VISEO

DIGITAL MAKERS

S/4 FASHION RETAIL

KEY CONCEPTS

AGENDA

1. General presentation
2. Master Data
3. Fashion core concepts
4. Purchasing
5. Sales
6. Distribution
7. Manufacturing

General presentation

- History
- Solution and process overview

SAP FASHION SINCE 1996

Innovation Accelerating with Leading Fashion & Lifestyle Customers

Several solutions coexist at SAP to address Retail/Fashion industry standards

1996
Brands and Retail run separate

First release **SAP Apparel and Footwear** Solution (AFS) software for brands and manufacturers

In parallel **SAP Retail** was developed

350+ customers Worldwide

End of maintenance 2027

2014
Brands and Retail Run Vertical

Co-innovation with market leaders created **SAP Fashion Management** Solution (FMS)

One solution for all channels

In Memory Database SAP HANA

130+ customers Worldwide

End of maintenance 2027

Since 2017
Fashion Runs Simple!

S/4HANA for fashion and vertical business

Vertical Processes
Simplified database structure on HANA

Multiple Industry Usage e.g. Fashion use of advanced ATP with Supply Assignment (Arun)

150+ customers already

End of maintenance 2040

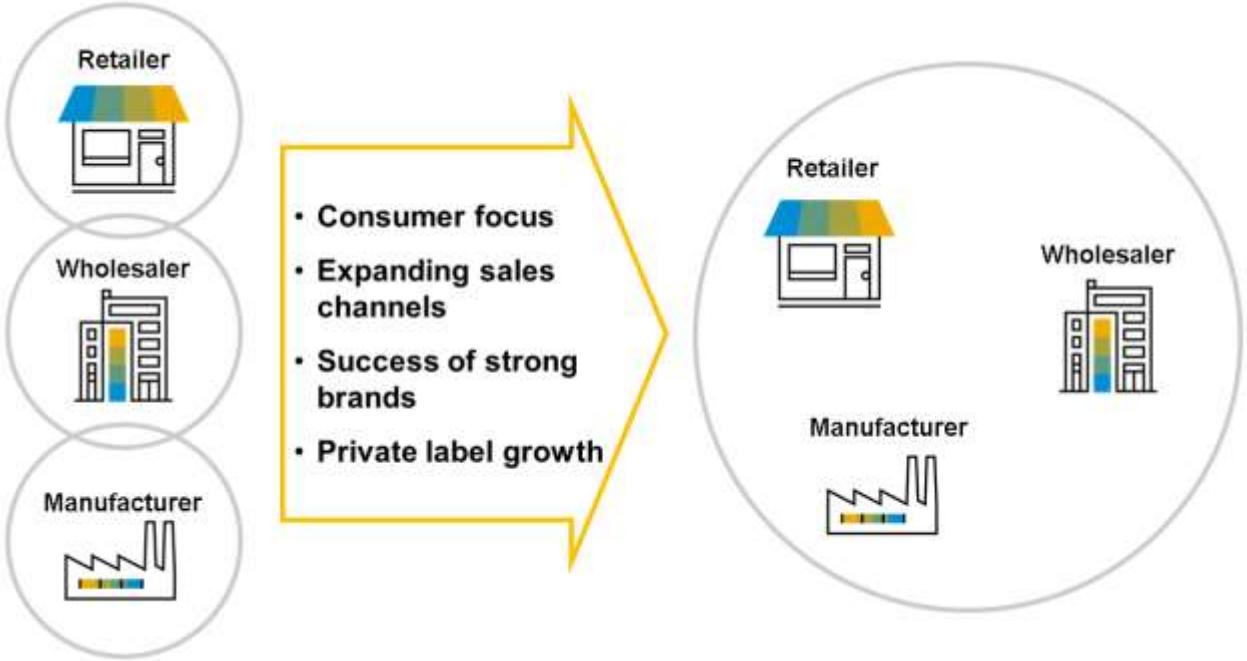
S/4HANA for fashion and vertical business is a **multichannel, vertically integrated solution** covering and harmonizing specific manufacturing, wholesale and retail processes in one backend system based on the foundation and **architecture of the Retail solution**.

VERTICAL FASHION BUSINESSES

Specifics and current challenges

› *It used to be…*

› *It is now…*



Traditionally, fashion companies focused on either creating clothes (manufacturing/wholesale) or selling them directly to consumers (retail). These were distinct operations. However, the rise of private labels and the advantages of owning retail stores (better margins, marketing control) have led to a shift.

› **Brands are now embracing multiple sales channels:** Manufacturers and wholesalers are selling directly to consumers through online and mobile platforms, while retailers with strong private labels are expanding into wholesale.

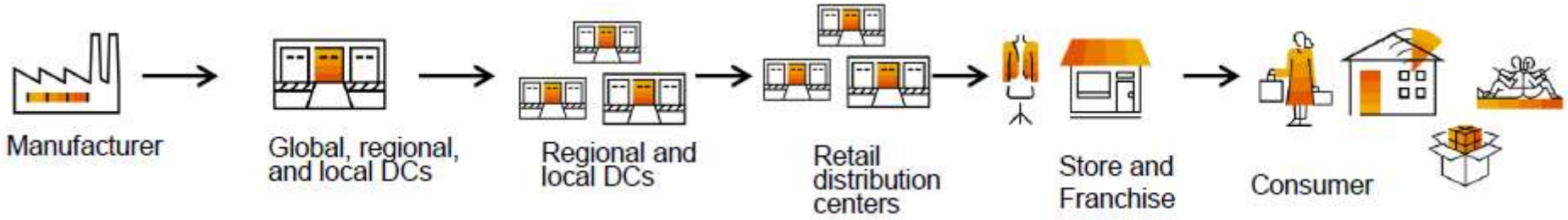
› **For retailers, managing complex global supply chains for apparel, footwear, and fashion requires advanced solutions to maximize efficiency and value.**

A NEW WORLD WITH SAP S/4HANA FOR FASHION AND VERTICAL BUSINESS

Covering & harmonizing specific wholesale, retail, and manufacturing processes in one back end system based on the SAP IS-Retail

Vertically integrated fashion company

- Bring the majority of active FMS processes (e.g. FMS categories, ARun) onto an SAP Retail base giving one integrated ERP solution built in a co-innovative approach with involvement of fashion customers.
- Offers processes using SAP's high performance technology SAP S/4HANA, which enabled fundamental re-thinking of some of the processes, e.g. Supply Assignment (ARun).



SAP S/4 HANA

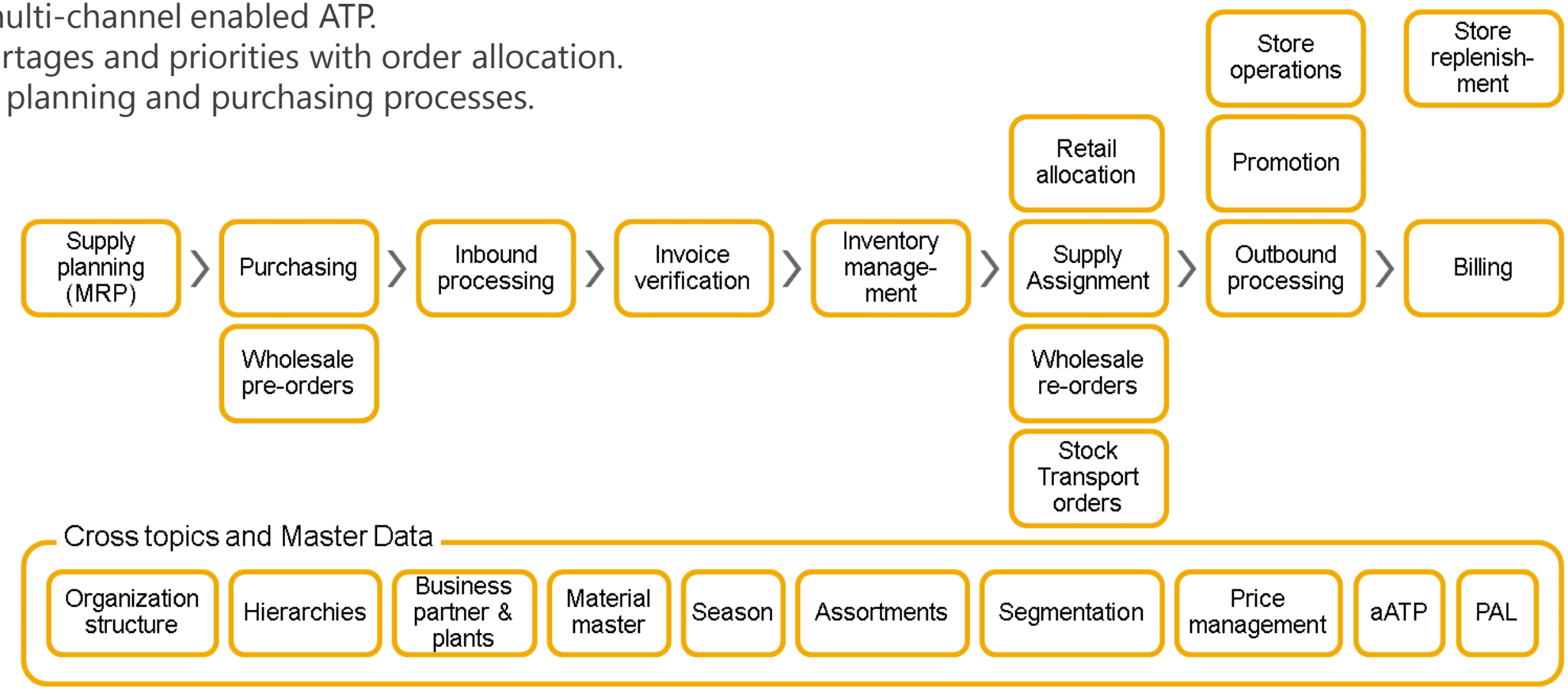
RETAIL & FASHION

OVERALL SAP SOLUTION AND ITS ARCHITECTURE

Key benefits

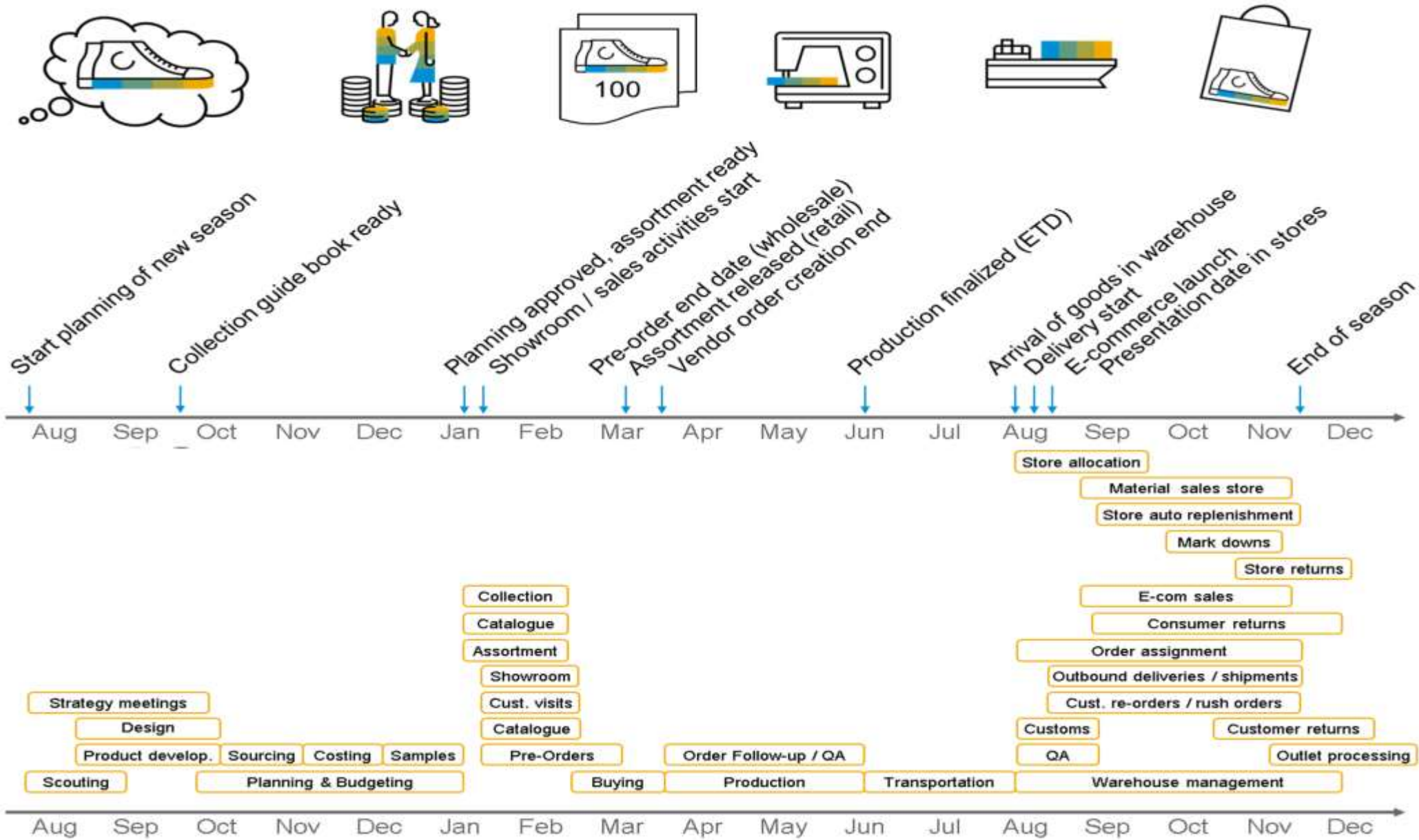
The key benefits of using the SAP S/4HANA system include the following:

- Harmonizes the business processes between wholesale and retail.
- Optimizes inventory offering in a single, transparent, shared global view.
- Introduces common master data concepts.
- Leverages multi-channel enabled ATP.
- Handles shortages and priorities with order allocation.
- Uses shared planning and purchasing processes.



OVERALL BUSINESS PROCESS OVERVIEW

Typical milestones & activities from planning until the end of season of a fashion product



Master Data

- Material & Variants
- Hierarchies
- BP
- Sites
- Application variants
- Listing & Assortments

Master Data
Material & Variants

MATERIAL CATEGORIES

Article categories – Principles (and codes)

Single material (00)

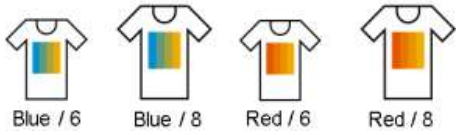
Standard material as sold to the customer.

Generic materials

Generic (01)

Generic Articles do not exist physically and cannot be sold. They serve as reference for variants

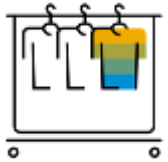
Variants (02)



Variants are materials that differ only in certain characteristics such as color, size. Defining a generic material simplifies the maintenance of variants since you need to enter data that is the same for all variants only once for the generic material.

Structured materials

Display (12)



A display is a collection of articles that are, like prepack, bought together and sold individually, including special packaging. The manufacturer delivers the whole figure, the store sells the individual chocolates. Again, this is technically a BOM. Within display articles you are not restricted to use either single articles or variants of different generic articles. Within display articles it is possible to use articles from different Merchandise Categories.

Set (10)

A set is a combination of articles bought individually and sold together. Individual components can have different price, different tax code but will be sold together with one price. Technically, a set is handled as a BOM

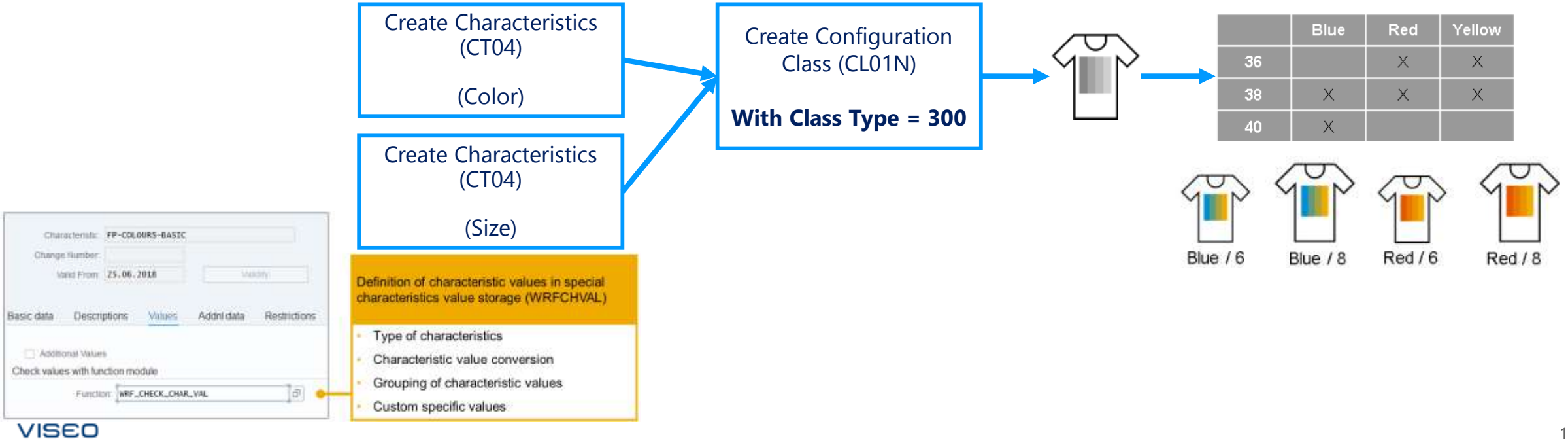
Prepack (11)

A prepack is a collection of articles bought together and sold individually. Shoes would be a good example: they are bought as a collection of shoes with different sizes (e.g. 1 of size 39, 3 of size 40 etc.). From a technical point of view, prepacks are also handled as a BOM. Within prepacks you are restricted to use only variant articles belonging to the same merchandise category.

GENERIC MATERIALS AND VARIANTS CREATION

Relevance of Characteristics

- **Managing a large variety of materials with different sizes and colors can be challenging. Grouping them by shared characteristics makes it easier to find what you need.**
- **For companies with a vast number of options for these characteristics, a dedicated tool is essential. This tool helps with:**
  - **Maintaining characteristic values:** Easily add, edit, and manage the different sizes and colors available.
  - **Grouping similar values:** Create groups for related sizes or color ranges, simplifying navigation and selection.
  - **Improved search help:** A well-organized search with grouped values helps users find the specific materials they're looking for quickly.
- **Using characteristics like "Color," "Main Size," and "Second Size" as grouping criteria makes it intuitive to navigate and select materials.**



FASHION PRODUCT MASTER DATA

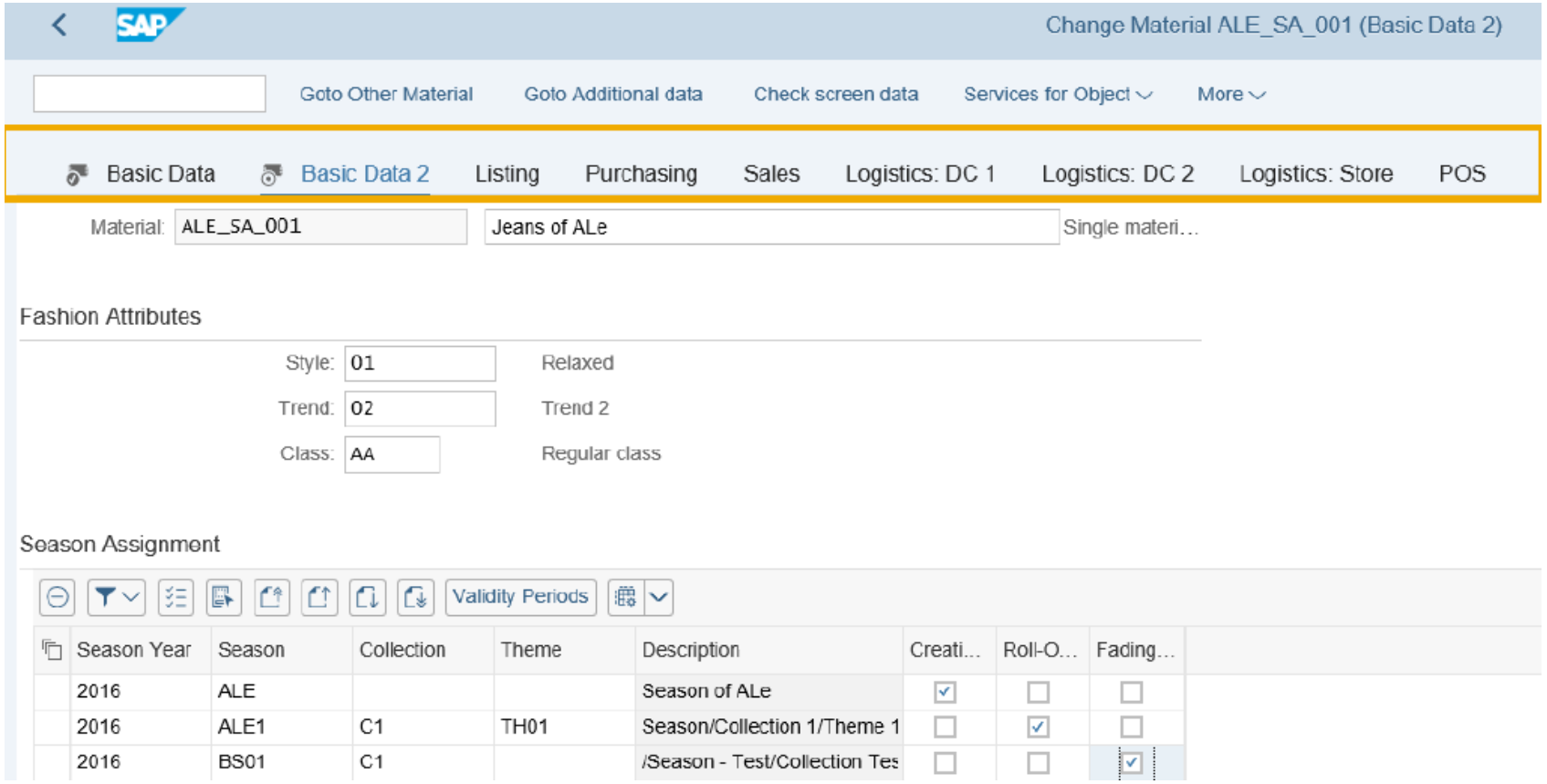
Dedicated tabs for fashion data

Basic Data 2

- Material conversion ID
- Segmentation data
- Fashion attributes
- Season assignment (includes segmentation specific season data)

Logistics DC 2

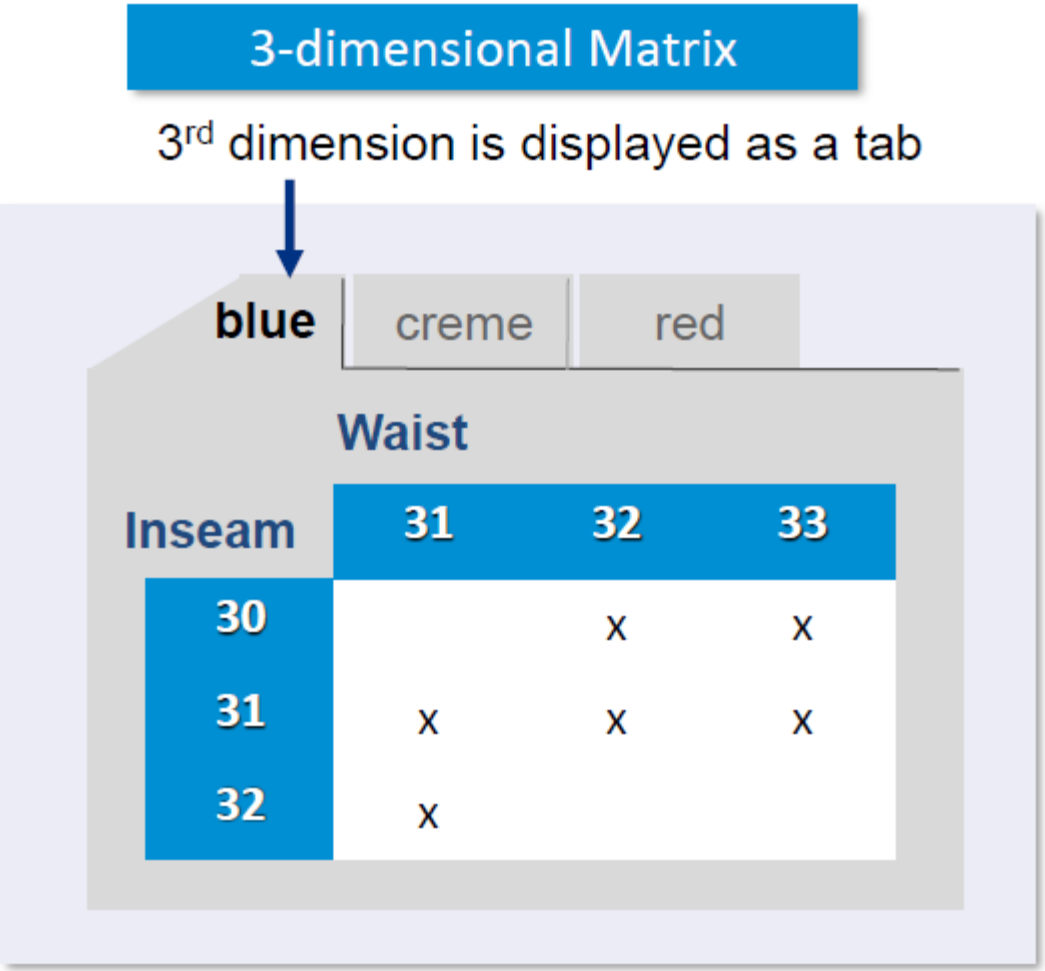
- Segmentation data
- Supply assignment (Arun)
- Batch management
- General control parameters
- Scheduling
- Lot size Data
- BOM Explosion
- Variant group….



FASHION PRODUCT MASTER DATA – ENHANCED DIMENSIONS

Enhanced usability for 3-dimensional variant matrix and usage in documents

- Usage in documents (example):
- **Purchasing:**
  - Purchase order/stock transport order
  - Goods movements
- **Sales:**
  - Sales inquiry
  - Sales quotation
  - Sales order
  - Sales contract
- **Retail specific transactions:**
  - Allocation table



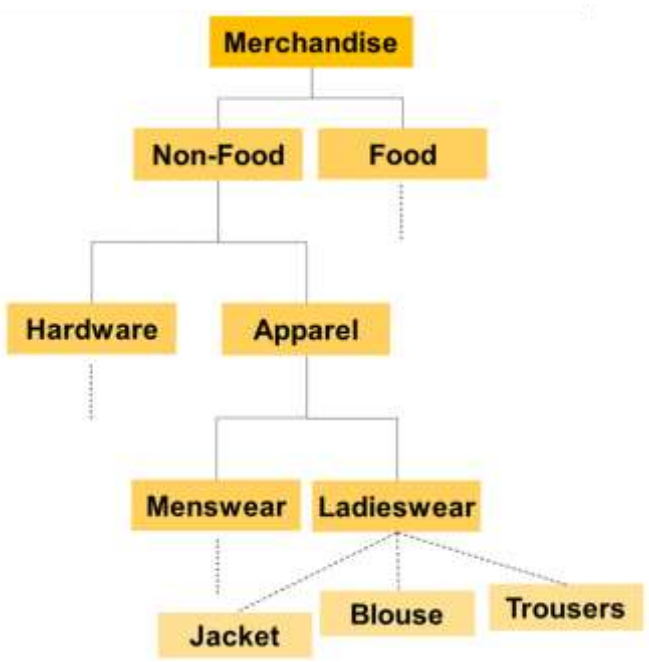
Master Data Hierarchies

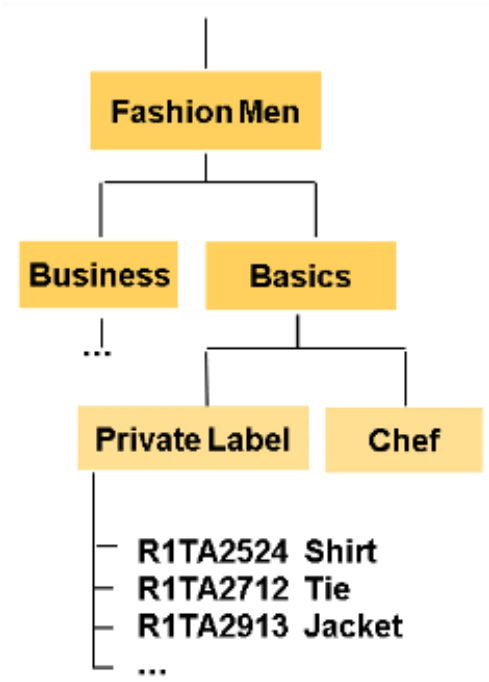
EXPLAINING HIERARCHIES

Enable a sufficient selection, reporting and maintenance

Material Group Hierarchy

Material groups represent a thematic goods-related structure, which is portrayed by the material group hierarchy. Materials can therefore be grouped, for example, from procurement points of view according to merchandise categories and displayed as a merchandise category hierarchy.



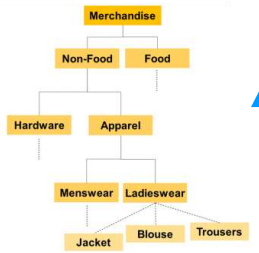


Article Hierarchy

In the Article hierarchy, you group your materials in a consumer-oriented structure with as many hierarchies as you want. You can use this hierarchy to display very clearly how, and according to what requirements the consumer makes his purchasing decisions.

MATERIAL GROUP HIERARCHY

Helps you categorize and organize your fashion products



Structure:

- Material Group: Represents a broad category of goods, like "Dresses" or "Shoes." Each material can only belong to one "base material group."
- Merchandise Category Hierarchy: This visualizes the relationships between material groups, showing how they're nested within each other (e.g., "Dresses" under "Women's Apparel").

Benefits:

- Easier Management:
  - ✓ Groups materials for procurement based on category.
  - ✓ Reduces data to manage (e.g., pricing information).
  - ✓ Allows inheritance of characteristics (like color and size) to lower levels.
- Enhanced Control:
  - ✓ Simplifies monitoring company activities.
  - ✓ Enables value-based inventory management at group and hierarchy levels.

REMEMBER

Material groups offer a way to categorize and manage fashion products efficiently within SAP

The structure simplifies data handling and provides inheritance for product characteristics.

Additional Features:

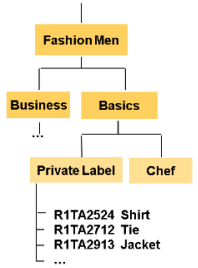
- Material Group Reference Material: An existing product record used as a template for creating new materials within a group.
- Material Group Value-Only Material: A special type of material used for managing inventory value at the group or hierarchy level, not for individual products.
- Characteristic Inheritance: Characteristics like color and size can be assigned at higher levels and automatically apply to lower levels in the hierarchy.

Key Point for Fashion:

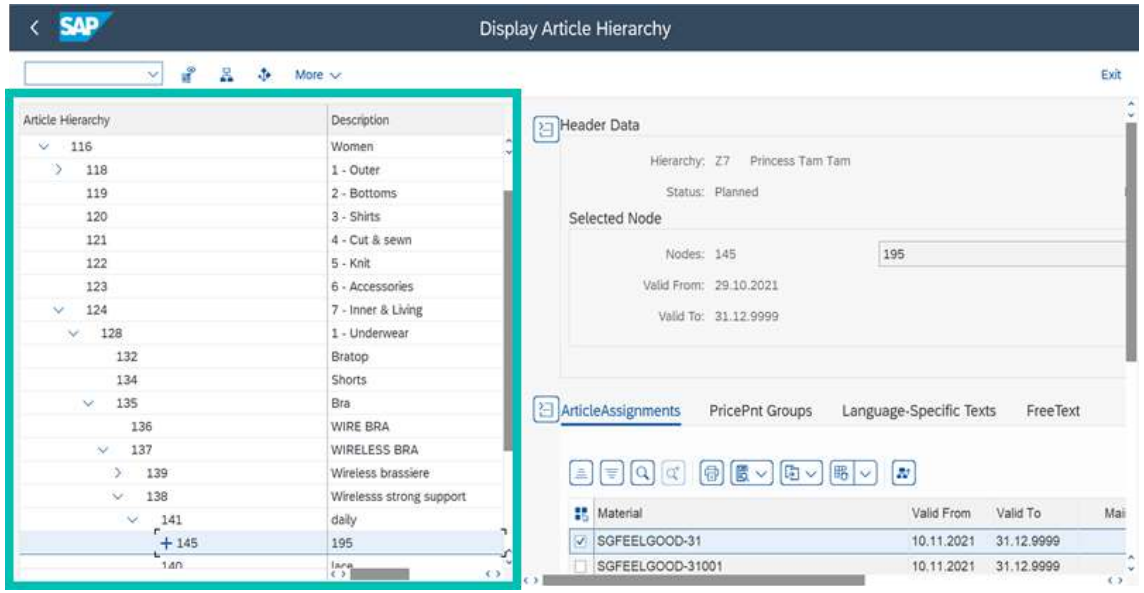
- Variant-building characteristics (color, size) should be assigned via a characteristic profile to the base material group.
- Mandatory, and unique article assignment possible

ARTICLE HIERARCHY

Optional – Group materials using a customer-oriented structure – **Think of it as a customer decision tree**



- Key Differences from Material Groups:
  - Focus: Material groups focus on physical attributes (e.g., dresses, shoes). Article hierarchies focus on the sales perspective (e.g., activewear, party dresses).
  - Benefits:
    - ✓ Improved planning, operations, and reporting based on customer preferences.
    - ✓ Ability to extract data for analysis in SAP BW (business warehouse).
- Key Features:
  - **Multiple Hierarchies**: Define one for the whole company or one per distribution chain.
  - **Activation**: Only active hierarchies can be used in operations or reporting.
  - **Time-Dependent**: You can create hierarchies that change over time (scheduled hierarchies).
  - **Multiple Material Assignments**: Articles can be assigned to several article hierarchies
  - **Flexible Structure**: You can easily reorganize categories and subcategories within the hierarchy.
  - **Material Assignment**: Assign new materials to existing hierarchies directly.
  - **Data Analysis**: Extract hierarchy data to Datawarehouse for analyzing trends and planning.
  - **Workflow Communication**: Use workflows to notify others about changes to the hierarchy.
  - **Substructure Copying**: Copy entire sections of one hierarchy to another for efficiency.



REMEMBER

Overall, Article Hierarchies provide a customer-centric way to organize your fashion products in SAP, streamlining planning, operations, and reporting.

Master Data
BP

WHO ARE BUSINESS PARTNERS

Manage interactions with various entities effectively

- Business partners represent any **legal entity** (organization) or **natural person** (individual) you interact with in a business context.
- This encompasses customers, suppliers, employees, and more.
- Transaction code **BP** is used to manage business partners in the system.

Key Elements of the Business Partner Concept:

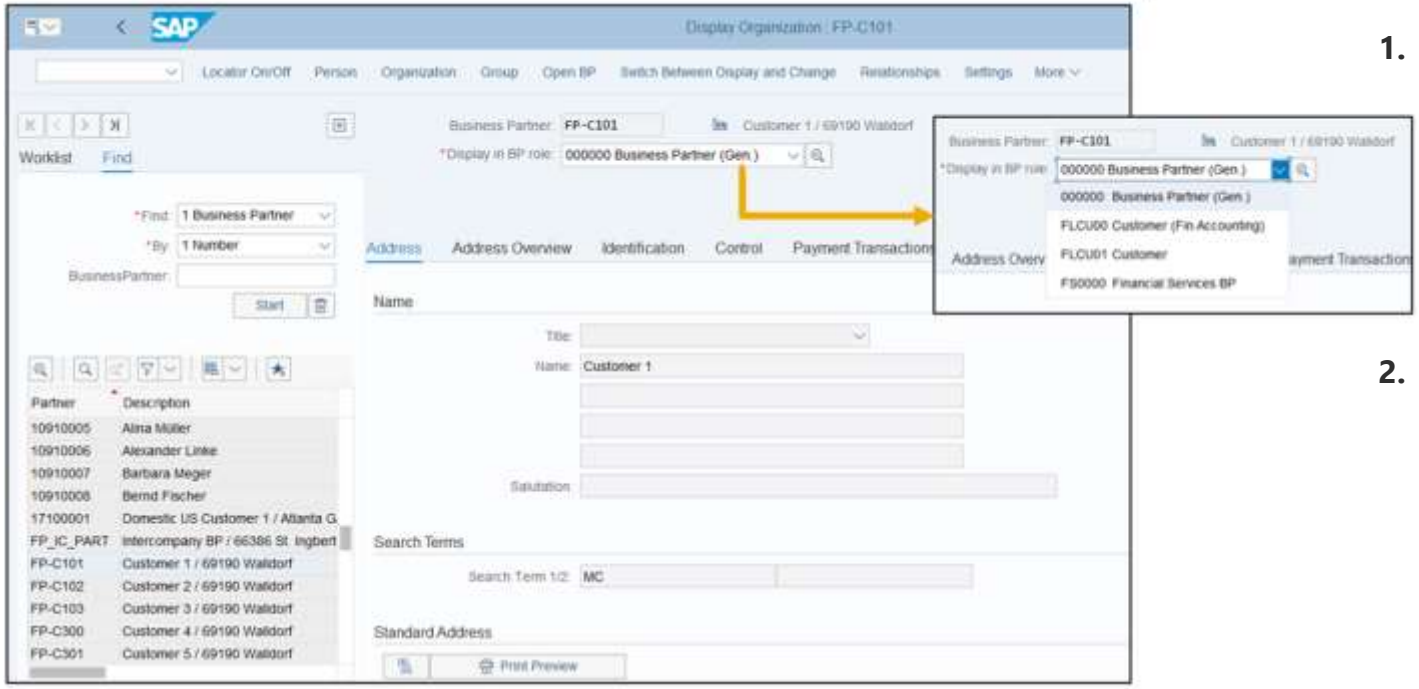
1. **Business Partner Category:**
    1. Defines the type of data available for a business partner, depending on the nature of the relationship (e.g., person, organization, group).
    2. Selected at creation and cannot be changed later.
2. **Business Partner Role:**
    1. Allows assigning different roles to a business partner, providing focused views of their data relevant to specific business functions.
    2. Examples include contact person, employee, organizational unit, or internet user.
3. **Business Partner Relationship:**
    1. Establishes connections between two business partners, categorized by the relationship type (e.g., customer-supplier).
4. **Business Partner Group Hierarchy:**
    1. Models the structure of complex organizations by grouping related business partners.

Customer and Supplier Relationships:

- A single business partner can be both a customer and a supplier.
- This occurs when a customer also supplies goods or a supplier is also a customer.
- Separate customer and supplier master records are required in such cases, linked by their respective numbers within each record.
- Plants in SAP S/4HANA are a common example of this dual role.

BUSINESS PARTNER CATEGORIES AND ROLES – CUSTOMER MASTER DATA (1/2)

Facilitates efficient sales processes and informed decision-making



The figure depicts the "Display Organization" screen, providing an overview of a customer's information.

- **Three Key Sections –** Customer master data is segregated into three main parts:

1. **General Data (000000 Business Partner):**

   This client-wide section stores general information applicable across the entire organization, such as:

   1. Contact details (name, address, phone number)
   2. Legal information (tax ID)
   3. Payment terms

2. **Company Code Data (FLCU00 FI Customer):**

   This company code-specific section allows you to maintain customer data relevant to individual company codes within your organization. This might include:

   1. Account assignment group
   2. Payment methods
   3. Credit limits

3. **Sales Area Data (FLCU01 Customer):**

   This sales area-specific section enables you to manage customer data tailored to different sales regions or channels. Examples include:

   1. Pricing conditions
   2. Sales representatives
   3. Shipping conditions

BUSINESS PARTNER CATEGORIES AND ROLES – CUSTOMER MASTER DATA (2/2)

Facilitates efficient sales processes and informed decision-making

Maintaining the Same Customer Across Different Data:

- The system allows you to maintain the same customer across various company codes and sales areas.
- Each section can hold distinct data specific to the respective context (company code or sales area).

