELANE) and the behavior of the Amount of IPU Demand Delivered Late (IPUDELIVEREDLATE) existing key figure has changed.
- The values for the new output key figure IPUDELIVEREDLATELANE are automatically copied, period by period, from the IPUDELIVEREDLATE output key figure for all sources that connect the receiving location product to a selected upstream location product.
- If you only select the downstream subnetwork or only a subset of connected upstream subnetworks, this key figure remains unchanged from the previous planning run.
- The change to the existing output key figure IPUDELIVEREDLATE is that if you only select the downstream subnetwork or only a subset of connected upstream subnetworks, its values are now cleared, with no new values being calculated. Previously they weren't recalculated but showed values from the optimizer or finite heuristic's previous run.

Late Delivery for Inter-Subnetwork Demand



D: Dependent Demand
I: Projected Inventory
N: Net Demand
R: Total Receipts
OLD: Outbound Location Demand
TR: Transport Receipts
S: Supply
IL: Amount of IPU Demand Delivered Late
ILL: Amount of IPU Demand Delivered Late at Lane



D: Dependent Demand
I: Projected Inventory
N: Net Demand
R: Total Receipts
OLD: Outbound Location Demand
TR: Transport Receipts
S: Supply
IL: Amount of IPU Demand Delivered Late
ILL: Amount of IPU Demand Delivered Late at Lane

New Key Figure **Total Customer Receipts for a Substitute Product**

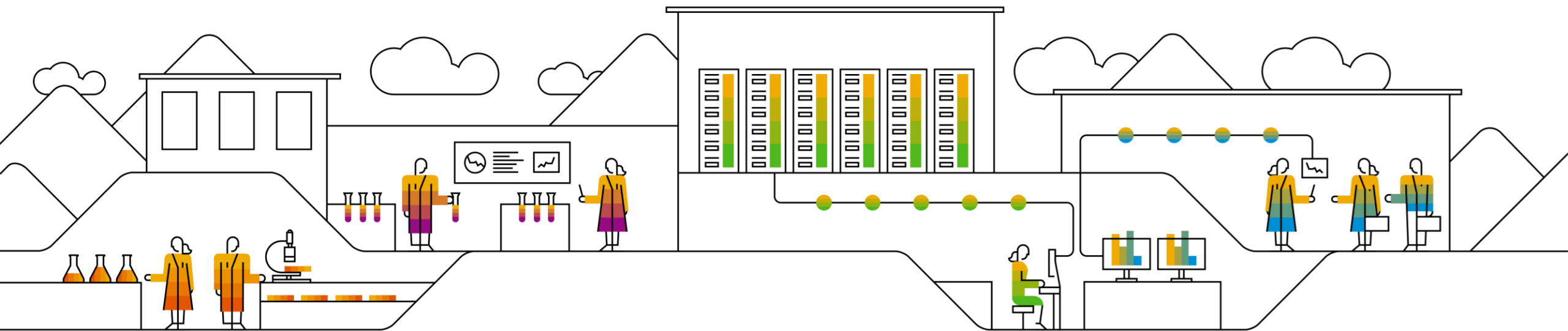
- We have added the Total Customer Receipts for a Substitute Product (SUBSTOTALCONSTRAINEDDEMAND) key figure at Product-Customer level
- It provides insight into the customer demand for a specific product that has been fulfilled by a specific substitute product.

Extra Information in Planning Run Statistics

- In normalized systems only, extra information is now available in the statistics provided after a planning run, to help you resolve any issues or when trying to improve performance.
- Statistics are available for all key figures used in the planning run, and for all master data types that might possibly be used in the planning run.
- The statistics are presented to you as attachments to the application log, instead of in the business log as previously. One attachment is for key figures, while the other is for master data types.
- The statistics show, for example, the following:
 - Total number of written key figure records.
 - Total number of master data records read.
 - Total number of master data records read that are relevant for the selection
 - Total number of initial and non-initial key figure records read
 - Total number of initial and non-initial key figure records that are relevant for the selection.
 - Total number of existing initial and non-initial key figure records (at the end of the operator call).
 - Total number of existing key figure records (at the end of the operator call).
 - Total number of existing master data records relevant for the selection (at the end of the operator call).

Business Network Collaboration

Pramod Mane



Granular and Flexible Forecast Collaboration

- You can use this feature if you want to collaborate on a more granular planning level than you would in a typical forecast collaboration process.
- Up to now, we supported forecast collaboration on a planning level with two root attributes, i.e. Location and Product level. Now you can collaborate on a planning level with a third root attribute.
- You can flexibly define this third root attribute, that is, you can choose whether or not to define it, and you can define any third attribute of your choice.
- For example,
 - You want to collaborate on production plans with your suppliers. You share your forecast for specific production lines, so your suppliers can commit to what they can produce on those production lines. The planning level in this case will be Location - Product - Production Line level, where Location and Product need to be part of the planning level just like in previous releases and where you can define the Production Line attribute.
 - You want to collaborate on transportation plans with your suppliers. Here you want to outsource the transportation of one of your products to one of your suppliers. You share your forecast for specific modes of transport, so your suppliers can commit to what they can transport on those modes of transport.

Granular and Flexible Forecast Collaboration

Mapping the Third Attribute

- Collaboration on a planning level with three root attributes is accomplished by using a cXML element for the inbound and outbound messages that is called a Characteristic element.
- This element has a domain and a value, which you can use to map the third attribute from your planning level to the message and vice versa.
- The domain and the value are represented by the following new target and source fields:
 - The domain of the Characteristic element is represented by the Characteristic 01 Domain target field for provider plans and source field for consumer plans.
 - The value of the Characteristic element is represented by the Characteristic 01 Value target field for provider plans and source field for consumer plans.

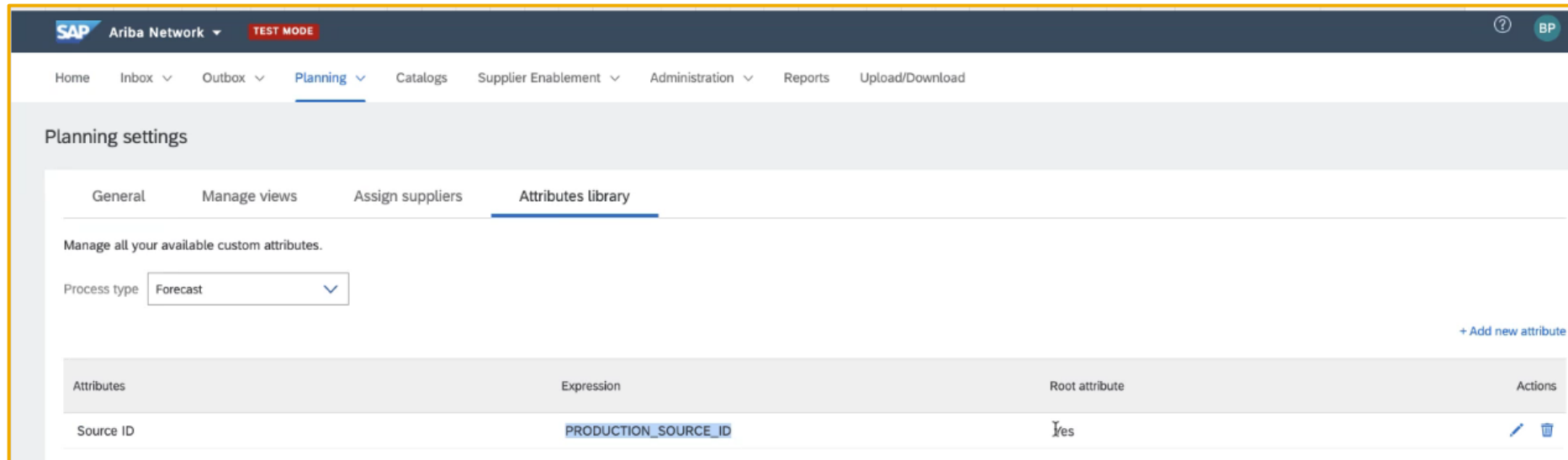
FIELD MAPPING				
Source Category	Source Field	Target Field	Target Field Path	Mandatory
Data Sharing Plan Attribute	HDR_BUYER_AND	FROM_NETWORK_ID	/cXML/Header/From/Credential[@domain='NetworkID']/Identity/	Yes
Data Sharing Plan Attribute	HDR_SUPID	TO_VENDOR_ID	/cXML/Header/To/Credential[@domain='VendorID']/Identity/	Yes
Attribute	PRDID	BUYER_PART_ID	/cXML/Message[@deploymentMode='production']/ProductActivityMessage/ProductActivityDetails/ItemID/BuyerPartID/	Yes
Attribute	PRDESCR	BUYER_PART_DESCRIPTION	/cXML/Message[@deploymentMode='production']/ProductActivityMessage/ProductActivityDetails/Description[@xml:lang]/	No
Data Sharing Plan Attribute	HDR_BUYER_LOCATION_ID	BUYER_LOCATION_ID	/cXML/Message[@deploymentMode='production']/ProductActivityMessage/ProductActivityDetails/Contact[@role='locationTo']/IdReference[@domain='buyerLocationID']/[Identifier]	Yes
Data Sharing Plan Attribute	HDR_BUYER_LOCATION_ID	BUYER_LOCATION_DESC	/cXML/Message[@deploymentMode='production']/ProductActivityMessage/ProductActivityDetails/Contact[@role='locationTo']/Name[@xml:lang]/	Yes
Time Attribute	TSTFR	FORECAST_START_DATE	/cXML/Message[@deploymentMode='production']/ProductActivityMessage/ProductActivityDetails/TimeSeries[@type='orderForecast']/Forecast/Period[@startDate]	No
Time Attribute	TSTTO	FORECAST_END_DATE	/cXML/Message[@deploymentMode='production']/ProductActivityMessage/ProductActivityDetails/TimeSeries[@type='orderForecast']/Forecast/Period[@endDate]	No
Time Level	PERIODID2	\$S\$TIME_LEVEL\$S\$		Yes
Key Figure	PRODUCTION	FORECAST_QUANTITY	/cXML/Message[@deploymentMode='production']/ProductActivityMessage/ProductActivityDetails/TimeSeries[@type='orderForecast']/Forecast/ForecastQuantity[@quantity]	No
Data Sharing Plan Attribute	HDR_SOURCE_PRODUCTION_ID	ARIBA_CHARACTERISTIC_01_DOMAIN	/cXML/Message[@deploymentMode='production']/ProductActivityMessage/ProductActivityDetails/Characteristic[@domain]/	No
Attribute	SOURCEID	ARIBA_CHARACTERISTIC_01_VALUE	/cXML/Message[@deploymentMode='production']/ProductActivityMessage/ProductActivityDetails/Characteristic[@value]/	No