Customer Partner Functions:

These functions define the different roles a customer can play within a sales transaction:

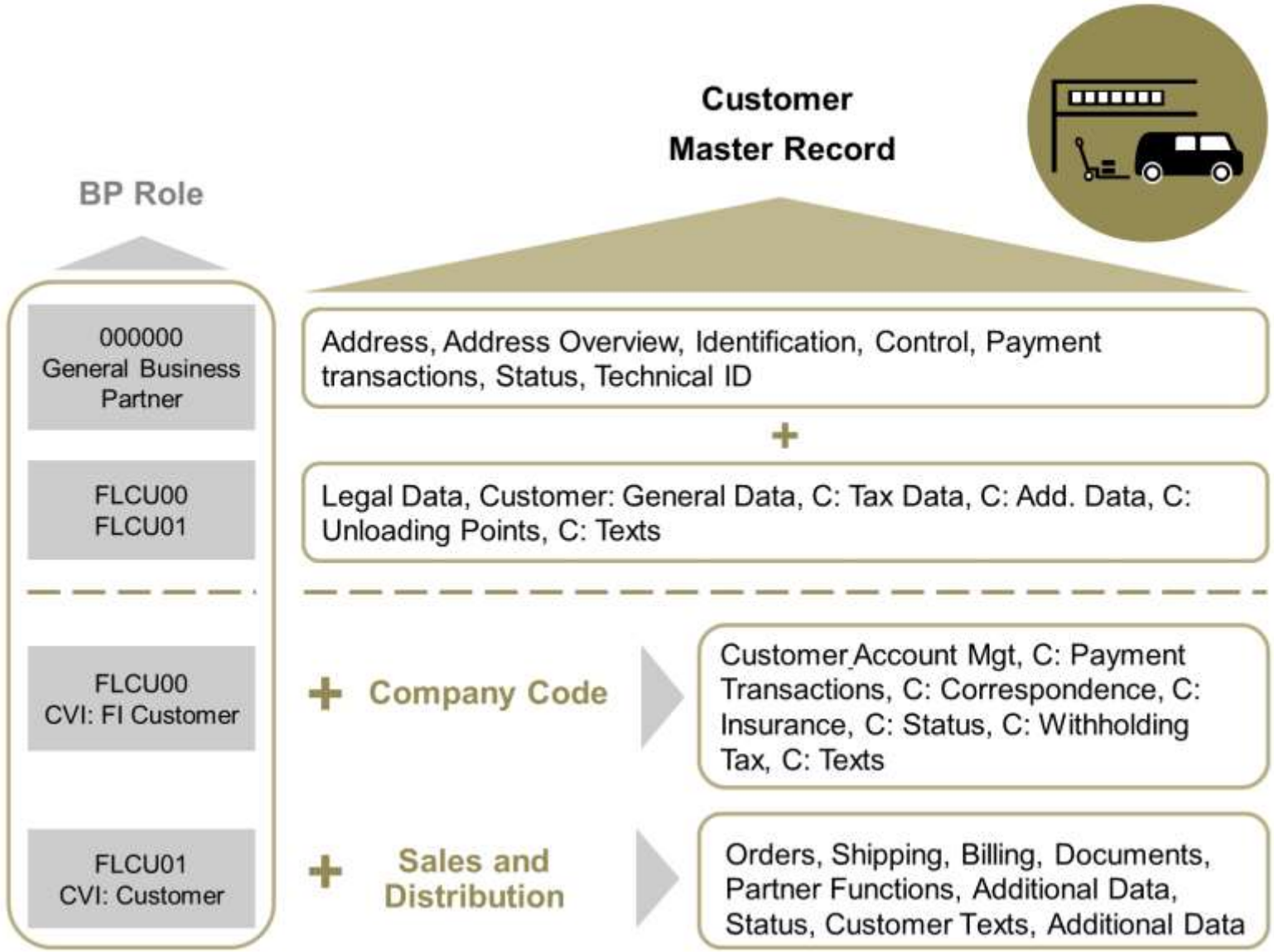
- **Sold-to Party:** The party who places the order and takes ownership of the goods.
- **Ship-to Party:** The party to whom the goods are delivered.
- **Bill-to Party:** The party responsible for payment.
- **Payer:** The party who actually makes the payment.

Benefits of a Structured Customer Master:

- **Centralized Customer View:** Provides a consolidated overview of customer information across the organization.
- **Data Accuracy:**
  - Separation of client-wide, company code, and sales area data ensures accuracy and avoids duplication.
- **Flexible Customer Management:**
  - Allows for tailoring customer data to specific business contexts within the organization.

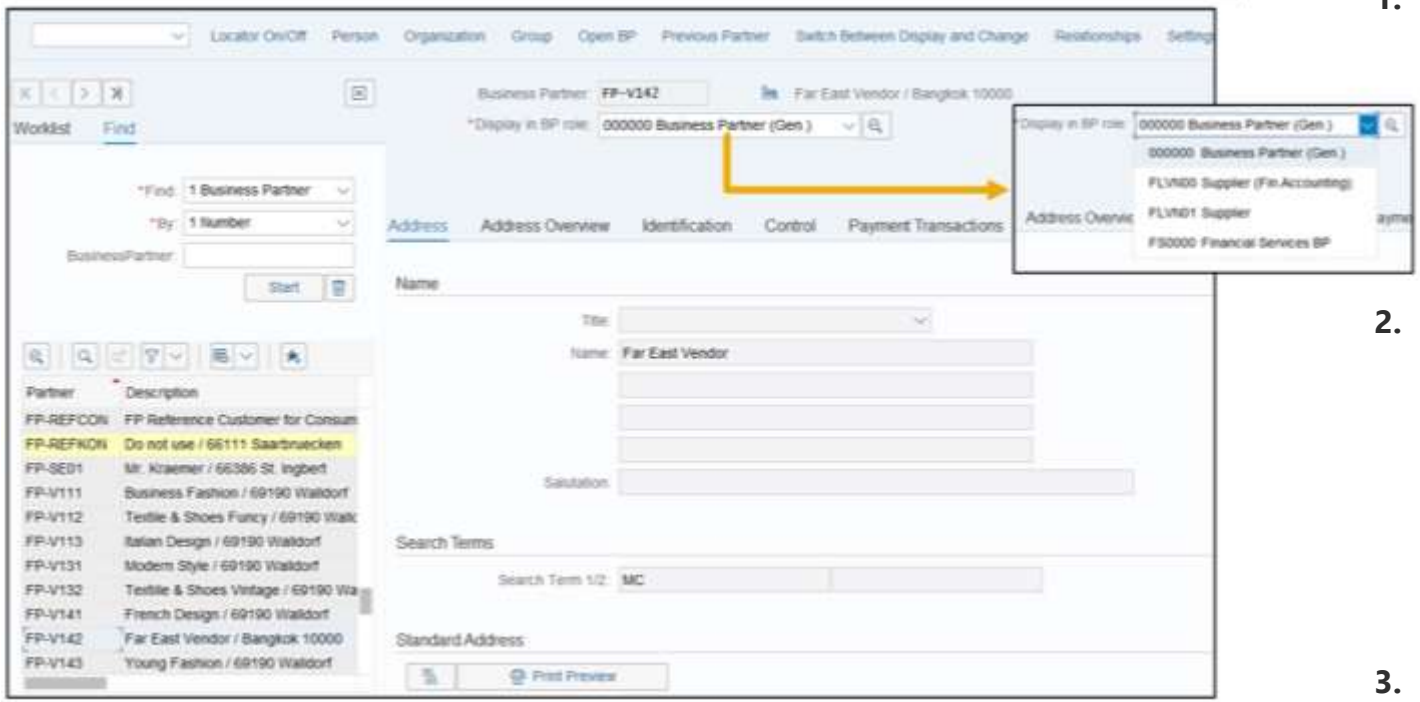
CUSTOMER MASTER RECORD

Overall view



BUSINESS PARTNER CATEGORIES AND ROLES – VENDOR MASTER DATA (1/2)

Manage supplier relationships effectively, facilitating efficient purchasing processes and cost control



- **Three Key Sections –** Supplier master data is divided into three main parts:

1. **General Data (000000 Business Partner):**

   This client-wide section stores general information applicable across the entire organization, such as:

   1. Contact details (name, address, phone number)
   2. Legal information (tax ID)
   3. Payment terms

2. **Company Code Data (FLVN00 FI Supplier):**

   This company code-specific section allows you to maintain supplier data relevant to individual company codes within your organization. This might include:

   1. Payment methods
   2. Payment terms (potentially different from general data)
   3. Account assignment group

3. **Purchasing Organization Data (FLVN01 Supplier):**

   This purchase organization-specific section enables you to manage supplier data tailored to different purchasing departments or teams. Examples include:

   1. Incoterms (international commerce terms)
   2. Purchasing information records (with details like preferred materials or pricing)
   3. Contact persons within the supplier organization specific to the purchasing department

BUSINESS PARTNER CATEGORIES AND ROLES – VENDOR MASTER DATA (2/2)

Manage supplier relationships effectively, facilitating efficient purchasing processes and cost control

Maintaining the Same Supplier Across Different Data:

- Similar to customer master data, the system allows you to maintain the same supplier across various company codes and purchasing organizations.
- Each section can hold distinct data specific to the respective context (company code or purchasing organization).

Supplier Partner Functions:

These functions define the different roles a supplier can play within a purchasing transaction:

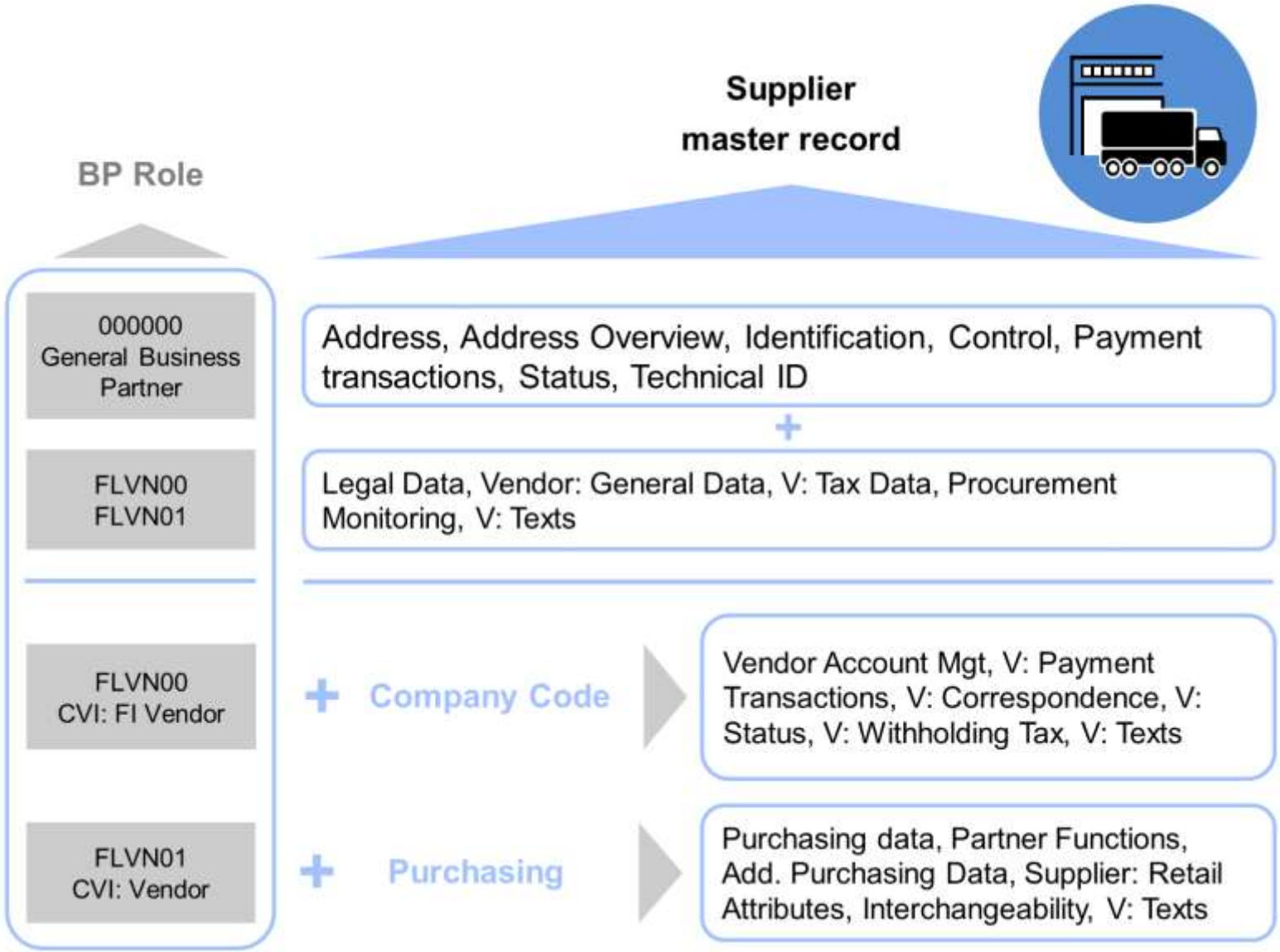
- **Ordering Address:** The address to which purchase orders are sent.
- **Goods Supplier:** The party who physically delivers the goods.
- **Invoice Presented By:** The party who sends the invoice for payment.
- **Alternative Payee:** A secondary party to whom payment might be directed under specific circumstances.

Benefits of a Structured Supplier Master:

- **Centralized Supplier View:** Provides a consolidated overview of supplier information across the organization.
- **Data Accuracy:**
  - Separation of client-wide, company code, and purchasing organization data ensures accuracy and avoids duplication.
- **Flexible Supplier Management:**
  - Allows for tailoring supplier data to specific business contexts within the organization (different company codes or purchasing departments).

VENDOR MASTER RECORD

Overall view



BUSINESS PARTNER – CONSUMER

Create and maintain accurate customer data

- **Consumer vs. Customer:**

  In SAP S/4HANA, a **consumer** is a natural person who has:

  - A **customer master record** for sales transactions.
  - A central **business partner (BP) record** for overall customer data management.

- **Focus on Customer Data:**

  - During actual sales transactions, only the customer data from the customer master record is relevant.

- **Consumer Maintenance:**

  - Consumer data entry is streamlined, allowing you to capture all information on a single screen.

- **Reference Customer Requirement:**

  - To create and process sales for a consumer, a reference customer record must exist in the system.
  - This reference customer serves as a template for data population.

- **Consumer Data Categories:**

  The system allows you to maintain various consumer data categories:

  - **Personal Data:** Name, date of birth, contact details (phone, email)
  - **Address:** Billing and shipping addresses
  - **Banking Details:** Account information for payment processing
  - **Payment Cards:** Credit card or debit card details (if applicable)

- **Business Partner Category:**

  - The appropriate business partner category for consumers is **"Person"**.

BUSINESS PARTNER – CONSUMER & REFERENCE CUSTOMER

Reference customer ensures consistency in consumer data across the organization

Creating the Reference Customer:

- The reference customer serves as a template for consumer data population.
- You create it using the business partner category **"Organization"**.
- Only one reference customer can exist per client (system instance).

Importance of the Reference Customer:

The reference customer is crucial because it determines:

- **Company code data:**
  - Defines the financial context (e.g., chart of accounts, currency) for consumer transactions.
- **Sales area data:**
  - Specifies the sales channel or region relevant to the consumer (e.g., online store, specific retail location).

Consumer-Reference Customer Assignment:

Linking a consumer to a reference customer defines:

- The sales area where the consumer interacts with your business (e.g., online store, specific retail location).
- The corresponding company code data associated with that sales area.

Assignment Method:

- Currently, assigning a consumer to a reference customer is a manual process using the SAP GUI transaction **VD07**.
- Mass assignment functionality is not yet available.

BUSINESS PARTNER – OTHERS

Create different business partner types to manage network of business relationships

- **Universal Creation Process –** The process for creating these business partners follows the same general steps as customer and supplier creation – transaction BP.

- **Specific Business Partner Types:**

  1. **E-commerce Customer:**
     1. Use the business partner category **"Organization"**.
     2. This is suitable for managing customers who interact with your business primarily through online channels.
  2. **Sales Employee:**
     1. Use the business partner category **"Organization"**.
     2. Remember to assign the sales employee to a corresponding customer within the system.
  3. **Intercompany Business Partner:**
     1. Used for internal transactions between different company codes within your organization.
     2. Typically, a single business partner record is created (**"Organization"** category) to represent both the intercompany supplier and customer.

- **Error Handling:**

  - Sometimes, mandatory fields might be missing during business partner creation, preventing saving.
  - Pressing "Continue" might hide the error message.
  - To view and rectify these errors, use transaction code **MDS_PPO2** (available only in the SAP GUI).

Master Data Sites

PLANT PROFILES – GENERAL OVERVIEW

Manage inventory, sales, and marketing activities

What are Plants?

Plants are organizational units representing:

- **Distribution centers** where goods are stored (site category: B)
- **Retail stores** where goods are sold (site category: A)

They serve as the foundation for inventory management and related business processes:

- Goods receipt
- Physical inventory counting
- Goods issue

Key Characteristics:

- **Independent Units:**
  - Each plant manages its own inventory and orders its stock independently.
- **Customer Role:**
  - While managing inventory, plants are considered customers of the head office.
  - The head office handles sales processes like delivery and billing.
- **Supplier Role (Distribution Centers):**
  - Distribution centers act as suppliers to other plants by providing merchandise.
- **Customer-Supplier Representation:**
  - A single business partner assigned to a plant reflects both customer and supplier roles.

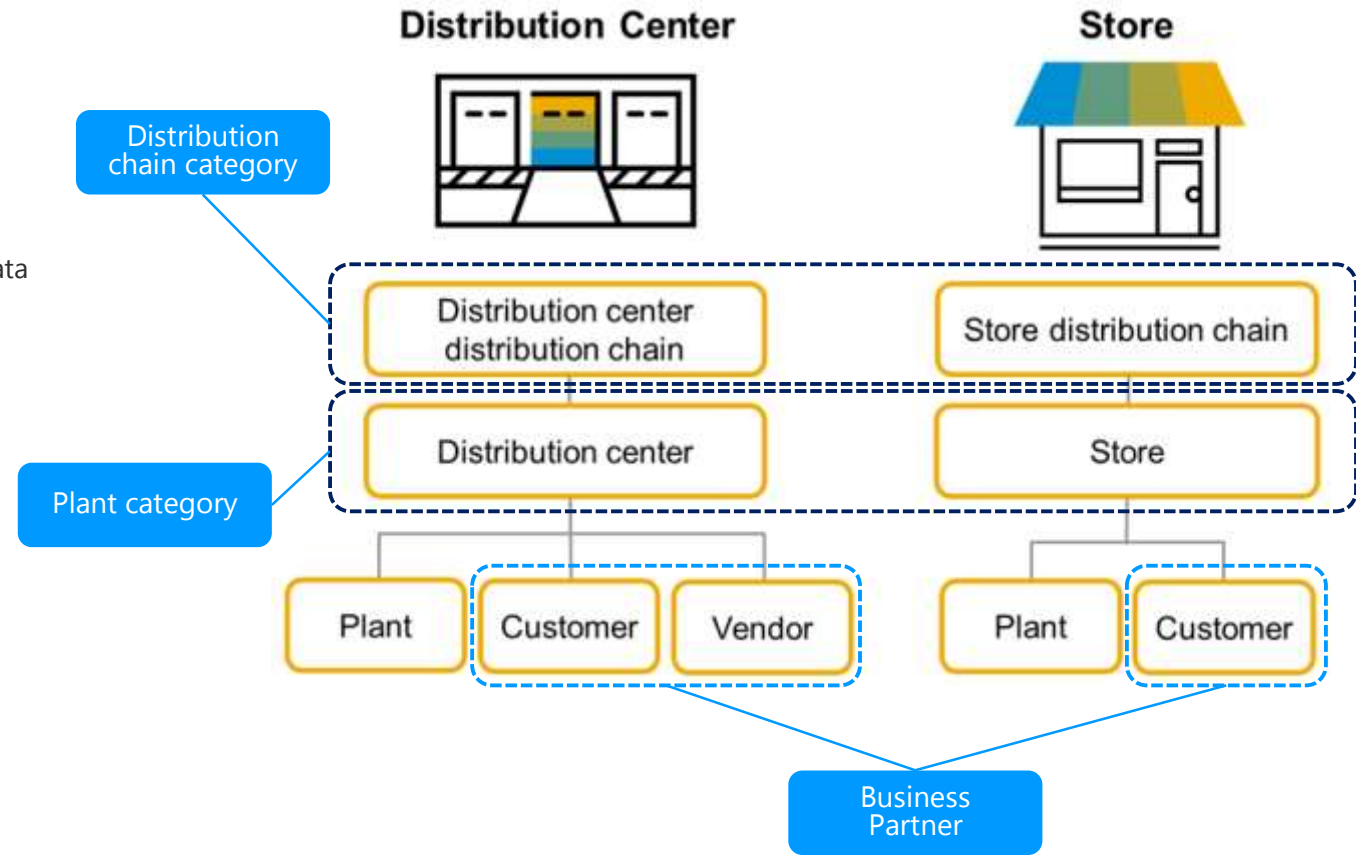
PLANT PROFILES – CHARACTERISTICS

Leverage reference plants for efficient management

- **Distribution Chains:**
- Plants are grouped into **distribution chains** for marketing purposes.

- **Creating Plant Master Data:**
- **Transaction WB01:** Used to create new plant master data.
- **Plant Profiles:**
  - Define what data fields are visible and mandatory during plant creation.
  - Utilize reference plant and customer (or supplier for distribution centers) data for copying purposes.
  - Allow copying of application data and even customizing settings from the reference plant.

- **Benefits of Defined Plants:**
- **Efficient Inventory Management:**
  - Independent inventory control at each plant optimizes stock management.
- **Streamlined Sales Processes:**
  - Centralized control by the head office ensures smooth sales execution.
- **Marketing Alignment:**
  - Grouping plants into distribution chains facilitates targeted marketing strategies.



SITES & BUSINESS PARTNERS

Customer and supplier master records reflect internal interactions and external customer relationships

- **DCs as Internal Customers and Suppliers –** DCs play a dual role within the system:
  - **Internal Customer:**
    - They receive merchandise from higher-level DCs or even stores/customers through returns.
    - A customer master record is required for the DC, forming part of its site master data.
  - **Internal Supplier:**
    - DCs supply merchandise to other plants (stores, DCs) within the organization.
    - A supplier master record is created, especially for scenarios involving different company codes.
    - This supplier master data influences aspects like payment terms and condition control during purchase order creation.
    - The supplier master record is also integrated into the DC's site master data.
- **Customer Types Supplied by DCs –** DCs cater to both internal and external customers:
  - **Internal Customers:**
    - These include stores or other DCs within the same organization.
    - Internal customer master records are created for these sites.
  - **External Customers:**
    - These are wholesale customers or other external entities.
    - Individual customer master records are established for them.
- **Internal Customer Number and Local Assortment:**
  - The internal customer number of a site (plant) is used to generate its **local assortment**.
  - This local assortment determines the specific range of products available at that particular site, potentially tailored to its customer base or other factors.

Master Data
Application variants

APPLICATION VARIANTS – WHAT FOR ?

A powerful tool to manage material variants effectively

- **Application Variants:** These are essentially variations of an existing application (like a material master record) that allow for specific controls or restrictions.
- **Controlling Material Variant Usage:**
  - You can define time periods during which specific variants of a material can be used in various application documents (e.g., purchase orders, sales orders).
- **Example:**
  - A vendor might only supply a limited range of sizes or colors for a particular material.
  - You can create a **purchasing variant** for this vendor that excludes the unavailable sizes/colors. This variant would then be restricted for use in purchase orders placed with that specific vendor during a defined period.

Benefits of Application Variants:

- **Improved Accuracy:** Ensures only valid material variants are used in documents based on pre-defined limitations.
- **Enhanced Vendor Management:** Helps manage vendor-specific restrictions on material variants.
- **Streamlined Processes:** Reduces errors by guiding users towards the appropriate material variant for each scenario.

APPLICATION VARIANTS – MAINTENANCE & CUSTOMIZING

Technical activities

Relevant transactions are:

- FSH_VAR_SD- "Maintain Sales Application Variants"
- FSH_VAR_MM - "Maintain Purchasing Application Variants"

Application variant condition maintenance:

- IMG → Logistics-General → Fashion Management → Cross-Applications → Application Variants.

Activation of sales order type:

- IMG → Sales and Distribution → Sales → Sales Documents → Sales Document Header → Maintain Sales Document Types for Fashion Management

Activation of purchase order type:

- IMG → Materials Management → Purchasing → Purchase Order → Maintain Purchasing Document Types for Fashion Management.

APPLICATION VARIANTS – SET UP EXAMPLE

Maintenance for Sale order

- Example of set-up for Sale order

Standard condition technic framework is used to set up the variants

Item Area

Header | Item | Details | Sales Variant data | ◇0

Status	Sca	CCtC	Customer	SO	DChl	Material	Created By	Created on	Table	U	Status	Valid From	Valid To
✓		01S	FP-C310	103	20	FP-01-ART114	USER05	22.11.2017	SAPVR001	VR		22.11.2017	31.12.9999
		01S	FP-C310	103	20	FP-01-LKP111	USER05	22.11.2017	SAPVR001	VR		22.11.2017	31.12.9999

Material: FP-01-ART114

App. Variant Name: TEST SALES 2

App. Variant Desc.: TEST SALES 2

Var. Selection

Characteristic:FP SIZES Women /FP COLOURS BASIC /

Base Va

Ch. Va	White	Blue	Green
S	✓		
M	✓		
L	✓		✓
XL			✓

Not allowed variant

Allowed variants

The variants excluded from being available for the customer cannot be entered in the **sales order ATP overview**

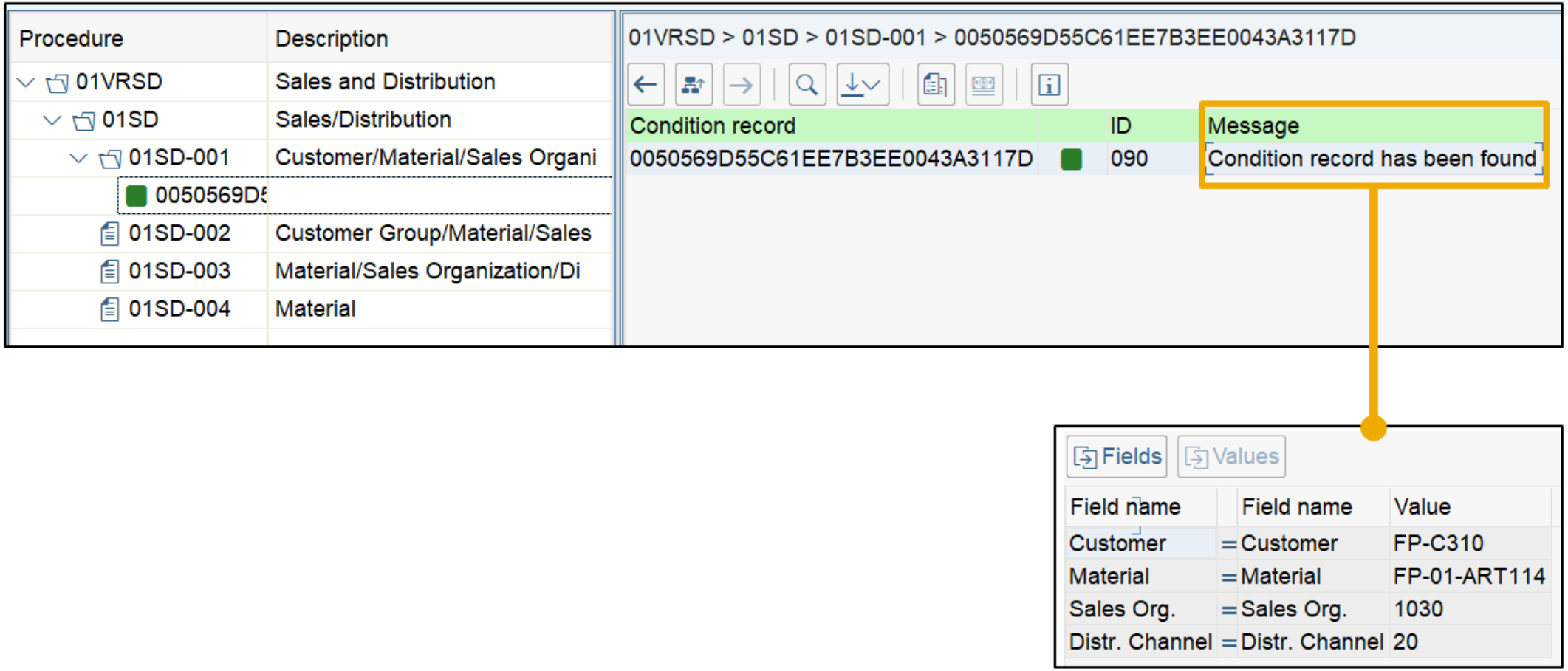
Quantity | ATP Overview

Material Variant	ATP Stock	08.10.2018	10.12.2018	Char Desc. 1	Char Desc. 2
FP-01-ART114001		1	9999999999	White	S
FP-01-ART114002			9999999999	White	M
FP-01-ART114003			9999999999	White	L
FP-01-ART114004			9999999999	Blue	M
FP-01-ART114005			9999999999	Blue	L
FP-01-ART114006			9999999999	Green	M
FP-01-ART114007			9999999999	Green	L
FP-01-ART114008			9999999999	Green	XL

APPLICATION VARIANTS – DETERMINATION EXAMPLE

Maintenance for Sale order

- Example of determination log for sales orders
- Can be found in the sale order following the path : *More – Goto – Logs – Variant determination*



Master Data
Listing & Assortments

ASSORTMENT – KEY ELEMENTS

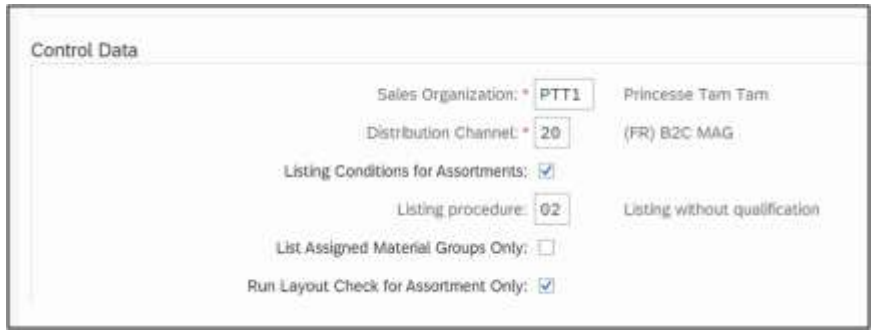
Ensures stores and distribution centers have the right materials based on demand

Key Concepts:

- **Assortment:** A collection of materials (products) designated for a particular sales channel, customer group, or validity period.
- **Listing:** The process of assigning materials to an assortment for a specific timeframe.

Assortment Management Tools:

- **SAP Element Assortment:** The core functionality for managing assortments.
- **Listing Function:** Assigns assortments to stores, customers, or distribution centers.
- **Assortment Assignment Tool:** Used to assign assortment users (stores/customers) to general assortments.

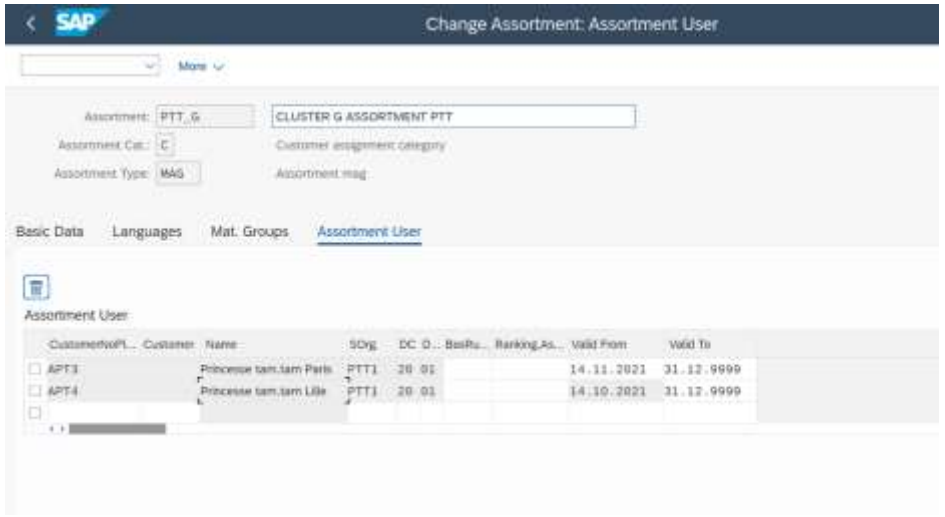


Objectives of Assortment Management:

- Define which materials can be purchased and sold by a plant (store or distribution center) based on validity periods.
- Manage which materials are included in customer assortments.

Assortment Management Tasks:

- Adding materials to a store's distribution center assortment.
- Specifying distribution centers for supplying stores from the warehouse.
- Defining stores authorized to sell specific materials.
- Determining materials included in customer assortments.



ASSORTMENT – TYPES

Make informed decisions about product availability, leading to optimized inventory levels, increased sales, and satisfied customers

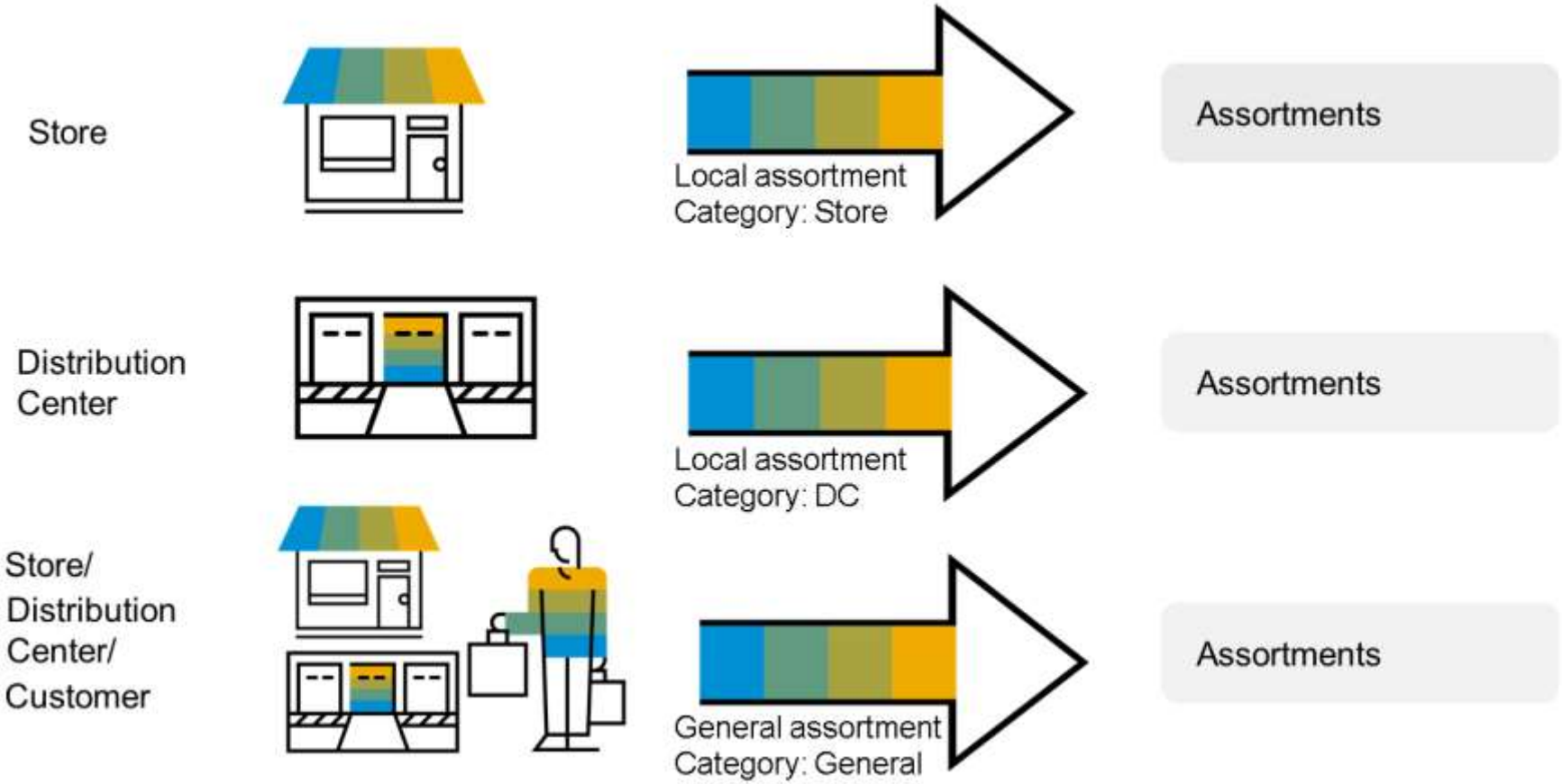
Types of Assortments:

1. Local Assortments:

1. Automatically created and assigned to each plant (store or distribution center).
2. Plant-specific and cannot be assigned to another plant.
3. Type A for stores, Type B for distribution centers.

2. General Assortments:

1. Assignable to multiple customers, stores, or distribution centers (with specific customizing settings).



LISTING – KEY ELEMENTS

Ensures stores and DCs have the correct materials based on assortment assignments

Key concepts:

- Listing refers to the process of assigning materials to an assortment for a specific timeframe.
- This essentially determines which materials are available for:
  - Stores to sell.
  - Distribution centers to stock and distribute.
  - Customers to purchase (based on customer assortment).

Assortments and Listing:

- An assortment acts as a container for listed materials.
- Materials become relevant for specific users (stores, DCs, customers) only after being assigned to an assortment.

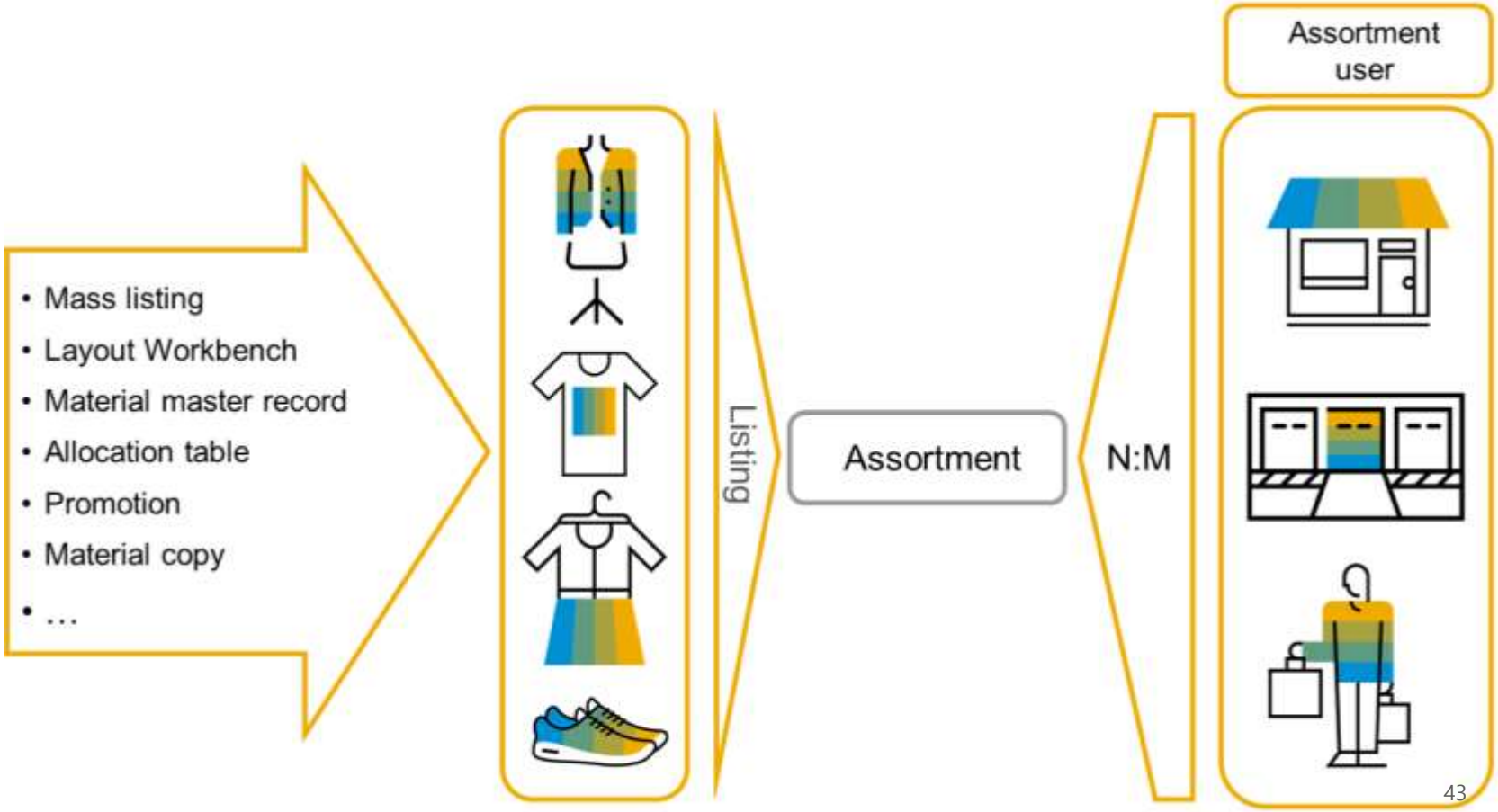
LISTING – ASSIGNMENT

Only listed materials are available for sales transactions, preventing errors

- **Listing Conditions:**
  - Assigning materials to assortments generates listing conditions.
  - These conditions serve as the foundation for various evaluations within the system.

- **Automatic Material Assignment:**
  - Materials can be automatically assigned to assortments during material or assortment maintenance.
  - Listing procedures define the rules for this automatic assignment.
  - These procedures offer flexibility in managing assortment composition.

- **Impact of Listing on Users –** The type of assortment user determines how they can utilize the listed materials:
  - Stores can sell them.
  - Distribution centers can manage stock and distribute them to stores.
  - Customers can purchase them if included in their customer assortment.



ASSORTMENT & LISTING – MODULES (1/2)

Principles

- You would generally create assortment modules to group together articles that are fairly uniform enterprise-wide or that need to be grouped together for a specific purpose (such as a promotion).