FIELD MAPPING				
Source: CXML_PREM Target: __BASELINE				
Source Field	Source Field Path	Mandatory	Target Category	Target Field
FROM_VENDOR_ID	/cXML/Header/From/Credential[@domain='VendorID']/Identity/	No	Data Sharing Plan Attribute	HDR_VENDOR_ID
BUYER_LOCATION_ID	/cXML/Message[@deploymentMode='production']/ProductReplenishmentMessage/ProductReplenishmentDetails/Contact[@role='locationTo']/IdReference[@domain='buyerLocationID']/[Identifier]	No	Attribute	LOCTO
BUYER_PART_ID	/cXML/Message[@deploymentMode='production']/ProductReplenishmentMessage/ProductReplenishmentDetails/ItemID/BuyerPartID/	No	Attribute	PRDID
SUPPLIER_LOCATION_ID	/cXML/Header/From/Credential[@domain='VendorID']/Identity/	No	Attribute	LOCID
CONFIRMATION_QUANTITY	/cXML/Message[@deploymentMode='production']/ProductReplenishmentMessage/ProductReplenishmentDetails/ReplenishmentTimeSeries[@type='forecastConfirmation']/TimeSeriesDetails/TimeSeriesQuantity[@quantity]	No	Key Figure	ZPRODUCTIONCOMMIT
CONFIRMATION_START_DATE	/cXML/Message[@deploymentMode='production']/ProductReplenishmentMessage/ProductReplenishmentDetails/ReplenishmentTimeSeries[@type='forecastConfirmation']/TimeSeriesDetails/Period[@startDate]	No	Time Attribute	TSTFR
ARIBA_CHARACTERISTIC_01_DOMAIN	/cXML/Message[@deploymentMode='production']/ProductReplenishmentMessage/ProductReplenishmentDetails/Characteristic[@domain]/	No	Data Sharing Plan Attribute	HDR_PRODUCTION_SOURCE
ARIBA_CHARACTERISTIC_01_VALUE	/cXML/Message[@deploymentMode='production']/ProductReplenishmentMessage/ProductReplenishmentDetails/Characteristic[@value]/	No	Attribute	SOURCEID
		No	Data Sharing Plan Attribute	HDR_MY_COMPANY_AN_ID

Granular and Flexible Forecast Collaboration

Enabling the Third Attribute in the Forecast Add-On for SAP Ariba Supply Chain Collaboration for Buyers

- The SAP Ariba administrator needs to enable the third attribute in SAP Ariba. To show the data for the attribute correctly in the forecast add-on for SAP Ariba Supply Chain Collaboration for Buyers, the SAP Ariba administrator needs to enable the attribute in the forecast add-on. They can do this under Planning Settings → Manage Views → Forecast View Attributes.
- The attribute needs to be the domain of the Characteristic element. The expression on the SAP Ariba UI needs to be the same as the Characteristic domain in the data sharing plan.

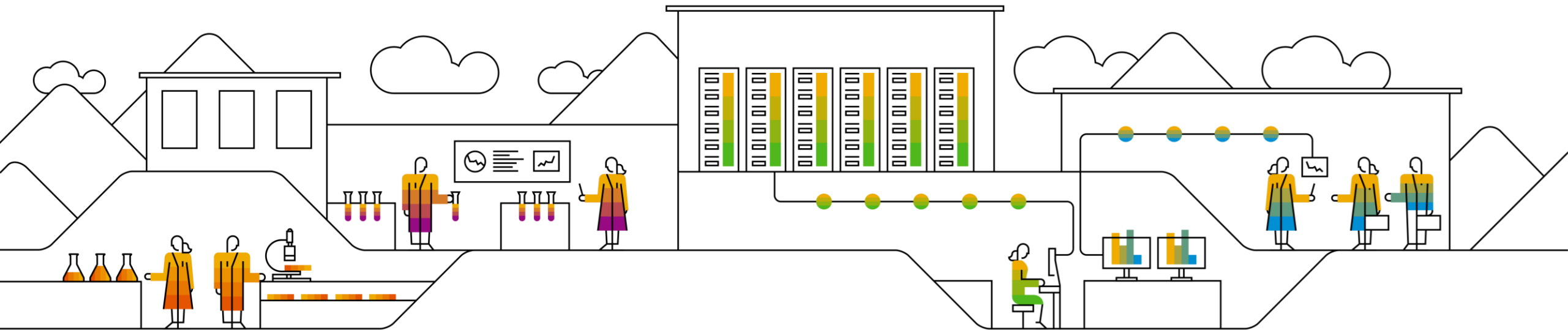


New global configuration parameter CHECK_ARIBA_CHARACTERISTIC_IN

- For inbound messages that use a Characteristic element, this parameter checks if the domain and the value for the Characteristic element are mapped to an attribute in SAP IBP for the corresponding data sharing plan.
- To activate the check, you need to set the global configuration parameter to "X".

Demand Planning

Rainer Moritz



Demand Planning Enhancements with IBP 2105

- **Enhancements in Forecasting**
- Enhancements of Product Lifecycle Planning
- Enhancements of Segmentation
- Enhancements of Realignment

Categorical Variables in (S)ARIMAX

Categorical Independent Variables in (S)ARIMAX

Support “categorical” independent variables

- Already available for Gradient Boosting and MLR with IBP 2102
- **New with 2105: supported for (S)ARIMAX** as well

■ Categorical variables

– These variables **hold codes of different events**

- Example: Thanksgiving = „1002”, Super Bowl = „786”. Codes are numeric but do not represent a value
- (S)ARIMAX can learn the impact of each event and apply it to the forecast when it shows up in the forecast horizon

■ Non-categorical variables

– These variables are continuous data sets that somehow explain the changes in sales history

- Example: daily average temperature
- (S)ARIMAX calculates the correlation between these independent variables and the sales and uses them to calculate the forecast

Categorical Independent Variables in (S)ARIMAX

< **SAP** Manage Forecast Model ▼ 🔍 🗨 ? 🔔 👤

Algorithms +

▼ Auto-ARIMAX/SARIMAX ⊗

Search Strategy: Stepwise ▼

Information Criterion: AICc - Akaike Information Criterion (Corrected) ▼

Maximum Order for Autoregression (p): 3

Maximum Order for Differencing (d): 1

Maximum Order for Moving-Average (q): 2

Consider Seasonality: ☐

Calculate Number of Periods in a Season: ☒

Periods in a Season:

Maximum Order for Seasonal Autoregression (P):

Maximum Order for Seasonal Differencing (D):

Maximum Order for Seasonal Moving-Average (Q):

Key Figures (1) +

Independent Variable: Independent variable 1 📄 ⊗

Period Offsets: -0 / 0 periods 📄

Categorical Variable: ☐



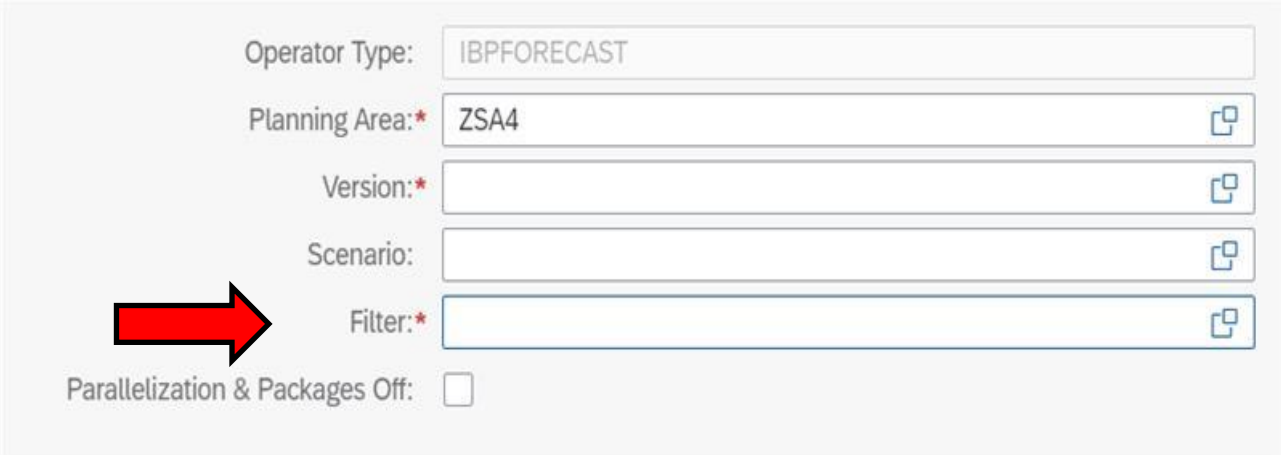
Make planning filters mandatory for forecasting jobs

Making Planning Filters Mandatory in Statistical Forecasting Jobs

From IBP 2105, customers can make planning filters mandatory for a group of users

- Considered by statistical forecasting only
- Works both in Excel and Fiori

- Setup mandatory filters with the below steps
 1. Create a user group in User Groups app
 2. Assign users to the user group
 3. Specify the user group as the value of global parameter
USERGROUP_MANDATORY_JOB_FILTER



The screenshot displays the configuration interface for a statistical forecasting job. The fields are as follows:

- Operator Type: IBPFORECAST
- Planning Area*: ZSA4
- Version*: (empty)
- Scenario: (empty)
- Filter*: (empty)
- Parallelization & Packages Off: ☐

A red arrow points to the 'Filter*' field, indicating where to specify the user group for mandatory filters.

Demand Planning Enhancements with IBP 2105

- Enhancements in Forecasting
- **Enhancements of Product Lifecycle Planning**
- Enhancements of Segmentation
- Enhancements of Realignment

Manual Forecast for new products

Manual Forecast

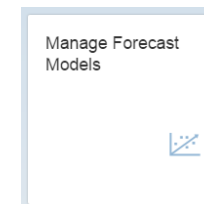
Alternative approach to plan new products

Create a forecast for the new product based on assumptions and not based on references providing historical values for the forecast:

- No product assignments are defined in this case
- Instead **maintain parameters** in the Manage Product Lifecycle app:
 - **Base value**
 - **Trend** + trend dampening (optional)
 - **Seasonality** curve (optional)
along of launch dimension values
- The manual forecast is calculated starting from the phase-in start date considering the maintained parameters
- It can be decided by product if manual forecast should be applied.

“Manual Forecast” need to be “activated” in the forecast model

If activated, the forecasting process checks for each planning object whether settings for manual forecasting are available

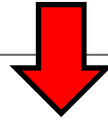


Consider Product Lifecycle Information: ☒

Aggregated Lifecycle Planning for Phase-In and Phase-Out: ☐



Manual Forecast: ☒


Manual Forecast Example






- Location 1: Manual forecasting with trend and trend dampening
- Location 2: Manual forecasting with seasonality













prd1234
prd1234
Planning Area: ZSA4 (Adams Unified Planning Area) ☒ Use Manual Forecasting
Settings Profile: No settings profile is assigned.








Unit of Measure for Base and Trend Value: PCs (Pieces) 
Periodicity: Week 

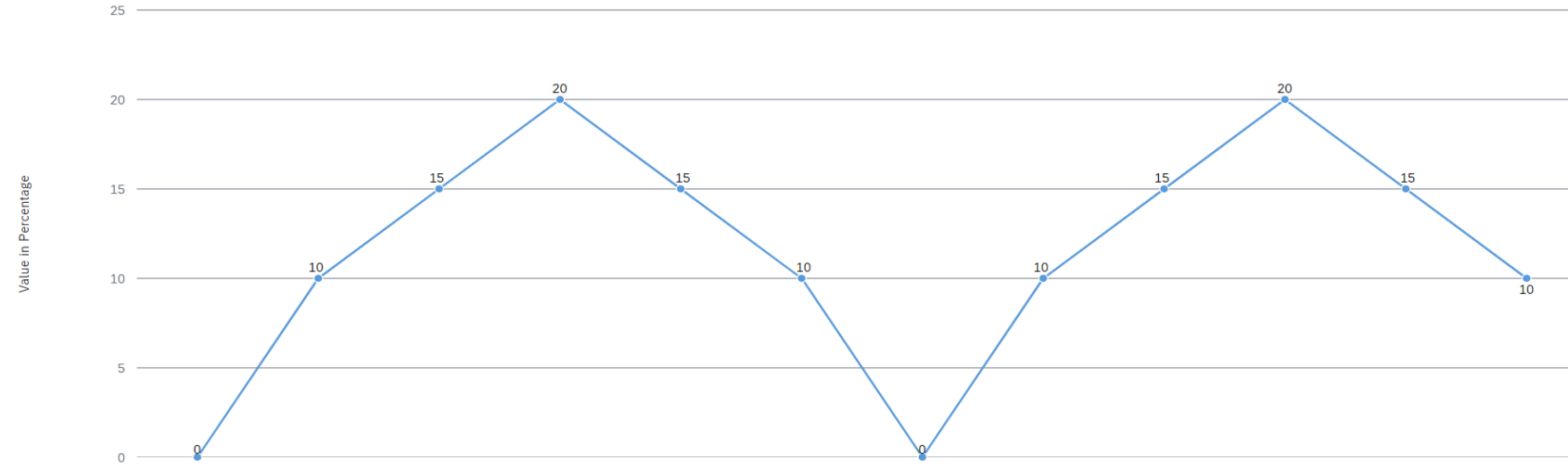
FORECAST DATES  **NOTES**

Forecast Dates

Standard  Forecast Dates (2)  [Change Launch Dimension](#) [Add](#) [Add Default Forecast Dates](#) [Assign](#) [Delete](#) 

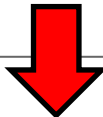
<input type="checkbox"/>	Location ID	Description	Forecast Start	Phase-In Start*	Phase-In End*	Base Value in PCs*	Trend Value in PCs	Phi Coefficient	Seasonality Curve
<input type="checkbox"/>	*	*	03/22/2021 	03/30/2021 	03/30/2021 	0	0		
<input type="checkbox"/>	Location1	Location 1	03/22/2021 	04/01/2021 	06/30/2021 	350	12	0.9	
<input type="checkbox"/>	location2	Location 2	03/22/2021 	05/01/2021 	07/31/2021 	820	0		12 weeks 0 ... 

Type: Seasonality Curve  Name: 12 weeks 0 - 20  Periods*: 12 Periodicity: Week  [Save As](#)    





Manual Forecast Example

- All other locations: “normal” statistical forecasting. Defined by entering 0 for Base Value and Trend Value
- Location 1: Manual forecasting with trend and trend dampening
- Location 2: Manual forecasting with seasonality





prd1234
prd1234
Planning Area: ZSA4 (Adams Unified Planning Area) ☒ Use Manual Forecasting
Settings Profile: No settings profile is assigned.













Unit of Measure for Base and Trend Value: PCs (Pieces) 







Periodicity: Week 

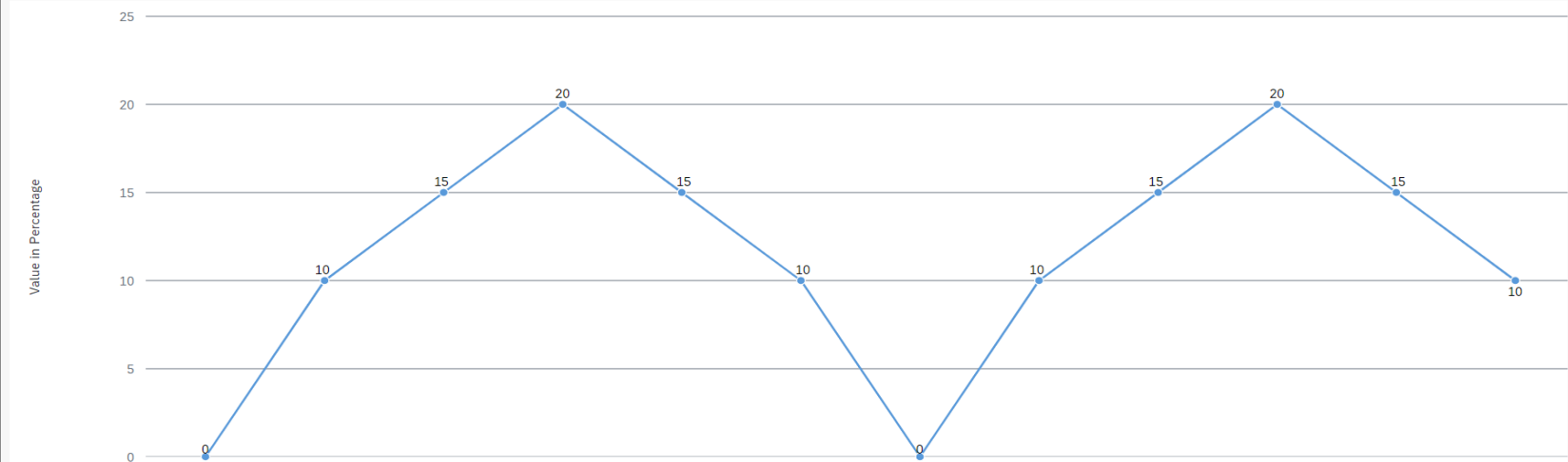
FORECAST DATES NOTES

Forecast Dates

Standard Forecast Dates (2) Search  Change Launch Dimension Add Add Default Forecast Dates Assign Delete 

<input type="checkbox"/> Location ID	Description	Forecast Start	Phase-In Start*	Phase-In End*	Base Value in PCs*	Trend Value in PCs	Phi Coefficient	Seasonality Curve
<input type="checkbox"/> *	*	03/22/2021 	03/30/2021 	03/30/2021 	0	0		
<input type="checkbox"/> Location1	Location 1	03/22/2021 	04/01/2021 	06/30/2021 	350	12	0.9	
<input type="checkbox"/> location2	Location 2	03/22/2021 	05/01/2021 	07/31/2021 	820	0		12 weeks 0 ... 

Type: Seasonality Curve Name: 12 weeks 0 - 20  Periods*: 12 Periodicity: Week  Save As    



Create Planning Objects within the Product Lifecycle App

Create Planning Objects within the Product Lifecycle App

You need planning objects for a new product before you can run forecasting

With IBP 2105 you can do this directly in the Product Lifecycle App

- Planning objects can be created by copying planning objects of a reference product
- Supported for the baseline version only
- Supported for normalized planning areas only

Create Planning Objects within the Product Lifecycle App

< **SAP** Manage Product Lifecycle ▾ 🔍 🔔 RM

Standard ▾ Open Application Logs 📄

Search 🔍 Planning Area: SAP62002 ▾ Product ID: 📄 Reference Product ID: 📄 Creation Period: All ▾ Location ID: 📄 Status: All ▾

Adapt Filters (2) **Go**

Product Assignments (3) **Product Assignments** Forecast Dates

Add ▾ Edit Copy Delete ▾ Upload Download Planning Object Actions ▾ Other Actions ▾ ⬆ ⚙

<input type="checkbox"/> Product ID	Product Desc	Number of Assignments	Location ID	Location	<input type="checkbox"/> Reference Product ID	Reference Product Desc	Weight in %	Valid From	
<input checked="" type="checkbox"/> HT_NEW_1	HT_NEW_1	1	*	Any Attribute Value	HT_006	HT_006	100		
<input type="checkbox"/> HT_NEW_2	CleverTele 48inch silver NEW	2	*	Any Attribute Value	HT_006	M-Phone 3DS 128GB	100		
<input type="checkbox"/>			HD_DC_FR	DC Europe Lyon	HT_007	C-Phone 9 black	100		

Check Planning Objects for Selected Assignme...

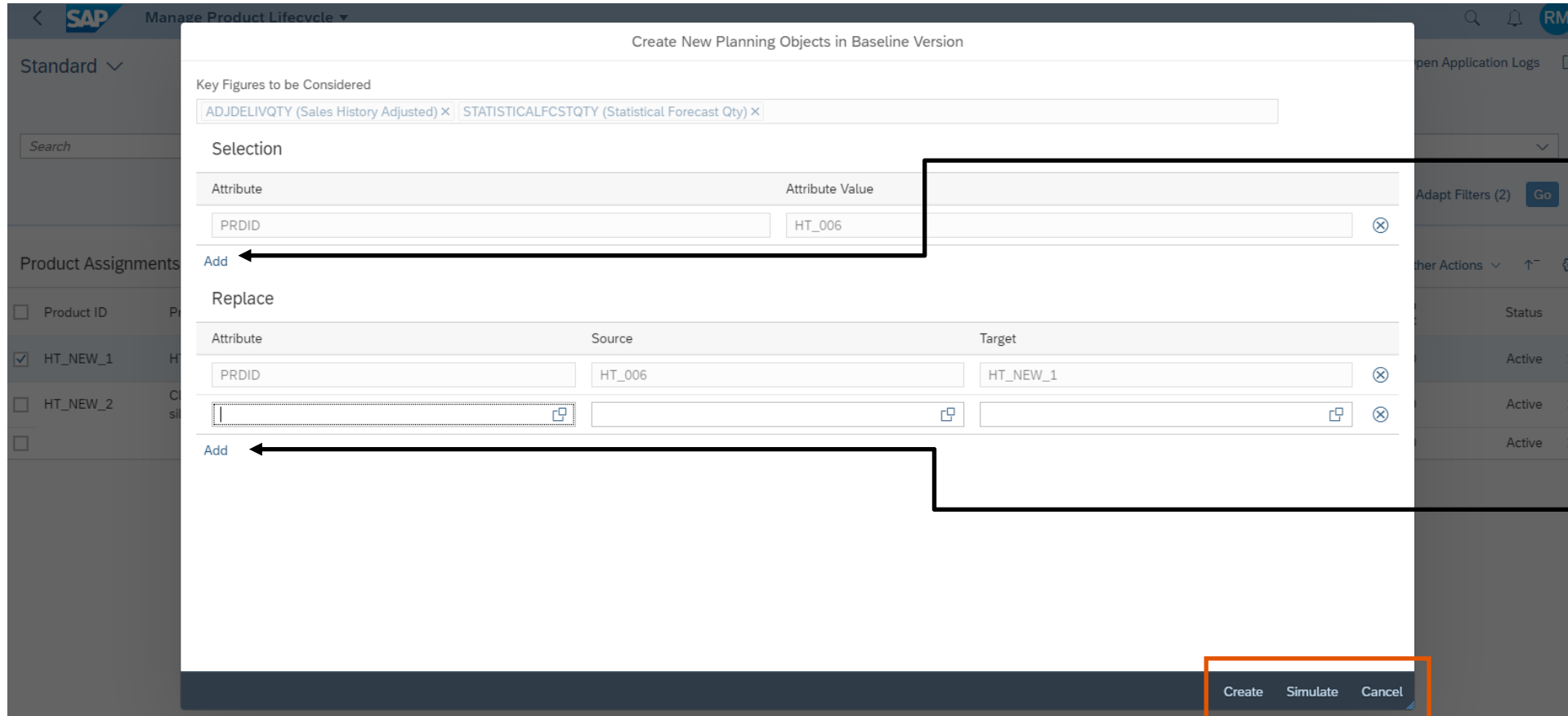
Check Planning Objects for All Assignments

Download Check Results

Create Planning Objects for Selected Assignment

After selecting, new screen appears...