- The following are examples:
  - Core assortment of brand-name coffees ("all stores")
  - Extended version of that assortment ("only in large stores")
  - Special coffee assortment ("only in specialty stores")

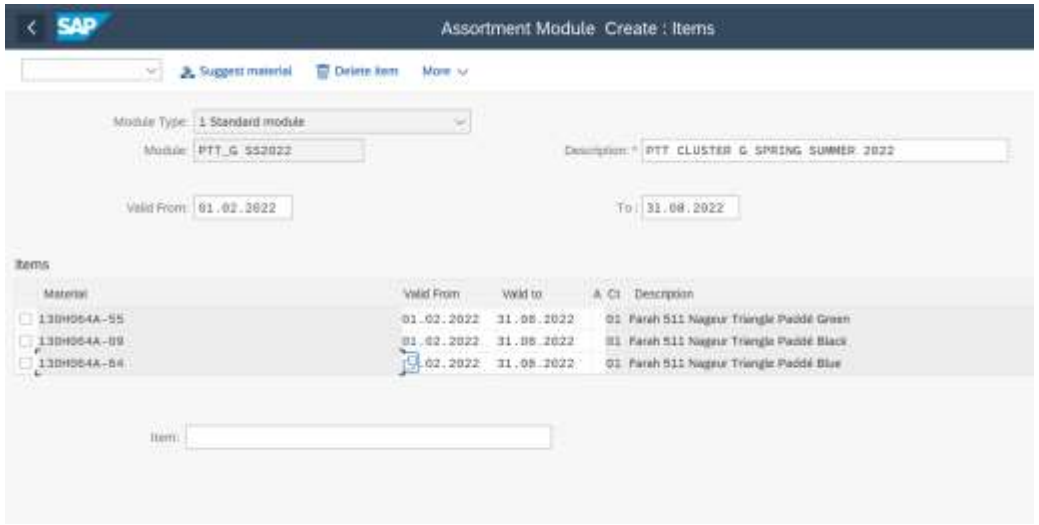
- The following assortment module types exist

Modules with automatic assignments of articles	Modules with manual assignments of articles
Profile modules are created automatically during the article maintenance for each assortment and merchandise category	**Standard modules** contain any articles from any merchandise categories. It contains the regular long-term rule assortment and is created manually
Shelf modules are generated during the maintenance of layout modules that are assigned to the assortments	**Local modules** are only valid for one site and is therefore the local assortment
Promotion modules contain the articles that are to be dealt with together in a promotion or a theme	**Exclusion modules** to exclude articles from the existing assortment for a certain period of time
	Rack jobber modules are modules for which vendors deliver and present articles in stores themselves. This is related to PRICAT and VMI processing
	Value contracts – you can also use these modules for assortment functions in Sales and Distribution in contracts processing

ASSORTMENT & LISTING – MODULES (2/2)

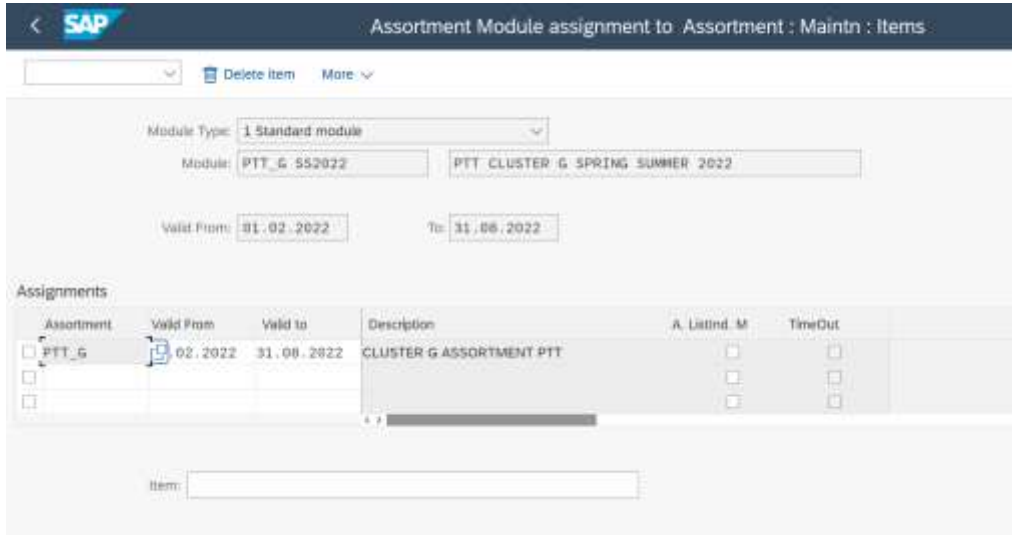
Create & assign

1 Module Creation



- 3 Steps:
  - Enter a module code and a module description
  - Enter its validity period
  - Assign articles to the modules (assignment can be performed at generic level)

2 Module assignment to Assortments



- 2 Steps:
  - Select the assortment module you created before
  - Assign assortments (i.e. store clusters) to the modules
- As a result:
  - Automated article listing creation in stores in the defined period

Fashion core concepts

- Season
- VAS
- Material Dimensions conversion
- Transportation chains
- Segmentation

Fashion core concepts
Season

SEASONS IN FASHION

Concept

- **Seasons are a key element in the fashion industry's product lifecycle.** Clothes are designed and produced with specific seasons in mind, reflecting the needs and preferences of consumers during that time.
  - **Seasonal Demand:** People's clothing needs change throughout the year. For example, warm woolen garments are naturally more popular in winter, while lighter, breathable fabrics are preferred in summer.
  - **Collections and Themes:** Each season typically features collections of clothing that follow a particular theme or style.
  - **Season Validity:** Seasons have a defined timeframe within the fashion year.
- Customizing is necessary to define the season types and activate the season determination within sales and purchasing documents
- The Season workbench is used to create and manage seasons. You use the workbench to not only define, change, and delete season year, season, collection, and theme, but also to maintain sales and purchasing views for seasons and assign materials to the relevant seasons.

Season Workbench

- Season definition
- Material Assignment
- Sales view
- Purchasing view
- Display options (full, tree, grid)

Season Usage

- Season types
- Multiple seasons per Material possible

Season Determination

- Season in sales documents
- Season in purchase documents
- Season re-determination

MANAGING SEASONS IN FASHION

Efficiently organize your fashion products and track them based on seasonal trends.

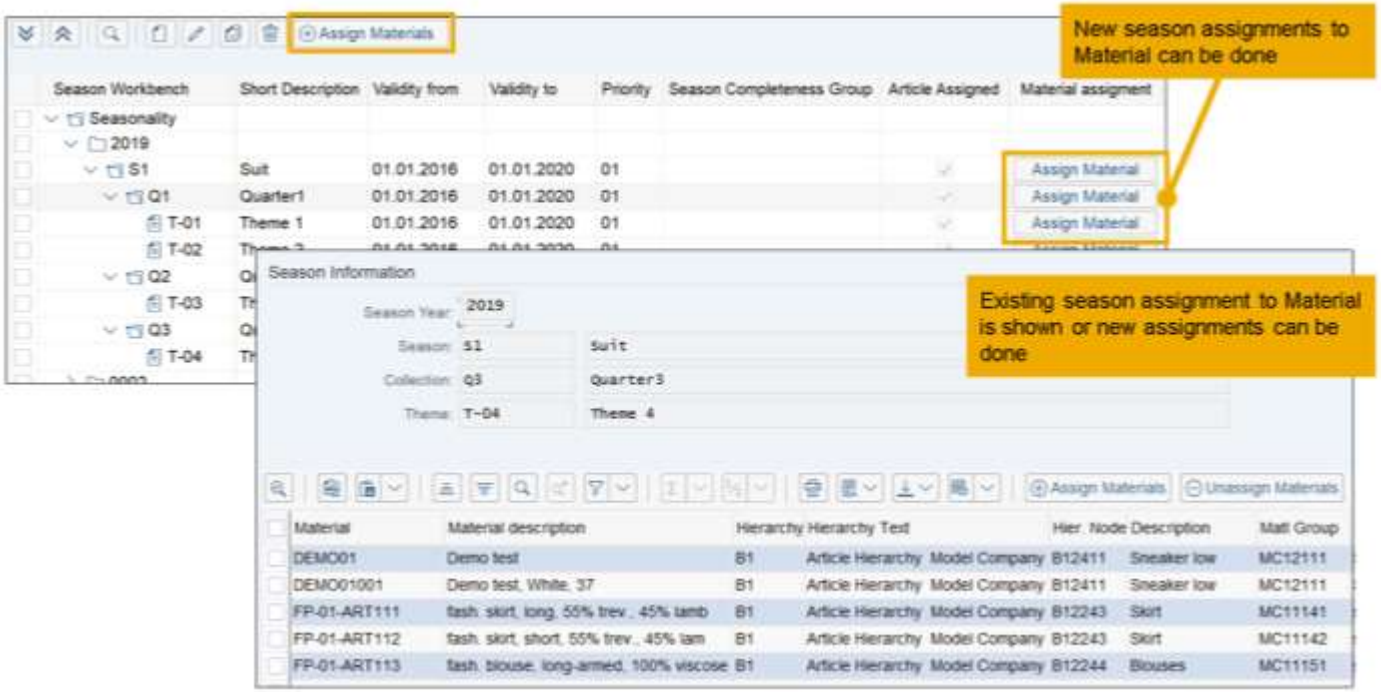
Creating Seasons:

- You can create new seasons for a specific year, then assign collections and themes to them.
- There are two ways to create a season:
  - **Start Fresh:** Enter all new information for the season.
  - **Copy Existing:** Copy details from an existing season to save time.

Assigning Seasons to Materials:

- Link seasons to materials using the material number and its category.
- You can assign a material to a season at three levels:
  - **Season Year & Season (Broadest):** e.g. Spring/Summer 2025
  - **Collection:** e.g. "Beach Vibes" collection within Spring/Summer 2025
  - **Theme:** e.g. "Floral prints" theme within the "Beach Vibes" collection

Bonus: A material can belong to multiple seasons at once!



The seasons workbench can be accessed via the transaction FSH_SWB

MANAGING SEASONS IN FASHION

Purchasing & Sales View

Managing Sales & Purchasing:

- Define timeframes for:
  - **Sales:** Order, delivery, and sales windows

Sales periods can be maintained on combinations of
- Sales Organization
- Distribution Channel
- Country
- Region
- Customer Group
- Sales District
- Customer

Delivery date: Time interval where delivery from DC to customer/ store is possible

Order date: Time interval where customer can place orders (sales order creation date)

Sales date: Time interval where delivery from DC to store is allowed (default value for sale from store)

Sales View

Undo | Add new line | Delete line | Copy line | Adjust Date | Expand

SeasonYe	Seas	Collecti	The	SOrg	D	Ctr	Rg	C	Customer	DelDatFrom	Deliv. Date To	OrdDatFrom	Order Date To	Sales From	Sales Store To	P	C	Start Date ATP
2019	03	01	01							01.06.2019	30.09.2019	30.11.2018	30.09.2019	01.07.2019	31.12.2019			
2019	04	01	01							01.06.2019	30.09.2019	30.11.2018	30.09.2019	01.07.2019	31.12.2019			
2019	04	01	01							01.09.2019	31.12.2019	31.03.2019	30.11.2019	01.10.2019	28.02.2020			

- **Purchasing:** Order and delivery windows

Purchasing periods can be maintained on combinations of
- Purchasing organization
- Purchasing group
- Vendor

Delivery date: Time interval where delivery from vendor to DC is allowed

Order data: Time interval where ordering at vendor is possible (purchase order creation date)

Purchasing View

Undo | Add new line | Delete line | Copy line | Adjust Date | Expand

SeasonYe	Seas	Collecti	The	POrg	PGr	Vendor	DelDatFrom	Deliv. Date To	OrdDatFrom	Order Date To
2018	0001						01.01.2018	31.12.2018	01.11.2017	30.06.2018

The seasons workbench can be accessed via the transaction FSH_SWB

SEASON DETERMINATION IN DOCUMENTS

Configuring automatic season determination streamlines the season management process

Key points:

- **Functionality:** You can configure automatic season determination for various documents:
  - Sales documents
  - Purchase order documents
  - Stock transport orders
- **Data Source:** The system checks purchasing and sales dates from the **season workbench**.
- **Automatic Assignment:** Based on these dates, the system can automatically assign a season to the document.

Customization Options:

- You can configure the system to display warnings, errors, or informational messages if no season is found during automatic determination.

Benefits:

- Improves data accuracy and consistency by automatically assigning seasons to documents.
- Saves time and effort by eliminating manual season selection.
- Enhances data integrity by ensuring all relevant documents are associated with the correct season.

SEASON – MASS PROCESSING

The tool for managing seasons across various documents

What is transaction FSH_SRED?

- A report specifically designed for bulk processing of seasons in various documents.

Mass Season Processing Activities:

Through FSH_SRED, you can perform two main actions on multiple documents (purchase orders, sales orders, stock transport orders):

1. **Re-determine Seasons:** This triggers a recalculation of seasons based on the latest information in the season workbench, potentially updating existing season assignments.
2. **Manually Assign Seasons:** You can manually assign a specific season to multiple documents at once.

Important Note:

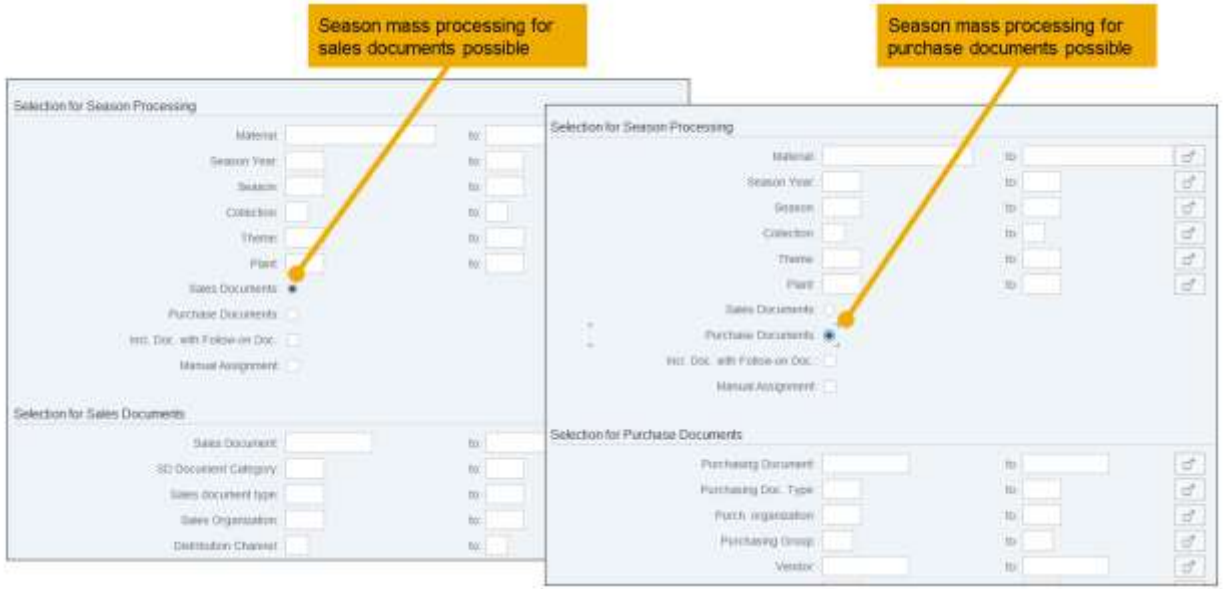
- These activities are mutually exclusive. You can only perform one action (re-determine or manually assign) at a time within the same execution of FSH_SRED.

Additional Considerations:

- FSH_SRED can be used for already created documents, regardless of their current season determination status.

Benefits:

- Saves significant time and effort compared to manually changing seasons for numerous documents.
- Enhances efficiency by allowing bulk updates based on changing business needs.
- Promotes data consistency by ensuring all documents reflect the most recent season information.



Fashion core concepts
VAS

VALUE ADDED SERVICES

Empowers to offer a more personalized and efficient service to fashion customers.

- Customers often request special services for their fashion orders, like:
  - **Ticketing / labelling** (e.g. with size-labels or retail-price ticket)
  - **Special handling** (e.g. putting shirts on hangers)
  - **Special packing** (e.g. packing on customer request or for damageable materials)

These services, called **Value-Added Services (VAS)**, add value to products and enhance the customer experience.

- **How VAS Works:**
  1. **Customer Requests:** Customers can specify their desired VAS when placing an order.
  2. **Mapping and Costing:** You define VAS options and their associated costs.
  3. **Order Processing:** The system automatically assigns VAS details and costs to the order.
  4. **Documentation:** VAS information is included in sales orders, delivery documents, etc. (manual addition is also possible).
  5. **Warehouse Fulfillment:** Warehouse staff receive clear instructions for completing VAS tasks (e.g., attaching price tags).
  6. **External Systems (Optional):** You can use custom fields to share VAS information with external systems like warehouse management software.
- **Benefits:**
  - **Increased Customer Satisfaction:** Fulfills specific customer needs and preferences.
  - **Improved Efficiency:** Streamlined order processing with automatic VAS assignment.
  - **Enhanced Accuracy:** Clear instructions for warehouse personnel reduce errors.
  - **Data Sharing:** Potential to integrate VAS data with other systems for further automation.

VAS IN SALES DOCUMENTS AND PURCHASE ORDERS

Ensure accurate order processing, efficient inventory management, and clear communication for completing VAS tasks

- **Individual Services per Item:** Each item in an order can have its own unique VAS applied.
  - Generic materials and structured materials are not relevant for VAS.

- **VAS Material Usage:**
  - **Optional:** VAS materials (like price tags) are not mandatory for every VAS.
  - **Inventory Management:**
    - Additional stock-managed items (like garment bags) might be needed for some VAS.
    - Simple items (like paper labels) generally don't require inventory tracking.

- **Sub-Item Lines for Essential VAS:**
  - If a VAS material is crucial for fulfilling the service (e.g., garment bag for special packaging), it's added as a sub-item line in the order.
  - This makes it relevant for functions like Available-to-Promise (ATP) and Material Requirements Planning (MRP), ensuring proper inventory allocation.

- **Additional Data Points:**
  - **Charge Codes:** Link VAS services to specific pricing for clear cost tracking.
  - **Text Fields (1, 2, 3):** Store short instructions for warehouse staff on applying the VAS (e.g., "Attach tag to left sleeve").
  - **Procurement Relevance Flag:** Indicates if the VAS information should be considered when automatically generating purchase orders for fulfilling the order.
  - **Long Text:** Stores detailed descriptions of the VAS service (like a full set of instructions).

VAS IN SALES DOCUMENTS AND PURCHASE ORDERS

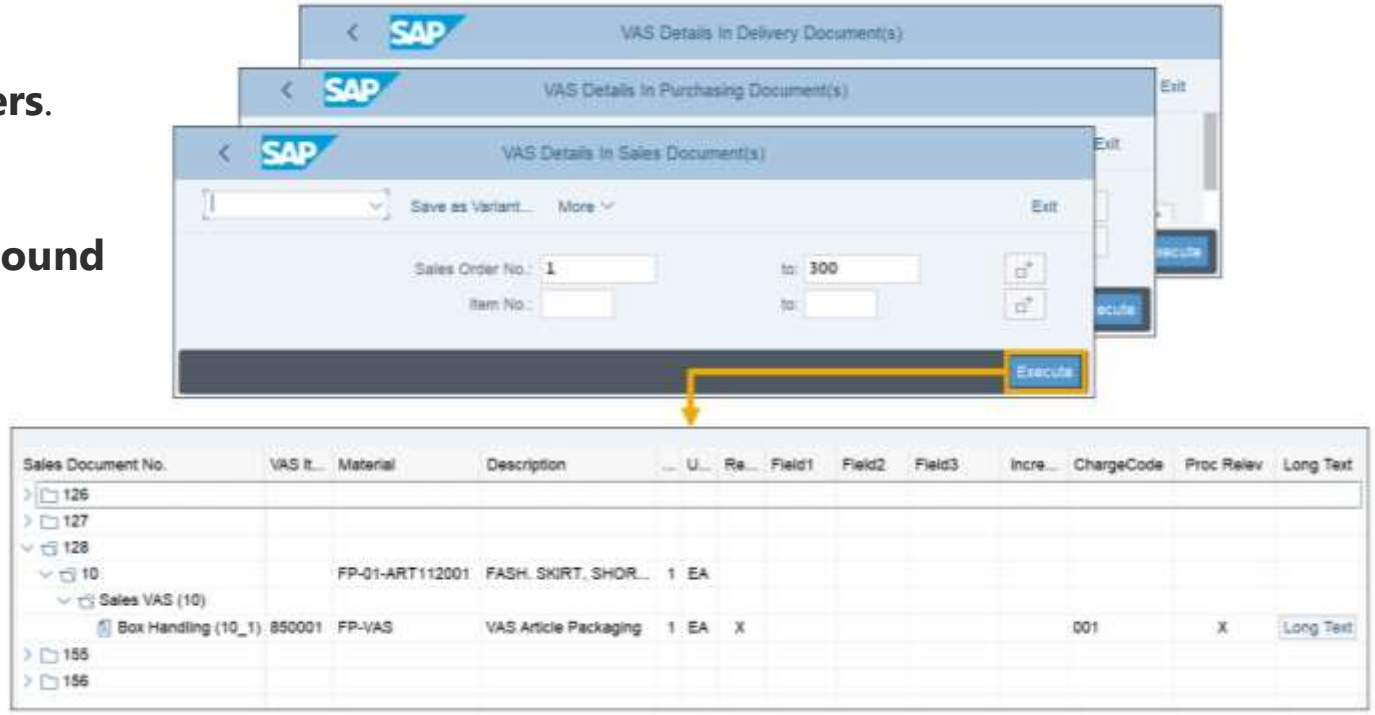
Where to find it ?

- VAS are stored in additional objects sales or purchase orders, **table FSH_VASS_TL for sales orders and table FSH_VASM_TL for purchase orders**

- Transaction **FSH_VPO** displays VAS data of **purchase orders**.

- Transaction **FSH_VSO** displays VAS data of **sales orders**.

- Transaction **FSH_VDELV** displays VAS of in- and **outbound deliveries**.



VALUE ADDED SERVICES – MASTER DATA

Required customizing activities

VAS Service Types

- Repository of all available services : Tickets, labels, packing, special handling
- Are defined in *IMG → Logistics - General → Fashion Management → Cross-Applications → Value-Added Services (VAS)*

VAS Condition Records

- To determine VAS automatically with a determination procedure
- are maintained in transactions *FSH_VASA, FSH_VAS_SD and FSH_VAS_MM*

VAS Charge Codes

- To link VAS to pricing
- Are defined in *IMG → Logistics → General → Fashion Management → Cross-Applications → Value-Added Services (VAS) → Define Charge Codes.*

VAS Material Master

- Materials which are used in VAS like wooden hangers, expensive boxes, …
- Are created with standard material creation transactions

Business Partner

- Customers and/or vendors need to be VAS enabled in standard maintenance transactions:
  - *Customer : XD01 / XD02 / VD01 / VD02 Fashion Specific Data - VAS Controls - VAS Determination Mode.*
  - *Vendor : XK01 / XK02 / MK01 / MK02 Fashion Specific Data - VAS Determination Mode.*
- Customers can be grouped using a VAS specific grouping field *(definition of VAS customer groups is done in IMG)*
- Assignment of VAS customer groups is done in standard maintenance transaction: *XD01 / XD02 / VD01 / VD02 Fashion Specific Data - VAS Controls - VAS Customer Group*

VALUE ADDED SERVICES – CONDITION RECORDS (1/2)

VAS is determined with standard SAP condition technic providing a flexible system for fulfilling customers' special service requests

Configuration Steps:

1. **IMG Activity:** Use the Implementation Guide (IMG) to define:
    1. **Determination Procedure:** Defines the logic for assigning VAS to orders.
    2. **Condition Types:** Specify the different types of VAS services offered.
    3. **Access Sequences:** Control how the system finds the appropriate VAS for a specific situation (e.g., customer group, material).
2. **Linking Determination Procedure:** In IMG, assign the chosen determination procedure to the relevant document type (e.g., sales orders).

Maintaining VAS Conditions:

There are three ways to create condition records (data defining VAS options) depending on where the VAS applies:

- **For Materials:** Applies to a specific material and can be used in both sales and purchase orders. (Transaction: FSH_VASA, Condition Type: 01MG)
- **For Sales Orders:** Applies specifically to sales orders for a particular customer or material combination. (Transaction: FSH_VAS_SD, Condition Type: 03SD)
- **For Purchase Orders:** Applies specifically to purchase orders. (Transaction: FSH_VAS_MM, Condition Type: 02MM)

Unlike access sequences for pricing, access sequences for VAS may not stop after the first hit to allow for the determination of various services.

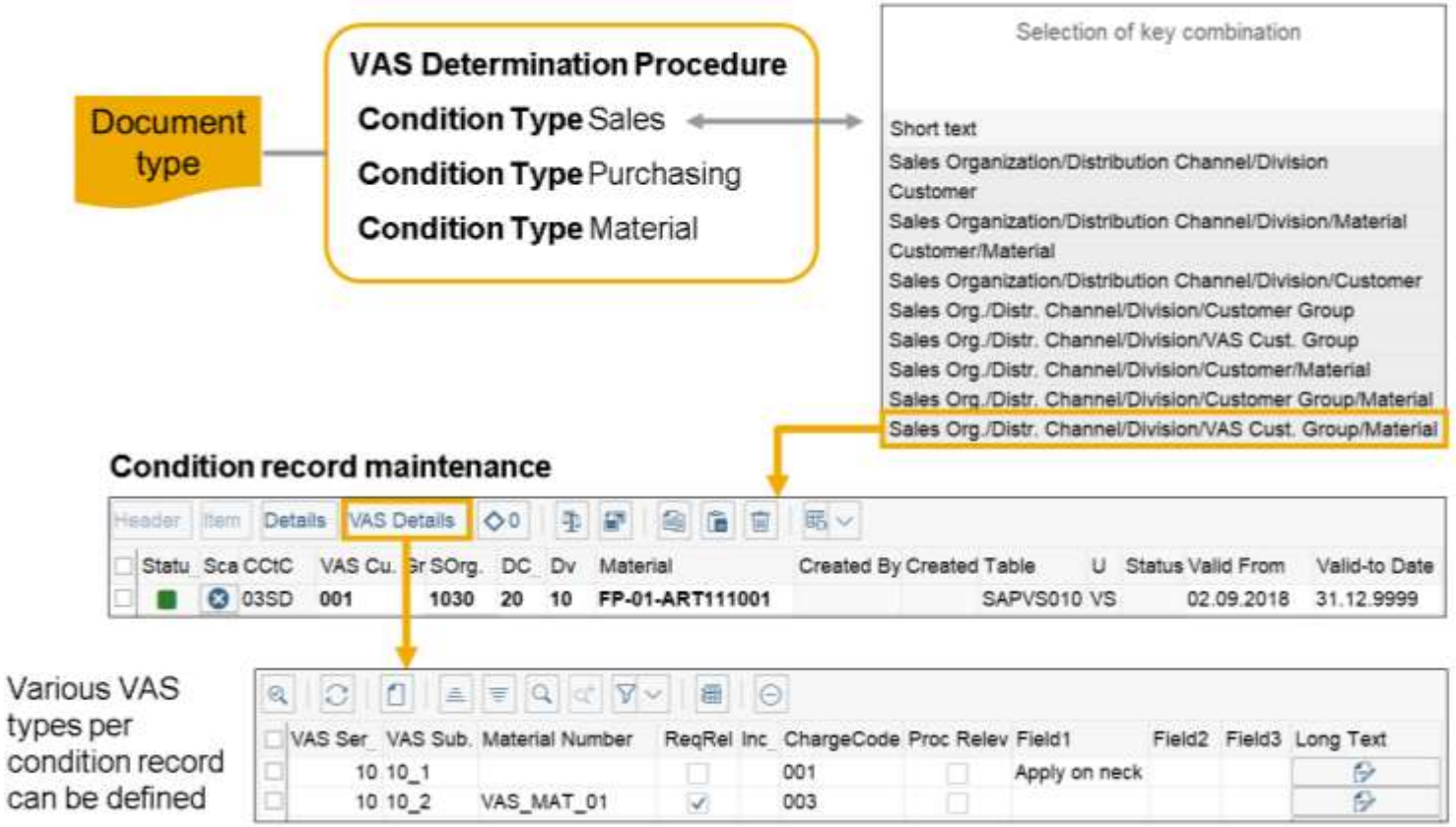
VALUE ADDED SERVICES – CONDITION RECORDS (1/2)

VAS is determined with standard SAP condition technic providing a flexible system for fulfilling customers' special service requests

Example:

- Shows the default access sequence for sales, condition records are maintained for any of the field combination. Every condition record can have multiple value added services.

- If a sales order is created for a customer of group 001 in the given sales area for the material specified this will lead to the determination of VAS sub services 10-1 and 30-1 in the sales order.



VALUE ADDED SERVICES – PRICING

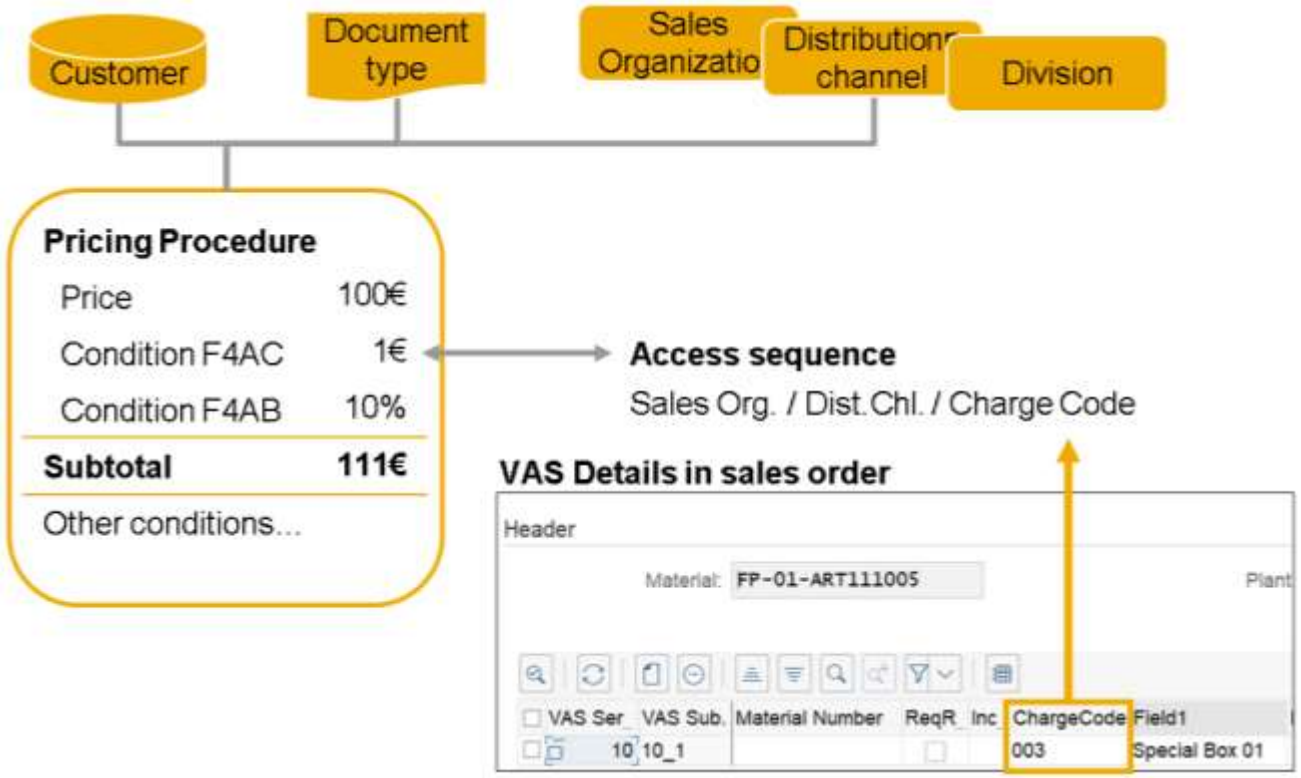
Ensure that VAS services are not only efficient but also profitable

The Key: Charge Codes

- Charge codes act as a bridge between VAS and pricing. They allow you to define specific costs associated with different VAS options.

Setting Up Pricing:

1. **Define Charge Codes:** In the system's customization settings, create charge codes that represent the various VAS services you offer (e.g., "Price Tagging", "Special Packaging").
2. **Assign Charge Codes:** When creating VAS condition records (defining VAS options), assign the appropriate charge code to each service. This links the service to its cost.
3. **Price Condition Types:** There are two main options for setting up pricing based on charge codes:
    1. **Absolute Surcharge (Condition F4AC):** This adds a fixed amount to the total cost for each unit of the VAS service used.
    2. **Percentage-Based Surcharge (Condition F4AB):** This adds a percentage markup to the base price of the item based on the VAS service cost.
4. **Pricing Procedure:** Include the chosen price condition type (F4AC or F4AB) in your existing pricing procedure. This ensures the VAS charges are automatically calculated and added to the final order price.



VALUE ADDED SERVICES – REDETERMINATION (1/2)

VAS redetermination report is a valuable tool for keeping VAS up-to-date and ensuring accurate pricing within sales & purchase orders

- Even after creating a sales or purchase order, circumstances might change, requiring adjustments to the requested VAS services. The VAS redetermination feature helps you address this need.

What it Does:

The VAS redetermination report (transaction FSH_VAS_RED) allows you to recalculate the VAS details (services and associated data) for multiple items within a sales or purchase order. This is useful when:

- **Condition records change:** If the underlying pricing or service definitions for VAS options are updated, you can use redetermination to ensure orders reflect the latest information.
- **Order modifications:** If a customer adds or removes items from an order, you can redetermine VAS to adjust the services accordingly.

Benefits:

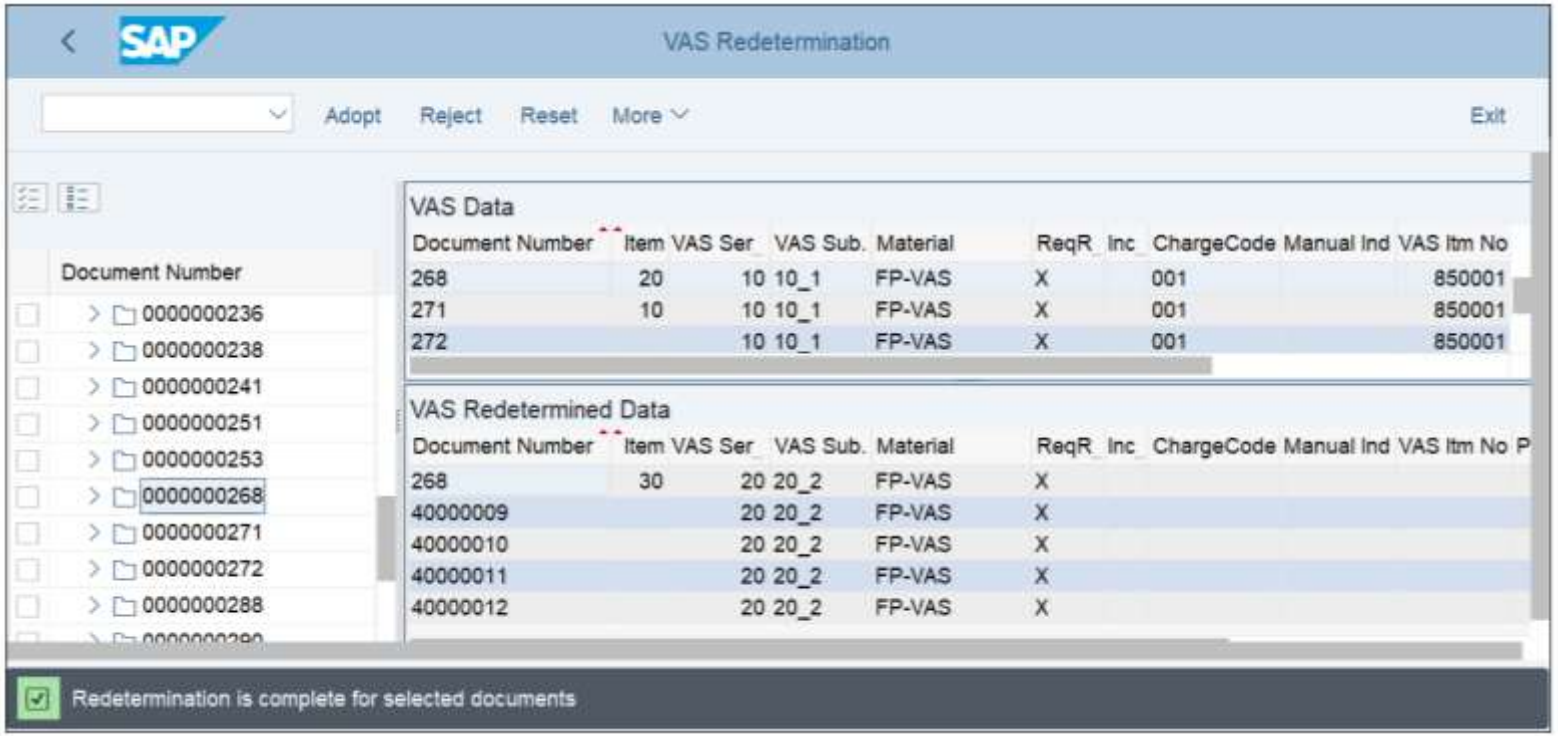
- Ensures orders reflect the latest VAS pricing and service definitions.
- Allows for quick adjustments to VAS when order details change.
- Provides flexibility to manage VAS details efficiently.

VALUE ADDED SERVICES – REDETERMINATION (2/2)

VAS redetermination report is a valuable tool for keeping VAS up-to-date and ensuring accurate pricing within sales & purchase orders

The Process:

1. **Run the Report:** Use transaction FSH_VAS_RED to select the sales or purchase order items you want to redetermine.
2. **Review and Decide:** The system proposes new VAS details based on current conditions. You can review these suggestions and:
    1. **Accept:** Apply the proposed changes to the order.
    2. **Reject:** Maintain the existing VAS details.



Redetermination of VAS in outbound deliveries is not supported.

Alternatively, Redetermine within Individual Documents:

You can also access the VAS redetermination function directly within specific sales or purchase order documents:

- **For Sales Orders:** Go to --> Value Added Service --> VAS Redetermination (in transactions VA01, VA02, VA41, VA42).
- **For Purchase Orders:** Environment --> Value Added Service --> VAS Redetermination (in transactions ME21N, ME22N).

VALUE ADDED SERVICES – ITEM CORRELATION FEATURES FOR OUTBOUND DELIVERY CREATION

VAS correlation streamlines the delivery process by ensuring VAS items are shipped efficiently along with the corresponding products

- **VAS Correlation:**
  - When creating outbound deliveries (shipping documents), you can use VAS correlation to define how VAS items are delivered with the main fashion item.
  - This ensures VAS items, like gift wrapping or garment bags, are shipped together with the corresponding clothing.

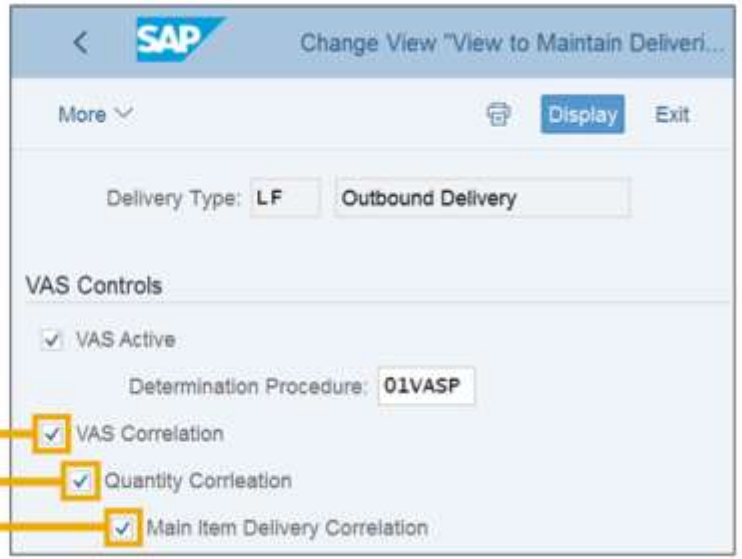
- **Important Note:** VAS correlation is only available for creating new outbound deliveries, not for modifying existing ones.

- **Configuration:** The specific delivery settings for VAS in outbound deliveries are defined in the system's customization settings (IMG) path: *Logistics Execution → Shipping → Deliveries → Define Delivery Types for Fashion Management*

- *Without VAS correlation, main items and VAS items could be delivered independently on different OBDs*

- *With quantity correlation, main items and VAS items will be delivered with their defined quantity relation in OBDs*

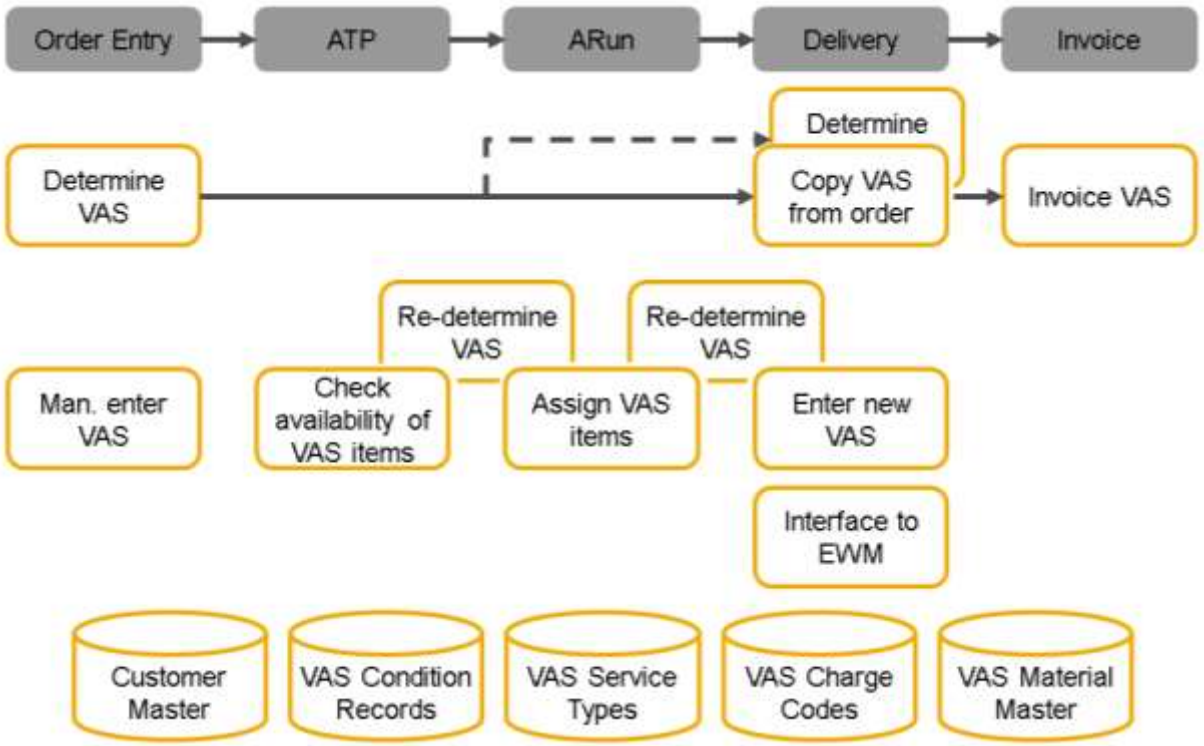
- *With main item delivery correlation, it is possible to prevent the delivery of main items in case one or several VAS items are not available at all*



TO GO FURTHER – VAS IN…SALES PROCESSES

VAS offers flexibility to cater to customer needs

- For services without materials, the focus is on data flow and potential extra charges. When materials are involved, inventory management and production planning become important considerations.