Create Planning Objects within the Product Lifecycle App



Create New Planning Objects in Baseline Version

Key Figures to be Considered
 ADJDELIVQTY (Sales History Adjusted) x STATISTICALFCSTQTY (Statistical Forecast Qty) x

Selection

Attribute	Attribute Value
PRDID	HT_006

Add

Replace

Attribute	Source	Target
PRDID	HT_006	HT_NEW_1

Add

Create Simulate Cancel

Possibility to add additional filters for selecting the source planning objects

Possibility to define additional mappings in addition to ProdOld -> ProdNew

“Create”: Planning Objects are created

“Simulate”: Additional screen appears ...

Create Planning Objects within the Product Lifecycle App

[illegible]

... user can see which
planning objects will be
created upfront

Further enhancements are planned for IBP 2108

Demand Planning Enhancements with IBP 2105

- Enhancements in Forecasting
- Enhancements of Product Lifecycle Planning
- **Enhancements of Segmentation**
- Enhancements of Realignment

New Segmentation Method: K-means

New Machine Learning Method in ABC / XYZ Segmentation

Introducing K-means as a segmentation method for both ABC and XYZ analysis

- What are the advantages of K-means method in segmentation?
 - Thresholds are dynamically determined to achieve the most homogenous grouping
 - Users don't have to specify threshold values
 - K-means will form segments with center values as close to its members as possible
 - As a result, **planning objects with similar metrics will belong to the same segment**
 - Variance in each segment is calculated and logged
 - Using different number of segments might impact how homogenous the segments are

New Machine Learning Method in ABC / XYZ Segmentation

Segmentation_ABC_XYZ

Segmentation by Volume and Volatility

General

ABC Segmentation

XYZ Segmentation

-24 Months

Now

Segmentation Method:*

Use Grouping:

Attributes for Grouping:

Target UoM:

Target Currency:

(6) K-Means

(1) By Pareto Principle (Sorted and Cumulated %)

(2) By Pareto Principle (Sorted and Cumulated Values)

(3) By Number of Items (Sorted %)

(4) By Number of Items (Sorted Values)

(5) By Segmentation Measure (Single Values)

(6) K-Means

ABC Segments (3)

<input type="checkbox"/>	Name *	Description
<input type="checkbox"/>	A	A
<input type="checkbox"/>	B	B
<input type="checkbox"/>	C	C

Demand Planning Enhancements with IBP 2105

- Enhancements in Forecasting
- Enhancements of Product Lifecycle Planning
- Enhancements of Segmentation
- **Enhancements of Realignment**

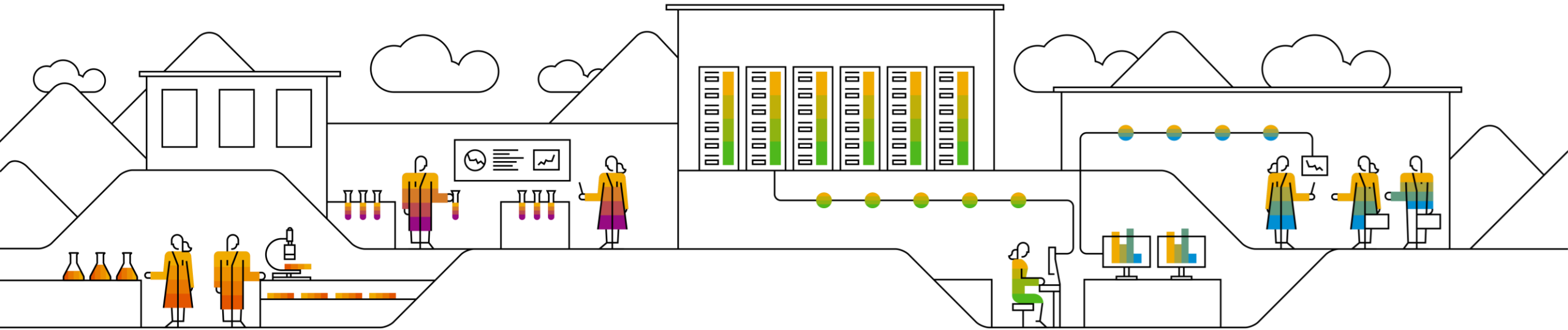
Realignment: What's new in IBP 2105

- The **OData service API_RLG_UPLOAD** is now available to upload realignment projects.
 - Allows you to fully automate the creation of realignment projects in IBP e.g. based on changes in different systems
 - Uploaded projects can be schedule in IBP or via another OData service for example using an external scheduling tool.

- Use **key figure groups** to easily select multiple key figures in realignment projects.
 - This can be helpful if you regularly realign the same set of key figures or if you upload realignment projects.
 - You can create key figure groups in the Key Figure Groups app.
 - When selecting a key figure group in a realignment step, the system checks if the assigned key figures can be used with the attribute mapping defined in the realignment step.

Demand Sensing

Atul Bhandari



Use Case Addressed: Flexible Demand Sensing Forecast Model Run

Before demand sensing was restricted at Product ID-Location ID- Customer ID planning level

- Limited flexibility via Business Meanings which could not support different business unit needs

Now demand sensing forecast model allows flexible definition of run level

- Some validation rules must be followed
- Business Meanings are only used to populate fields in the forecast model by default
- Users can override the default values
- Applicable to both full (machine re-learning) and update (re-apply learnt model) run modes

Demand Sensing Forecast Models – (1/2)

New Configuration Expert View to Change Demand Sensing Run Level

New Forecast Model
Planning Area M30CDTEST

GENERAL PREPROCESSING STEPS **FORECASTING STEPS** POSTPROCESSING STEPS

New with SAP IBP 2105 onwards

Configuration Expert View: Default is off and the fields below are defaulted using Business Meaning and Identifiers

User can change aggregation level to any planning level.
Some validation rules apply – see next slide.

Defaulted based on business meaning but must be changed to match the “run” aggregation level

Some validation rules apply – see next slide.

Optional key figures. Some validation rules apply – see next slide.

Configuration Expert View: ☒ ON

Aggregation Level for Demand Sensing: * Location | Product | Customer | Daily

Technical Output	Key Figures
Adjustment Factors	
Bias Adjustment Factor *	Bias Adjustment Factor
Open Order Adjustment Factor *	Future Ordered Quantity Adjustment Factor
Daily Profiles	
Daily Profile for Day 1 *	Future Ordered Quantity Profile 0
Daily Profile for Day 2 *	Future Ordered Quantity Profile 1
Daily Profile for Day 3 *	Future Ordered Quantity Profile 2
Daily Profile for Day 4 *	Future Ordered Quantity Profile 3
Daily Profile for Day 5 *	Future Ordered Quantity Profile 4
Daily Profile for Day 6 *	Future Ordered Quantity Profile 5
Daily Profile for Day 7 *	Future Ordered Quantity Profile 6
MAPE Improvements and Weekly Intermediate Results	
Weekly Open Orders	Select a key figure
Weekly Optimized Sensed Demand	Select a key figure
Weekly Capped Sensed Demand	Select a key figure
Weekly Uplift Balanced Sensed Demand	Select a key figure
Weekly Base Balanced Sensed Demand	Select a key figure
Weekly Holiday Balanced Sensed Demand	Select a key figure
Total MAPE Improvement	Select a key figure

Demand Sensing Forecast Models – (2/2)

Validation Rules

New Forecast Model

Planning Area M30CDTEST

GENERAL

PREPROCESSING STEPS

FORECASTING STEPS

POSTPROCESSING STEPS

Overall Parameters

Main Input for Forecasting Steps: * Requested Qty

Target Key Figure for Forecast: * Sensed Demand Qty

Validation rule 1: Any planning level whose root attributes are attributes in the base planning level of the key figure selected as Target Key Figure for Forecast. Time root-attribute must be DAILY.
Note: Do not add any PL with additional root attributes such as Lag or UOMTo as it violates above rule.

Aggregation Level for Demand Sensing: * Location | Product | Customer | Daily

Technical Output

Adjustment Factors

Bias Adjustment Factor *	TGCFORECASTBIAS
Open Order Adjustment Factor *	TGCFUTUREORDEREDQTYFCTADJUSTMENT

Daily Profiles

Daily Profile for Day 1 *	TGCFUTUREORDEREDQTYPROFILE0
Daily Profile for Day 2 *	TGCFUTUREORDEREDQTYPROFILE1
Daily Profile for Day 3 *	TGCFUTUREORDEREDQTYPROFILE2
Daily Profile for Day 4 *	TGCFUTUREORDEREDQTYPROFILE3
Daily Profile for Day 5 *	TGCFUTUREORDEREDQTYPROFILE4
Daily Profile for Day 6 *	TGCFUTUREORDEREDQTYPROFILE5
Daily Profile for Day 7 *	TGCFUTUREORDEREDQTYPROFILE6

MAPE Improvements and Weekly Intermediate Results

Weekly Open Orders	TGCWEEKLYOPENORDER
Weekly Optimized Sensed Demand	TGCWEEKLYOPTIMIZEDSD
Weekly Capped Sensed Demand	TGCWEEKLYCAPPEDSD
Weekly Uplift Balanced Sensed Demand	TGCWEEKLYUPLIFTBALANCEDSD
Weekly Base Balanced Sensed Demand	TGCWEEKLYBASEBALANCEDSD
Weekly Holiday Balanced Sensed Demand	TGCWEEKLYCALBALANCEDSD
Total MAPE Improvement	TOTALMAPEIMPROV

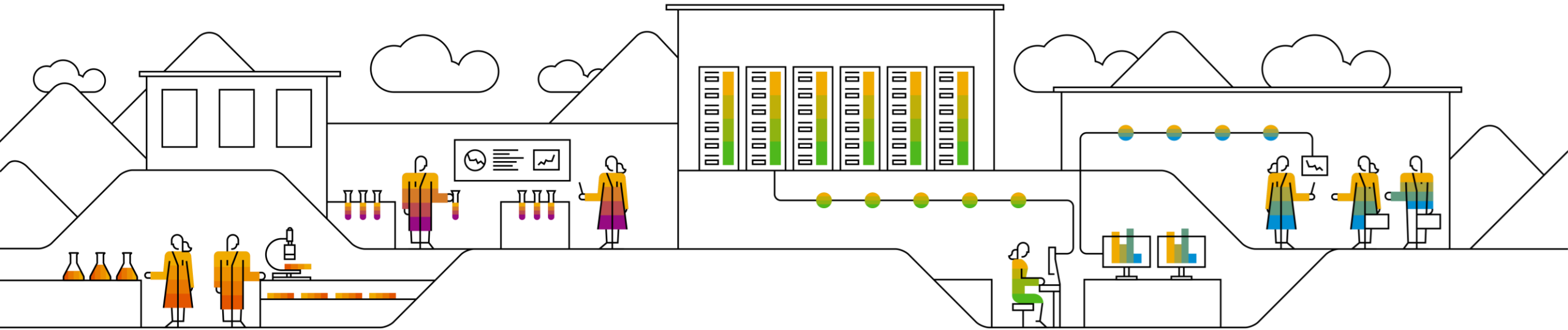
Validation rule 2: Any stored key figure whose base planning level is the planning level has the exact same root attributes as the planning level selected for Aggregation Level for Demand Sensing + Lag (as root).
Also time-root attribute should be TECH / CAL week and not Daily
Note: This rule should also be applied to Extra Signals.

Validation rule 3: Any stored key figure whose planning level has (either as root or non-root attributes) the root attributes of the planning level selected for Aggregation Level for Demand Sensing. Also time-root attribute should be TECH / CAL week and not Daily

Same as validation rule 2.

Demand-driven MRP

Poorya Farahani



What's new in IBP 2105

- (1) Support a new IBP-S4/HANA integrated scenario for DDMRP
- (2) Visibility and Collaboration
 - I. Add new attributes from product and location master data to Buffer Status Monitoring app
 - II. Include netflow integrity report to the Buffer Status Monitoring app
- (3) Analyze Buffer Positioning Scenarios
 - I. Attribute filter update in Buffer Analysis Fiori App

SAP considers DDMRP as a strategic topic in SCM that generates a unique value proposition for it's customers

SAP is embracing the Demand-Driven Adaptive Enterprise Model via ...



Deployment options:

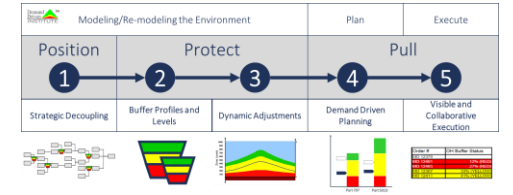


Available from 2105 and further enhancements planned

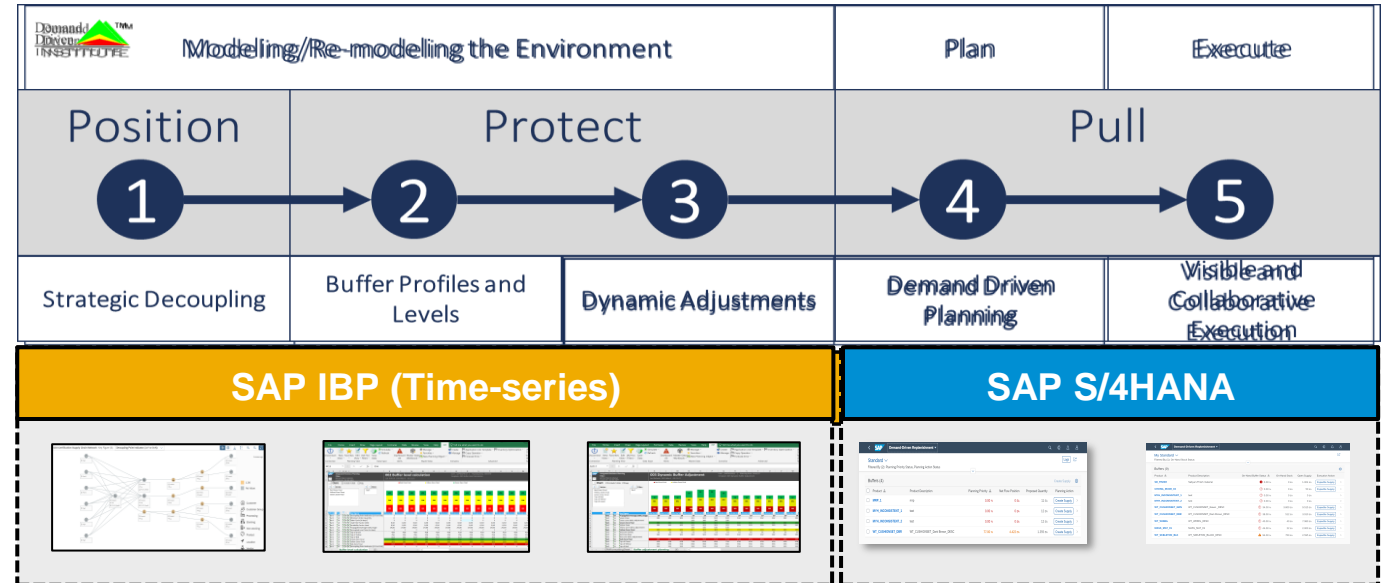
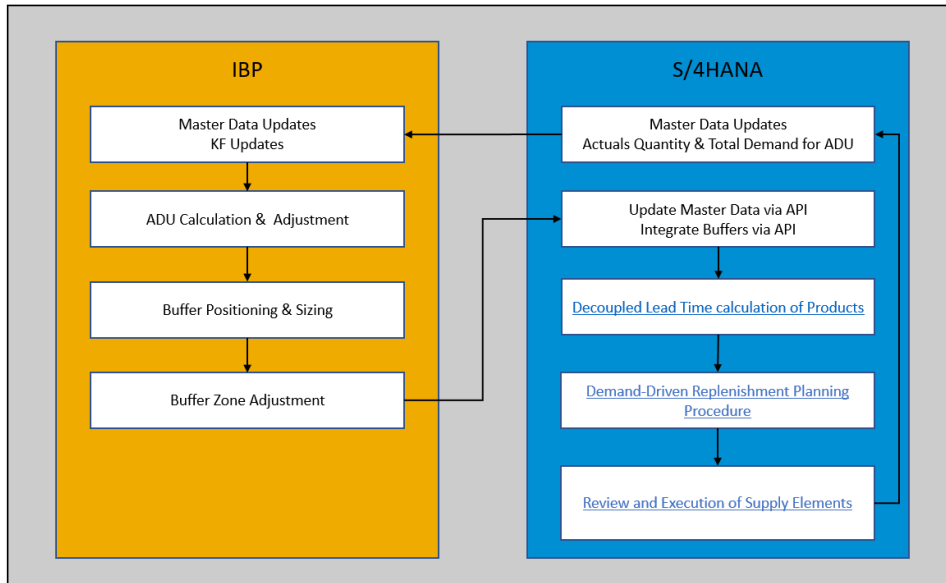
This is the current state of planning and may be changed by SAP at any time.

Integrated IBP-S/4HANA DDMRP Run

Integration of Decoupling Points and Buffer Zones from IBP to S/4HANA

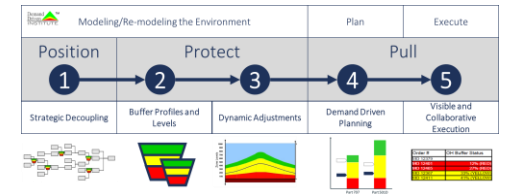


- Relevant for customers with S/4HANA On Premise 2020 FPS2.0 or later releases, and IBP 2105 or later releases.
- Buffer positioning, sizing and adjustment in IBP
- API and CPI-DS data flows enable passing decoupling points and buffer zones to S4/HANA
- A job is triggered in S4/HANA to update Decoupled Leadtime values
- Replenishment planning and execution will be followed in S4/HANA



Integrated Scenario for IBP-S/4HANA DDMRP

Integration scope of DDMRP between S/4HANA and IBP



- To enable DDMRP scope for integration of data between IBP and S/4HANA, all material in scope for DDMRP in IBP must contain an identifier.
- We recommend to define a specific MRP Type to set the integration scope for DDMRP.
 - As an example, define ZD as a copy of MRPTYPE PD and assign it to all DDMRP relevant items in scope for IBP integration. The scope for integration to IBP will be then all materials with **MRPTYPE D1 and ZD**.
- In IBP, new decoupling points will get MRPTYPE D1 and get integrated back to S/4HANA, and the existing decoupling points in S/4HANA that must be reverted to non-DCPs, will get the MRPTYPE ZD via the CPI-DS data flow (to be adjusted in the CPI-DS template)

Change View "MRP Types": Overview

Dialog Structure

- MRP Types

MRP Type	MRP Type Description
VS	Seasonal MRP
VV	Forecast-based planning
X0	W/O MRP, with BOM Explosion
ZD	copy from "PD", with MRP

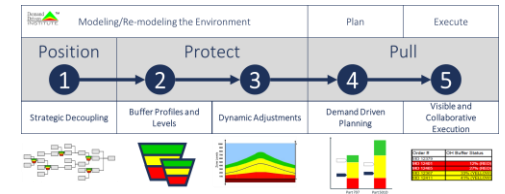
Procurement Type: Variability Indicator: DLT Indicator: Value Indicator:

Adapt Filters (1) Go





	Value Indicator	BOM Usage Indicator	MRP Type				
✓ DDR_BVH_01	1010	1010	Y (Medium)	F (Medium)	B (Medium)	Q (Medium)	D1
✓ DDR_BVH_02	1010	1010	Y (Medium)	F (Medium)	B (Medium)	Q (Medium)	ZD

Integrated Scenario for IBP-S/4HANA DDMRP

API and CPI-DS data flows

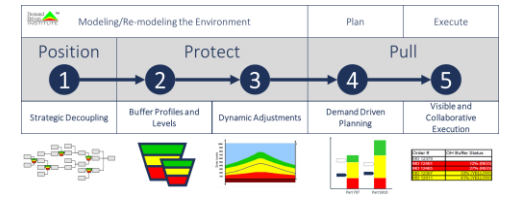


- Two APIs must be enabled in SAP S/4HANA and create the respective data stores in SAP CPI-DS:
 - API_PRODUCT_SRV: The standard S/4HANA API for the product master, used to change the product master in S/4 HANA to reflect decoupling points
 - API_PROD_TIMEDPDNTSTCK_SRV: A new API using OData v4 to transfer buffer zones (Top of Red/Yellow/Green) for a defined horizon
- Furthermore, two new CPI-DS tasks defined that include templates for integration and update of buffers and their zones in S/4HANA
- Please note that these templates are provided as the starting point, and they should be adjusted based on your implementation requirement.
 - For example MRPTYPE for non-Decoupling Points is to be adjusted based on the setting in S/4HANA.