VAS without Materials (Information Only):

- **Entering VAS:** You can add these services during order creation either manually or through pre-defined conditions.
- **Data Flow:** VAS information is copied to the outbound delivery document. You can also maintain it directly within the delivery.
- **Customer Billing:** A surcharge can be added to the customer invoice to reflect the cost of the service.

VAS with Materials (Stock-Managed):

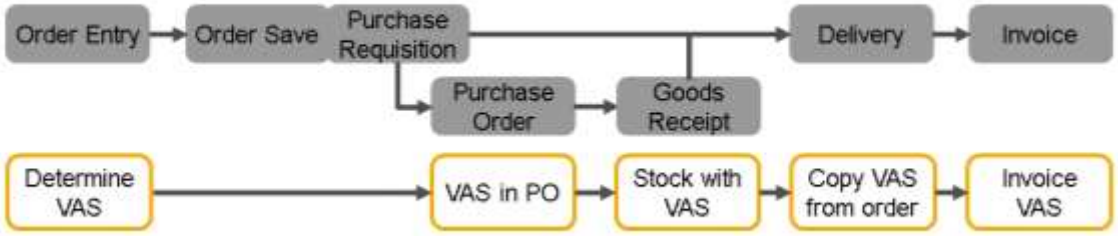
- **Material Availability:** The system can check the availability of these VAS materials using Available-to-Promise (ATP) functionality.
- **MRP Relevance:** VAS materials can be flagged as MRP (Material Requirements Planning) relevant, ensuring they are automatically included in production planning.
- **Segmentation & Seasonality:** Unlike clothing items, individual VAS materials are not typically considered for segmentation (customer groups) or seasonality.
- **Redetermination:** You can use transaction FSH_VAS_RED to recalculate VAS details, including materials, if needed.

TO GO FURTHER – VAS IN…SPECIAL SALES PROCESSES

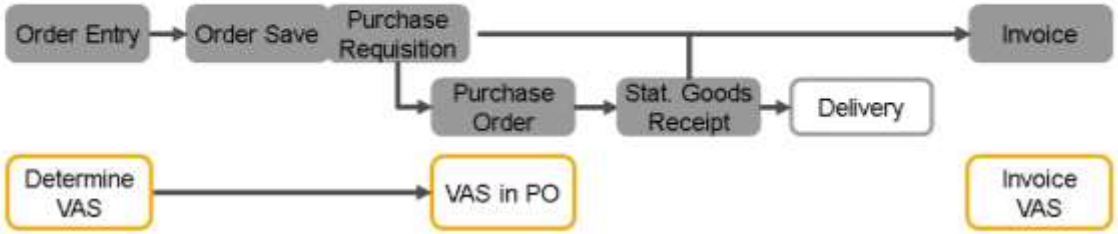
VAS offers flexibility to cater to customer needs

- Efficiently manage VAS procurement based on the specific requirements of sales orders

Purchase to order (PTO) handling



Third party order (TPO) handling



- **Procurement-Relevant VAS:**
  - In special sales orders, you can mark specific VAS items as "procurement relevant."
  - This triggers the system to copy the VAS information (including materials needed) to the generated purchase requisition.
- **Vendor-Prepared Stock (PTO):**
  - In cases where the customer has pre-arranged "Pick-Ticket-Only" (PTO) stock with the vendor, the process differs slightly:
    - VAS data might still be copied from the purchase requisition to the delivery document.
    - However, since the vendor has already prepared the special customer stock according to the PTO agreement, there won't be any additional VAS-related tasks required in the warehouse.
- **Benefits:**
  - Procurement-relevant VAS ensures you automatically order the necessary materials to fulfill the requested service.
  - PTO streamlines the process for pre-configured customer stock, reducing warehouse workload for VAS.

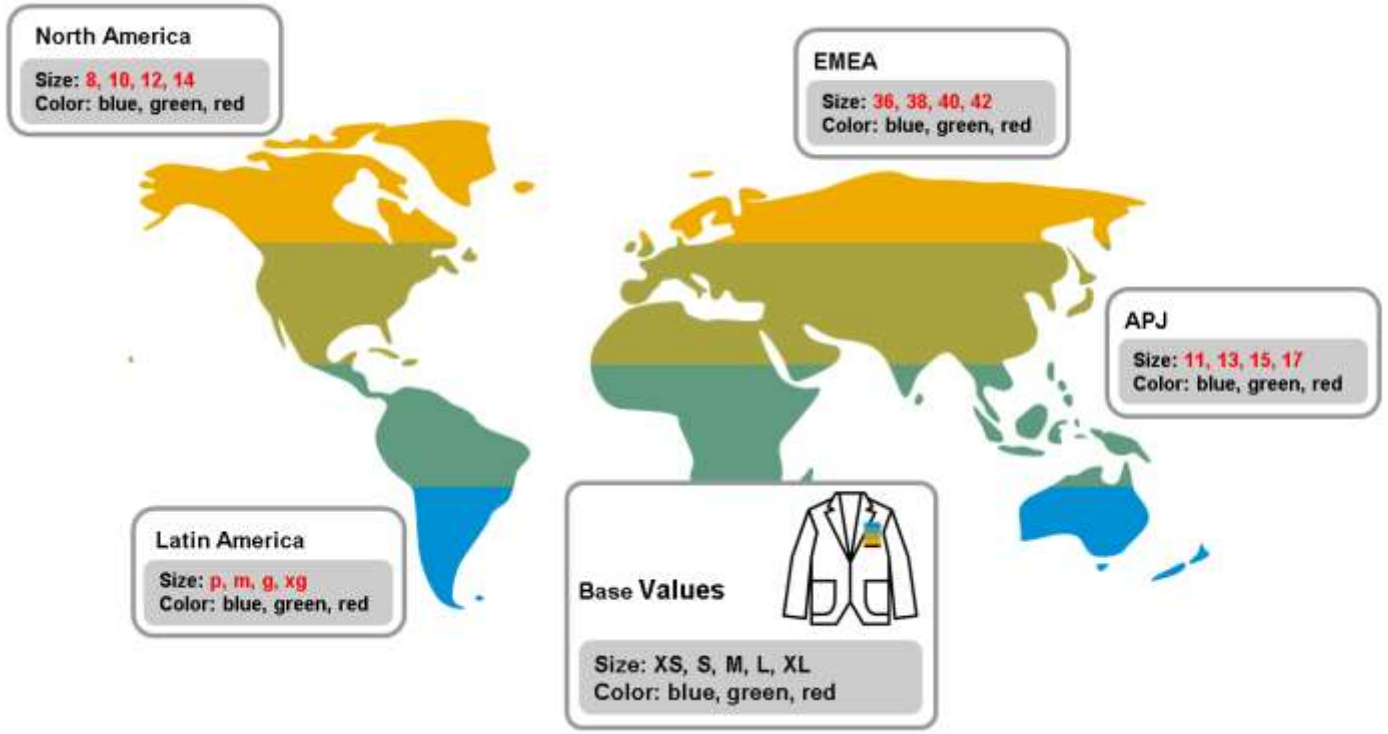
Fashion core concepts
Material Dimensions conversion

MATERIAL DIMENSIONS CONVERSION

Characteristic Value Conversion

- **Fashion around the world uses different sizing standards. For instance, a size 9 shoe in the UK might be a size 10 in the US. To avoid confusion, clothing and footwear often display sizes in multiple standards.**

- **This is where characteristic value conversion comes in.** This system ensures that fashion items have the correct size listed in all relevant standards. It's important to note that this conversion only applies to "variant creating characteristics," which are additional details (like size) that define specific versions (variants) of a base material (like a shoe design).



MATERIAL DIMENSIONS CONVERSION

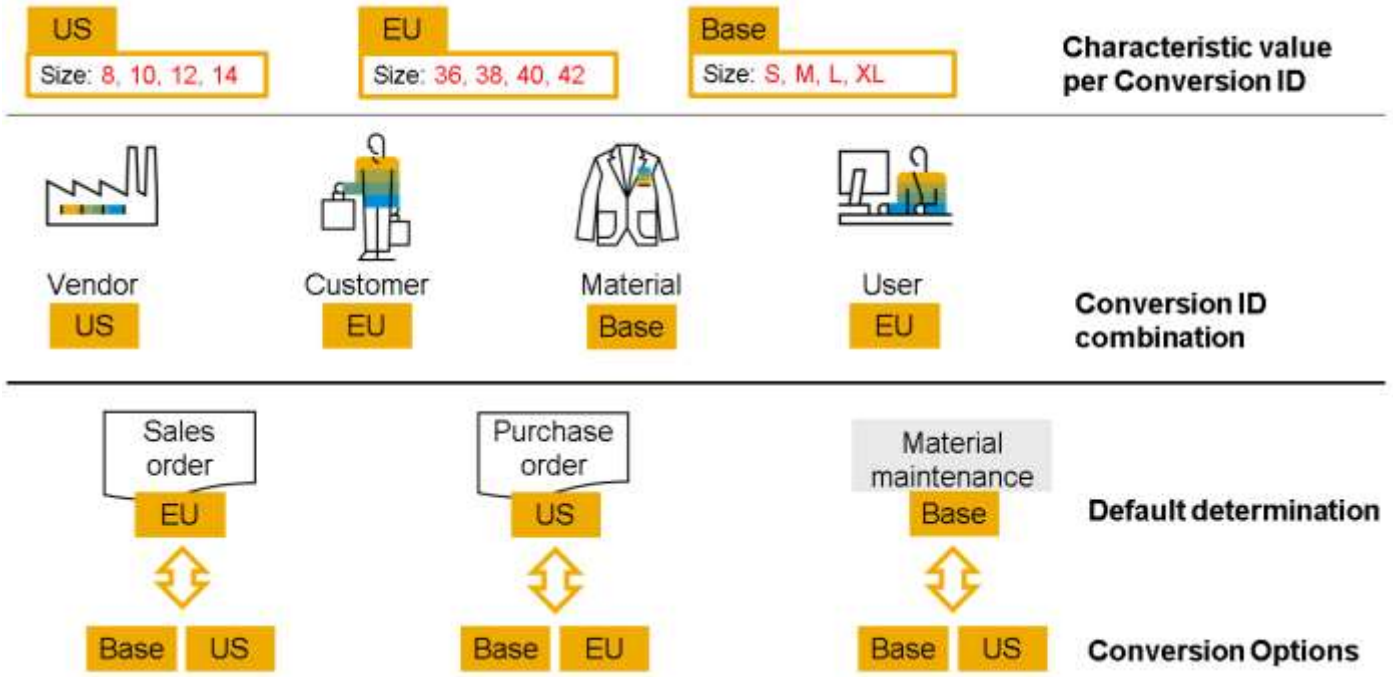
Behind the Scenes: How Characteristic Conversion Works

The Setup:

1. **Conversion Type Identifiers:** These identifiers link material masters, vendor masters, and customer masters. When a specific combination is used in a sales or purchase document, the system knows which conversion to apply.
2. **Conversion Logic:** This defines the conversion rules. It tells the system when to convert and how to convert individual values based on the chosen conversion type. You create and manage these rules in the system's customization settings.

In Action:

- **Sales and Purchase Documents:** When you use a material with a customer or vendor, the system can automatically convert the description based on your pre-defined logic.
- **Pushbutton Conversion:** You can also manually convert material descriptions in sales orders using the "Characteristic Value Conversion" button.
- **Multiple Characteristics:** Materials can have multiple size or color options. After conversion, the description will display all the converted values concatenated (joined together) for clarity.



MATERIAL DIMENSIONS CONVERSION

Behind the Scenes: How Characteristic Conversion Works

- Characteristic value conversion can be carried out based on any one of the following criteria:
  - Material
  - Customer/vendor
  - User defined parameter (FSH_SC_USR)
- Based on your requirement, you have to associate conversion ID to with one or more of the above. You do this in the following manner:
  - Material - In the Material master, you have to maintain the Mat. Conv. ID to associate a conversion ID with a Material.
  - Customer/Vendor - In the customer master, under Sales Area Data, maintain the Customer/Vendor ID using the Fashion specific data pushbutton.
  - User Parameter - Use transaction SU03. In the Parameters tab, maintain a unique value that represents a conversion indicator.

	Material ID	Customer / Supplier ID	User ID	Conv. Type
1			EU	EU
2		US		US
3		US	EU	US
4	EU	US	EU	EU
		…		…

Explanation

1. With no material and no partner setting, the sizes show as EU for an EU user. For other users the base unit will show
2. With no material and user setting for US partners, the US sizes will be shown
3. For a US customer which is used by a user with EU, the sizes will still show as US
4. But if the material is also set up as EU, then the sizes will be defaulted as EU

Material ID	Cust./ Supplier ID	User ID
x	x	x
x	x	
	x	x
	x	
x		
x		
		x

Sequence

The relevant customizing is to be found at *IMG → Logistics-General → Fashion Management → Cross-Applications → Characteristics Value Conversion*

Fashion core concepts
Transportation chain

PURCHASE ORDER DATELINES (1/2)

Datelines leverage transportation chains to offer valuable transparency into purchase order timelines

Understanding Transportation Chains:

- Datelines in purchase orders leverage **transportation chains** as a foundation.
- Transportation chains are essentially templates for defining lead times based on master data.
- You create this master data for dates and assign it, for example, at the vendor level.

Mapping the Journey:

- A transportation chain acts as a map, detailing the entire route between the vendor and your receiving location (distribution center or store).
- It outlines the individual transportation times for each segment of the journey.

Dataline Generation:

- Based on the transportation chain, the system calculates key dates associated with the purchase order item.
- These calculated dates are saved and displayed in a dedicated tab within the item details of the purchase order, known as the **dateline**.

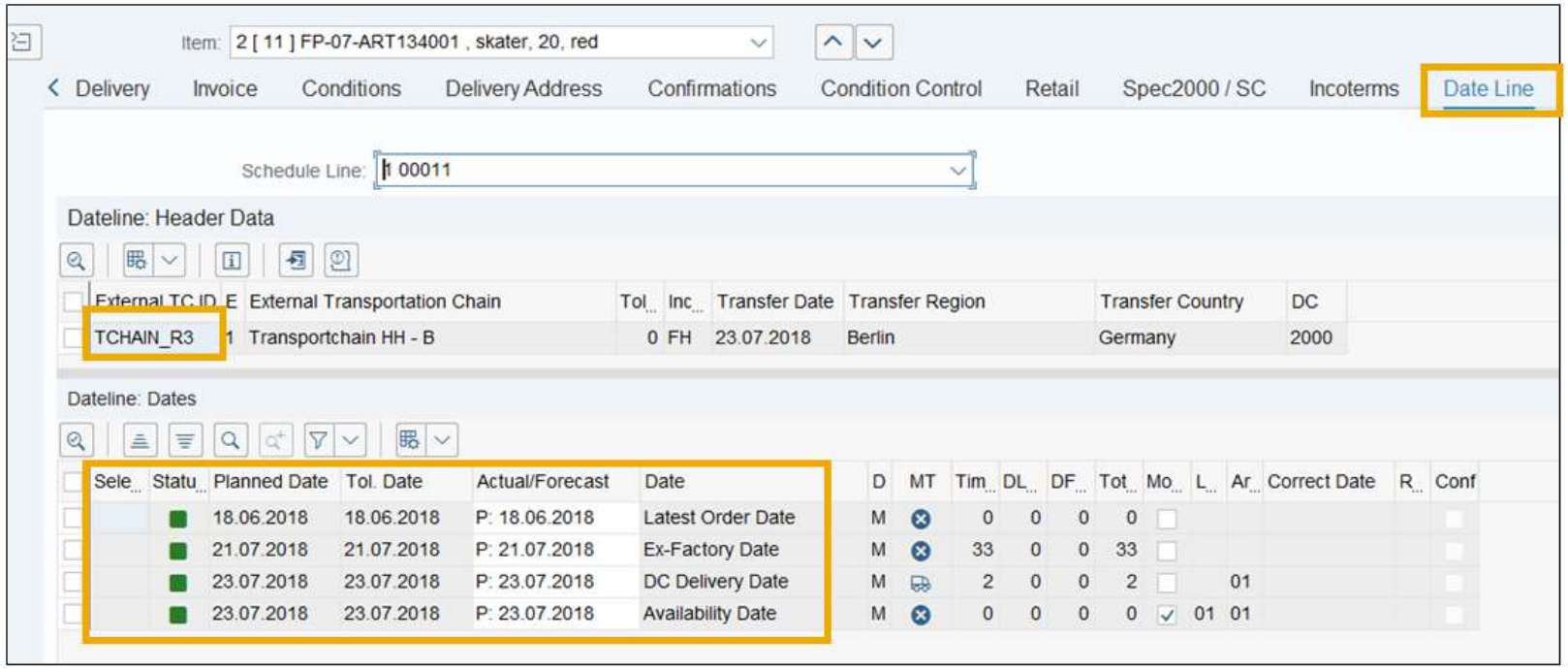
PURCHASE ORDER DATELINES (2/2)

Datelines leverage transportation chains to offer valuable transparency into purchase order timelines

Dataline Information:

The dateline provides a clear overview of the following crucial dates for each item:

- **Latest Order Date:** The latest possible date to place the order to ensure on-time delivery.
- **Ex-Factory Date:** The anticipated date the goods will leave the vendor's facility.
- **Departure Date:** The estimated date the goods will depart from the origin point (e.g., port).
- **Arrival Date:** The estimated date the goods will arrive at the destination point (e.g., port).
- **DC Delivery Date:** The projected date the goods will be delivered to your distribution center.
- **Availability Date:** The estimated date the goods will be available for further processing or sales.



Benefits of Datelines:

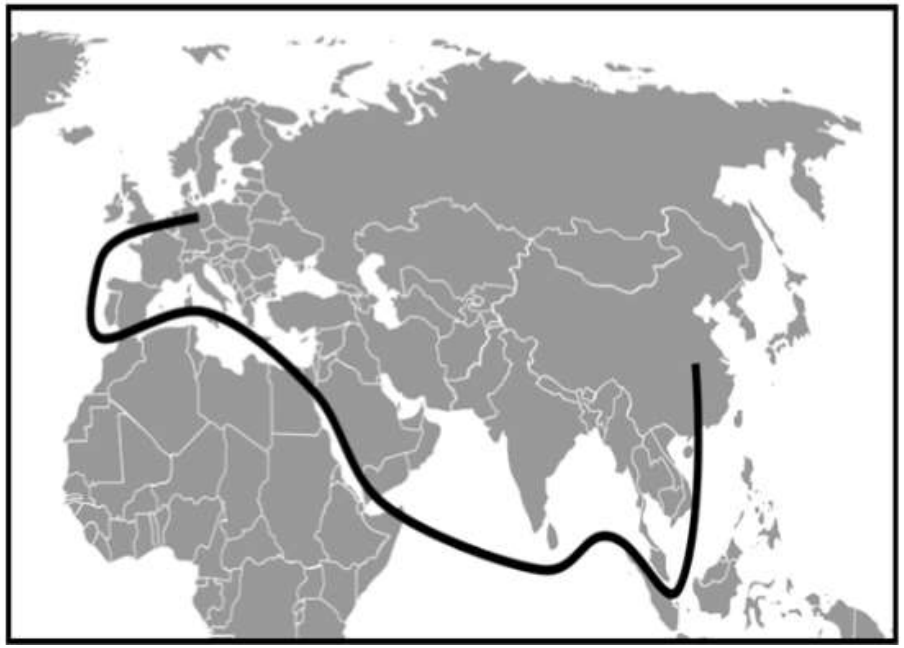
- **Enhanced Monitoring:** Datelines provide a clear picture of the entire purchase order processing timeline, allowing you to monitor each stage and anticipate potential delays.
- **Improved Supply Chain Visibility:** By visualizing the movement of goods across the supply chain, datelines help identify bottlenecks and optimize logistics.
- **Informed Decision-Making:** Dataline insights can support informed decisions regarding purchase orders, inventory management, and overall supply chain planning.

TRANSPORTATION CHAINS (1/2)

Act as a blueprint, defining the itinerary, transportation methods, and estimated times

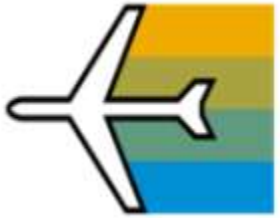
Transportation Chain: The Itinerary Blueprint

- A transportation chain doesn't represent a physical shipment but rather a template for a possible **itinerary**.
- It maps a single route with distinct segments for transporting goods ordered from a vendor.
- Two main itinerary types exist:
  - **Vendor to Distribution Center (DC) or Store:** This is the most common scenario, outlining the journey from the supplier to your receiving location.
  - **Distribution Center to Store:** This describes the internal movement of goods from your DC to a retail store.



Defining Key Dates:

- Transportation chains serve as a foundation for defining crucial dates within the supply chain.
- These dates are essentially placeholders with names (e.g., "delivery date") and a defined sequence, but no specific calendar date assigned yet.



TRANSPORTATION CHAINS (2/2)

Act as a blueprint, defining the itinerary, transportation methods, and estimated times

Data lines: Bringing Dates to Life

- A separate structure called the **dateline** stores concrete calendar dates based on the transportation chain information.
- Data lines display these dates with their corresponding names, the time interval since the preceding date, and the actual calendar date.
- To activate dateline functionality in purchase orders, you need to enable the appropriate business function.

Transportation Mode and Duration:

- Transportation chains also specify the **mode of transport** (e.g., sea freight) for each route segment.
- Additionally, they define the associated **transportation time** for each segment.

Combined Functionality:

- By considering the transportation chain's itinerary, mode of transport, and transportation times, the system calculates the key dates for each purchase order item.
- These calculated dates are then populated within the dateline, providing a clear timeline for the purchase order's processing.

Route Segments

Transportation Times Table

Dep.Ct...	Name	Dep....	Description	ArrCtry...	Name	Arr.R...	Description	Mode of transport	Transportation Time in Days
CN	China	020	Shanghai	DE	Germany	02	Hamburg	03 Sea	20
CN	China	020	Shanghai	DE	Germany	06	Hessen	05 Air	2
CN	China	120	Shandong	CN	China	020	Shanghai	01 Road	3
DE	Germany	02	Hamburg	DE	Germany	11	Berlin	01 Road	2
DE	Germany	06	Hessen	DE	Germany	11	Berlin	01 Road	2
TH	Thailand	11	Samut Prakan	TH	Thailand	S	Phatthaya	01 Road	3
TH	Thailand	40	Khon Kaen	DE	Germany	06	Hessen	05 Air	2

Fashion core concepts
Segmentation

SEGMENTATION – WHY DO CUSTOMERS NEED IT?

Manage additional product differentiation beyond basic variants

The Challenge:

- In fashion retail, basic attributes like color and size (article variants) aren't always enough to differentiate products for customers.

Customer Needs:

- **Quality Levels:** Customers may want to distinguish between different quality tiers (e.g., A, B) for the same article.
- **Country of Origin:** Knowing the origin (e.g., France, China) might be important for some customers.

The Problem:

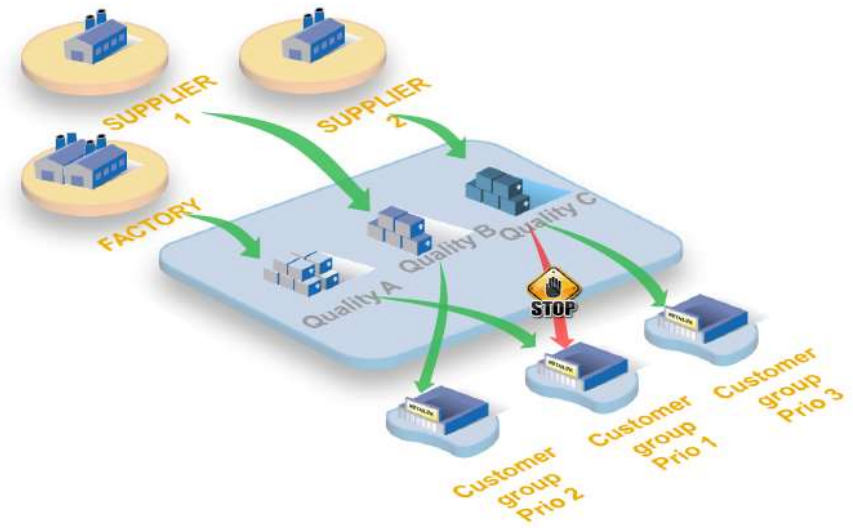
- Creating separate master data entries for each combination (color, size, quality, origin) would be cumbersome and inefficient.

Desired Solution:

- A system that allows for further distinction without creating excessive data.

Possible Solutions:

- **Characteristic Management:** Utilize characteristics within the existing master data structure to define quality levels and origin as separate attributes.
- **Classification Systems:** Implement a classification system to categorize articles based on quality or origin, without creating new master data entries.



SEGMENTATION REASONS

Segment demand or stock elements in a structured way, without creating additional material master data

- Segmentation provides a strategic approach to organizing fashion business, enabling smarter decision-making across various areas

What it Does:

- **Categorizes Demand:** Group customer needs based on specific criteria (e.g., style preference, price range).
- **Categorizes Supply:** Organize your stock by relevant attributes (e.g., material type, season).
- **Optimizes Matching:** Improve efficiency by matching customer demand with the most suitable stock based on your defined segmentation logic.

Benefits:

- **Reduced Data Complexity:** Avoids creating endless material data for every possible segmentation value.
- **Enhanced Inventory Management:** Categorized stock allows for better organization and planning.
- **Targeted Marketing:** Segment customer data to personalize marketing efforts and promotions.
- **Improved Logistics:** Optimized matching between demand and supply streamlines logistics processes

SEGMENTATION – ELEMENTS

Terminology & structuration

- Technically there is no difference between physical and logical reasons for segmentation.

- Several segmentation characteristics can be combined into a segmentation structure.

- **Segmentation Characteristics**

Defines segments to be used, i.e. quality, channel, country of origin, etc….Specifies possible values for each segment.

- **Segmentation Structure**

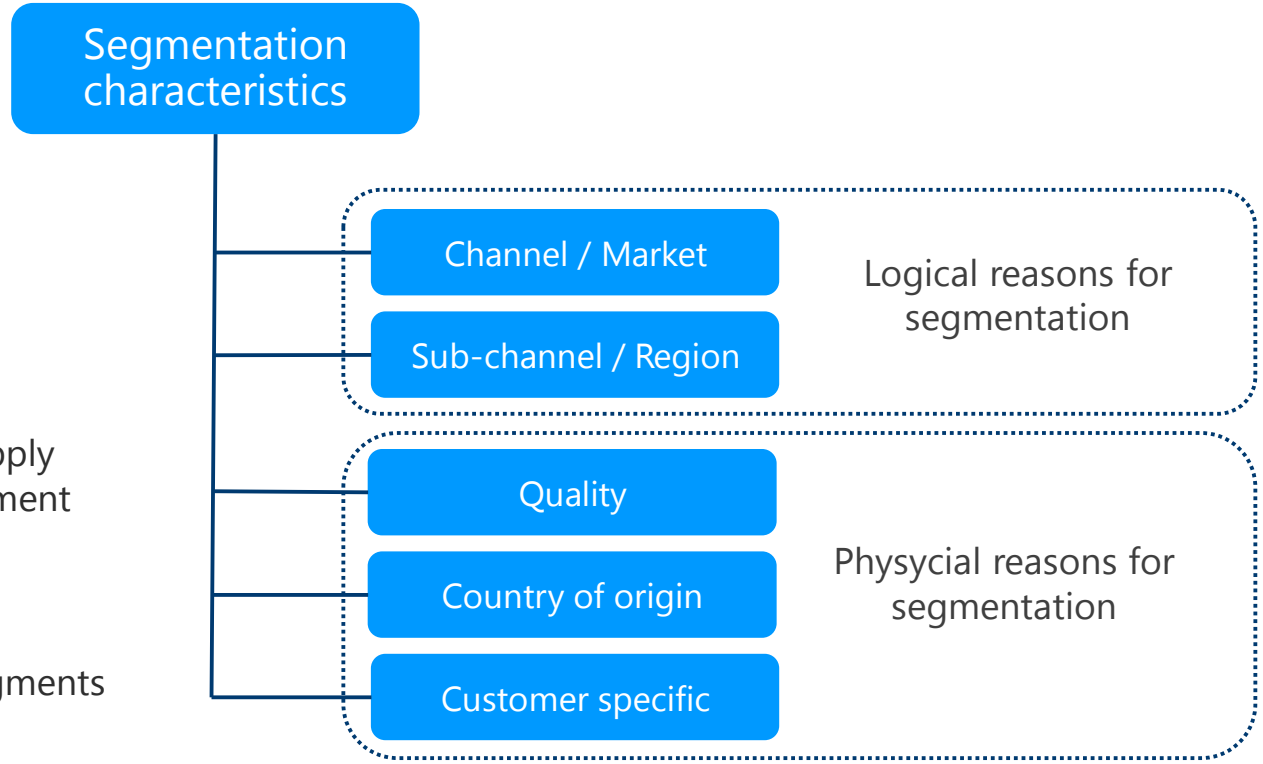
One or more segmentation characteristics combined.

- **Segmentation Strategy**

Define how segments are handled in different situations, e.g., MRP supply proposal, Arun handling of sales orders, planned independent requirement consumption.

- **Segmentation Scope**

Defines relevancy of segmentation for both requirement and stock segments or requirement only.



SEGMENTATION EXAMPLES

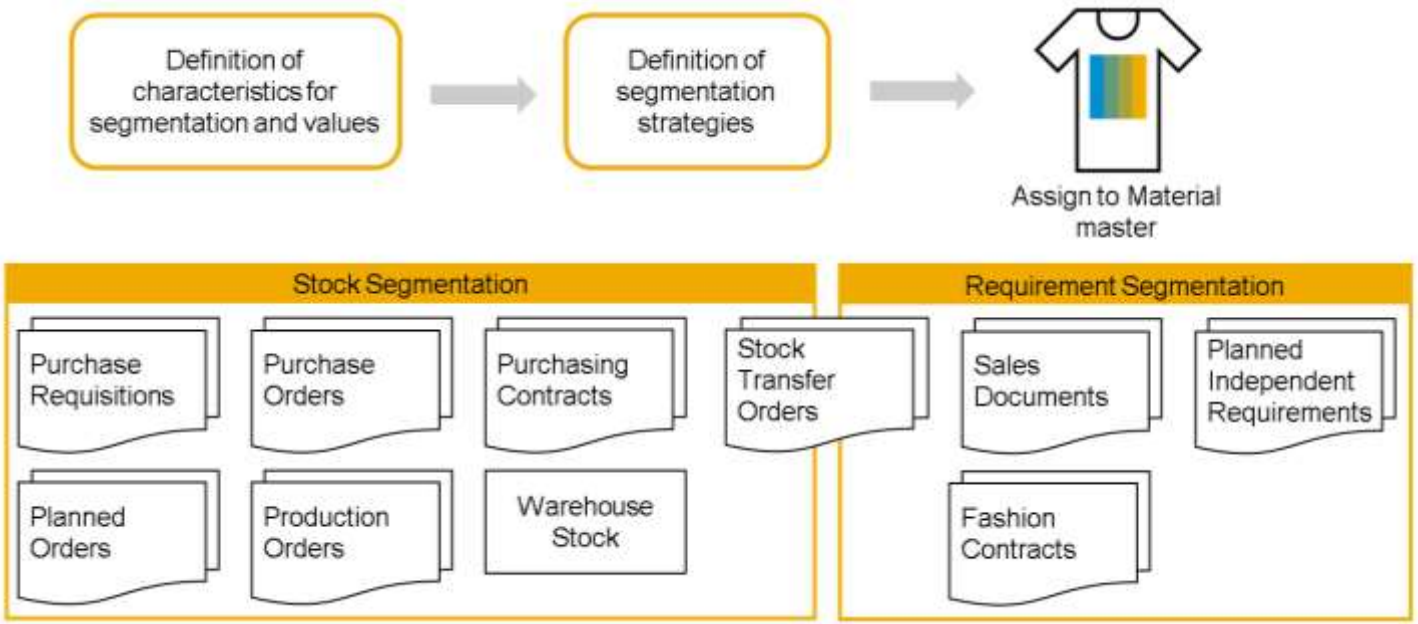
Acts as a data thread that connects various logistics activities, ensuring information consistency for efficient stock management

Key Points:

- **Widespread Impact:** Segmentation typically affects all stages of the logistics processes.
- **Data Flow:** Segmentation information (like requirement and stock segments) is carried through relevant documents depending on the process (supply or demand) and its stage.

Segmentation and Stock Transfers:

- **Segmented to Segmented Locations:** Stock transfer orders (STO) can carry both requirement and stock segment information. This ensures consistent segmentation practices throughout the supply chain.
- **Segmented to Non-Segmented Locations:** When transferring stock from a segmented location to a non-segmented one, the STO can only carry the requirement segment information. This is because the receiving location might not use segmentation or have different segmentation structures.



SEGMENTATION STRATEGY

A well-defined segmentation strategy acts as the invisible conductor, orchestrating the flow of information and materials

Key Function:

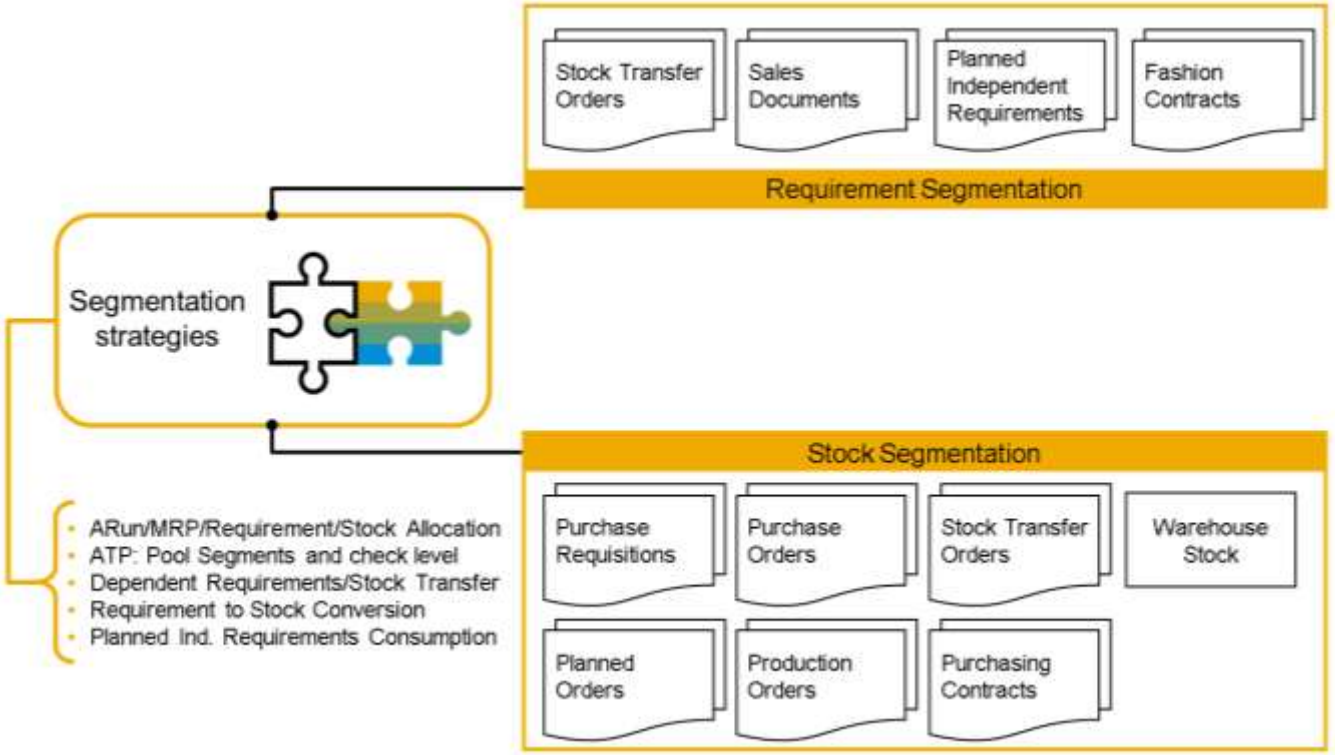
- A segmentation strategy defines how different stock segments (based on quality, origin, etc.) can fulfill customer requirements categorized by their own segments.

Matching Mechanisms:

- **ARun/MRP/Requirement/Stock Allocation:** These processes rely on the segmentation strategy to determine how to allocate specific stock segments to fulfill particular requirement segments.
- **ATP (Available-to-Promise):** ATP checks stock availability while considering the segmentation strategy. It can include optional pooling logic to combine different stock segments if they can all satisfy a requirement.

Additional Considerations:

- **Dependent Requirements/Stock Transfer:** Segmentation plays a role in managing stock transfers between facilities, ensuring the transferred stock aligns with the receiving location's requirements.
- **Requirement to Stock Conversion:** The strategy dictates which stock segments MRP generates to fulfill requirements.
- **PIR Consumption:** When planned independent requirements (PIRs) are used, the strategy defines how their segments are consumed by actual demand segments from sales orders etc.



SEGMENTATION STRUCTURE CREATION

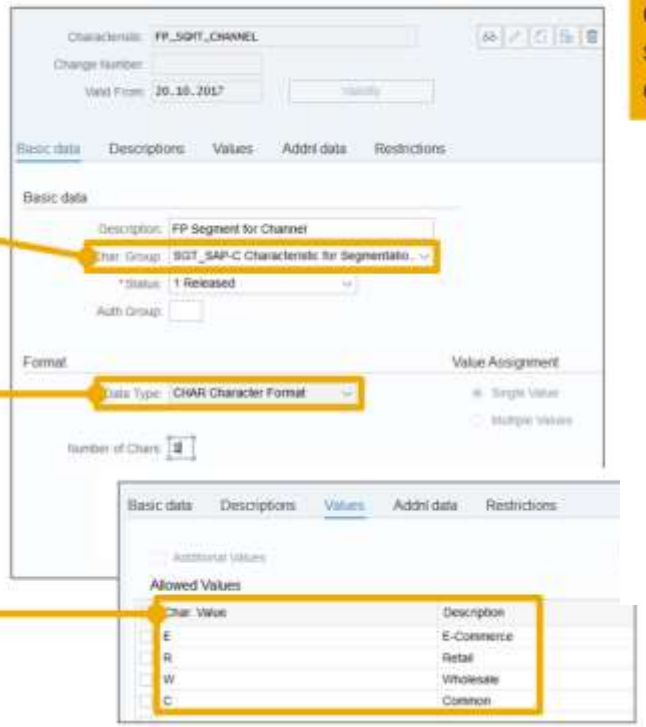
All centralized within transaction CT04

- Segmentation characteristics are defined in transaction CT04

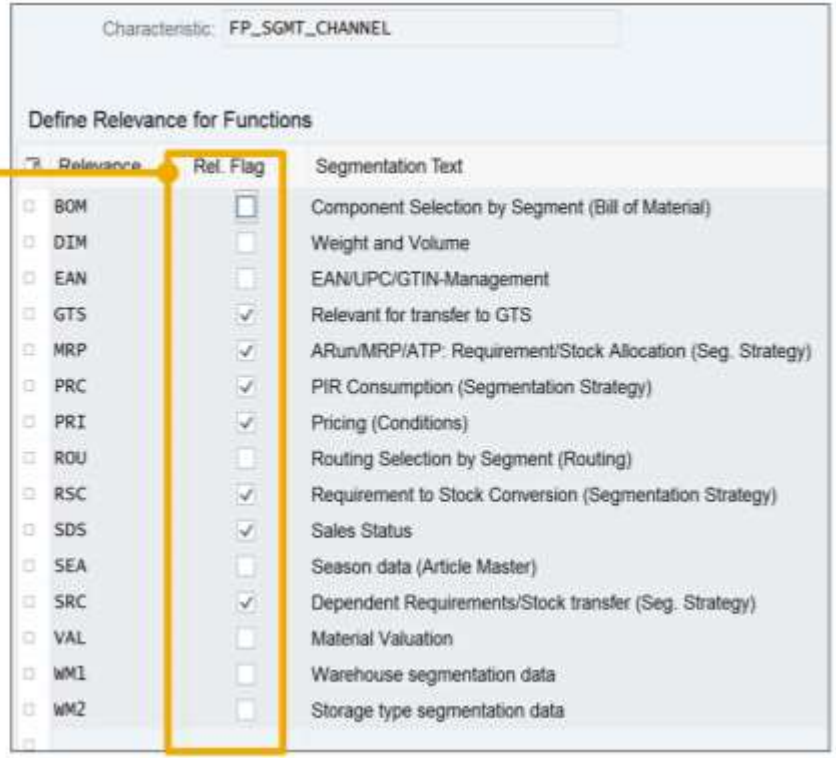
The characteristic must be assigned to characteristic group: **SGT_SAP-C Segmentation Characteristic**

Only characteristic with data type **CHAR** are supported

Characteristic values are defined together with descriptions



Relevance for various applications can be defined for segmentation characteristics



- Relevance are defined under additional data in transaction CT04.