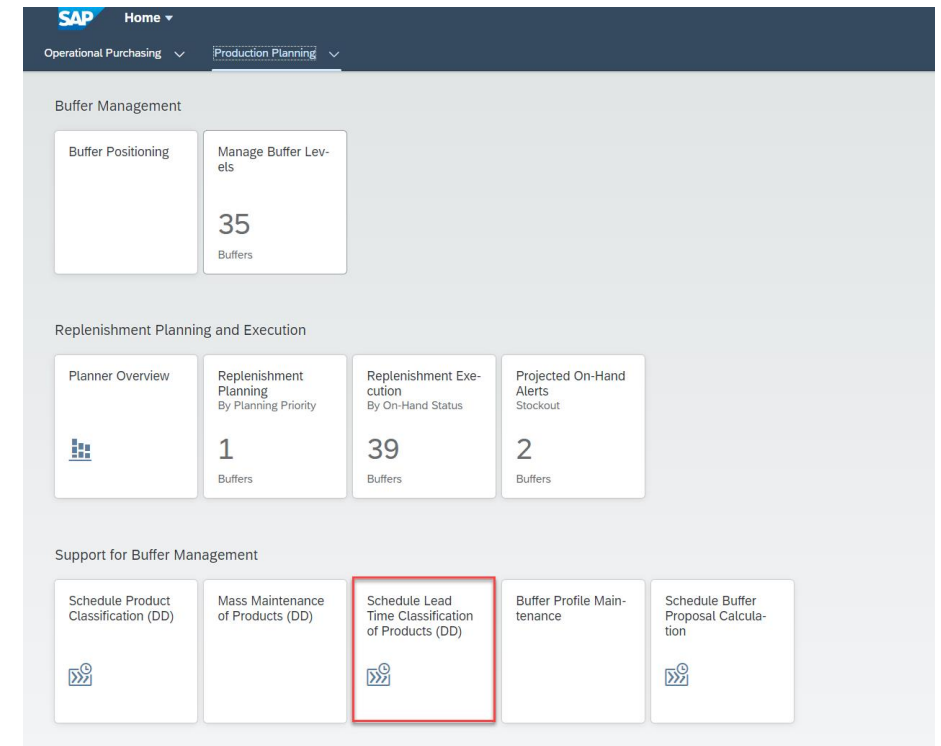
 IBP_DDR_to_S4_Buffer_Integration_via_API		IBP_DDR_to_S4_Buffer_Integration Integrate Demand Driv...
 IBP_DDR_to_S4_DCP_via_API		IBP_DDR_to_S4_DCP Demand-Driven Replenishment tran...

Integrated Scenario for IBP-S/4HANA DDMRP

Calculate Decoupled Leadtime in S4/HANA



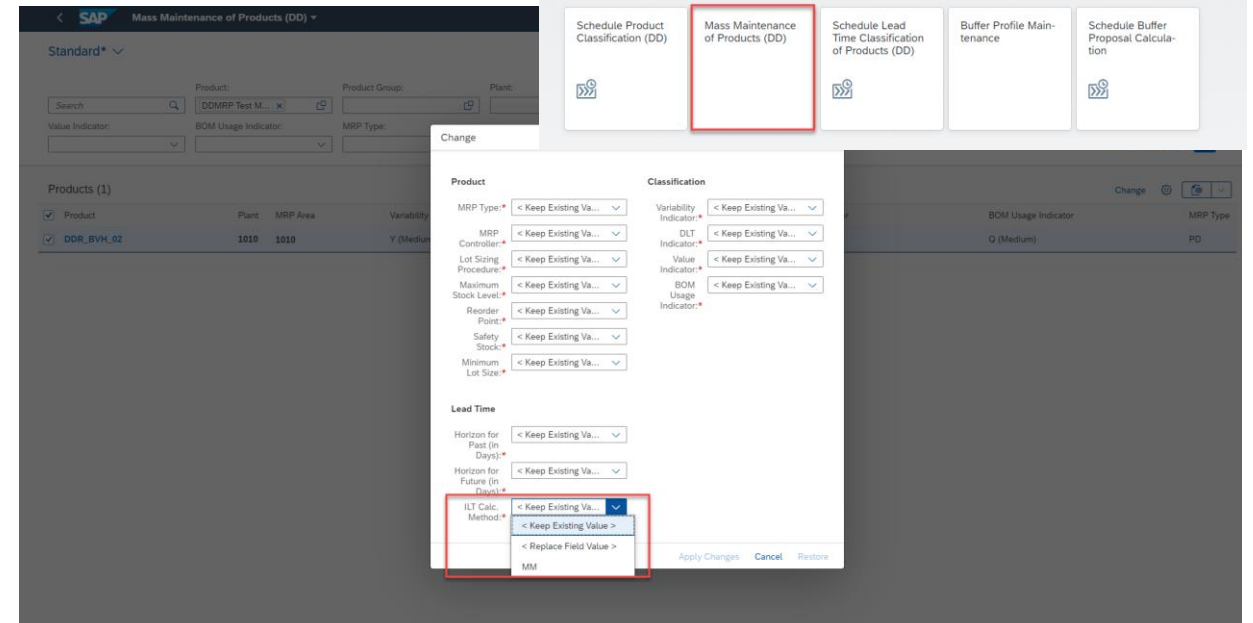
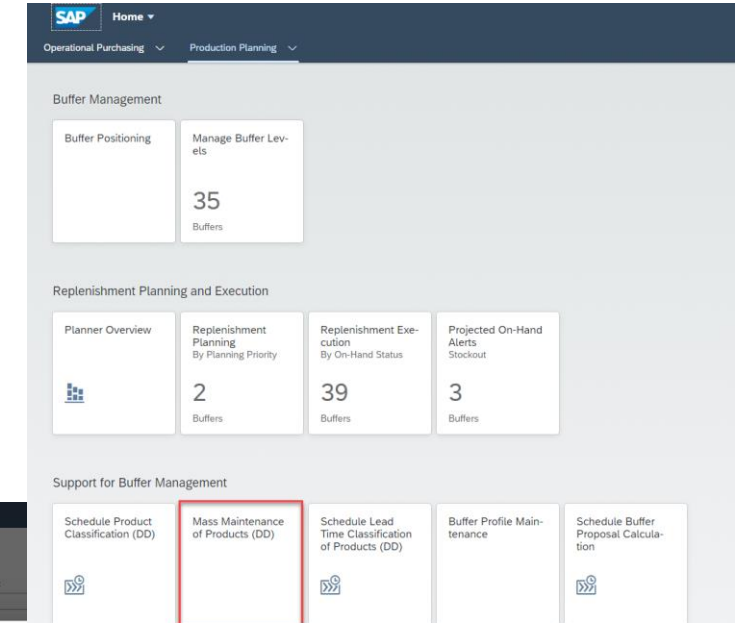
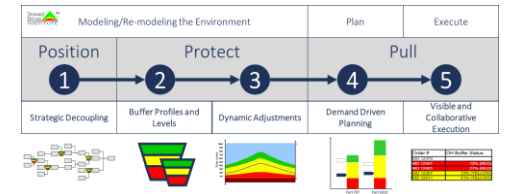
- After the integration job from IBP to S/4HANA, the following job is triggered in S/4HANA to update the DLT values for decoupling points
 - Decoupled Lead Time (EFG) Classification of Products (DD)
- This ensures that the DLT values are updated for all decoupling points in S/4HANA after the integration job from IBP



Integrated Scenario for IBP-S/4HANA DDMRP

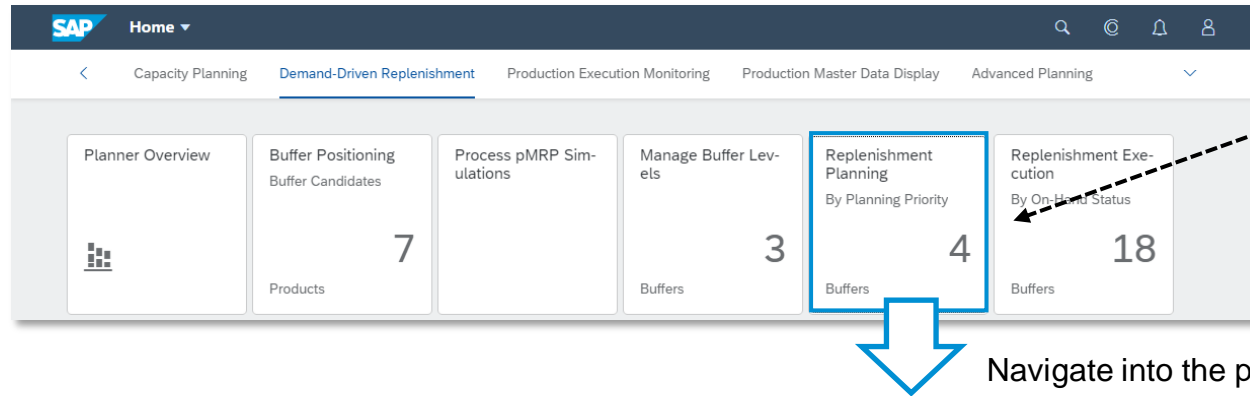
Prerequisite for Consistent Decoupled Leadtime in S4/HANA and IBP

- Please note that the calculation of individual lead time (ILT) in S/4HANA should be only based on Material Master, otherwise there might be deviation between the DLT calculation in S/4HANA and the DLT value used in IBP for buffer sizing.
- To achieve this, you can set the ILT calculation method to MM via the Mass Maintenance of Products (DD) app in S/4HANA.



Integrated Scenario for IBP-S/4HANA DDMRP

Monitor the Planning Priority and Net Flow Position and Create Supply



1 Dynamically determined number of buffers with planning status **red** or **yellow**

Navigate into the planning worklist

2 Buffers to be replenished,
sorted by Planning Priority:
Net Flow Position / Max Stock

The screenshot shows the SAP Demand-Driven Replenishment planning worklist. The table displays buffers to be replenished, sorted by Planning Priority. The 'Create Supply' button is highlighted with a blue box and a blue arrow pointing to the object page.

Product	Product Description	Planning Priority	Net Flow Position	Proposed Quantity	Planning Action
MRP_1	mrp	0.00 %	0 EA	11 EA	Create Supply
MYH_INCONSISTENT_1	test	0.00 %	0 EA	12 EA	Create Supply
MYH_INCONSISTENT_2	test	0.00 %	0 EA	12 EA	Create Supply
WT_CUSHIONSET_DBR	WT_CUSHIONSET_Dark Brown_DESC	77.00 %	4.422 EA	1.355 EA	Create Supply

4 ... or navigate
into object page
for detailed
planning by
clicking on a line

3 Quick action to create supply here ...

➤ Please review [S/4HANA Help](#) for further detail on this process.

Integrated Scenario for IBP-S/4HANA DDMRP

Monitor the On-Hand Buffer Status, Option to Expedite Supply

The screenshot displays the SAP DDMRP (Demand-Driven Material Requirements Planning) interface. The top navigation bar includes 'Home' and various planning modules. The main area shows a 'Planner Overview' with several tiles. A blue box highlights the 'Replenishment Execution By On-Hand Status' tile, which is labeled with a '9'. An arrow points from this tile to a detailed view of the buffers. In this view, a table lists 9 buffers with columns for Product, Product Description, On-Hand Buffer Status, On-Hand Stock, Open Supply, and Execution Action. The 'On-Hand Buffer Status' column shows various percentages and icons (red exclamation mark, yellow triangle). The 'Execution Action' column contains 'Expedite Supply' buttons. A blue box highlights the 'Expedite Supply' button for the first row. An arrow points from this button to a text box that says '... or navigate into object page by clicking on a line'. Another arrow points from the 'On-Hand Buffer Status' column to a text box that says 'Buffers with critical fill level, i.e. physical stock below a certain threshold, sorted by On-Hand Buffer Status = Physical Stock / Safety Stock'. A third arrow points from the 'Expedite Supply' button to a text box that says 'Quick action to expedite existing supply (orders) here ...'. A fourth arrow points from the 'Replenishment Execution By On-Hand Status' tile to a text box that says 'Dynamically determined number of buffers with execution status red or yellow'. A fifth arrow points from the 'Replenishment Execution By On-Hand Status' tile to a text box that says 'Navigate into the execution workload'.