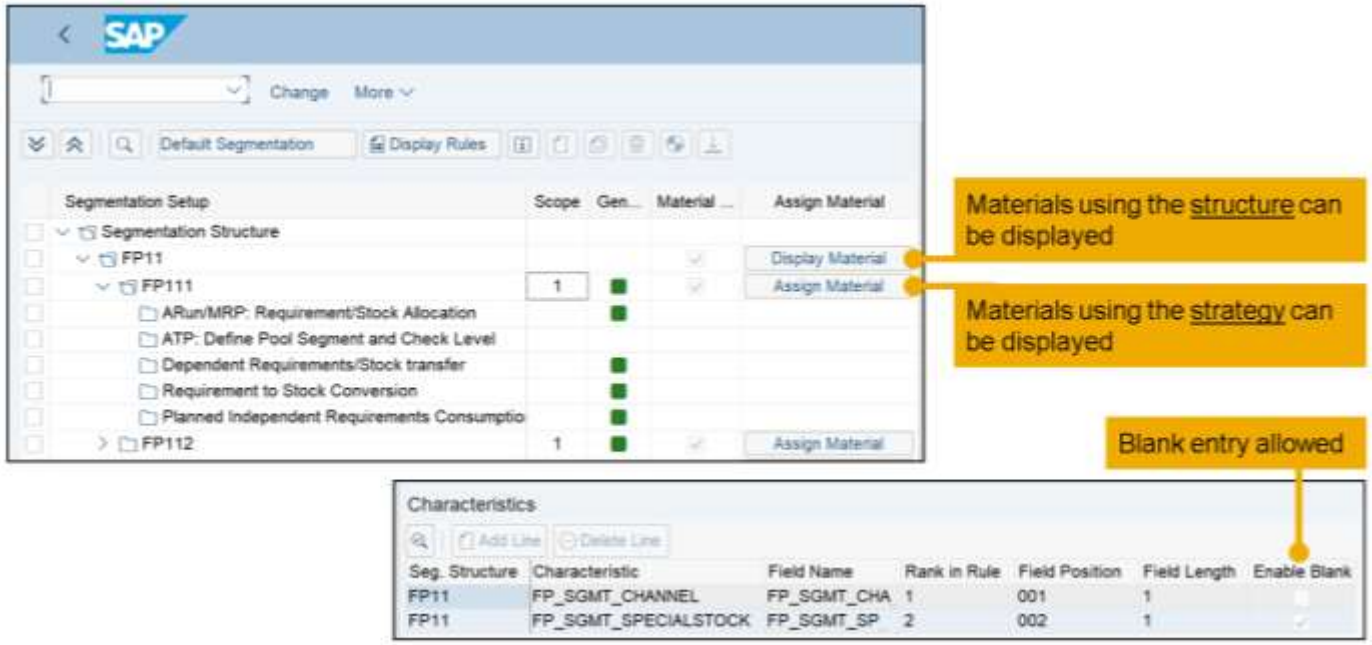
- Flagging allows additional master data maintenance or enables additional functionality

SEGMENTATION SET UP

Comprehensive approach to defining and managing segmentation structures, catering to both data accuracy and user convenience

Key Points:

- **Relevant transaction: SGT_SETUP - Segmentation Setup.**
- **Segmentation Structure:** You define a structure with a name to categorize your products or customers based on specific characteristics.
- **Adding Characteristics:** Within the structure, you can add relevant characteristics (e.g., quality level, origin) in a defined sequence to create a hierarchical classification system.
- **Mandatory Segmentation:** When segmentation is active, the system requires a valid segment value for the corresponding field in various documents like sales orders.



Enabling Blank Entries:

- The "Enable Blank" option allows you to permit blank entries during document creation, even though segmentation is active.
- In the example, "blank" for the special stock segment actually represents "normal stock" as defined in the structure test. This allows users to leave the field empty while still adhering to the overall segmentation logic.

Benefits of Enabling Blank Entries:

- Provides flexibility during data entry, especially for scenarios where segmentation might not always be immediately applicable.
- Reduces potential errors by allowing users to leave the field blank instead of forcing an irrelevant segment selection.

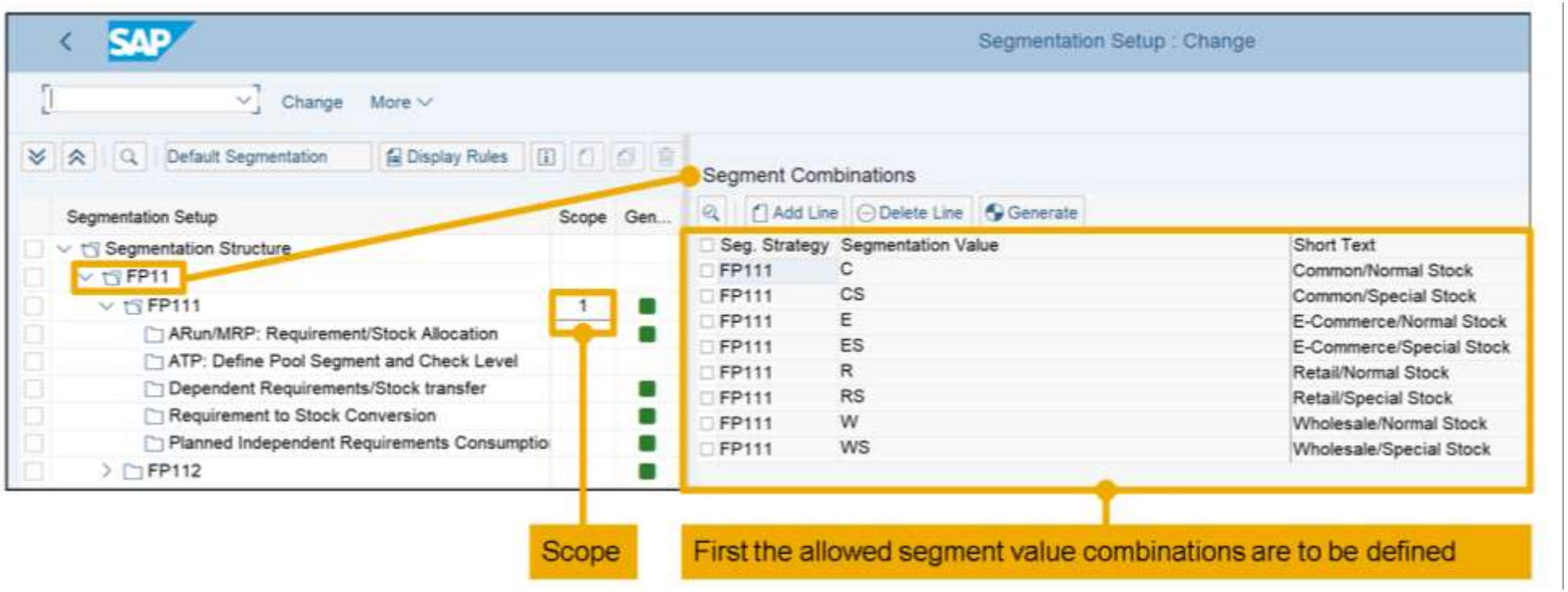
Important Consideration:

- Overuse of blank entries can decrease the effectiveness of segmentation in managing your inventory and customer data. It's crucial to find the right balance between flexibility and maintaining data integrity.

SEGMENTATION STRATEGIES – SCOPE & VALUE COMBINATION (1/2)

Segmentation strategy scope allows to tailor MRP processes to optimize inventory management and fulfillment

- A segmentation strategy can have different scopes depending on how it interacts with MRP:
  - **Scope 1:** (Requirements & Stock Segments)
    - Both requirement segments and stock segments are maintained and considered during MRP.
    - MRP uses the strategy to determine which stock segments can fulfill specific requirement segments.
    - This offers the most granular control over stock allocation based on segmentation.
  - **Scope 2:** (Requirements Segments Only)
    - Only requirement segments are maintained, and stock segments are not used in MRP.
    - MRP identifies the segment of the requirements (e.g., source channel) but assumes all requirements can be fulfilled by common stock.
    - Procurement would then be triggered for this common stock.



SEGMENTATION STRATEGIES – SCOPE & VALUE COMBINATION (2/2)

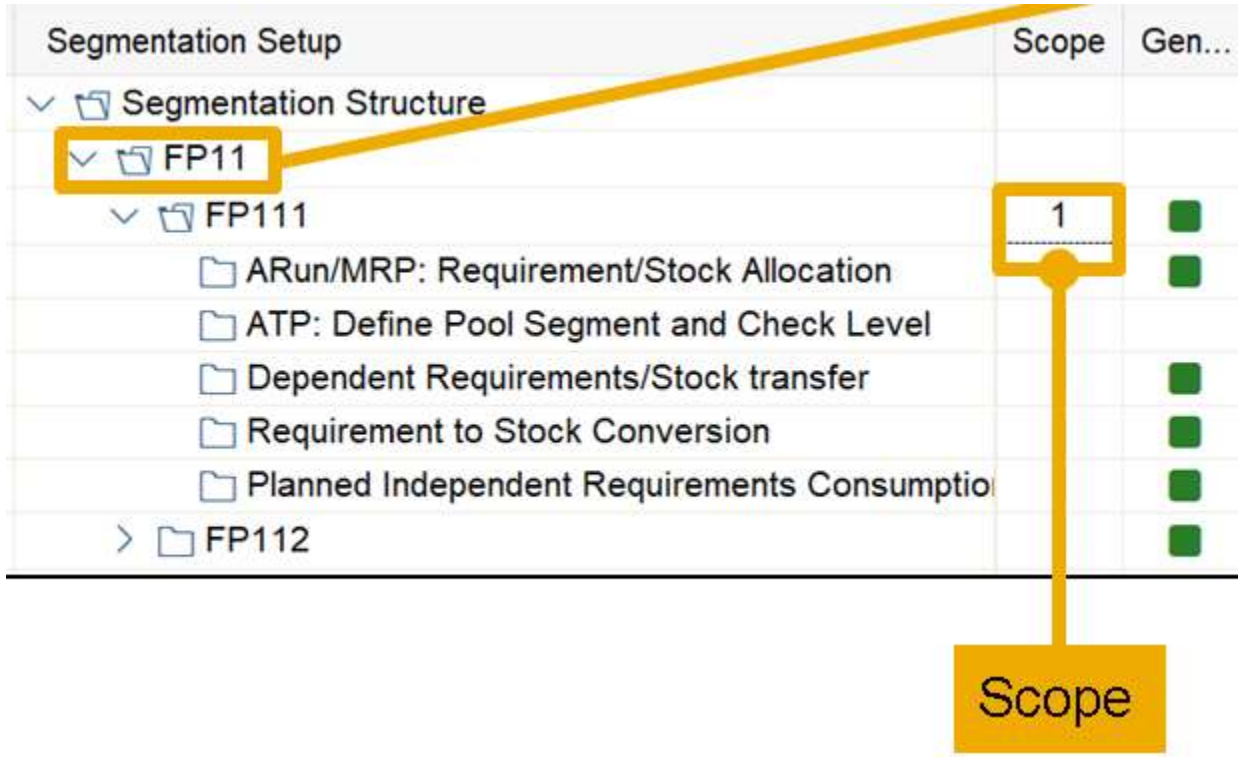
Choosing the right scope

The appropriate scope depends on specific needs:

- **Scope 1:** Ideal for scenarios where precise allocation based on both requirement and stock segments is crucial (e.g., differentiating quality levels).
- **Scope 2:** Suitable for situations where segmentation is primarily used for demand categorization (e.g., tracking sales channel) and a single stock type is sufficient.

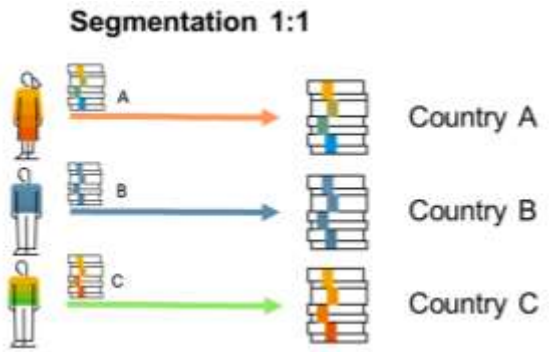
Benefits:

- **Scope 1:** Provides the highest level of control over stock allocation based on segmentation.
- **Scope 2:** Simplifies the segmentation process by focusing on requirement categorization.

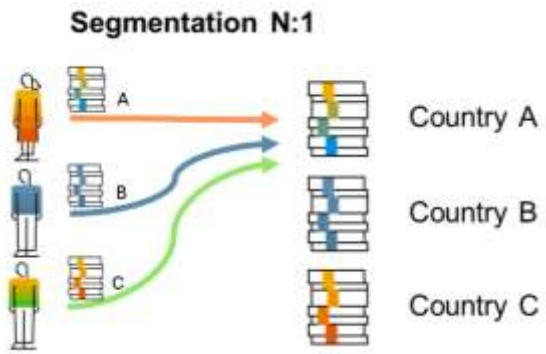


SEGMENTATION STRATEGIES – SUPPORTED USE CASES

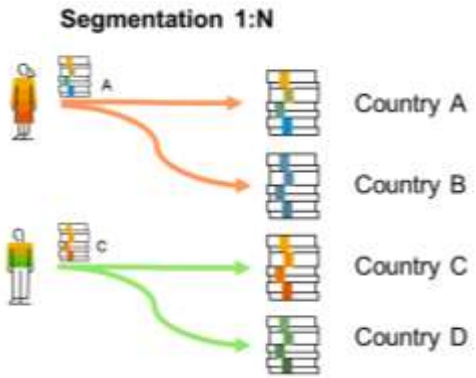
Supported use cases to map DEMAND : SUPPLY



- A particular requirement segment can be mapped to a particular stock segment.
- The particular stock segment is mapped to a particular requirement segment.



- Any requirement segment can be mapped to a particular stock segment.
- The particular stock segment is mapped to a certain set of requirement segments.



- A particular requirement segment can be mapped to a certain set of stock segments.
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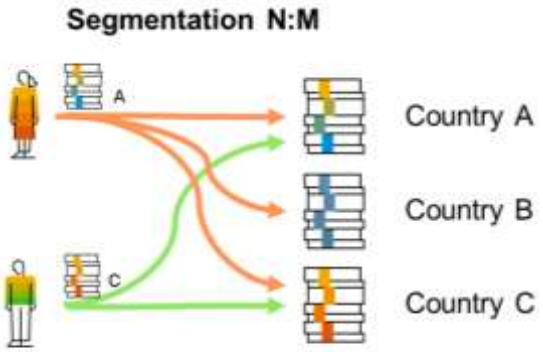
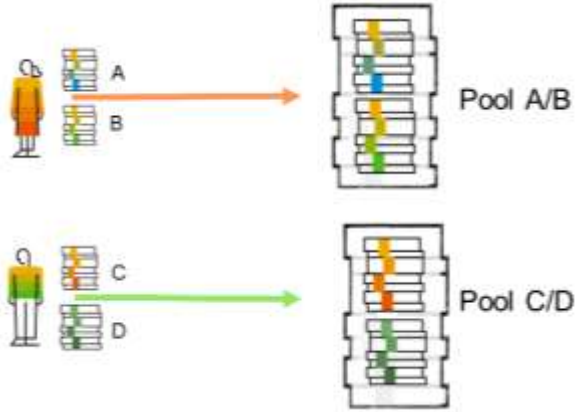


- Any requirement segment can be mapped to a certain set of stock segments.
- A certain set of stock segments is mapped to a any requirement segment



- The Pool segment specifies an individual or a combination of valid requirement segments or stock segments.
- All requirement segments from a pool are mapped to all stock segments (n:n).

SEGMENTATION STRATEGIES – CREATION

Available activities to create segmentation strategies

For a structure, various strategies can be created	Description	Possible mapping
FP111		
ARun/MRP: Requirement/Stock Allocation	Specify how the requirement segments use the stock segments during the material requirements planning run and ARun	1:1 N:1 N:M
ATP: Define Pool Segment and Check Level	Define stock segments that can be used as pools to confirm requirements against	1:1 Pools
Dependent Requirements/Stock transfer	Define the assignment of stock segments to requirements segments between two sites (plants). The assignment in this table is used when a dependent requirement is generated	1:1 N:1
Requirement to Stock Conversion	Define the stock segment to be proposed for a specific requirement when the system creates new proposals	1:1 N:1
Planned Independent Requirements Consumption	Define the requirements segments of the PIRs and the requirements segments of customer requirements that consumes the requirement segments of the PIRs	1:1 N:1
FP112		
ARun/MRP: Requirement/Stock Allocation		
ATP: Define Pool Segment and Check Level		
Dependent Requirements/Stock transfer		
Requirement to Stock Conversion		
Planned Independent Requirements Consumption		

SEGMENTATION – DEFAULT VALUES IN DOCUMENTS (1/2)

Segmentation defaults can enhance efficiency and accuracy

Key Points:

- **Transaction:** SGT_SETUP is used to configure segmentation settings.
- **Defaulting:** You can define a default value for a specific segment based on a field in a relevant table.

Applicable Transactions:

This functionality can be used to set segment defaults for various transactions in your fashion business, including:

- Sales Order
- Purchase Order (Stock & Requirement Segment)
- Purchase Requisition (Stock & Requirement Segment)
- Planned Order
- Production Order
- Safety Stock
- Outline Agreement
- Planned Independent Requirements

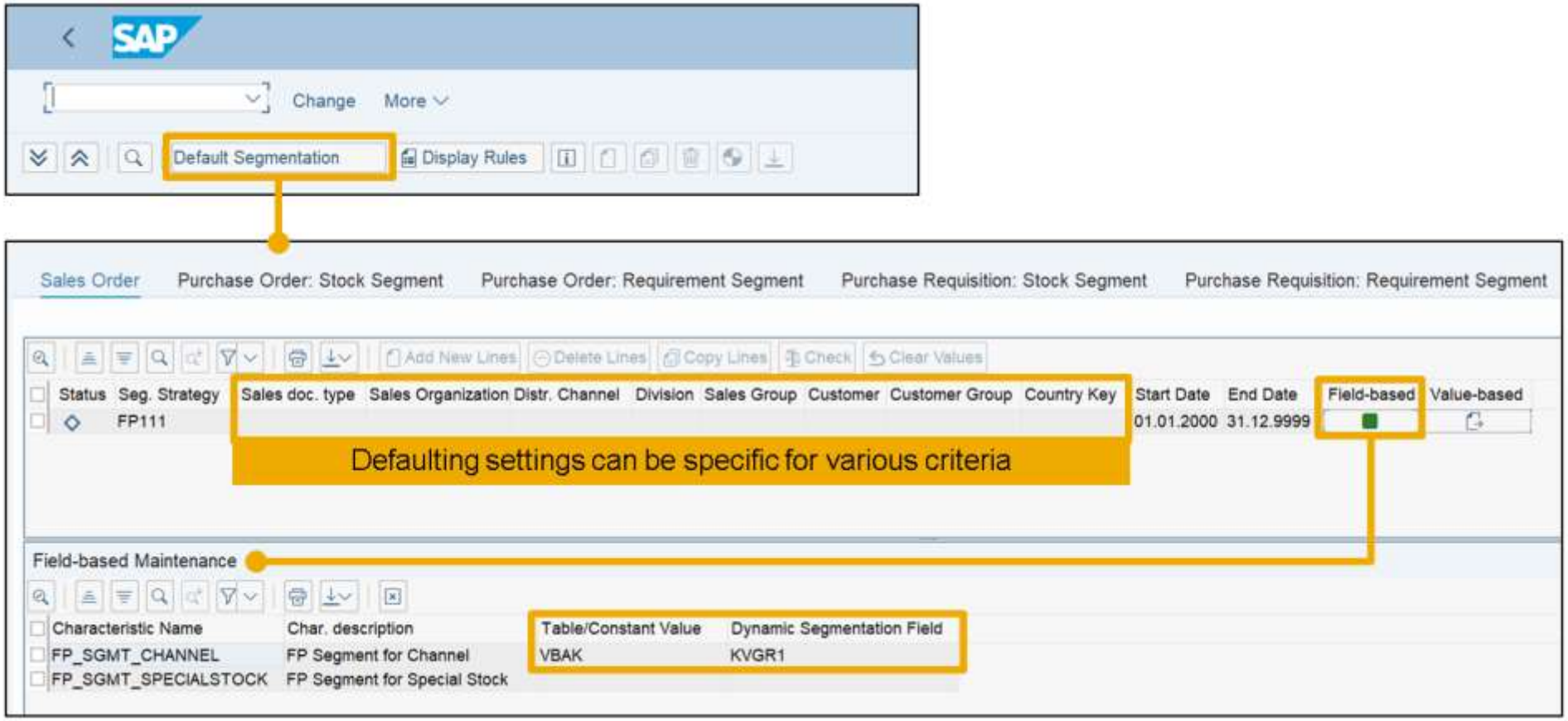
Benefits:

- Streamlines data entry by automatically populating segment values based on existing data.
- Improves data consistency by ensuring default values align with other information in the transaction.
- Saves time for users by reducing manual entry of segment information.

SEGMENTATION – DEFAULT VALUES IN DOCUMENTS (2/2)

Concrete example

- The system checks field KVGR1 (sales channel) from table VBAK (sales order header) during sales order creation. If a value exists, it's used as the default value for the "channel" segment.

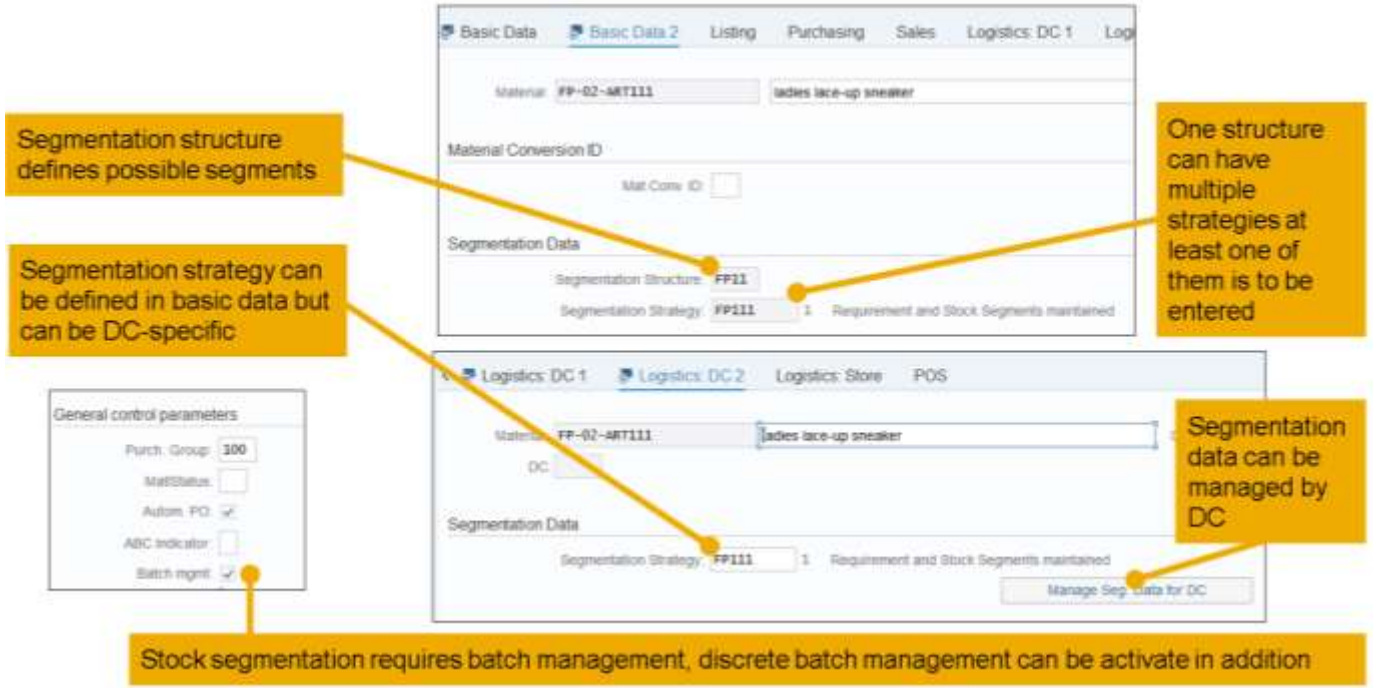


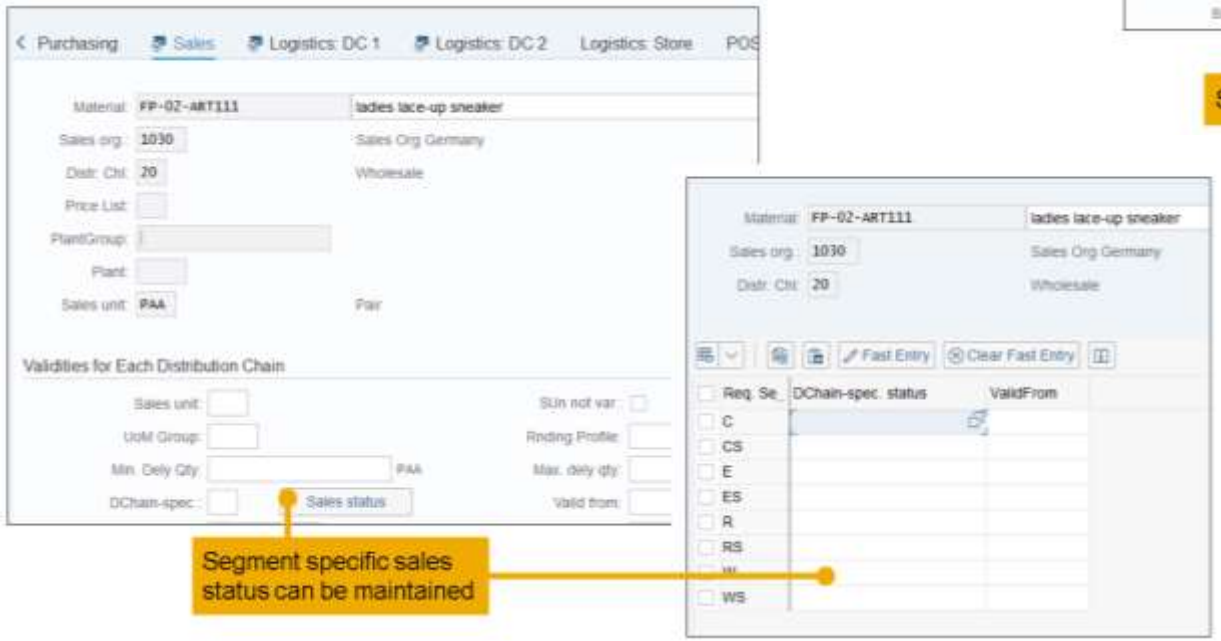
MATERIAL MASTER SEGMENTATION

Organize and manage materials segmentation assignment

Key Points:

- **Assignment Location:** Segmentation structures are assigned to materials in the material master views "Basic Data 2" (MM41) and "Logistics DC 2" (MM42).
- **Immutability:** Once assigned and the material is in use, segmentation structures cannot be changed (ensuring data consistency).





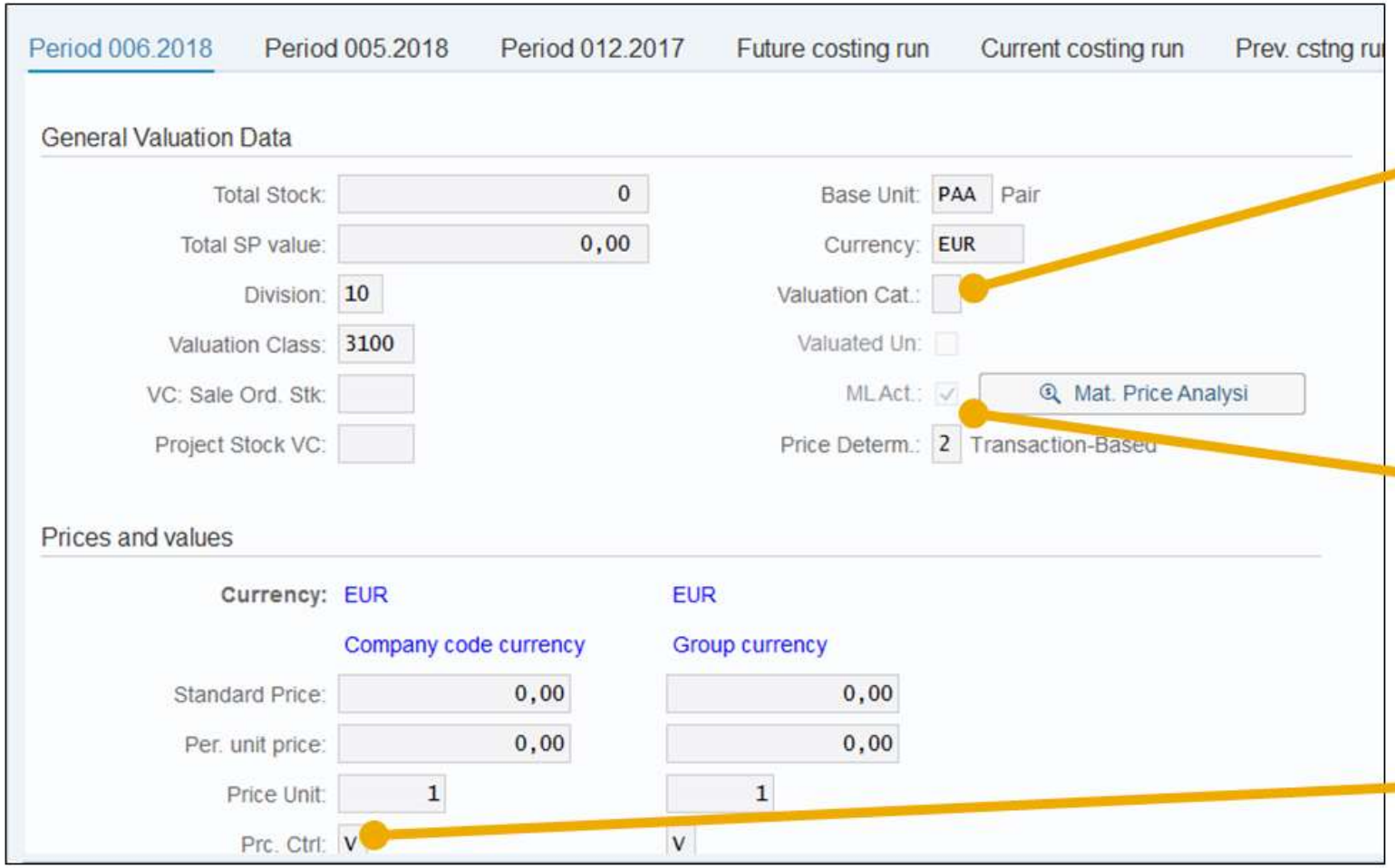
Benefits of Segmentation:

- **Granular Material Data Management:** By defining segment characteristics relevant to specific business areas (like Sales), you can maintain additional material master data based on segmentation values.
- **Example: Sales Status by Segments:** The example illustrates how the sales status can be maintained not just for a material/variant, but also for specific combinations of segmentation values.

MATERIAL MASTER SEGMENTATION – VALUATION

Material Ledger and split valuation work together to provide a comprehensive costing and valuation framework

- Accurate costing
- Enhanced control
- Improved decision making



Split Valuation – Individually value various stocks of a particular material within a valuation area.

- A material subject to split valuation is managed as multiple partial stocks, each valued separately.
- All valuation-relevant transactions (goods receipt, issue, invoice receipt, physical inventory) are executed at the partial stock level.
- Specifying the impacted partial stock during transactions ensures only that stock is affected by value changes.
- Total stock reflects the sum of stock values and quantities from all partial stocks.

Material Ledger (ML) – Calculates actual material costs and allows for parallel valuations in various currencies.

Key Functionalities:

- Calculates actual cost for materials, semi-finished, and finished goods.
- Enables costing based on multiple valuations (legal, group, profit center).

Data Significance:

- ML data forms the foundation of actual costing.
- Manages valuation prices in multiple currencies and valuations.
- Supplements the material master record.
- Applicable to materials in sales order and project stock.

Price control "V", moving price is to be used

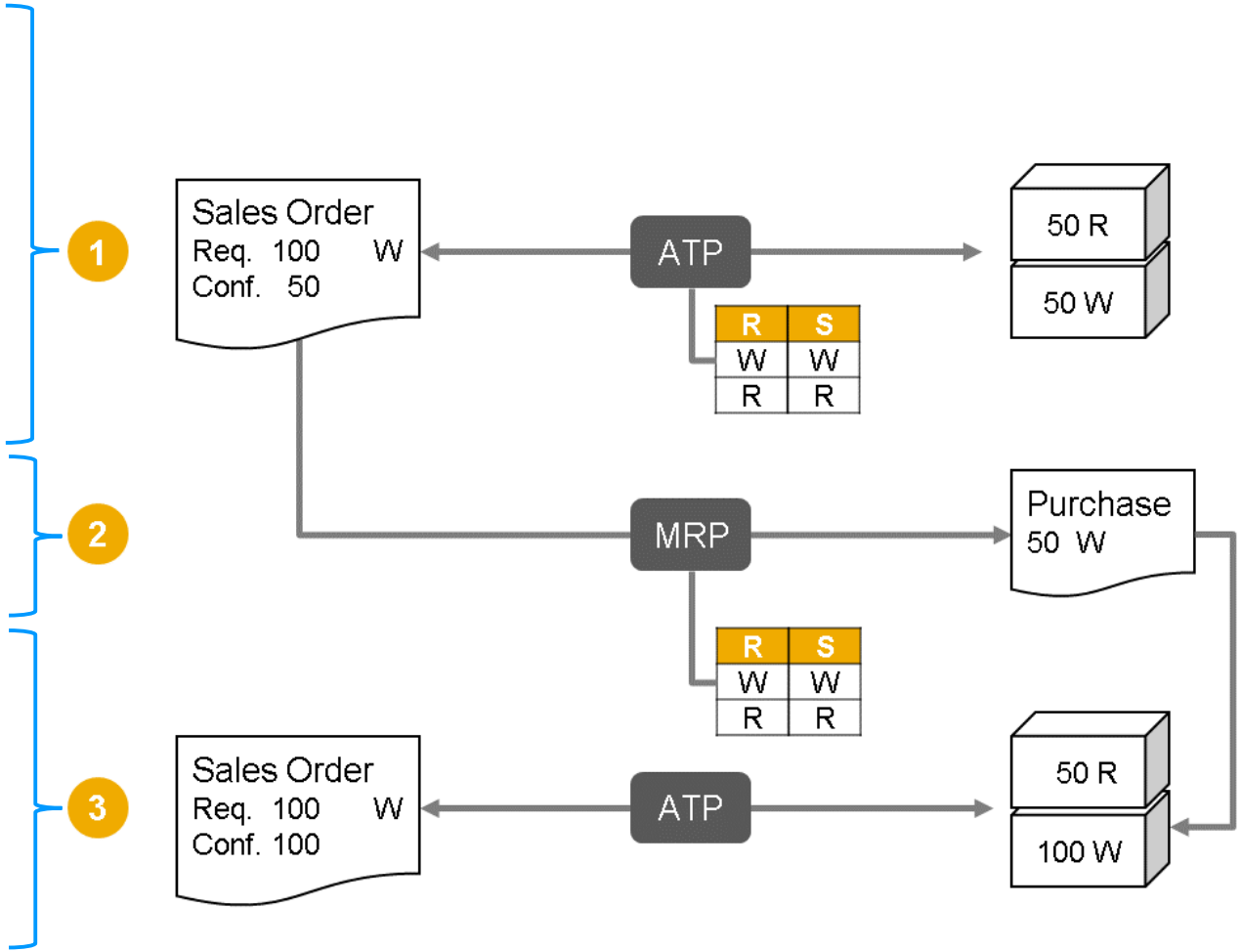
SEGMENTATION – EXAMPLE 1

Segmentation mapping in details

1. **Sales Order:** A customer orders 100 units, categorized as requirement segment "W" (e.g., high-quality material).
2. **ATP Check:** The system finds 50 units of stock segment "W" and 50 units of "R" (e.g., regular quality) available in the warehouse.
3. **Segmentation Strategy:** The defined strategy states that "W" requirements can be covered by "W" stock and "R" requirements by "R" stock.
4. **Partial Confirmation:** Due to limited "W" stock, the sales order is partially confirmed for 50 units.

5. **MRP Trigger:** The remaining open demand (50 units) triggers MRP to initiate procurement.

6. **Segmentation Strategy (Procurement):** The strategy specifies that for "W" demand, purchase stock segment "W" should be procured.
7. **Stock Replenishment:** More "W" stock is received.
8. **ATP Confirmation:** With sufficient stock, a new ATP check can now fully confirm the sales order.



SEGMENTATION – EXAMPLE 2

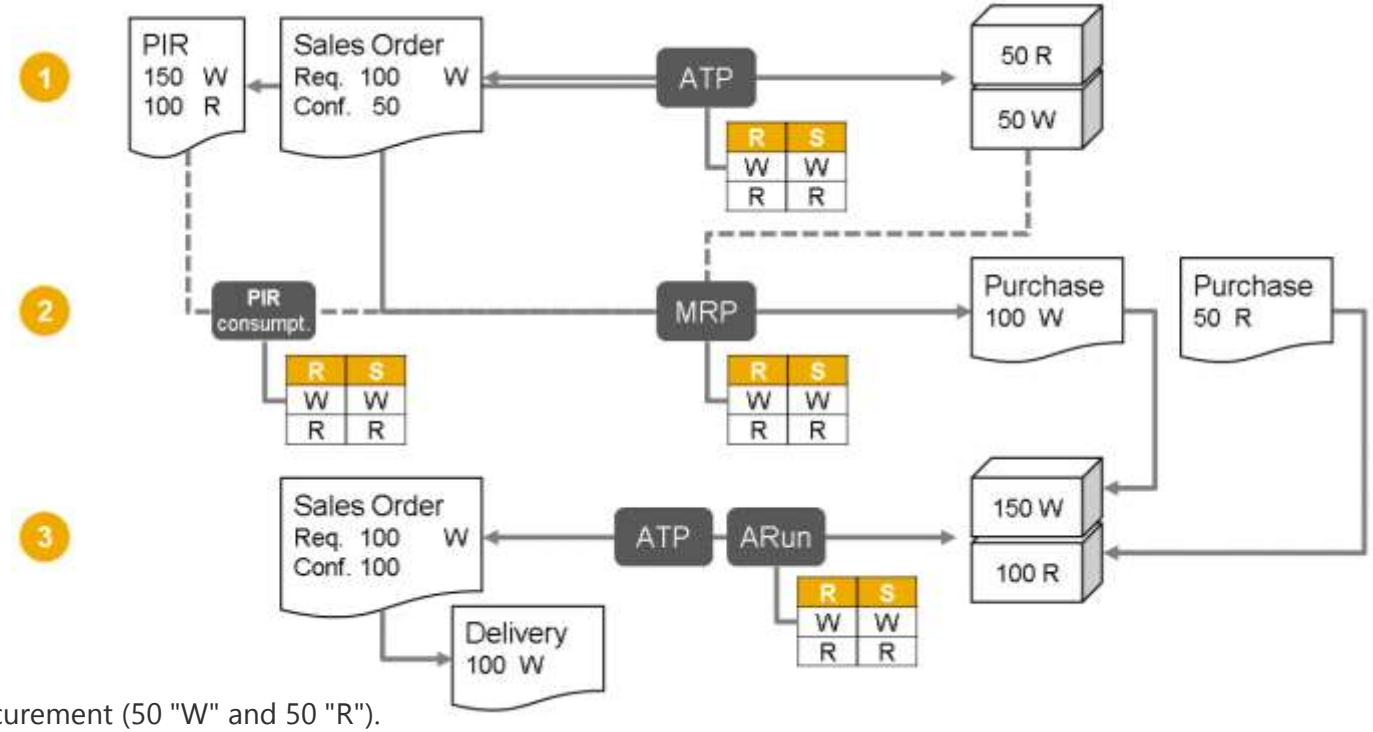
Segmentation mapping in details

1 ATP (available to promise):

1. **Sales Order**: A customer orders 100 units, classified as requirement segment "W" (e.g., high-quality material).
2. **ATP Check**: The system finds 50 units of stock segment "W" and 50 units of "R" (e.g., regular quality) available.
3. **Segmentation Strategy (ATP)**: Based on the strategy, the sales order is partially confirmed for 50 units (matching "W" requirement with "W" stock).
4. **Planning Figures (PIR)**: The system also considers existing planning figures (Planned Independent Requirements):
    1. 150 units of segment "W"
    2. 100 units of segment "R"

2 Requirement Planning (MRP):

5. **Open Requirement:** MRP recognizes the remaining 50 units of "W" demand from the sales order.
6. **Segmentation Strategy (Procurement):** The strategy dictates purchasing stock segment "W" to fulfill "W" demand. MRP plans to procure 50 units (150 PIR - 100 already consumed in sales order).
7. **Consumption Logic:** MRP considers existing stock and planned consumption when calculating procurement needs.
8. **"R" Segment Planning:** MRP identifies a need for 50 additional units of "R" (100 PIR - 50 existing stock).



3 Stock Replenishment and Fulfillment:

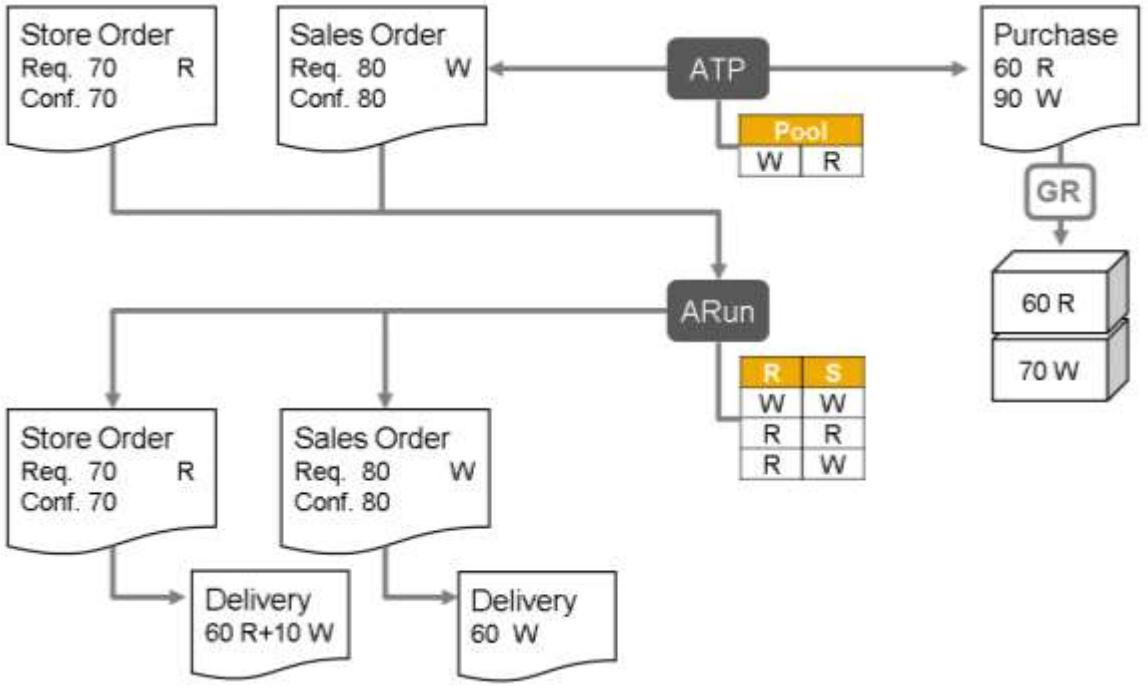
9. **Stock Receipt:** New stock arrives, fulfilling the planned procurement (50 "W" and 50 "R").
10. **ATP Confirmation:** With sufficient stock, a new ATP check confirms the entire sales order for 100 units.
11. **Supply Assignment (ARun):** ARun allocates the full 100 units of "W" stock to the sales order.
12. **Delivery:** The complete order can now be delivered to the customer.