1 Dynamically determined number of buffers with execution status **red** or **yellow**

2 Buffers with critical fill level, i.e. physical stock below a certain threshold, sorted by
On-Hand Buffer Status =
Physical Stock / Safety Stock

3 Quick action to expedite existing supply (orders) here ...

4 ... or navigate into object page by clicking on a line

Navigate into the execution workload

Product	Product Description	On-Hand Buffer Status	On-Hand Stock	Open Supply	Execution Action
SD_FINISH	Sabya's Finish material	0.00 %	0 EA	1.004 EA	Expedite Supply
CHONG_MVAR_04		0.00 %	0 EA	50 EA	Expedite Supply
MYH_INCONSISTENT_1	test	0.00 %	0 EA	0 EA	
MYH_INCONSISTENT_2	test	0.00 %	0 EA	0 EA	
WT_CUSHIONSET_GRN	WT_CUSHIONSET_Green_DESC	34.00 %	3.800 EA	9.515 EA	Expedite Supply
WT_CUSHIONSET_DBR	WT_CUSHIONSET_Dark Brown_DESC	38.00 %	512 EA	3.910 EA	Expedite Supply
WT_WHEEL	WT_WHEEL_DESC	40.00 %	40 EA	7.980 EA	Expedite Supply
MASS_MAT_01	MASS_MAT_01	44.00 %	22 EA	2.000 EA	Expedite Supply
WT_SKELETON_BLK	WT_SKELETON_BLACK_DESC	94.00 %	750 EA	2.595 EA	Expedite Supply

➤ Please review [S/4HANA Help](#) for further detail on this process.

Visible and Collaborative Execution

Possibility to report on product and location attributes

Possibility to review and filter on reports based on product and location related attributes

- With 2105 it is possible to add a pre-defined set of new attributes to the main report.
- These attributes can also be used to sort, filter and group product-locations and provide an enhanced flexibility to the user in focusing on their relevant buffers
- These attributes can also be added to the object page header bar as new filter criteria

SAP DDMRP Buffer Status Monitoring

Standard

Planning Area: DD8SM2 Date Horizon: 7 days Unit of Measure: On-Hand Color: Net Flow Color: Decoupling Integrity Status: Net Flow Integrity Status: Location ID: Product ID: Planning Filter:

Region:

Decoupling Points (153) PF_Temp1*

Region	Location ID	Product Family	Product ID	On-Hand Color	Net Flow Color	Projected On-Hand Color	On-Hand Inventory	Net Flow Position	On-Hand
Asia-Pacific	NZ	Frozen	Frozen2				36.06	57.05	
Asia-Pacific	NZ	Frozen	Frozen3				57.00	69.87	
Asia-Pacific	NZ	Frozen	Frozen1				66.00	79.42	
North America	USDEN	Frozen	Frozen3				735.00	706.47	
North America	PR	Protein Bar	Bar2				492.00	544.44	
North America	CA	Cereals	Cereal3				1,704.00	1,262.27	
North America	USPIT	Cereals	Cereal3				2,241.00	1,669.25	
North America	PR	Ingredient	Ing2				1,683.00	1,226.03	
North America	USDEN	Protein Bar	Bar3				402.00	314.30	
North America	USDEN	Cereals	Cereal2				2,025.00	1,399.14	
North America	PR	Ingredient	Ing3				1,956.00	1,377.14	
North America	CA	Frozen	Frozen3				933.00	707.62	
North America	USPIT	Protein Bar	Bar3				387.00	283.61	
North America	PR	Cereals	Cereal1				1,704.00	844.26	
North America	CA	Frozen	Frozen2				906.00	661.31	
North America	PR	Protein Bar	Bar3				294.00	151.68	
North America	PR	Frozen	Frozen1				816.00	419.77	
Asia-Pacific	AU	Frozen	Frozen1				426.00	386.21	
Asia	IN	Cereals	Cereal1				1,644.00	1,057.48	
North America	CA	Protein Bar	Bar3				420.00	289.54	
North America	USPIT	Frozen	Frozen2				990.00	687.01	
Asia	PH	Ingredient	Ing7				738.00	516.89	
Asia	IN	Protein Bar	Bar3				252.00	171.22	
North America	PR	Cereals	Cereal2				1,887.00	894.89	
North America	USDEN	Protein Bar	Bar2				651.00	446.61	
North America	PR	Cereals	Cereal3				2,187.00	1,029.10	

View Settings

Columns Sort Filter Group

Select All (20/27)

Qualified Demand

Average Daily Usage

Decoupled Lead Time

Top of Green (DLT)

Top of Yellow (DLT)

Top of Red (DLT)

Projected On-Hand Color

Lowest Projected On-Hand Status in DLT

Decoupling Integrity Status

Net Flow Integrity Status

Location Description

Location Type

Planner

Planning Unit

Product Description

Product Family

Region

OK Cancel Reset

Visible and Collaborative Execution

Review detailed demand and supply information for decoupling points

Color coding of buffer information on the header helps visualizing its urgency

- Different status attributes are colored based on their values
- With 2105, Header bar of all detail view tabs include information about the newly added attributes.

SAP DDMRP Buffer Status Monitoring

Cereal2 (Frosted Cereal)
JP (Japan)

Location	Product	On-Hand	Net Flow	Integrity Status	Miscellaneous
Region: Asia	Product Family: Cereals	On-Hand Color: ⚠ Lower Yellow	Net Flow Color: ✅ Green	Decoupling Integrity Status: ⚠ Overstocked	Decoupled Lead Time: 7.00
Location Type: DC	Planner: Planner5	On-Hand Status: 78.13	Net Flow Status: 79.94	Net Flow Integrity Status: ✅ Ok	Lowest Projected On-Hand Status in DLT: 22.34

Projected Stock Chart | **Projected Stock** | Decoupling Integrity Chart | Decoupling Integrity | Net flow Integrity Chart | Net Flow Integrity

Standard* ▾

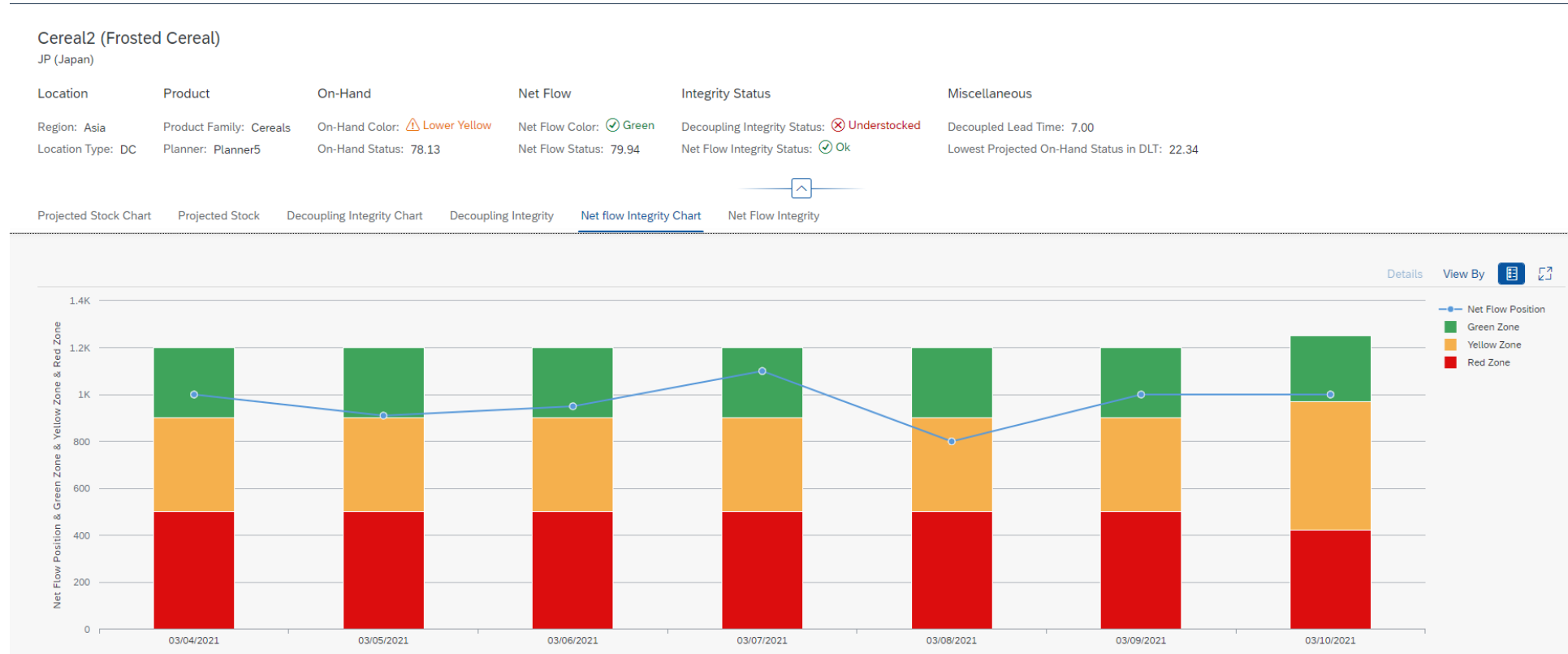
Calendar Date	Top of Green Execution	Top of Lower Yellow Exe...	Top of Lower Red Exec...	On-Hand Inventory	Total Expected Demand	Confirmed Supply Order ...	Non-Confirmed Supply Or...	Projected On-Hand Inve...	Projected On-Hand Sta...	Projected On-Hand Color
03/10/2021	639.00	384.00	192.00	300.00	70.45	0.00	0.00	229.55	59.78	Yellow
03/11/2021	645.00	388.00	194.00	0.00	71.00	0.00	0.00	158.55	40.86	Red
03/12/2021	648.00	390.00	195.00	0.00	71.42	0.00	0.00	87.13	22.34	Red
03/13/2021	663.00	399.00	199.50	0.00	72.37	400.00	0.00	414.76	103.95	Green
03/14/2021	650.00	391.00	195.50	0.00	69.08	0.00	0.00	345.68	88.41	Yellow
03/15/2021	675.00	406.00	203.00	0.00	73.20	300.00	0.00	572.48	141.00	Green
03/16/2021	670.00	403.00	201.50	0.00	71.11	0.00	0.00	501.37	124.41	Green
	655.71	394.43	197.21	300.00	71.23	350.00	0.00	329.93	82.96	

Visible and Collaborative Execution

Review historical compliance to order recommendation (Netflow Integrity)

Netflow integrity chart visualizes the historical compliance of supply generation to DDMRP order recommendation

- With 2105 a new chart is introduced showing the netflow position (snapshot) within buffer zones (the length of chart is decided by the Date Horizon field in the main page).
- When order recommendations are followed, netflow position will most often move between green and yellow zones.