SEGMENTATION – EXAMPLE 3

Segmentation mapping in details

1 Scenario:

1. **Sales Order & Store Order:**
   1. A sales order for 100 units (segment W) is created.
   2. A store order for 70 units (segment R) also exists.
2. **Future Stock Check (ATP):**
   1. The system finds a future vendor purchase order with 60 units (segment R) and 90 units (segment W) available.
3. **Segmentation Strategy (Pooling):**
   1. Pooling allows both W and R stock to fulfill W requirements.
   2. Based on pooling, both the sales order (80 units) and store order (70 units) are confirmed.



2 Discrepancy and ARun:

1. **Goods Receipt:** Only 70 units of segment W are received instead of the expected 90.
2. **ARun Allocation (No Pooling):**
   1. ARun prioritizes matching segments (W with W and R with R) during allocation.
   2. Since pooling isn't used here, ARun might process orders chronologically.

3 Potential Outcome:

1. **Store Order Fulfillment (Priority):**
   1. If the store order is processed first, it might receive all available 50 units of R stock.
2. **Partial Sales Order Fulfillment:**
   1. Depending on ARun configuration, it could allocate some W stock to the store order (reducing available W for the sales order).
   2. With only 20 W stock remaining, the sales order might only be partially fulfilled (up to 20 units).

Purchasing

- Source of supply determination
- Purchase Contracts for Fashion (Flexible Purchasing Commitment)
- Purchase Order Workbench
- Subcontracting

Purchasing
Source of supply determination

OVERALL PROCESS FLOW – FROM MRP DEMAND TO PURCHASE ORDER

How MRP drives procurement decisions

Key Players:

- **Material Requirements Planning (MRP):** A system that calculates the materials needed to meet production or sales demands.
- **Buyer:** The person responsible for sourcing and purchasing merchandise.

Scenario Breakdown:

1. **MRP Demand:** The latest MRP run generates a consolidated demand for 10,000 units of the new jacket model for the upcoming collection.
2. **Buyer Investigation:** The buyer assesses the purchase possibilities for the jacket, considering:
    1. **Quota Arrangements:** Potential limitations on sourcing from specific countries.
    2. **Contracts:** Existing agreements with vendors that might influence purchasing decisions.
3. **Vendor Selection:** The buyer decides to use the regular vendor already linked to the product master in the system.

Next Steps:

- Based on the MRP demand and vendor selection, the buyer can create a purchase order in SAP for the 10,000 jackets from the chosen vendor.

Additional Considerations:

- The buyer might need to check the vendor's capacity to fulfill such a large order within the required timeframe.
- Depending on the fashion retail business's setup, additional approvals might be needed before finalizing the purchase order.

AUTOMATIC VS. MANUAL PURCHASE ORDER GENERATION

A flexible approach to purchase order generation, allowing for both automated conversion based on MRP and manual creation

Key Points:

- **Automatic vs. Manual:** Purchase orders can be generated either automatically based on purchase requisitions or manually created as needed.
- **The MRP Connection:** Material Requirements Planning (MRP) typically triggers the automatic creation of purchase requisitions for materials needed to fulfill demand.

Automatic Conversion Requirements:

For automatic conversion of purchase requisitions into purchase orders, specific indicators must be set in three key master data records:

1. **Material Master (Plant Data):** This ensures the material at a specific plant can leverage automatic conversion.
2. **Vendor Master (Purchasing Data):** The chosen vendor for the purchase order must be configured for automatic conversion based on purchase requisitions.
3. **Plant Master:** The plant itself needs to have the automatic conversion indicator activated.

Benefits of Automation:

- **Improved Efficiency:** Automating purchase order generation saves time and effort compared to manual creation.
- **Reduced Errors:** Automatic conversion minimizes the risk of errors associated with manual data entry.
- **Streamlined Processes:** Automation fosters a smoother flow from MRP demand to purchase orders.

When Manual Creation Might Be Necessary:

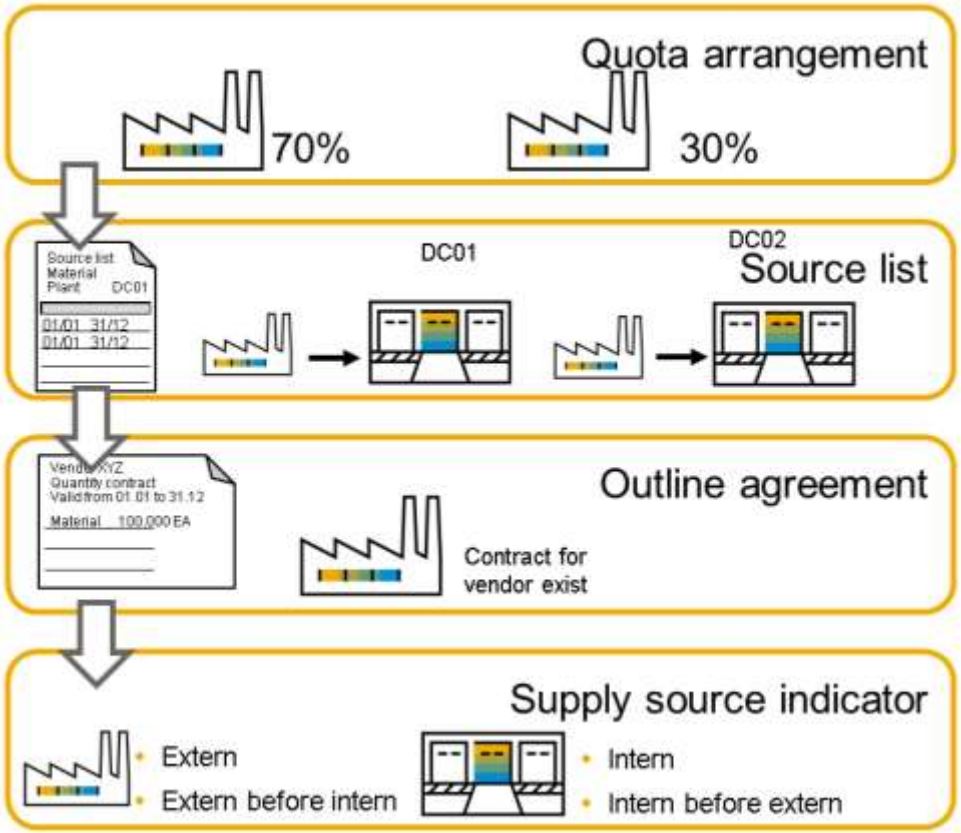
- **Unique Purchase Needs:** For non-standard purchases or one-time orders, manual creation might be preferred.
- **Vendor-Specific Requirements:** Certain vendors might have specific ordering procedures that necessitate manual purchase order creation.

SOURCE OF SUPPLY DETERMINATION – SYSTEM LOGIC

Source of supply determination provides valuable insights to manage procurement and inventory strategies effectively

- The system assigns **supply sources** (internal distribution centers or external vendors) to fulfill material requirements for purchase requisitions.
- The system **follows a specific order** to identify the most suitable supply source:

1. **Quota Arrangements:**
    1. Highest priority.
    2. System checks for existing quota arrangements and their validity period against the purchase requisition delivery date.
    3. Quota arrangements allocate a specific proportion of a requirement to different sources.
2. **Source List:**
    1. If no quota arrangement applies, the system searches the source list.
    2. The source list defines admissible (and inadmissible) supply sources for a material at a specific plant and timeframe.
3. **Outline Agreements:**
    1. Next, the system evaluates existing outline agreements, long-term agreements with vendors.
    2. These agreements define conditions for material delivery or services during a certain period.
    3. Types of outline agreements include:
        1. Value contracts (limited total value)
        2. Quantity contracts (limited total quantity)
        3. Group-wide contracts for all plants and company codes
4. **Material Master:**
    1. If no suitable source is found yet, the system analyzes the "Supply source" field in the material master.
    2. This field allows searching for external sources based on:
        1. Outline agreements
        2. Info records
        3. Regular vendor indicator
    3. Additionally, the system can locate internal sources through stock transfer scheduling agreements or delivery plants (distribution centers).
    4. Both internal and external source searches can be combined.



SOURCE OF SUPPLY DETERMINATION – TO GO FURTHER

Additional considerations & benefits

Additional Considerations:

- You can deactivate system-based source determination and implement a custom approach using a user exit.

Benefits of Defined Sourcing:

- **Optimized Procurement:** Efficient assignment of supply sources helps streamline purchasing processes.
- **Cost Control:** Leveraging quota arrangements and agreements can potentially optimize procurement costs.
- **Improved Inventory Management:** Knowing the designated source for a material aids in inventory planning and allocation.

Purchasing
Purchase Contracts for Fashion (Flexible Purchasing Commitment)

FLEXIBLE PURCHASING CONTRACTS

Empower fashion retailers to manage their procurement processes more effectively and strategically

Standard contract capabilities enhanced with Fashion Functionality

- **Generic Materials & Variant Matrix:**
  - Contracts can encompass a generic material with its associated variants within a variant matrix.
  - This simplifies contract management for product families with multiple variations (e.g., size, color).
- **Destination Flexibility:** Contracts can be created with or without specifying destinations (e.g., stores, distribution centers).
- **Variant Selection:** Contracts can include specific variants or remain open at the generic material level, allowing for later selection.
- **Multi level contracts & Open Quantity Calculation:** The system can calculate open quantities at the generic material level within contracts.
- **Segmentation:** Integrate segmentation data into contracts, allowing for targeted procurement based on pre-defined segments (e.g., product line, target audience).
- **Seasons:** Manage contracts with consideration for seasons, ensuring alignment with seasonal collections.
- **Value Added Services (VAS):** Include value-added services offered by vendors within contracts (e.g., pre-washing, labeling).
- **Characteristic Value Conversion:** Facilitate conversion between different characteristic value representations used by the company and vendors.
- **Distribution Curve:** Define and manage the distribution of planned quantities across various destinations or variants within the contract.
- **Application Variants:** Utilize application variants to control the usage of specific material variants based on defined criteria within contracts.

Benefits of Flexible Contracts:

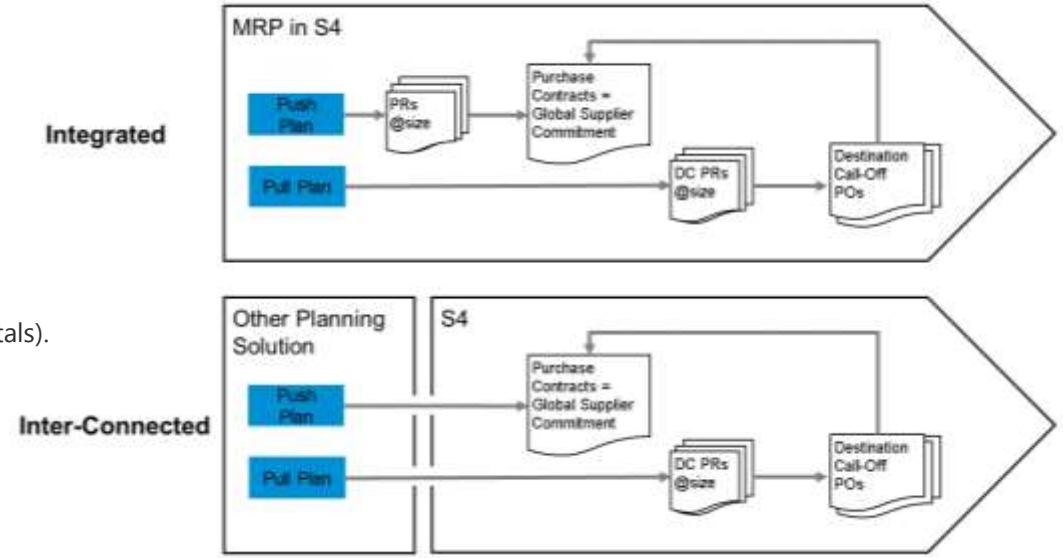
- **Streamlined Procurement:** Enables early planning with generic materials, reducing complexity and workload.
- **Improved Efficiency:** Fashion-specific features cater to the unique needs of fashion businesses.
- **Enhanced Control:** Integration of features like segmentation and distribution curves promotes better procurement control.

FLEXIBLE PURCHASING CONTRACTS – FORECAST INTEGRATION

Offers valuable flexibility in leveraging both internal and external forecasts for strategic procurement planning

Two business scenarios where Flexible Purchasing Contracts leverage forecast data

- **Scenario 1: Internal Forecasts via Purchase Requisitions**
  - ✓ **Data Source:** Forecasted quantities are derived from SAP internal systems and reflected in purchase requisitions.
  - ✓ **Contract Creation:**
    - Based on these purchase requisitions, you can generate Flexible Purchasing Contracts.
    - Contracts can be created:
      - With or without specifying a plant (depending on your procurement strategy).
      - At the generic material level, encompassing potential variants.
- **Scenario 2: External Forecasts**
  - ✓ **Data Source:** Forecasted quantities originate from external systems (e.g., planning tools, supplier portals).
  - ✓ **Contract Creation:**
    - You can utilize these external forecasts to create Flexible Purchasing Contracts in SAP.



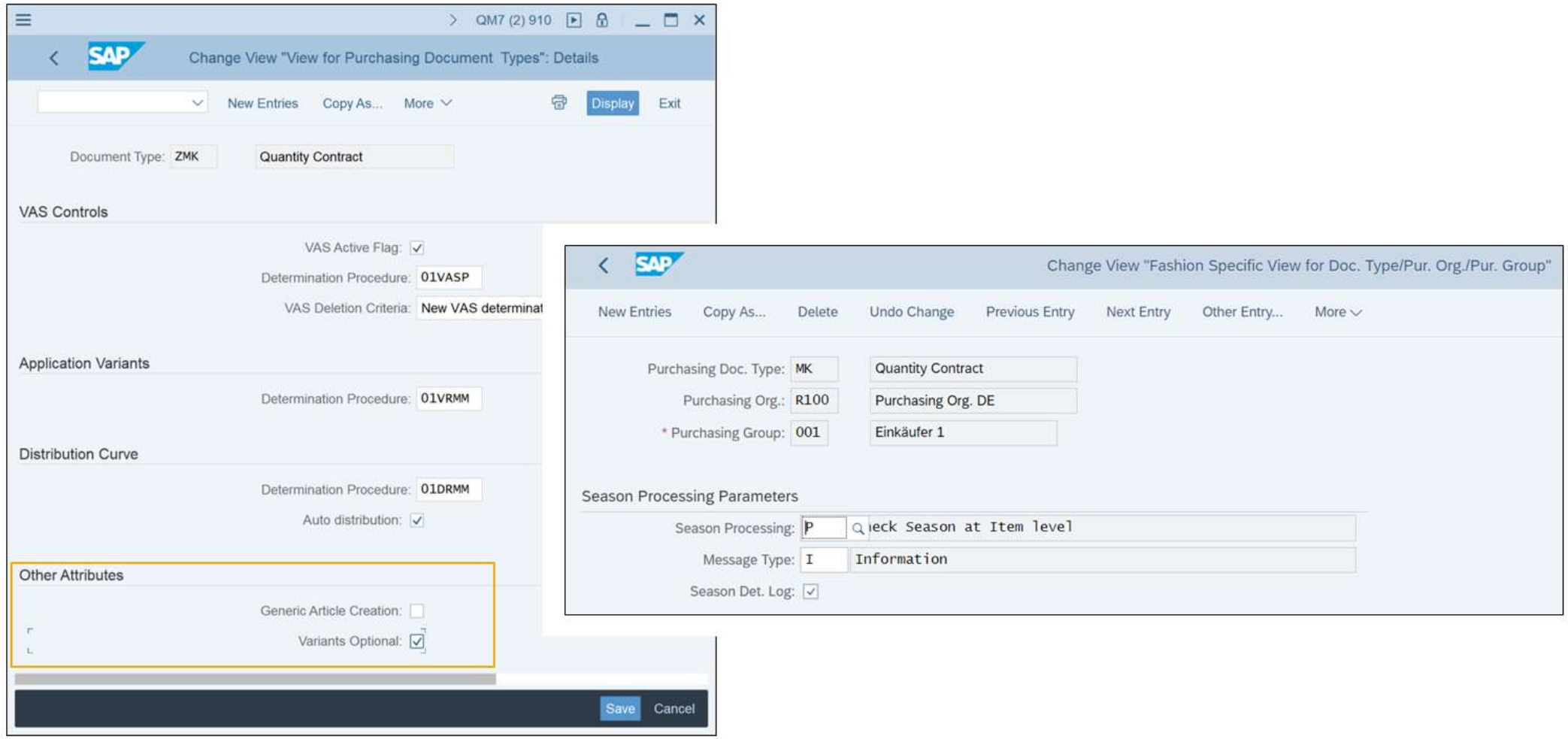
Benefits of Both Scenarios:

- **Early Procurement Planning:**
  - Enables planning based on forecasted demand before specific variants or destinations are finalized.
  - This facilitates early vendor communication and potentially secures better deals.
- **Reduced Complexity:** Leverage generic materials and variant matrices to manage product families efficiently.
- **Flexibility:** Adapt contracts as needed by specifying variants, destinations, and quantities later in the process.

FLEXIBLE PURCHASING CONTRACTS – CUSTOMIZING

Relevant activities

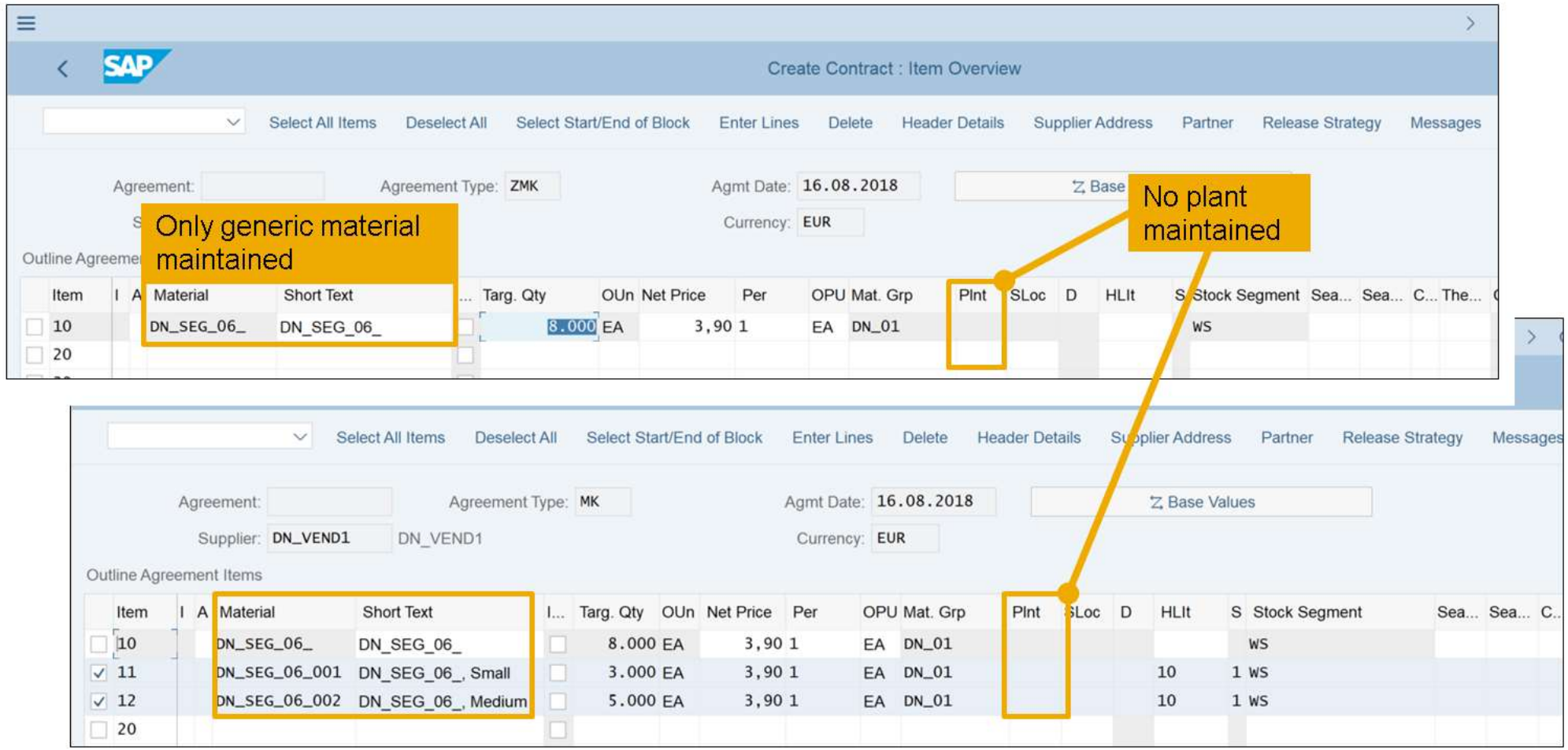
- The new features can be enabled in the system with the help of customization settings
  - Example of customizing of Purchasing Document Types and the Fashion Specific View for Type/Org/Group



FLEXIBLE PURCHASING CONTRACTS – USE CASE (1/5)

Purchase Contract, Without Plant

- Contracts can be created solely with the generic material, encompassing its associated variants.
- This eliminates the need to define specific variants or plants at the initial contract stage.

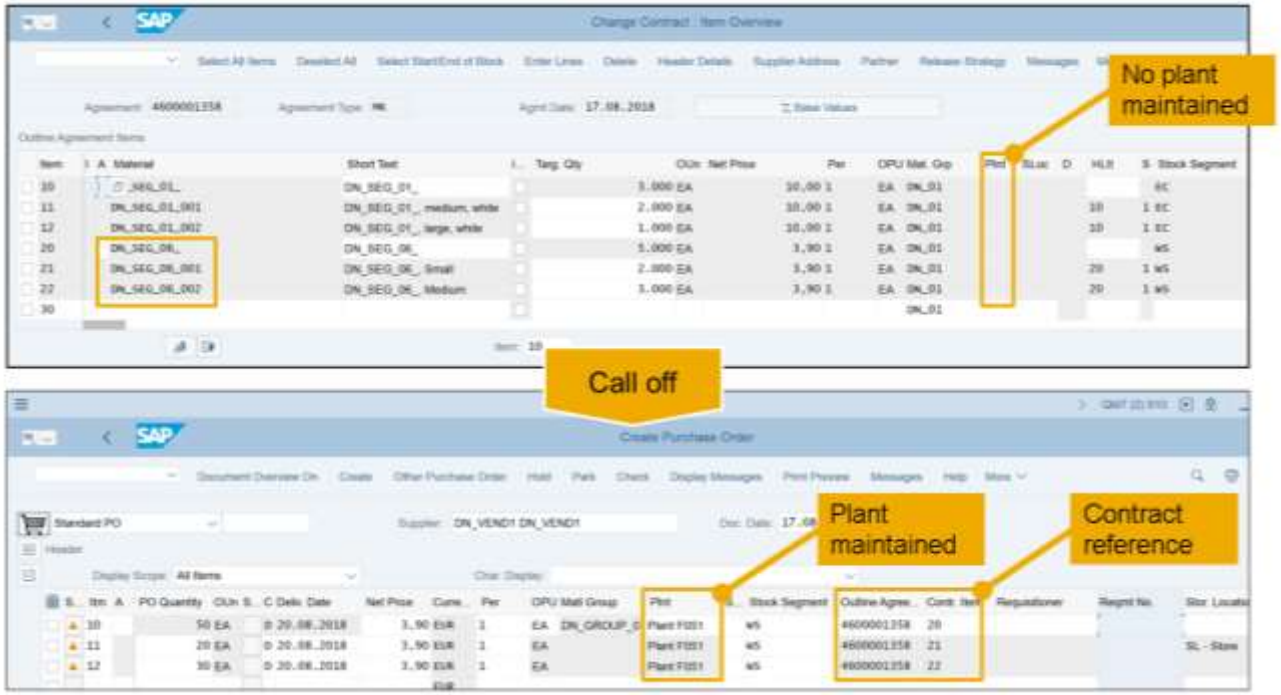


FLEXIBLE PURCHASING CONTRACTS – USE CASE (2/5)

Flexible Purchase Contract Call-off

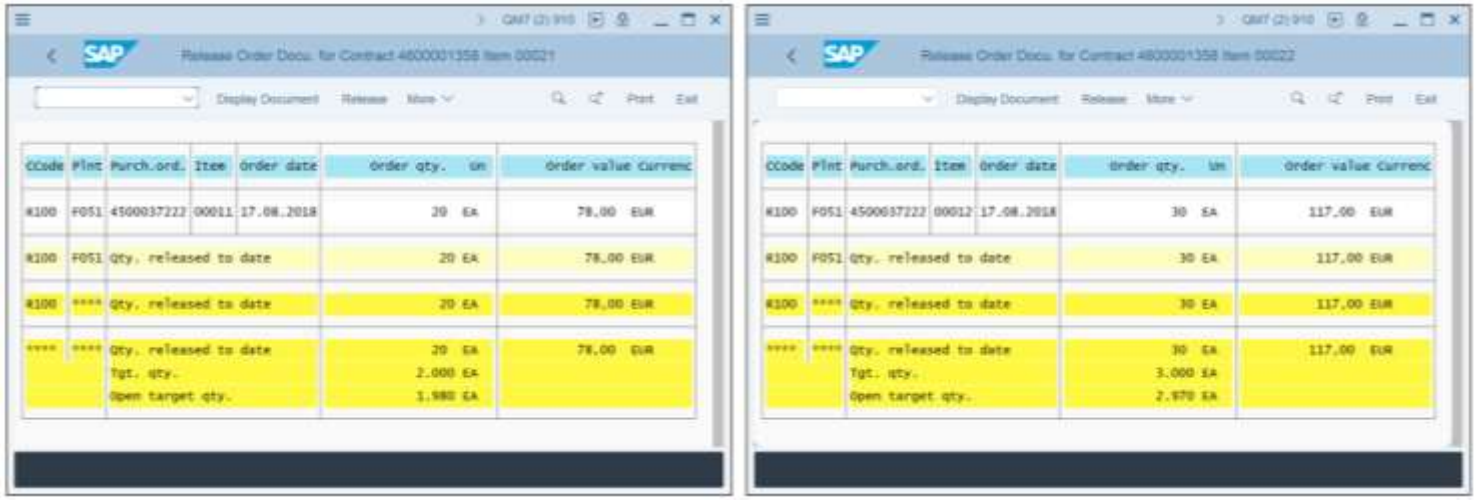
Call-Off Orders and Consumption:

- When a purchase order is needed, you can create a call-off order referencing the existing contract with the generic material.
- During the call-off process, you can now specify:
  - ✓ Variants: Select the specific variant(s) required from the generic material's variant matrix.
  - ✓ Plant: Choose the plant(s) where the variants should be delivered.



Impact on Contract History:

- The details of each call-off order, including the selected variants and plants, are updated in the contract history.
- This allows to track the consumption of the overall contract across different variants and plants.



Results and details of the release process

FLEXIBLE PURCHASING CONTRACTS – USE CASE (3/5)

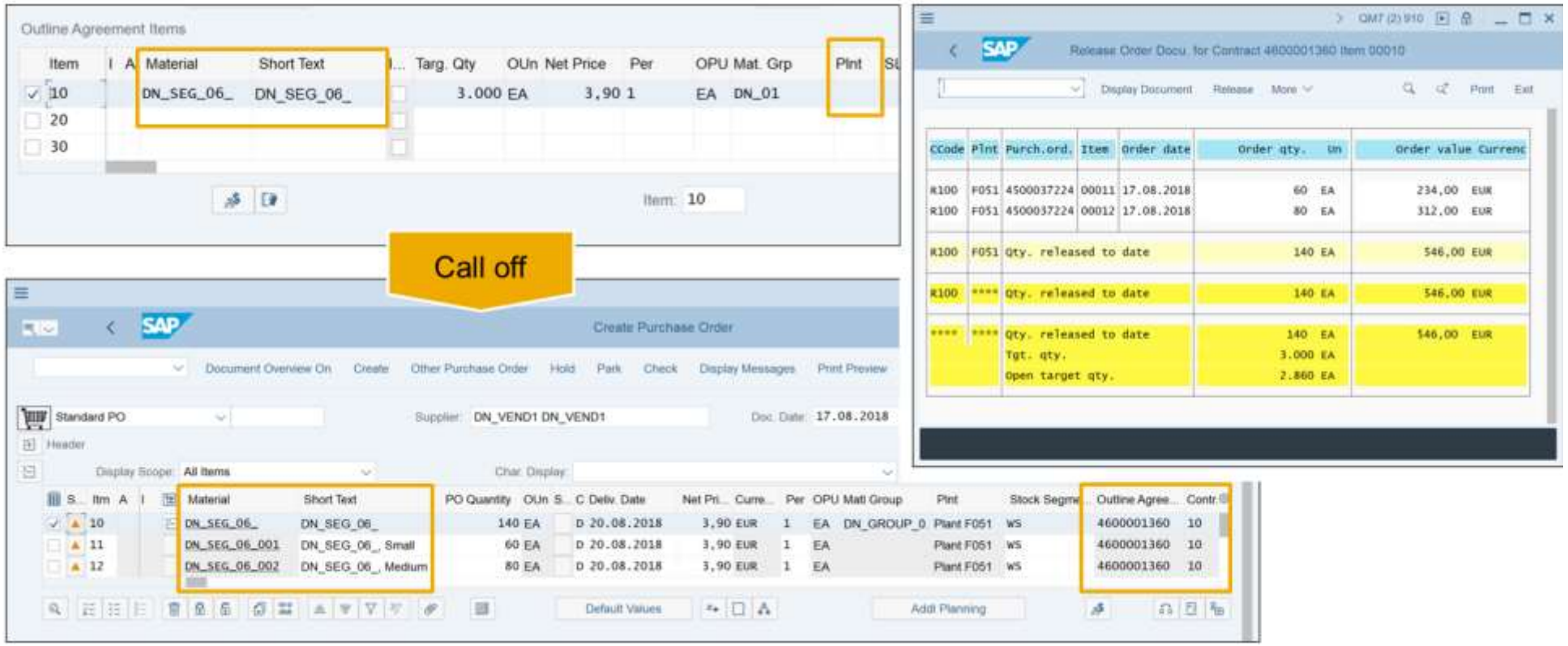
Contract Call-off Reference Handling from Generic Material Item

Call-Off Orders and Variant Selection:

- During a call-off order referencing this open quantity contract, you can now choose the specific variants needed and define their respective quantities.
- The system facilitates this selection process by leveraging the variant matrix associated with the generic material.

Contract Consumption Update:

- As with other call-off scenarios, the details of the chosen variants and their quantities are recorded in the contract history.
- This reflects the consumption of the overall contract quantity against the specific variants selected during the call-off process.



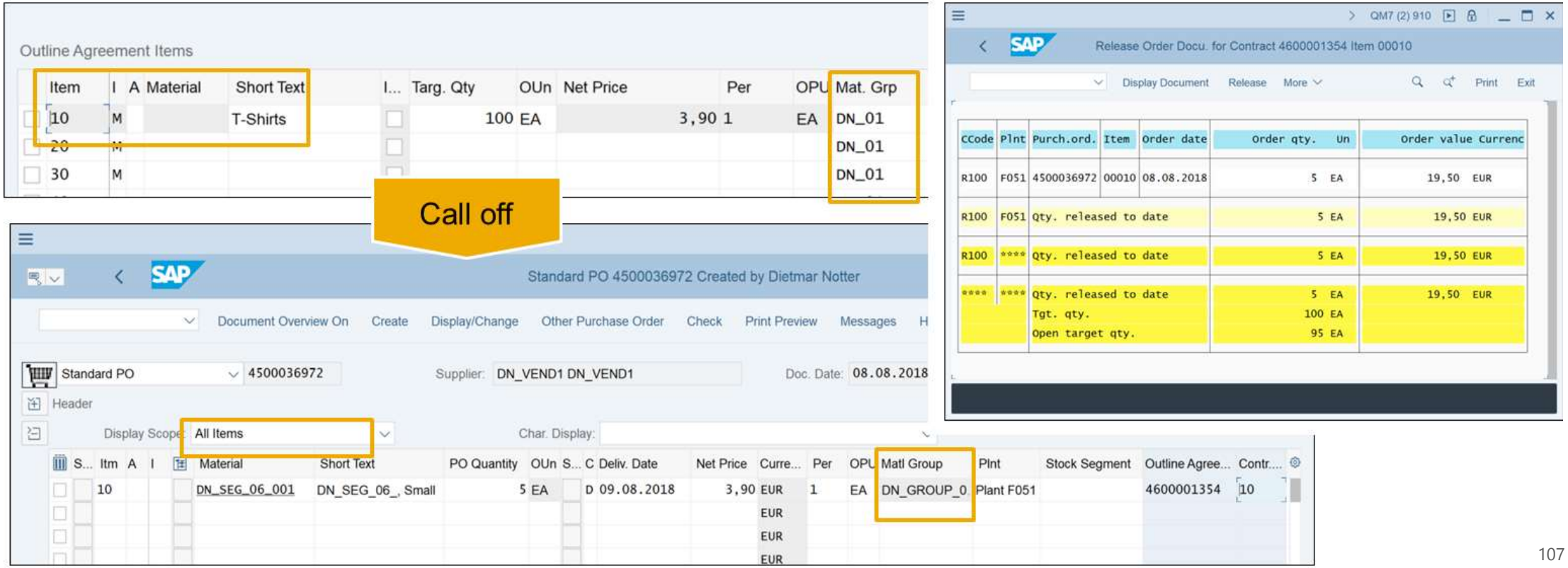
FLEXIBLE PURCHASING CONTRACTS – USE CASE (4/5)

Contract Call-off Reference Handling from Non Material Item

- When creating a call-off order referencing this material group contract, you can now choose the **specific Materials:** select the exact materials needed from the broader material group.

- As with other call-off scenarios, the details of the chosen materials, variants, plants, and quantities are documented in the contract history.

- This allows for comprehensive tracking of contract consumption at a more granular level.

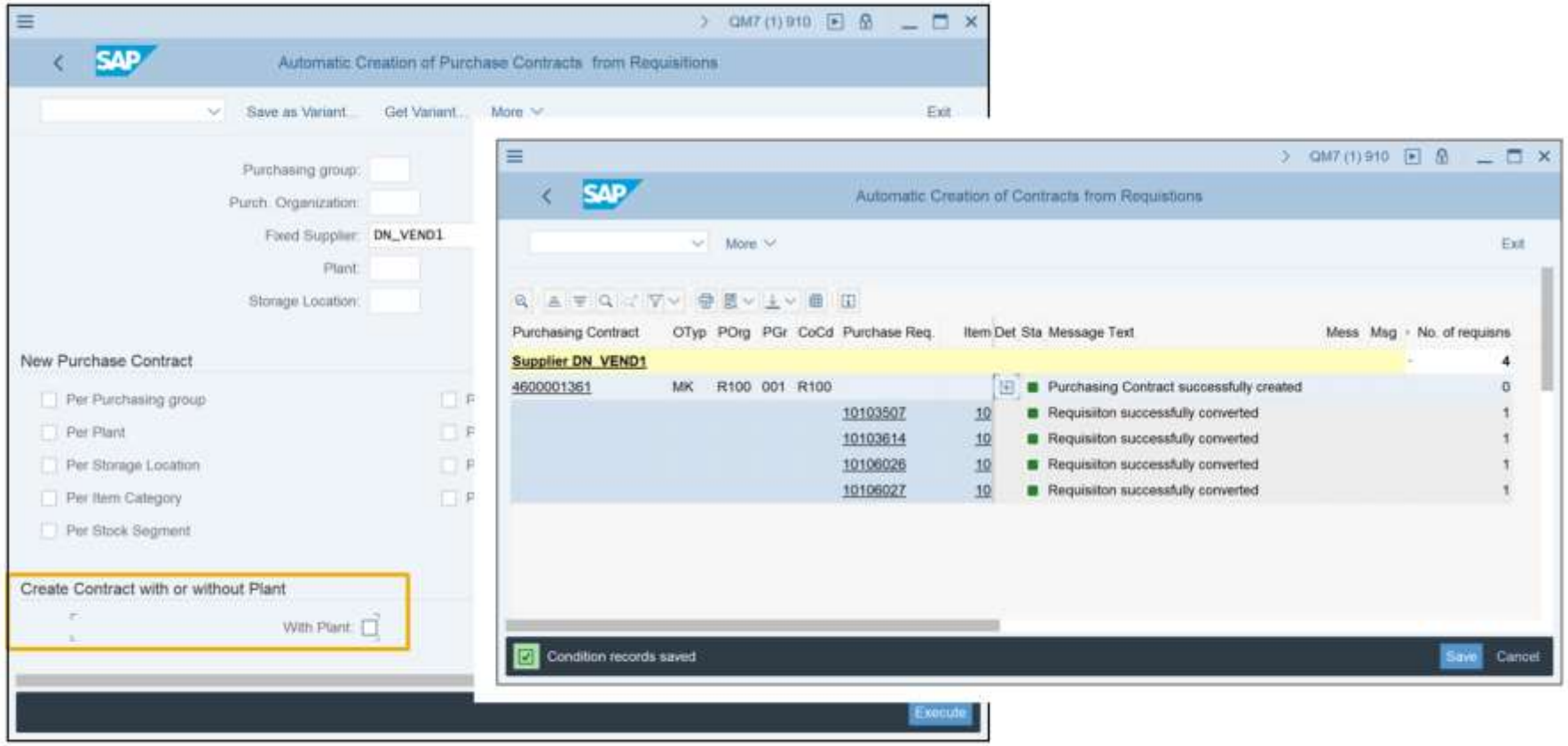


FLEXIBLE PURCHASING CONTRACTS – USE CASE (5/5)

Automatic Creation of Purchase Contracts from Requisitions (1/2)

- **Transaction Code:** RFM_PCO provides a dedicated tool for managing Flexible Purchasing Contracts.

- **Data Source:** You can leverage purchase requisitions generated in two ways:
  - Manual Creation: Purchase requisitions created manually by buyers or planners.
  - MRP Runs: Purchase requisitions automatically generated through Material Requirements Planning (MRP) processes.



FLEXIBLE PURCHASING CONTRACTS – USE CASE (5/5)

Automatic Creation of Purchase Contracts from Requisitions (2/2)

Benefits of Using RFM_PCO:

- **Streamlined Contract Creation:** Simplifies the process of converting purchase requisition data into Flexible Purchasing Contracts.
- **Efficiency Gains:** Saves time and effort compared to manual contract creation for each requisition.
- **Improved Accuracy:** Reduces the risk of errors by leveraging existing requisition data.

Leveraging Purchase Requisitions:

RFM_PCO allows you to select multiple purchase requisitions that share common characteristics, such as:

- Material group
- Vendor
- Delivery date range

Building Flexible Contracts:

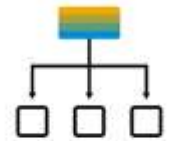
Based on the selected purchase requisitions, you can create a Flexible Purchasing Contract with the following features:

- **Generic Material:**
  - If the requisitions involve materials with variants, you can define the contract at the generic material level.
  - This leverages the variant matrix for variant selection later.
- **Open Quantities:**
  - You can choose to leave the variant quantities open within the contract for later specification during call-offs.
- **Additional Features:**
  - RFM_PCO allows you to incorporate various fashion-specific features into the contract, such as:
    - Segmentation
    - Seasons
    - Value Added Services (VAS)

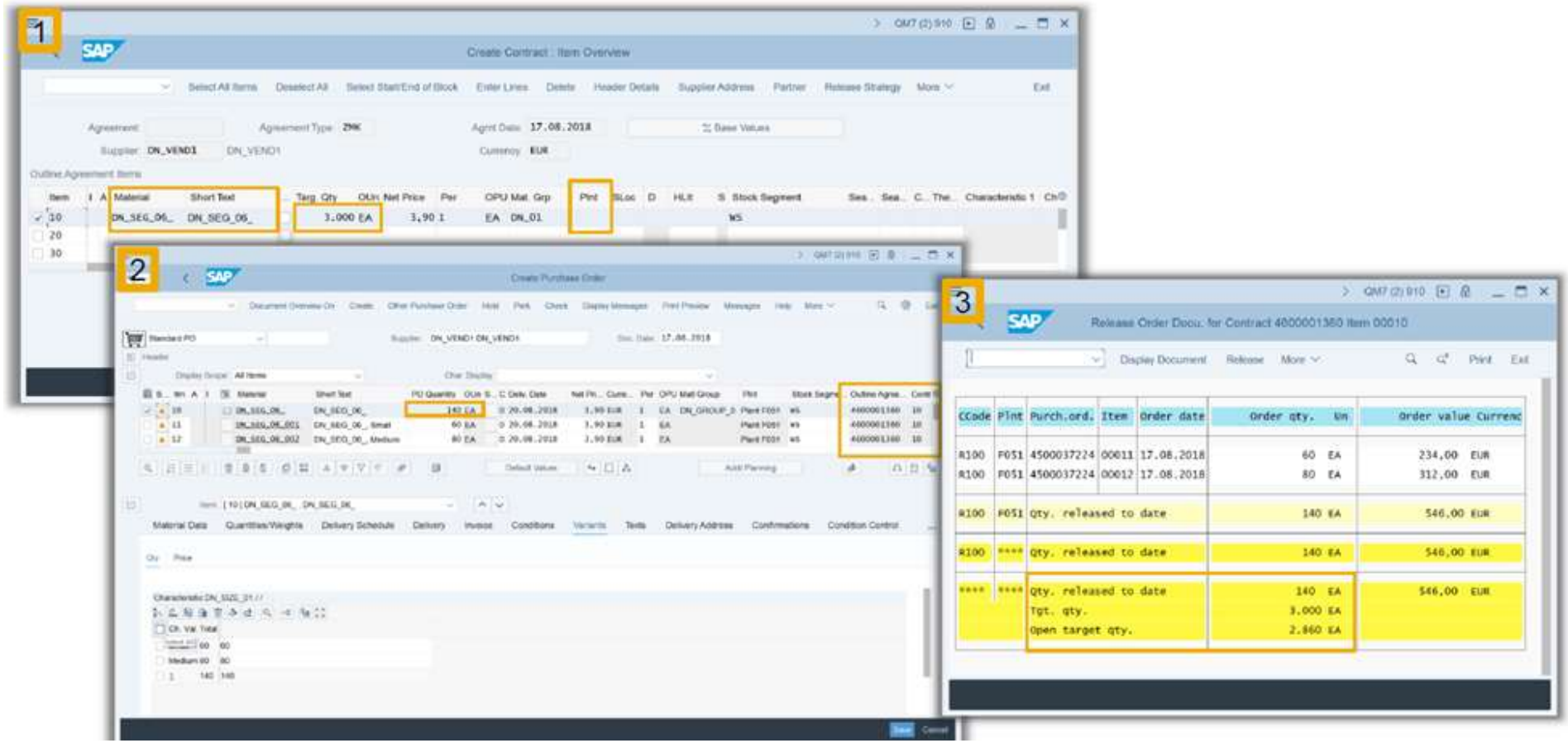
FLEXIBLE PURCHASING CONTRACTS – KEY FUNCTIONS TO REMIND OF… (1/3)

Synthesis

Destination Postponement

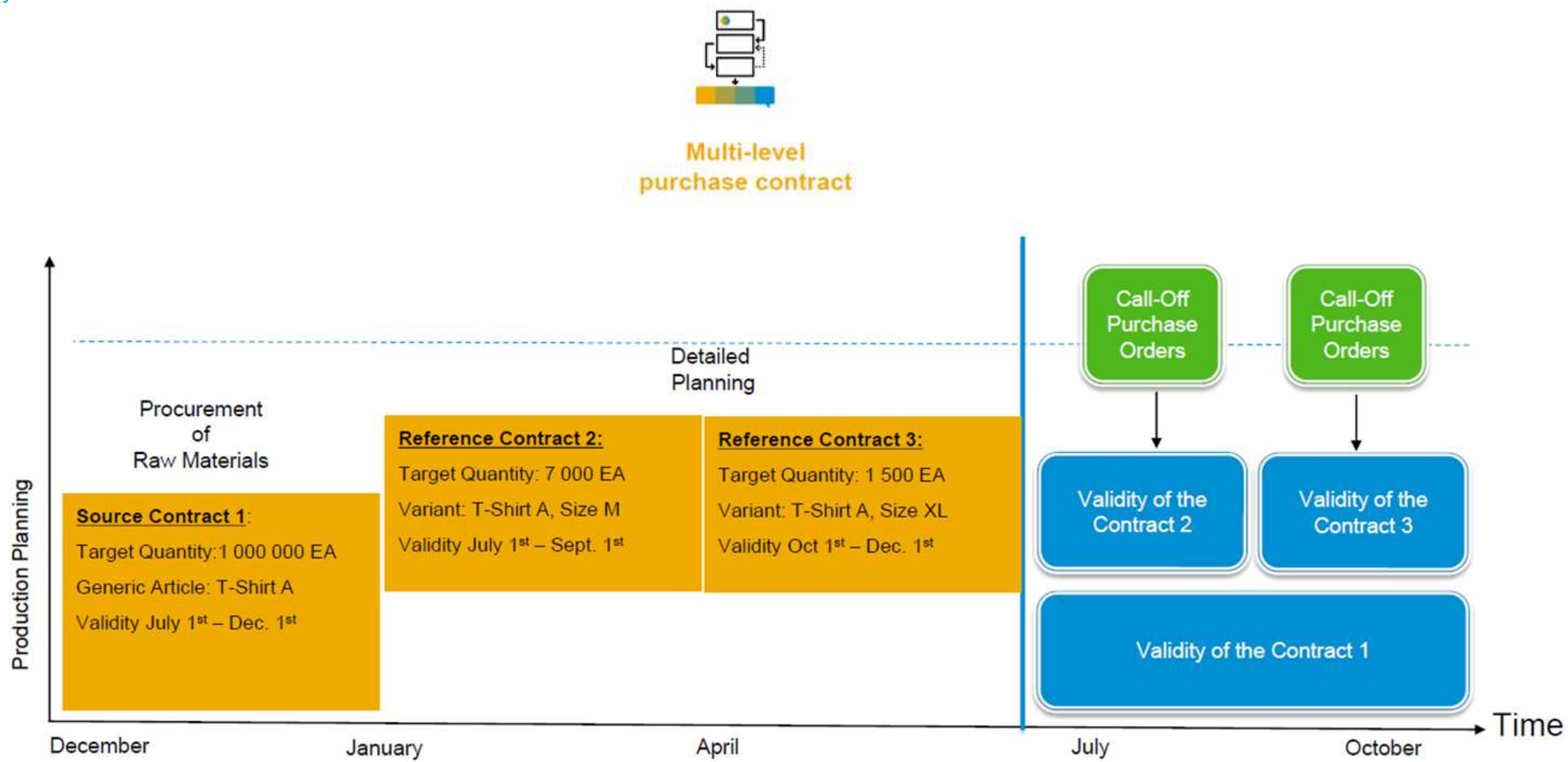


Style/ color/ size postponement



FLEXIBLE PURCHASING CONTRACTS – KEY FUNCTIONS TO REMIND OF… (2/3)

Synthesis



FLEXIBLE PURCHASING CONTRACTS – KEY FUNCTIONS TO REMIND OF… (3/3)

Synthesis

Direct ship flexibility

De-Linkage: Remove Account Assignment

Customer cancellation / reduction in third-party order item or individual purchase order item

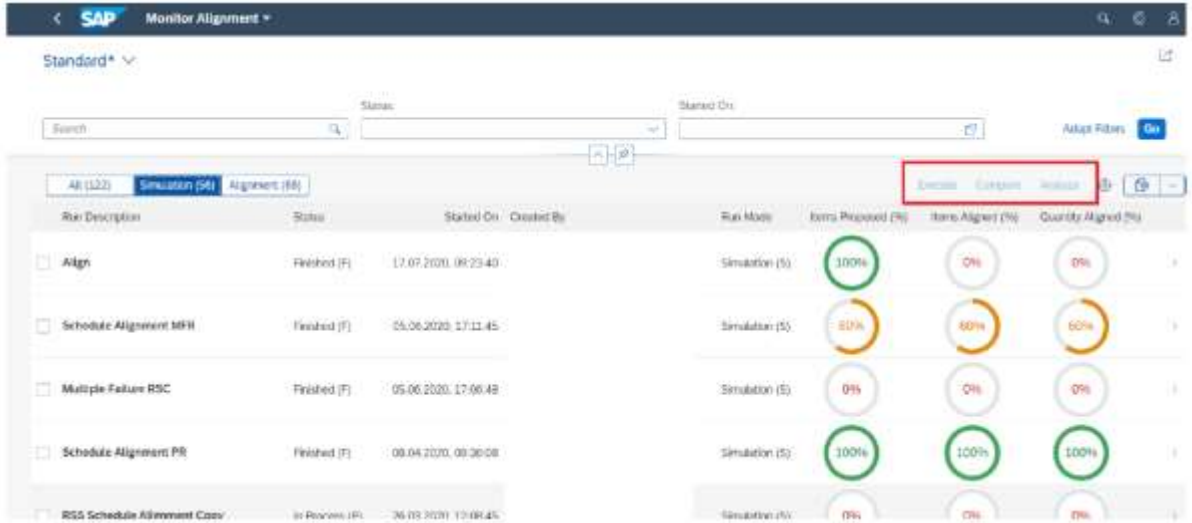
- Account assignment is removed from associated purchase order item
- Supply can be diverted to any of fashion company's own DCs

Alignment Process - Linkage

- Enable system to consume existing unconsumed purchase orders to fulfil demand from new open account assigned purchase requisitions instead of creating additional excessive purchase orders
- Allow quantity tolerances in alignment of account-assigned sales orders (available purchase orders that contain fewer open quantities than needed)

Direct Ship Alignment – Analyze Insights

- Ability to compare and analyze different alignment jobs across different KPI's to arrive at optimum alignment rules for the organization



Purchasing
Purchase Order Workbench

PURCHASE ORDER WORKBENCH – CAPABILITIES

Empowers businesses to manage purchase orders with greater efficiency, accuracy, and control

The Multifunctional Workbench offers a comprehensive set of tools for efficient purchase order handling.

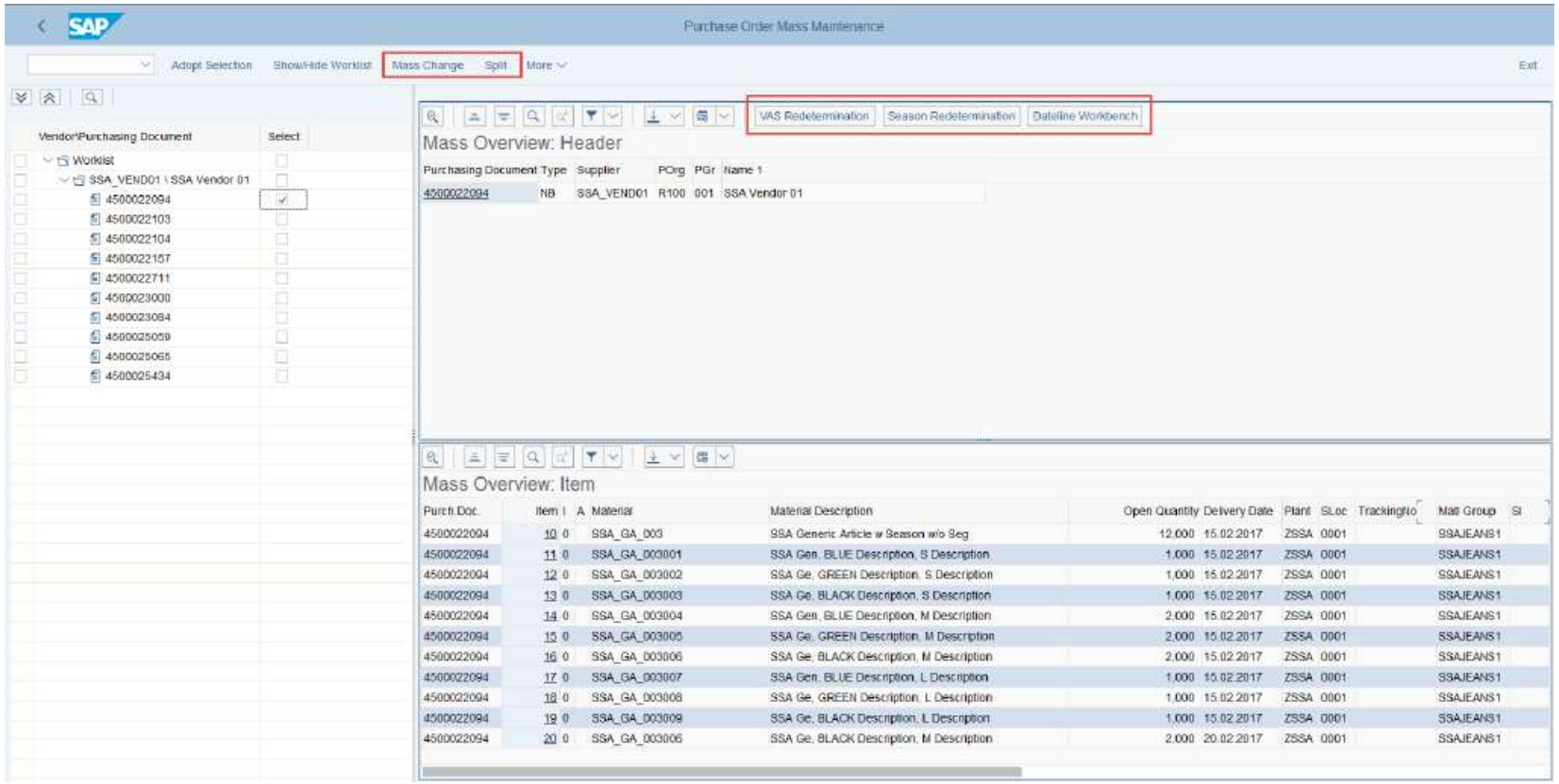
It is accessible trough **transaction FSH_PWB**.

- **Mass Overview Mode:**
  - View key information (header and item details) of multiple purchase orders simultaneously.
  - Gain a consolidated view of your purchase order activity for better decision-making.
- **Mass Change Mode:**
  - Update data for a set of purchase orders at once, saving significant time and effort.
  - Utilize both manual edits and the fast change option for efficient modifications.
- **Split PO Mode:**
  - Create a new line item within an existing purchase order document when needed.
  - Alternatively, generate a completely new purchase order based on changes made to field values.
  - This functionality allows for flexible adjustments within the purchase order process.
  - The fast change option can further expedite this process.
- **Alignment Mode:**
  - Automate the assignment of open account-assigned purchase requisitions to suitable purchase orders.
  - This intelligent feature leverages pre-configured business rules to optimize purchase order utilization.

PURCHASE ORDER WORKBENCH – BENEFITS

Add business value

- **Increased Efficiency:** The workbench streamlines various purchase order tasks, saving time and resources.
- **Improved Accuracy:** Mass updates and changes can be implemented with reduced risk of errors.
- **Enhanced Visibility:** The mass overview mode provides a consolidated view of purchase order data, facilitating better decision-making.
- **Optimized Procurement:** The alignment mode helps ensure optimal utilization of purchase orders based on business rules.



Purchasing
Subcontracting

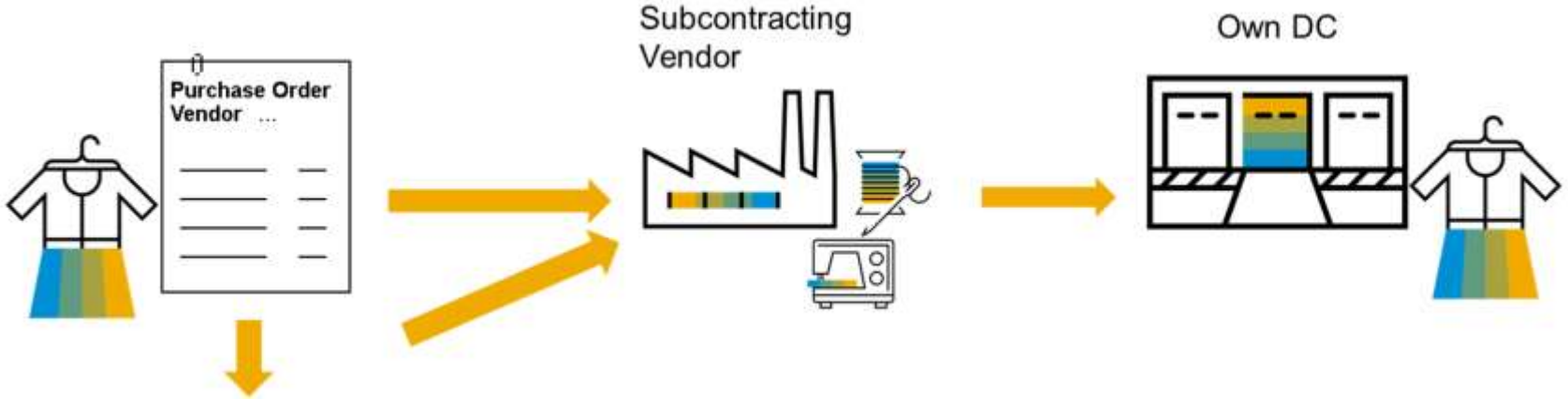
SUBCONTRACTING – PROCESS OVERVIEW (1/2)

Efficient management of outsourced production ensuring proper inventory tracking and control of components provided to vendors

- You require a finished product but lack the internal resources or capacity for its complete production.
- Therefore, you utilize a subcontractor who assembles the product using components you provide.

Subcontract Order:

- You create a purchase order (PO) specifying the end product as a subcontracting item.
- This PO details the components needed by the vendor for assembly.



Components Management:

- In Inventory Management, the components are transferred to the special stock category "material provided to vendor."
- This stock is:
  - Valuated and included in your overall inventory.
  - Available for Material Requirements Planning (MRP) calculations.
  - Managed at the plant level (not physically stored at your company).

Components

Material	FP-01-ART111
Plant/Usage/Alt.	R100 / 3 / 01
Description	fash. skirt, long, 55% trev., 45% lamb
Char. Value	/ /
Char. description	/ /
Base Qty (EA)	100
Reqd Qty (EA)	100

Lv	Item	Obj.	Component number	Object description	Ovfl	Comp. Qty (CUn)	UoM
1	0010		FP-05-ART3	Lining		2	M
1	0020		FP-05-ART2	staghorn buttons		2	EA

SUBCONTRACTING – PROCESS OVERVIEW (2/2)

Efficient management of outsourced production ensuring proper inventory tracking and control of components provided to vendors

Stock Types:

- You can choose between two stock types for "material provided to vendor":
  - **Unrestricted-use stock:**
    - Readily available for component withdrawal.
  - **Quality inspection stock:**
    - Held for quality checks before being released for unrestricted use.
- Stock transfers between these types are possible.

Vendor Performance:

- The vendor assembles the product using the provided components and delivers the finished product to you.
- The system automatically posts the component consumption based on the purchase order quantities.

Consumption Adjustments:

- If the vendor informs you of a discrepancy in component consumption after goods receipt, you can make adjustments in the system.

Vendor Invoice:

- The vendor sends an invoice for their service (assembly).
- You process the invoice in Invoice Verification.

Subcontracting Cockpit:

- Transaction code **ME2ON** provides a dedicated tool (Subcontracting Cockpit) to monitor the stock of materials provided to vendors.

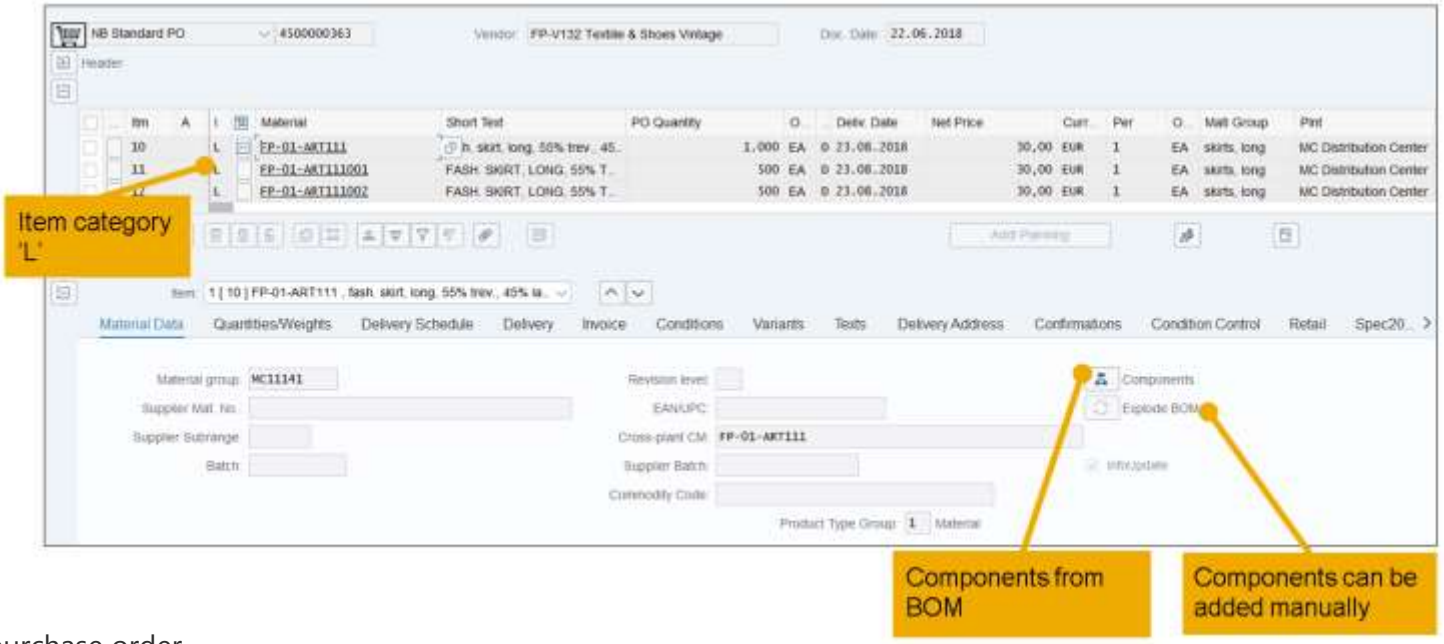
Description	Plnt	Show/Hide Description of Totals Line	Batch	Quantity	BUn	Av. SC St.	BUn	Document Number
Supplier FP-V132 Textiile & Shoes Vintage								
Material FP-05-ART2 staghorn buttons								
staghorn buttons	2000	Total SC Stock				0	EA	
		Requirements via SC Orders		4.000-	EA	4.000-	EA	
				2.000	EA	0	EA	4500000363
				2.000	EA	0	EA	4500000363
Material FP-05-ART3 Lining								
Lining	2000	Total SC Stock				0	M	
		Requirements via SC Orders		1.200-	M	1.200-	M	
				1.000	M	0	M	4500000363
				200	M	0	M	4500000363

SUBCONTRACTING – DETAILED PROCESS (1/2)

Manage subcontracting processes, ensuring accurate component allocation, cost control, and timely delivery of finished products

Transaction Codes:

- **ME21N:** Used to create new subcontracting purchase orders.
- **ME22N:** Used for subsequent changes to existing subcontracting purchase orders.
- **ME2ON (Subcontracting Cockpit):** Provides an overview of materials provided to vendors.
- **MIGO:** Used for goods issue of components to the vendor and goods receipt of the finished product.



Item Category and Sub-items:

- **Item Category "L":** Identifies the subcontracting item within the purchase order.
- **Sub-items:** Each subcontracting item can have one or more sub-items that detail the individual components needed by the vendor.

Component Sourcing:

- **Manual Entry/Change:** You can manually enter or modify the component details within the sub-items.
- **Bill of Materials (BOM) Explosion:** Leverage existing BOMs to automatically populate component information in the sub-items.

SUBCONTRACTING – DETAILED PROCESS (2/2)

Manage subcontracting processes, ensuring accurate component allocation, cost control, and timely delivery of finished products

- **Purchase Order Price:**
  - The purchase order price reflects the vendor's total charge for manufacturing the finished product.

- **Prerequisites:**
  - A subcontracting purchasing info record for the specific material and vendor is required before creating the purchase order.

- **Subcontracting Order Changes:**
  - **ME22N** allows for modifications to existing subcontracting purchase orders.

- **Impact of Changes:**
  - **Order/Scheduled Quantity:** Changing these quantities proportionally adjusts the component quantities unless the "Fixed quantity" indicator is set.
  - **Delivery Date:** Only the required date for the finished product is recalculated. You might need a new BOM explosion if component lead times change.

- **Inventory Management:**
  - **MIGO** facilitates the goods issue process for transferring components to the vendor (referencing the subcontracting purchase order).
  - You also use **MIGO** for the subsequent goods receipt of the finished product from the vendor.

SUBCONTRACTING – VARIOUS OPTIONS EXAMPLES

Wide parallel options available to manage end-to-end process

Different levels of integration with SAP

1 - Main partners highly integrated in the SC

2 - Partners with regular flows

3 - Spot partners with low volumes

Various ways to manage components

Stock position managed at subcontractor place with MRP or Min/Max replenishment rules

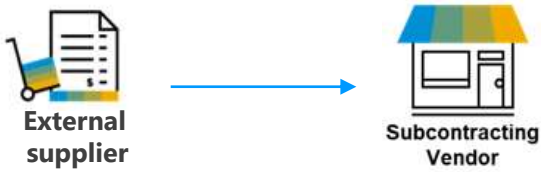
Components sent based on exact needs for a period

Components sent for a dedicated production lot

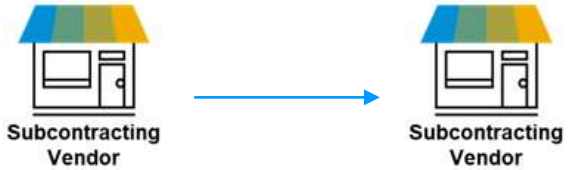
Components coming from various origins

Delivery by a plant or warehouse

Internal Procurement / direct delivery to the partner



Subcontracting chain without intervention



Sales

- Fashion contracts
- Multi Ship-to Order
- Pack Separate – Ship Together (PSST)
- Manage Fashion Sale Orders
- Manage Excess requirements

Sales
Fashion contracts

FASHION CONTRACTS – OVERVIEW (1/2)

Facilitates early planning and large order management with customers

Key Features of Fashion Contracts:

- **Planning Tool:**
  - Establish a framework for large order volumes without immediate delivery.
- **Special Pricing:**
  - Negotiate and store special price conditions for the high-quantity order.
  - These conditions are automatically copied to subsequent call-off orders.
- **Inventory Allocation:**
  - Enhance customer service by reserving stock in anticipation of call-offs.

Delivery Process:

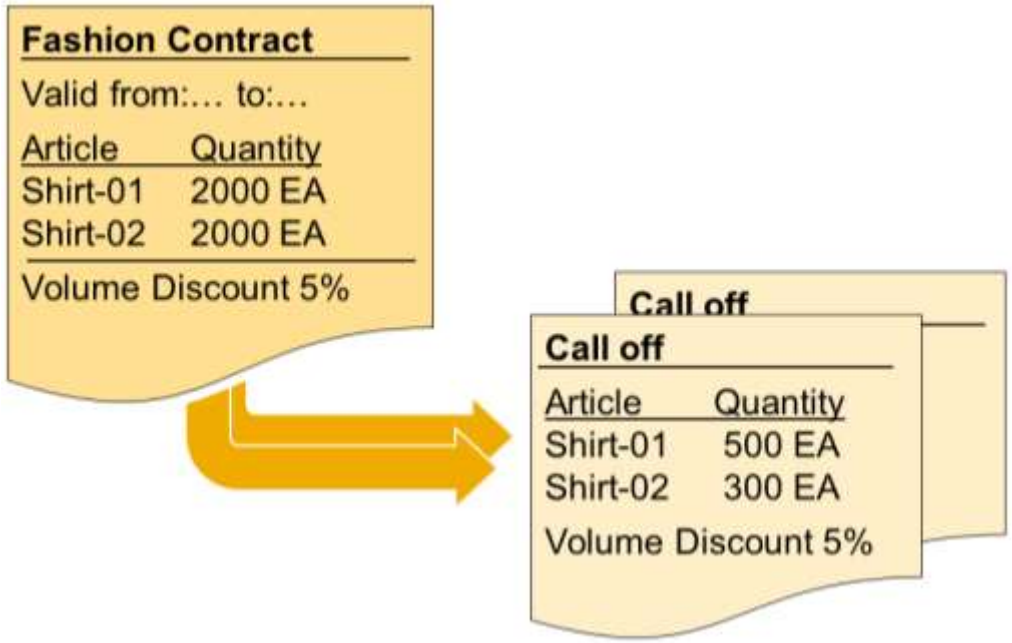
- Fashion contracts themselves are not used for deliveries.
- Deliveries to customers are fulfilled through separate call-off orders, which function as standard sales orders.

Configuration:

- Fashion-specific settings for sales documents are maintained in IMG activity:
  - **IMG Path:** Sales and Distribution -> Sales -> Sales Documents -> Sales Documents Header -> Maintain Sales Document Types for Fashion Management (Requirement relevance)

FASHION CONTRACTS – OVERVIEW (1/2)

Facilitates early planning and large order management with customers



Call-Off Orders:

- The ARun functionality (explained in a separate section) manages:
  - Stock assignment for call-off orders.
  - Material changes during call-off creation (ATP confirmation based on updated stock situation).

Benefits of Fashion Contracts:

- **Streamlined Early Planning:**
  - Establish order commitments with customers well in advance.
- **Efficient Order Management:**
  - Manage large order quantities through a central contract and subsequent call-off orders.
- **Improved Customer Service:**
  - Negotiate special pricing and potentially allocate stock to ensure order fulfillment.

FASHION CONTRACTS – DETAILED PROCESS (1/2)

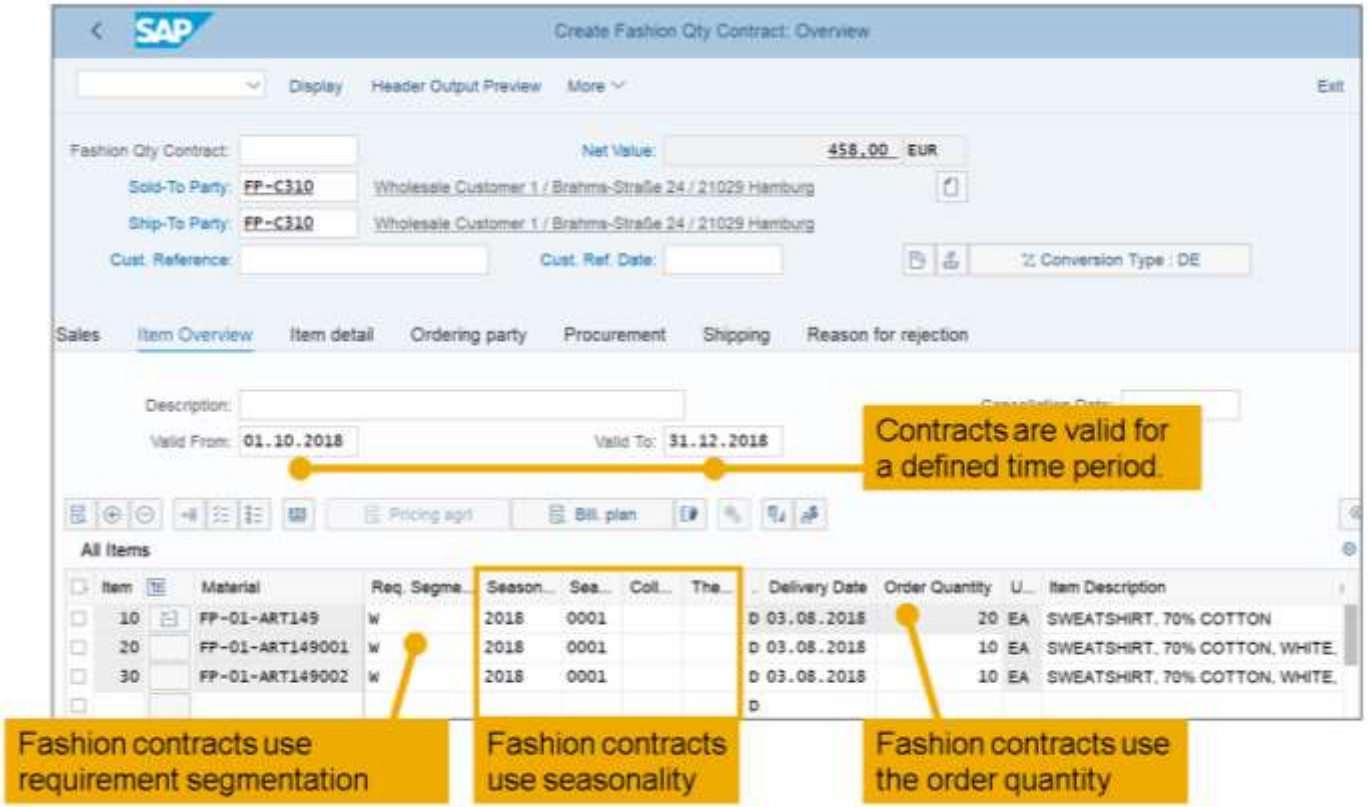
Effective planning tools to manage call-off orders efficiently, optimize stock allocation for improved customer service & production planning

Creating Fashion Contracts:

- Standard transaction code **VA41** is used to create fashion contracts.

Requirements Generation:

- Unlike regular sales contracts, fashion contracts can generate requirements for Material Requirements Planning (MRP).
- This is achieved by enabling the "order quantity" field (disabled in standard contracts).
    - Consequently, target quantities are not used in fashion contracts.
- MRP can then plan for materials based on the confirmed order quantities in fashion contracts.



Call-Off Orders:

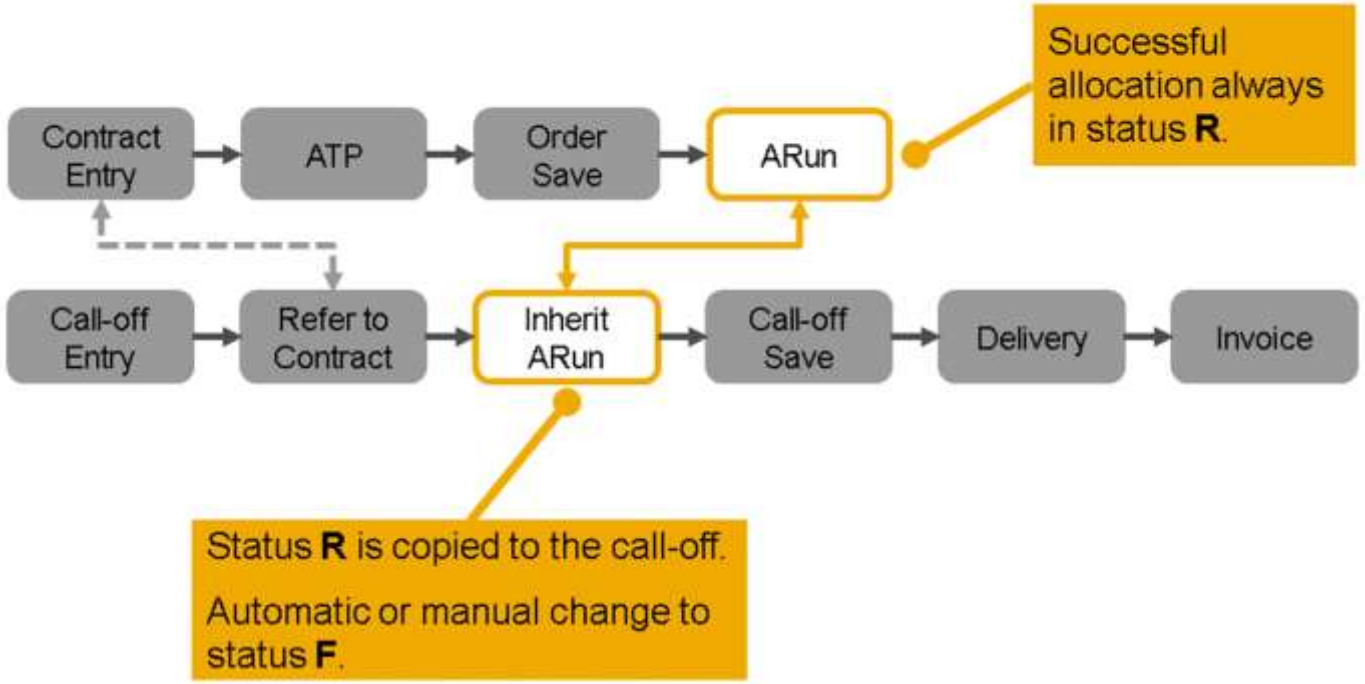
- Standard options for order creation with reference are used for call-off orders.
- Users can either:
    - Manually search for relevant fashion contracts when creating a call-off order.
    - Utilize the system's automatic proposal based on factors like customer number or the combination of customer and material number.

FASHION CONTRACTS – DETAILED PROCESS (2/2)

Effective planning tools to manage call-off orders efficiently, optimize stock allocation for improved customer service & production planning

Supply Assignment (ARun):

- Fashion contracts containing ARun-relevant materials can be assigned stock.
- This reservation helps minimize stock-out risks when fulfilling call-off orders.
- It's important to note that fashion contracts can only achieve ARun status "R" as they are not directly delivery-relevant.



Call-Off Order Statuses:

- Call-off orders can inherit the "R" status from the fashion contract.
- If a release rule is maintained against the order type, status "F" (released) can be automatically obtained during call-off order saving.

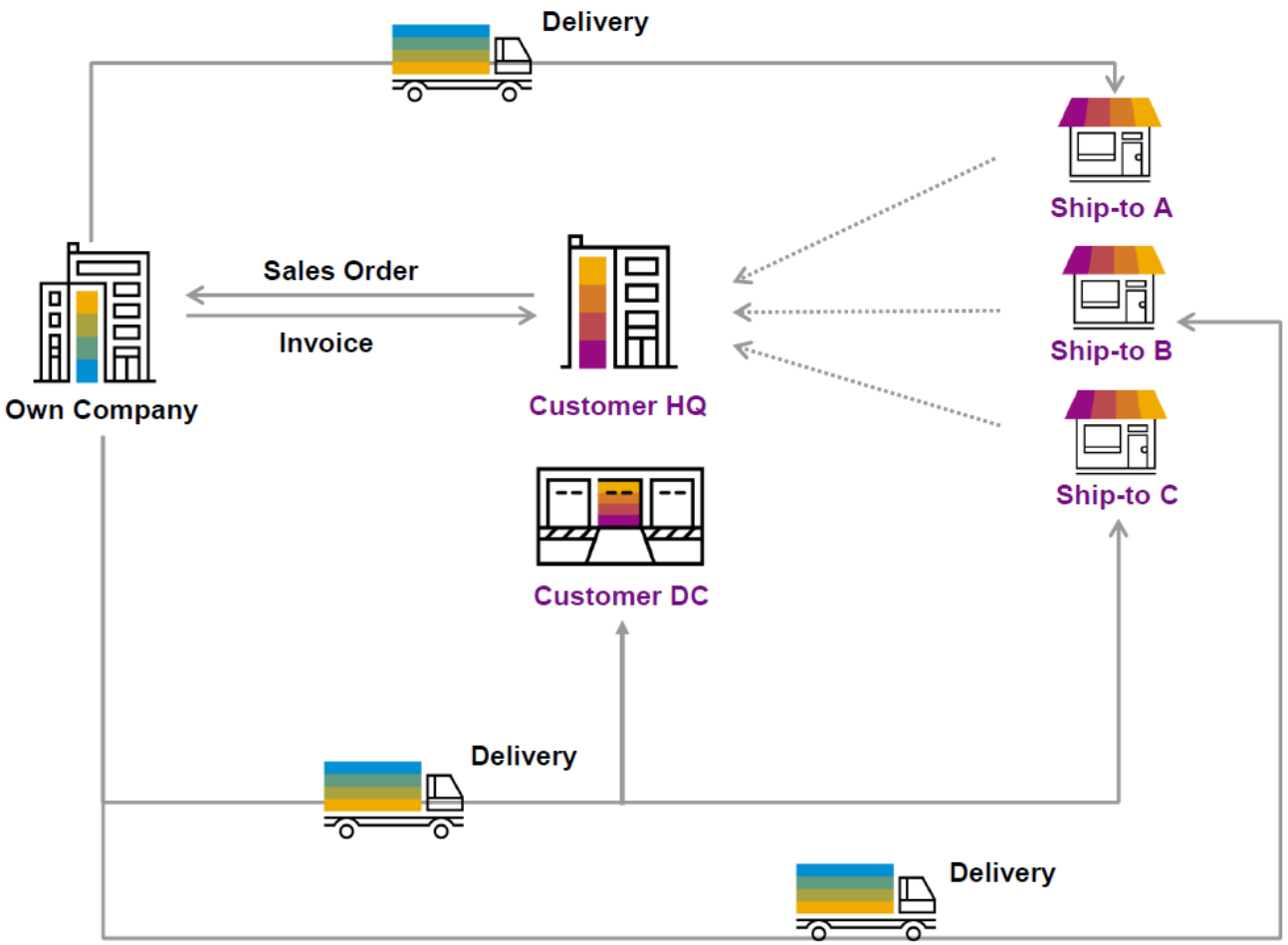
Quantity Re-establishment:

- Customizing settings allow you to decide whether assigned quantities are automatically restored in the fashion contract if a linked call-off order is deleted before delivery.