Analyze Buffer Positioning Scenarios

SAP Fiori App “DDMRP Buffer Analysis” - Create a New Scenario

- Since 1911, it is possible to run DDMRP buffer analysis app on existing planning filters, as well as Ad hoc filters.
- Since 2011, it is possible to store different variants for the Ad hoc filters.
- Since 2105, visibility on existing adhoc filters is improved by removing the Adhoc Filter box and enabling the planner to add new filter boxes individually to the header bar
- Attributes available for filter selection are dynamically read from the planning area.
 - As an example, in this screenshot, Product Family and Product ID are added as new filter boxes to the existing Standard variant.
- Note that any previously saved variants will be mapped to the individual filters that can be accessed using the Filter button

Summary

Key Figure	Baseline	Scenario	Delta	% Deviation	Base
Average On-Hand	58,696.90	55,282.27	-3,414.62	-5.82%	24,271
Average On-Hand Value	0.00	0.00	0.00	-	-
Decoupled Lead Time (in days)	5.47	5.28	-0.18	-3.45%	-

Decoupling Points (39)

Product ID	Location ID	Buffer Pro...	Decoupling Point		Decoupled Lead Time (in days)			Delta	Baseline	Average
			Baseline	Scenario	Baseline	Scenario				
<input type="checkbox"/> Cereal3	AU	DHL	✓	✓	14.00	14.00	0.00	411.00		
<input type="checkbox"/> Cereal2	AU	DHL	✓	✓	14.00	14.00	0.00	390.00		
<input type="checkbox"/> Cereal1	AU	DHL	✓	✓	14.00	14.00	0.00	402.00		
<input type="checkbox"/> Cereal2	CA	DHM	✓	✓	7.00	7.00	0.00	1,071.91		
<input type="checkbox"/> Cereal1	CA	DHM	✓	✗	7.00	0.00	-7.00	1,105.14		
<input type="checkbox"/> Cereal3	CA	DHM	✓	✗	7.00	0.00	-7.00	967.16		

Filters

Search for Filters

Customer

Location

Ship-From Location

Location Product

Product

☐ Base UOM:

☐ Item Type Category Indicator:

☐ Product Desc:

☒ Product Family:

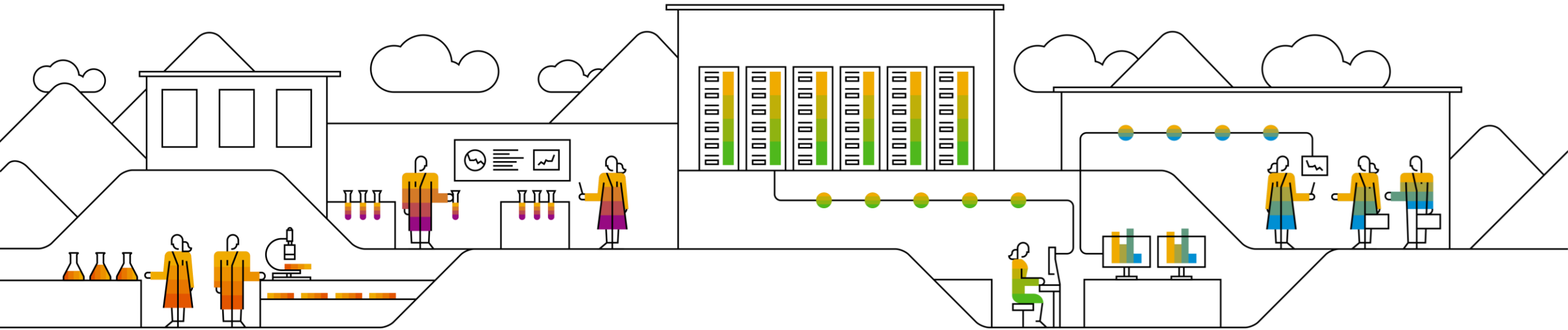
☒ Product ID:

☐ Quick Turn Market Available:

OK Cancel

Inventory Optimization

Alexis Lozada



Calculating forecast error over lead time for high velocity products

- Fiori app Manage Forecast Error Calculation – Inventory Optimization supports a new algorithm function Forecast Error Over Lead Time Interval for profiles consuming daily level input data.
- Value Proposition
 - Calculate forecast error over lead time consuming daily historical sales and forecast data
 - Address inventory planning needs for short-term replenishment planning
- Capabilities
 - Create profiles to calculate forecast error measures over lead time intervals.
 - Convert from lead time interval-based to lag-based forecast errors for inventory optimization consumption.

Manage Forecast Error Calculations
Inventory Optimization

SAP

Forecast Error Calculation Profile

Interval_Test_1

Edit Delete

Profile Description:

Planning Area: ABCCO215 (Inventory Planning)
Calculation Level: Daily | Product | Location | Customer Group (DAYPRODLOCUSTGROUP)

Periodicity of Calculation Level: Day

Groups

Administrative Information

Groups of Forecast Error Measures (1)

Name	Function	Input Key Figures	Forecast Error Measures	Output Key Figures	Lag	Interval
1st Test	Forecast Error Over Lead Time Interval	Daily IO Sales	Period Coefficient of Variation (CV)	IO Period Historical Forecast Error CV		30
		Daily IO Lagged Demand Forecast	Weekly Coefficient of Variation (CV)	IO Weekly Historical Forecast Error CV		

Administrative Information

Created By:
Alexis Lozada

Created On:
02/15/2021 - 09:26:23

Changed By:
Alexis Lozada

Changed On:
02/15/2021 - 09:26:23

Calculating forecast error over lead time for high velocity products (cont'd)

- New input key figures added to sample models (SAPIBP1 and SAP3) support the new forecast error calculation:
 - Daily IO Lagged Demand Forecast (DAYIOLAGFORECAST): Daily lag-based forecast input.
 - Daily IO Sales (DAYIOSALES): Daily actual sales.
- New output key figures added to sample models (SAPIBP1 and SAP3) support the new forecast error calculation:
 - IO Period Historical Forecast Error CV (PERIODIOCV): Daily-based historical forecast error coefficient of variation per lead time interval.
 - IO Weekly Historical Forecast Error CV (WEEKLYIOCV): Conversion of PERIODIOCV to weekly historical forecast error coefficient of variation per lead time interval.
 - Lag Attribute Transformation (LAG) key figure supports conversion from interval-based forecast error coefficient of variation to lag-based forecast error coefficient of variation.
- New input key figure added to support a new forecast error input into multi-stage inventory optimization:
 - IO Weekly Lagged Historical Forecast Error CV (WEEKLYLAGIOCV): WEEKLYIOCV transformed to lag based historical forecast error coefficient of variation. It can be an input substitute for input key figure IO Lagged Demand Forecast Error CV (IOLAGFORECASTERRORCV).

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	Lead Time Interval	Product ID	Location ID	Customer Group	Key Figure	2/22/2021	2/23/2021	2/24/2021	2/25/2021	2/26/2021	2/27/2021	2/28/2021	3/1/2021			
2	(None)	XX1	LOC501	A14	Daily IO Sales	1,950.00	5,587.00	4,763.00	6,858.00	8,802.00	2,977.00	4,704.00	8,485.00			
3	1	XX1	LOC501	A14	IO Period Historical Forecast Error CV								0.15			
4	1	XX1	LOC501	A14	IO Weekly Historical Forecast Error CV								0.06			
5	2	XX1	LOC501	A14	IO Period Historical Forecast Error CV								0.23			
6	2	XX1	LOC501	A14	IO Weekly Historical Forecast Error CV								0.12			
7	3	XX1	LOC501	A14	IO Period Historical Forecast Error CV								0.28			
8	3	XX1	LOC501	A14	IO Weekly Historical Forecast Error CV								0.19			
9	4	XX1	LOC501	A14	IO Period Historical Forecast Error CV								0.35			
10	4	XX1	LOC501	A14	IO Weekly Historical Forecast Error CV								0.26			
11	5	XX1	LOC501	A14	IO Period Historical Forecast Error CV								0.41			
12	5	XX1	LOC501	A14	IO Weekly Historical Forecast Error CV								0.35			
13	6	XX1	LOC501	A14	IO Period Historical Forecast Error CV								0.57			
14	6	XX1	LOC501	A14	IO Weekly Historical Forecast Error CV								0.52			
15	7	XX1	LOC501	A14	IO Period Historical Forecast Error CV								0.79			
16	7	XX1	LOC501	A14	IO Weekly Historical Forecast Error CV								0.79			
17	(None)	XX1	LOC501	A14	Daily IO Lagged Demand Forecast	4,474.00	2,594.00	2,379.00	2,207.00	7,579.00	9,943.00	7,054.00	2,307.00			
18	(None)	XX1	LOC501	A14	Daily IO Lagged Demand Forecast	3,330.00	8,328.00	6,614.00	3,099.00	9,775.00	6,613.00	6,123.00	6,557.00			
19	(None)	XX1	LOC501	A14	Daily IO Lagged Demand Forecast	1,724.00	3,694.00	2,240.00	9,724.00	6,775.00	5,385.00	6,201.00	2,811.00			
20	(None)	XX1	LOC501	A14	Daily IO Lagged Demand Forecast	6,552.00	9,904.00	7,978.00	1,989.00	5,135.00	1,721.00	7,703.00	3,081.00			

Update in dynamic lag for propagation of forecast error

Proper inventory optimization processing for dynamic lag calculation requires forecast error profiles to determine whether the forecast error coefficient of variation supports lag based outputs or not.

In the 2011 release, added new master data type SOURCECUSTGROUPLAG to inventory planning sample models (SAP3 and SAPIBP1) to support new output attribute Forecast Error CV Type. However, such design did not meet functional flexibility of forecast error profiles.

As a result, added new key figures to inventory planning sample models (SAP3 and SAPIBP1) to support profile design flexibility of Forecast Error CV Type feature:

- IO Lag Forecast Error CV Type Output (IOLAGFECVTYPE): Dynamic lag based forecast error coefficient of variation type output of forecast error calculation profiles.
- IO Lag Forecast Error CV Type (IOLAGFORECASTERRORCVTYPE): Dynamic lag based input forecast error coefficient of variation type for inventory optimization.
- For both key figures, output = 1 is equivalent to System Calculated CV type, implying dynamic lag logic will apply to multi-stage inventory optimization.
- For both key figures, output = 0 is equivalent to User Defined CV type, implying dynamic lag logic will not apply to multi-stage inventory optimization.

IBP Central Customer Contacts:

IBP Customer Group Contact: Rudiger.Meyfarth@sap.com

IBP Customer Office: john.lopus@sap.com, Bruno.ranchy@sap.com

Today's Presenters from Product Management:

- alexis.lozada@sap.com – Inventory Optimization
- poorya.farahani@sap.com – Demand Driven MRP (DDMRP)
- claus.bosch@sap.com – Order-based Planning
- thomas.fiebig@sap.com – Order-based Planning
- ralf.heimburger@sap.com - Order-based Planning
- malika.boubguel@sap.com – Exception Management & Intelligent Visibility
- jean.sebastien.boileau@sap.com - Exception Management & Intelligent Visibility
- ina.glaes@sap.com - IBP Best Practices
- kenton.harman@sap.com – Intelligent Visibility, Alerts, Analytics, and Dashboards
- atul.bhandari01@sap.com – Demand Sensing
- pramod.mane@sap.com – Time-series based Supply Planning & Web-based Planning UI
- raghav.jandhyala@sap.com – S&OP
- rainer.moritz@sap.com – Demand Planning

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