Sales
Multi Ship-to Order

MULTI SHIP-TO ORDERS – GENERAL OVERVIEW

Relevant for handling large corporate customers with multiple delivery locations



Key Features of Multi Ship-to Orders:

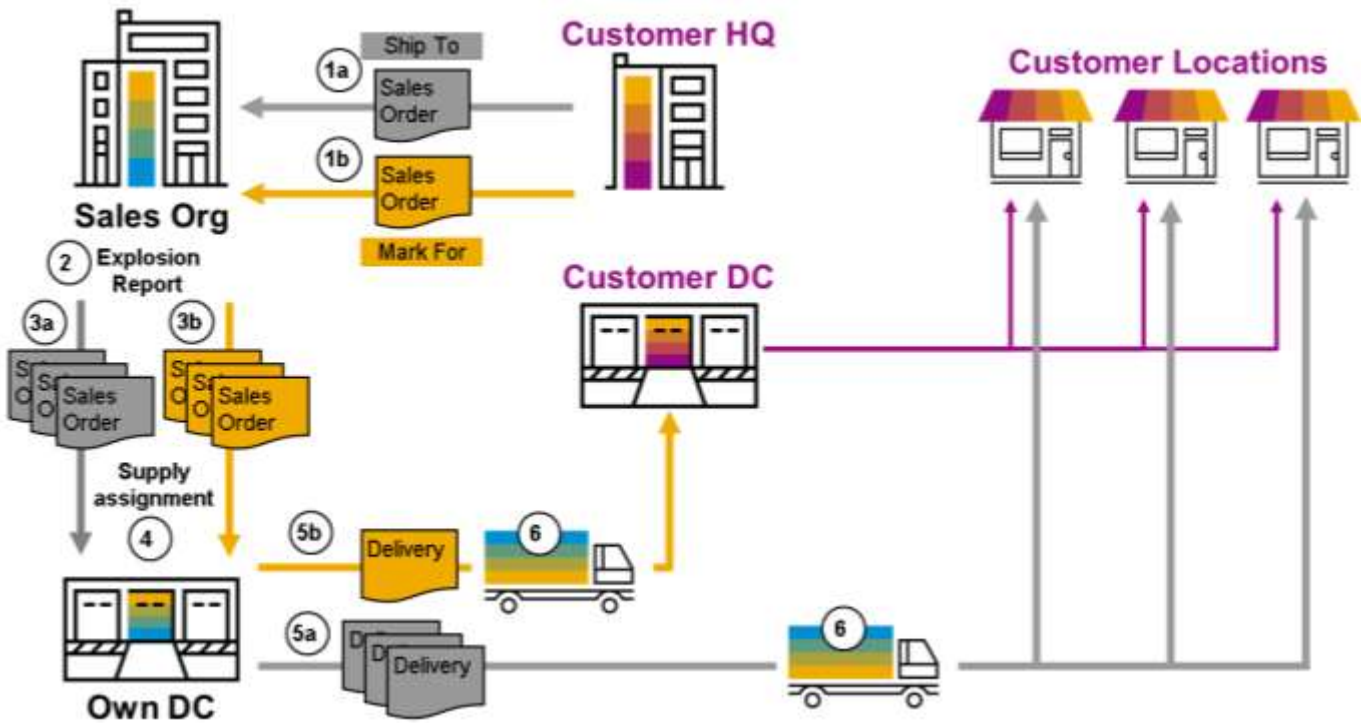
- **Consolidated Demand:**
  - Enables capturing demand for a single material across multiple delivery locations (ship-to parties) within a single order for any number of ship-to customers
- **Delivery Flexibility:**
  - Offers options for direct shipment to individual ship-to locations / Multi Ship.
  - Supports delivery to a customer central distribution center for subsequent distribution (cross-docking).
- **Customer Specificity:**
  - Allows customers to specify quantities for each ship-to location within a single order.
- **Mark-for and Ship-to Options:**
  - Provides flexibility in order processing based on customer requirements.
- **Explosion report**
  - creates specific sales orders according to shipping details

MULTI SHIP-TO ORDERS – SCENARIO & BENEFITS

Manage complex delivery scenarios, optimize logistics, and improve customer satisfaction

Business Scenarios:

- **Large Corporate Customers:**
  - Accommodates complex delivery structures for corporations with multiple distribution centers or ship-to locations.
- **Cross-Docking Operations:**
  - Supports efficient distribution through customer central hubs (distribution centers).
- **Customer-Driven Delivery:**
  - Empowers customers to determine delivery locations and quantities.



Benefits of Multi Ship-to Orders:

- **Improved Order Management:**
  - Streamlines order processing for complex customer structures.
- **Enhanced Supply Chain Efficiency:**
  - Facilitates cross-docking operations for faster delivery.
- **Enhanced Customer Satisfaction:**
  - Offers flexibility in delivery options to meet customer needs.

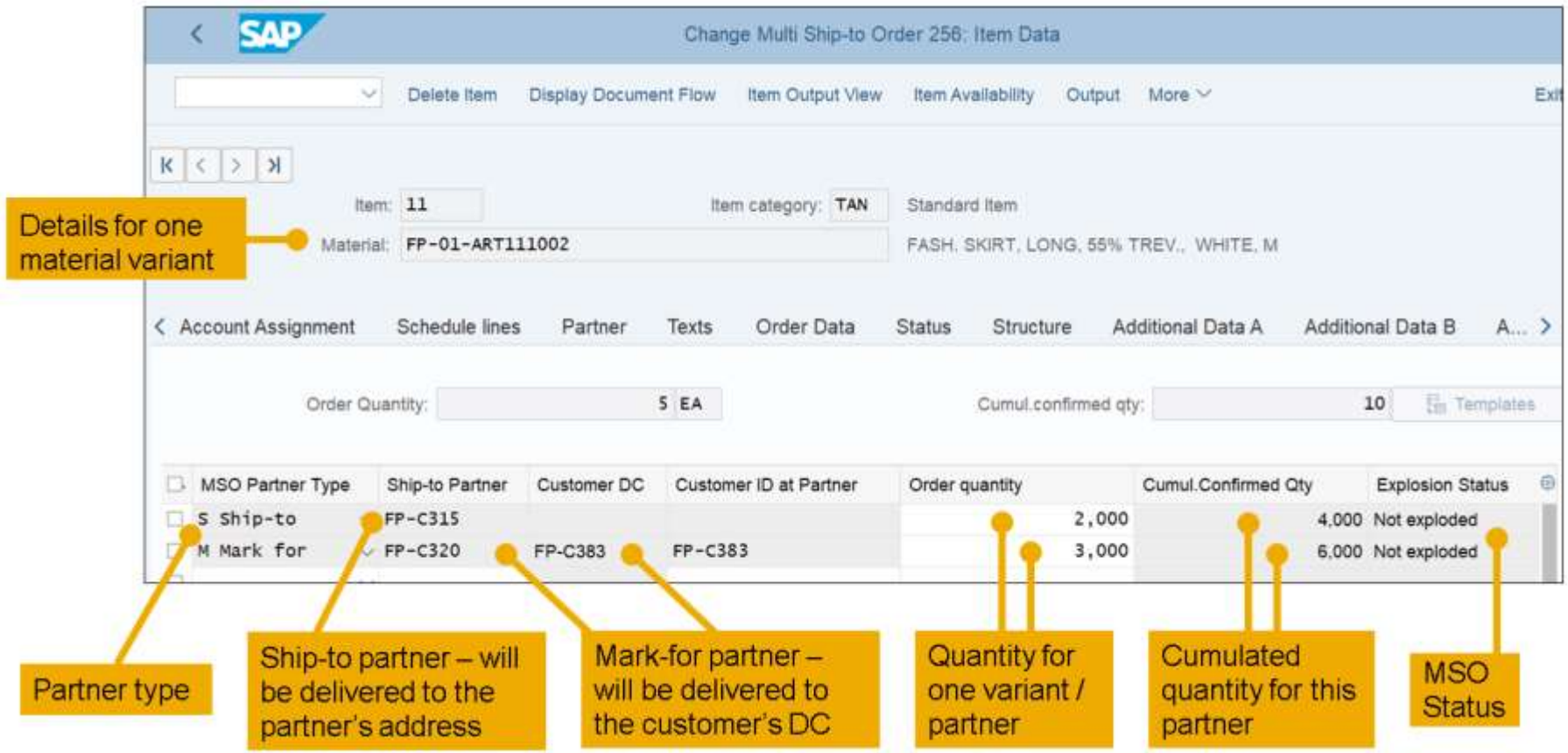
Additional Considerations:

- **Supply Assignment (ARun):**
  - Assigns available stock to individual child documents for efficient delivery.
- **Inventory Management:**
  - Requires coordination between distribution centers and ship-to locations for stock management and distribution

MULTI SHIP-TO ORDERS – HOW TO ?

Navigate to details

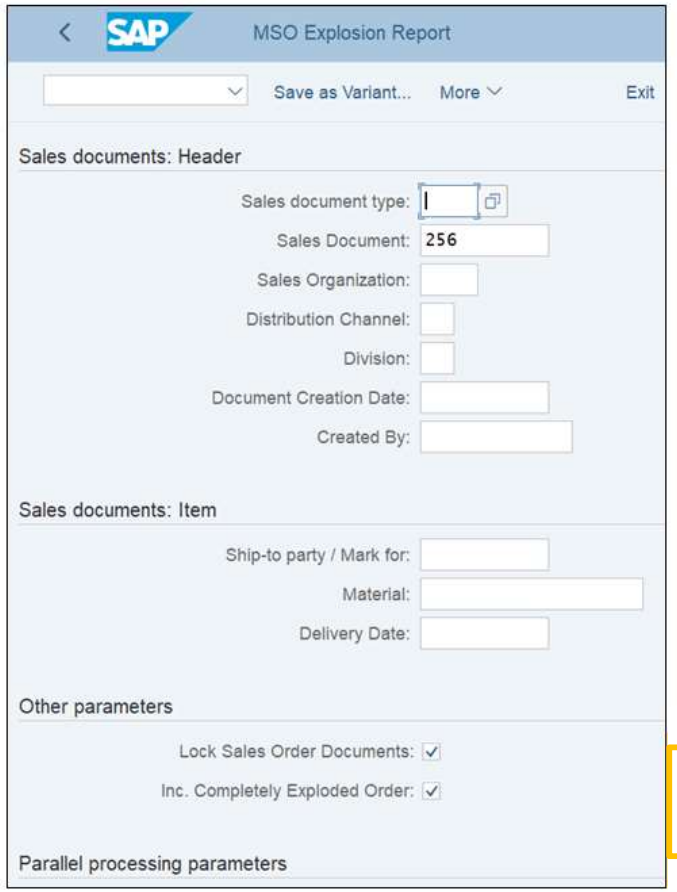
- You can navigate to the Multi Ship-to Order tab in one of the following ways:
  - Goto → Multi Ship-to Order → Ship-to Details.
  - Double-click the item on the Sales tab. On the Change Item Data screen, you can select the Multi Ship-to Order tab.

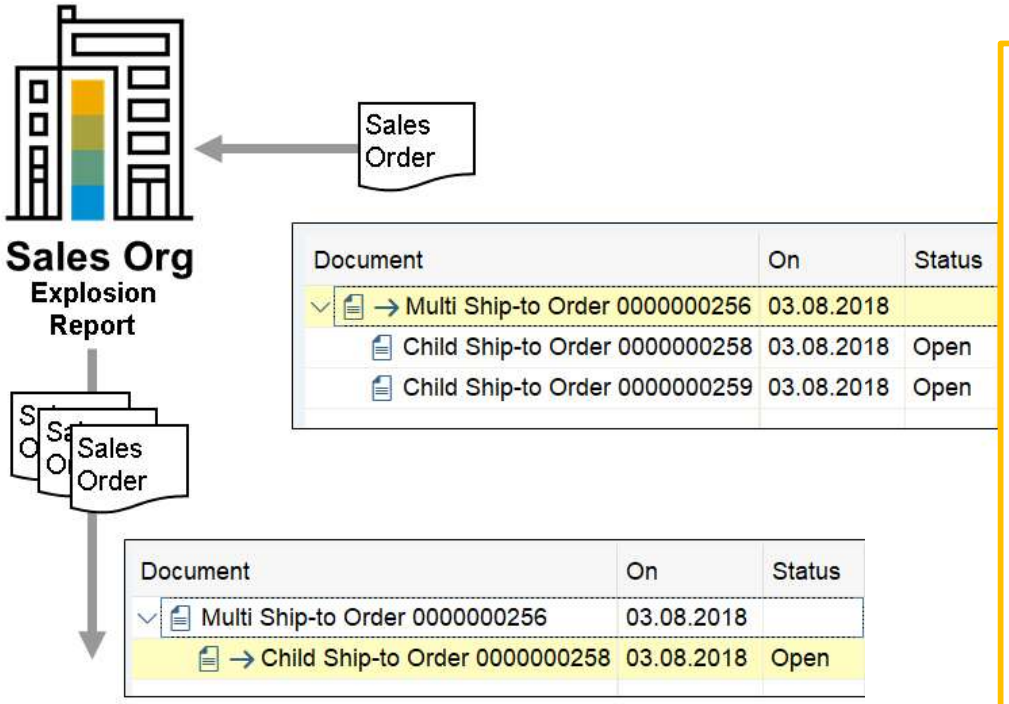


MSO EXPLOSION REPORT

Generates child documents based on mark-for or ship-to options for further processing

- The MSO Explosion report (transaction FSH_MSO) converts a main multi ship-to order into individual child sales orders.
- These child orders are created for each designated ship-to or mark-for customer specified in the main order.





- The explosion report offers multiple selection and execution options

- Document flow of the MSO shows all child documents
- The system generates a separate child sales order for each unique ship-to or mark-for customer.
- If multiple items in the main MSO are destined for the same ship-to or mark-for customer, they are combined into a single child order.
- All requirements (items, quantities, delivery dates) defined in the main MSO are copied to the individual child orders.
- The system replicates item and schedule line details from the main MSO to the child orders, including confirmed quantities.

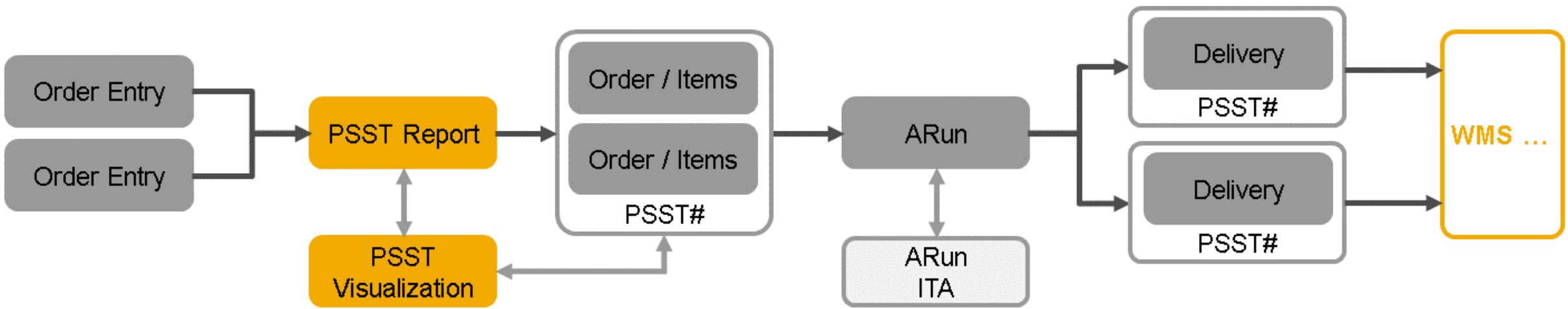
Sales
Pack Separate – Ship Together (PSST)

PACK SEPARATE – SHIP TOGETHER (PSST) – GENERAL OVERVIEW

Understanding PSST

Understanding PSST :

- **Grouping Mechanism:** PSST is a method for grouping sales or stock transport order items based on customer-specific business rules.
- **Purpose:** Items grouped under PSST are handled together during order allocation, reporting, warehouse, and transportation processes.
- **Key Characteristics:**
  - Grouping is not driven by logistical optimization but by customer requirements.
  - PSST functionality needs to be activated for relevant sales order and stock transport order types.
  - Grouping rules are created and assigned to customers to define the grouping criteria.



PACK SEPARATE – SHIP TOGETHER (PSST) – PROCESS FLOW

Configuration details

PSST Grouping Rule Creation:

- Flexible configuration of grouping criteria based on customer needs.
- Use transaction RFM_PSST_GRA to create grouping rules based on customer-specific requirements.

PSST Group Assignment:

- Assign the created grouping rule to specific customers using transaction RFM_PSST_MONITOR.

Order Creation:

- When creating sales orders or stock transport orders for customers with PSST rules, the system automatically assigns a PSST group number.

Order Processing:

- The PSST group number guides subsequent processes like order allocation, reporting, and warehouse handling.

Necessary for enabling PSST functionality for sales orders and stock transport orders.

- Sales orders: Sales and Distribution → Sales → Sales Documents → Sales Document Header → Maintain Sales Document Types per Sales Area for Fashion Management.
- STOs: Materials Management → Purchasing → Purchase Order → Maintain Stock Transport Order Types per Sales Area for Fashion Mgmt.

PACK SEPARATE – SHIP TOGETHER (PSST) – EXAMPLE

Concrete configuration example

- This example will generate a common PSST group number for selected documents that share the same entry in BSTKD and are in the defined range of requested delivery date

SO:PSST Grouping Rule Description

Languag	Description of PSST Grouping Rule
EN	PSST Rule

SO:Attributes Assigned to the PSST Grouping Rule

Field Name	Description	Days Before	Days After	Partner Functn	Empty Value Accepted
BSTKD	Customer Reference				☑
VDATU	Requested Delivery Date	5	5		☐

Grouping fields to form PSST group numbers

Sales
Manage Fashion Sale Orders

FASHION SALES ORDERS – ENHANCEMENTS FOR FASHION

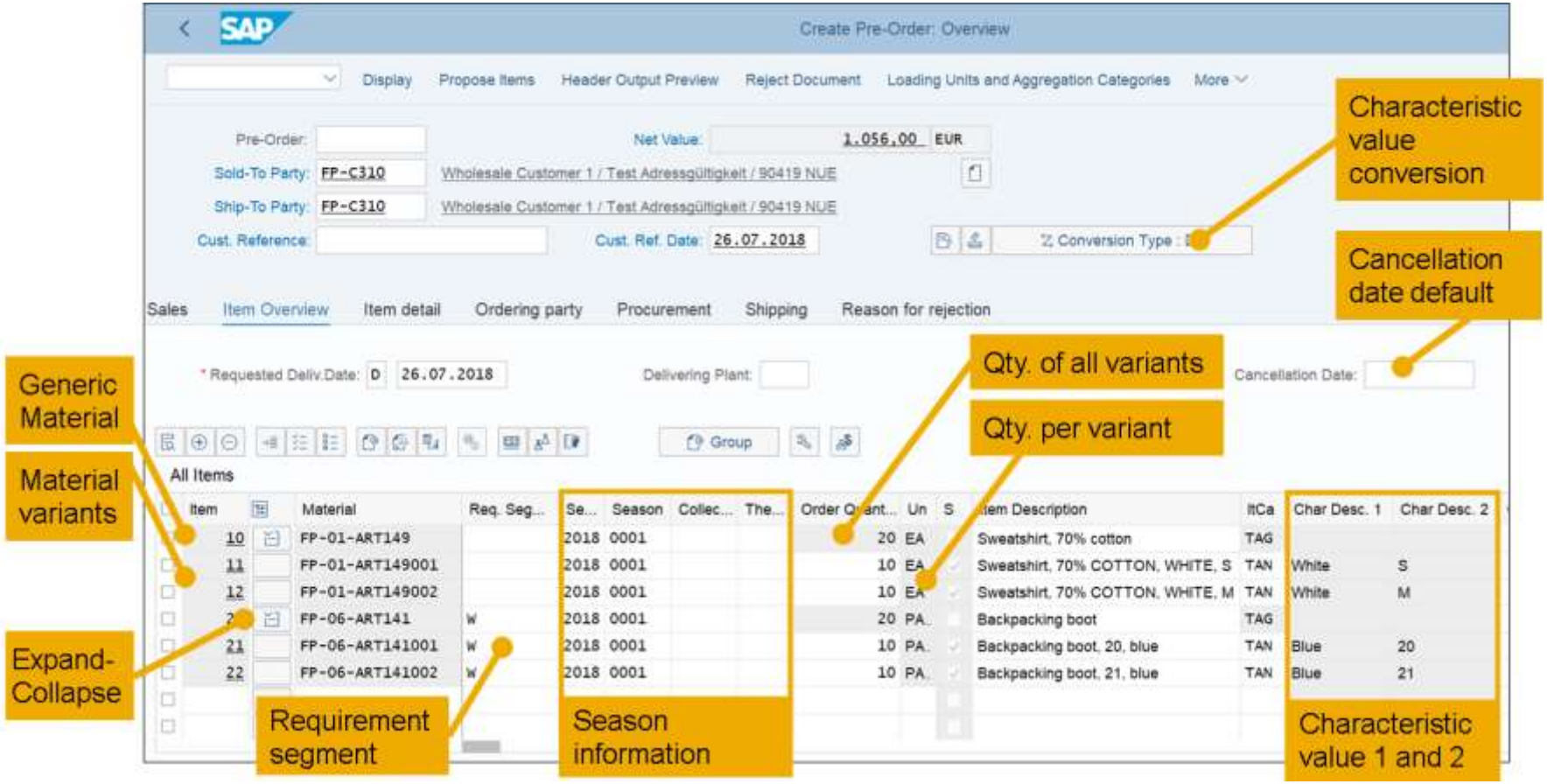
Created and maintained using the standard transactions VA01, VA02

Cancellation Date: A Key Feature

- The cancellation date, once defined, is automatically copied to all subsequent items within a sales order.
- It serves as a clear indication to the customer and internal teams that deliveries after this date will not be accepted.
- Transaction **MASS** can be utilized to modify cancellation dates for multiple sales orders simultaneously, streamlining the process.

ATP Integration:

- The system can be configured to generate a warning message when the cancellation date is approaching.
- This integration with Available-to-Promise (ATP) functionality helps prevent unnecessary deliveries and potential stock issues.
- The behavior of the cancellation date, including the warning message, can be defined in customizing: IMG -> Sales and Distribution -> Sales -> Sales Documents -> Sales Document Header -> Maintain Sales Document Types per Sales Area for Fashion Management.



FASHION SALES ORDERS – CUSTOMER GROUPING FIELDS

Enhance the ability to understand and serve their customers better

Customer Grouping Fields – definition

- These fields allow for additional segmentation of customers beyond standard customer master data.
- They can be used to categorize customers based on specific criteria (e.g., customer type, loyalty level, purchasing behavior).
- This segmentation enables targeted marketing, sales, and inventory management strategies.
- Consider using these fields in conjunction with other segmentation tools (e.g., customer hierarchies) for a comprehensive customer segmentation approach.
- Ensure data quality and consistency by maintaining accurate and up-to-date information in the customer grouping fields.

Customer Grouping Fields – Key Features:

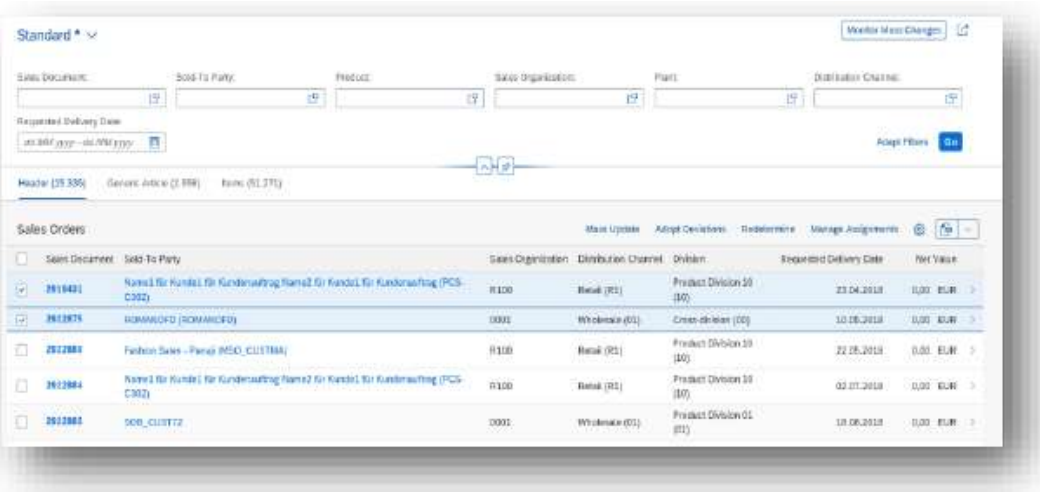
- **Five Custom Fields:** The system provides five additional grouping fields (6 to 10) for flexible customer classification.
- **Sales Order Integration:** These grouping fields are copied into the sales order, ensuring consistency across the sales process.
- **Requirement Segment:** For materials using segmentation, the requirement segment can be automatically populated in the sales order based on customer grouping.
- **Characteristic Values:** Up to three characteristics with technical and descriptive values can be automatically entered into the sales order.

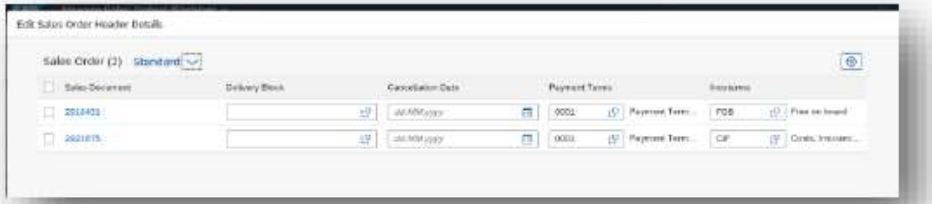
FASHION SALES ORDERS – MASS PROCESSING

Reduces manual effort and increases productivity by enabling bulk updates

- The ability to perform mass changes across multiple sales order items is crucial for efficient order management, especially in high-volume environments. This functionality allows for quick adjustments to order details, reducing manual effort and potential errors.

- **Key Features:**
  - **Flexible Viewing Options:** The system provides different views (header, generic article, article level) to cater to various user needs and analysis requirements.
  - **Configurable Filtering:** A smart filter bar enables users to quickly locate specific sales orders based on various criteria.
  - **Efficient Mass Changes:** The system supports both manual and automated (background job) mass changes, offering flexibility and control.





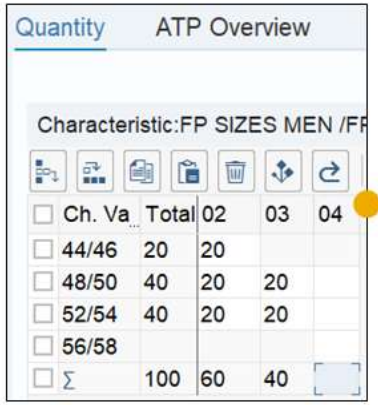
BASIC FEATURES OF THE AVAILABLE TO PROMISE CHECK ATP

The availability overview

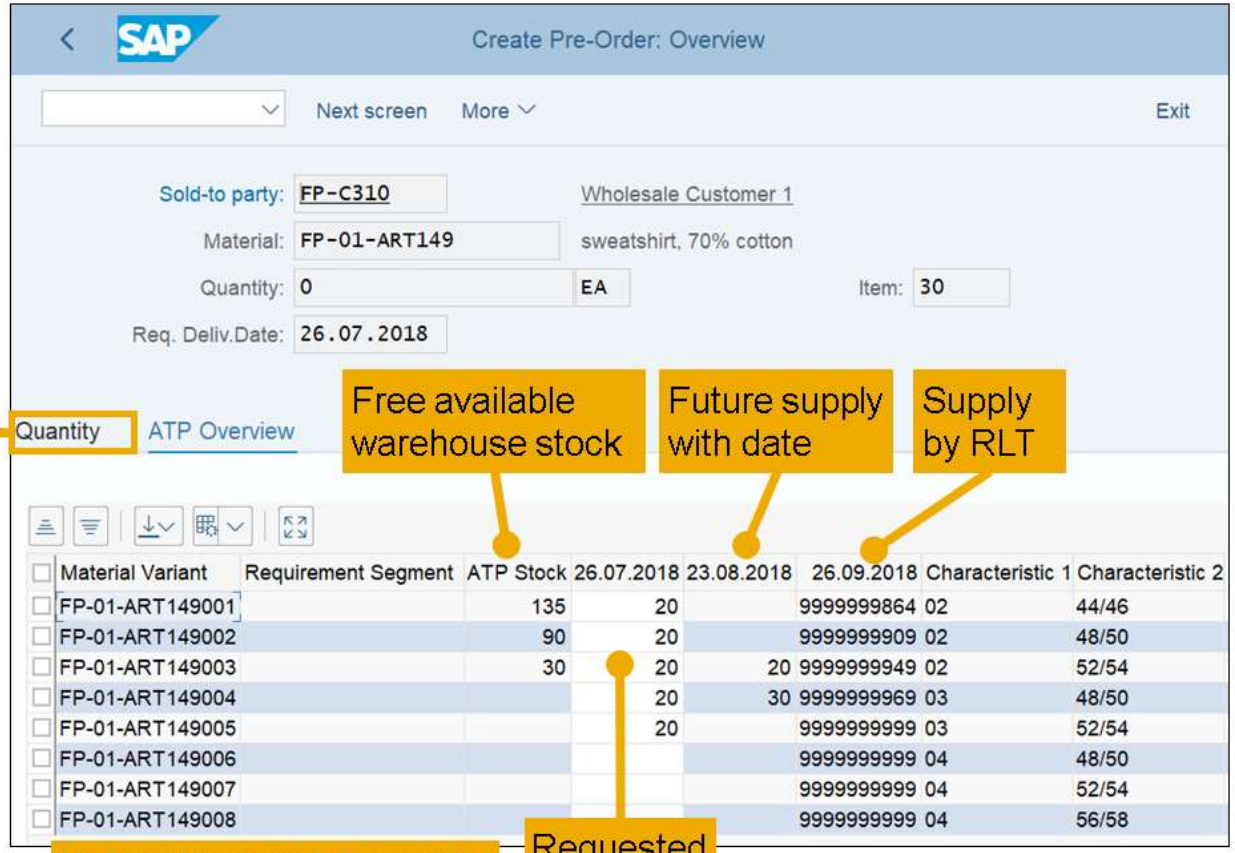
- The ATP (Available-to-Promise) overview provides a comprehensive view of stock availability for all variants of a specific generic material within a defined plant. This functionality is crucial for accurate sales order creation and promise management.

- **Visual Representation:** The system offers two display options:
  - Line display with supply information (detailed breakdown of stock availability)
  - Matrix overview (summary of stock availability without detailed breakdown)
  - The ATP overview is for informational purposes only and cannot be modified directly.

- **Activation:** The ATP stock overview feature requires activation in customizing: *IMG -> Sales and Distribution -> Sales -> Sales Documents -> Sales Document Header -> Maintain Sales Document Types per Sales Area for Fashion Management.*



Matrix entry option without stock availability information



Material variant information

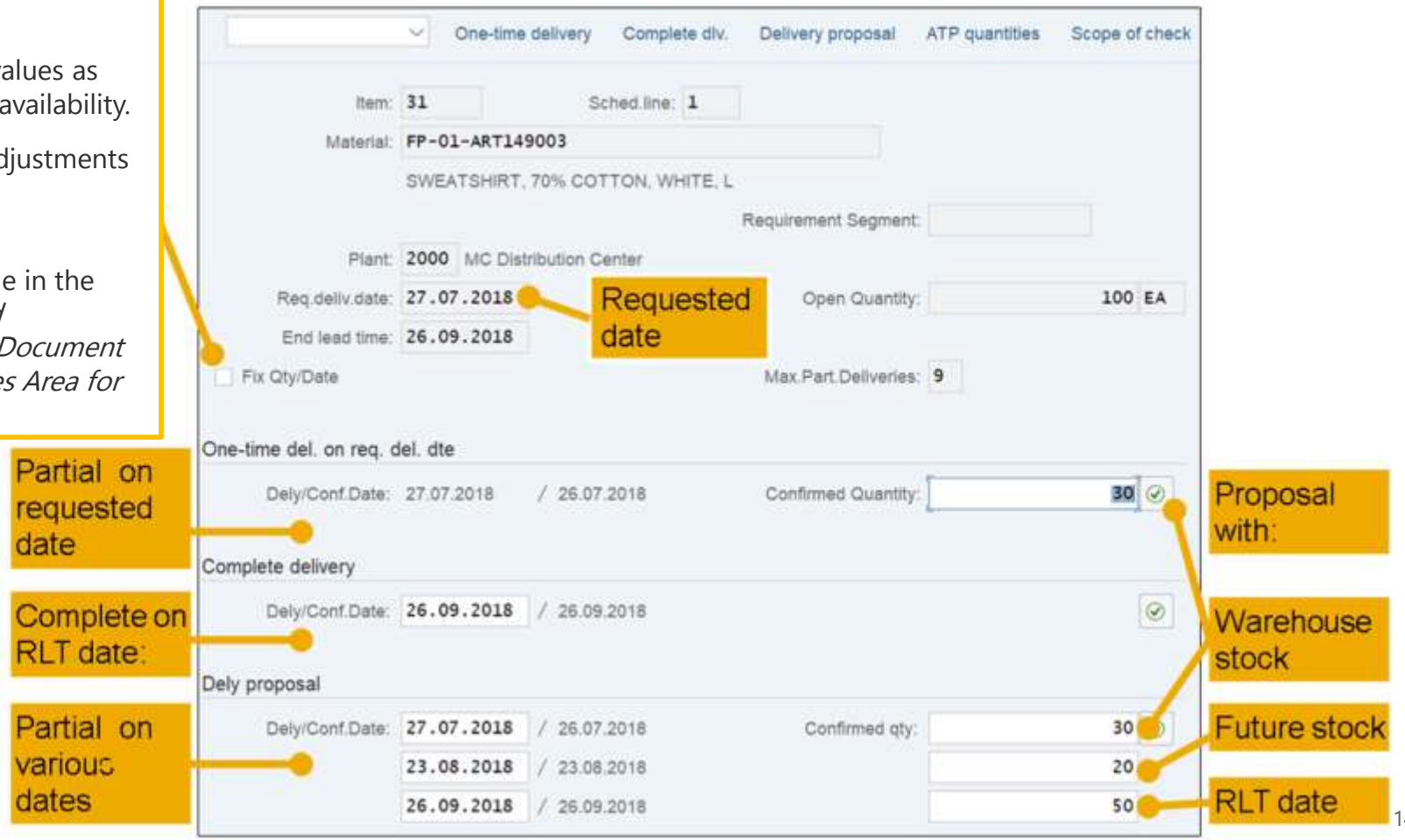
Requested quantities

FIX QUANTITY/DATE IN ATP CONTROL

A Deeper Look

- **Reduced flexibility**: limits the ability to expedite deliveries or adjust quantities beyond the confirmed values.
- **Improved Supply Chain reliability**: provides a clear commitment to customers and enables better production and logistics planning.

- This checkbox determines whether the delivery date and quantity confirmed by the system after an ATP check are fixed or flexible.
- When checked, the system treats these confirmed values as commitments, triggering MRP processes to ensure availability.
- When unchecked, the system allows for potential adjustments to delivery dates and quantities based on changing circumstances.
- If re-ATP should re-check anyhow, this can be enable in the customizing of the sales document : *IMG: Sales and Distribution -> Sales -> Sales Documents -> Sales Document Header -> Maintain Sales Document Types per Sales Area for Fashion Management.*



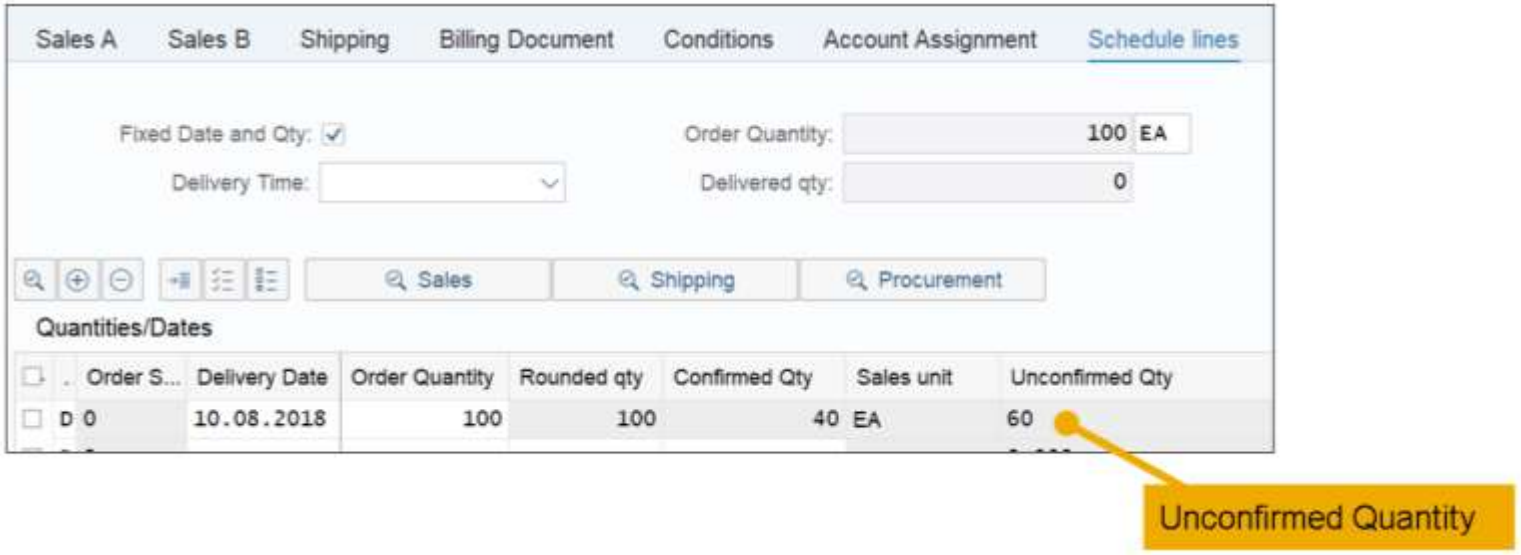
PRECEDING AND SUCCESSOR DOCUMENTS OF SALES ORDERS (1/2)

Unconfirmed Quantity in Sales Orders

- The unconfirmed quantity field within a sales order provides critical information about the portion of the ordered quantity that cannot be immediately confirmed based on available stock or other constraints.

- **Calculation and Display:**
  - The system calculates the unconfirmed quantity by comparing the requested order quantity with the available quantity determined through an ATP (Available-to-Promise) check.
  - The difference between these two values is reflected in the unconfirmed quantity field.
  - This field is displayed at the schedule line level within the sales order.

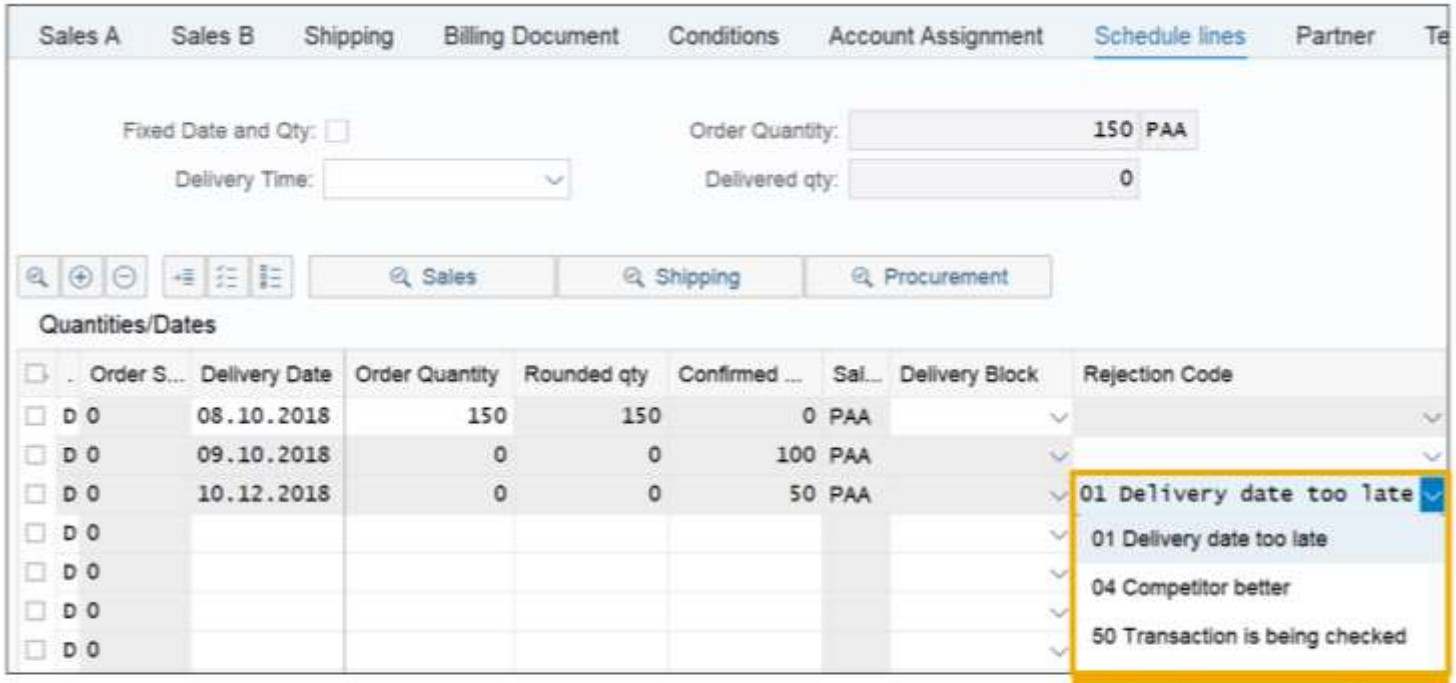
- **Dynamic Updates:**
  - The unconfirmed quantity is a dynamic value that adjusts in response to:
    - Changes in the order quantity
    - Updates to available stock levels (ATP checks)



PRECEDING AND SUCCESSOR DOCUMENTS OF SALES ORDERS (2/2)

Rejecting Sales Order Items

- **Rejection Scenario**: When a confirmed delivery date or quantity is unacceptable, you can reject all or part of a sales order item.
- **Partial Quantity Rejection**: To reject a portion of a confirmed order item, you assign a rejection code to the relevant schedule line.
- **New Sub-item Creation**: The system automatically creates a new sub-item with the rejected quantity based on the original schedule line details.
- **Configuration**:
  - Rejection Codes: define valid rejection codes and their characteristics in *IMG -> Sales and Distribution -> Sales -> Sales Documents -> Sales Document Item -> Maintain Rejection Codes for Fashion Management.*
  - Sales Document Types: configure sales document types to enable partial quantity rejection in *IMG -> Sales and Distribution -> Sales -> Sales Documents -> Sales Document Header -> Maintain Sales Document Types per Sales Area for Fashion Management.*



The order item has been confirmed with two schedule lines due to supply availability. It is possible to reject just one of the two. The system will create a new sub-item for this rejection.

Rejection reasons have to be activated for partial qty. rejection

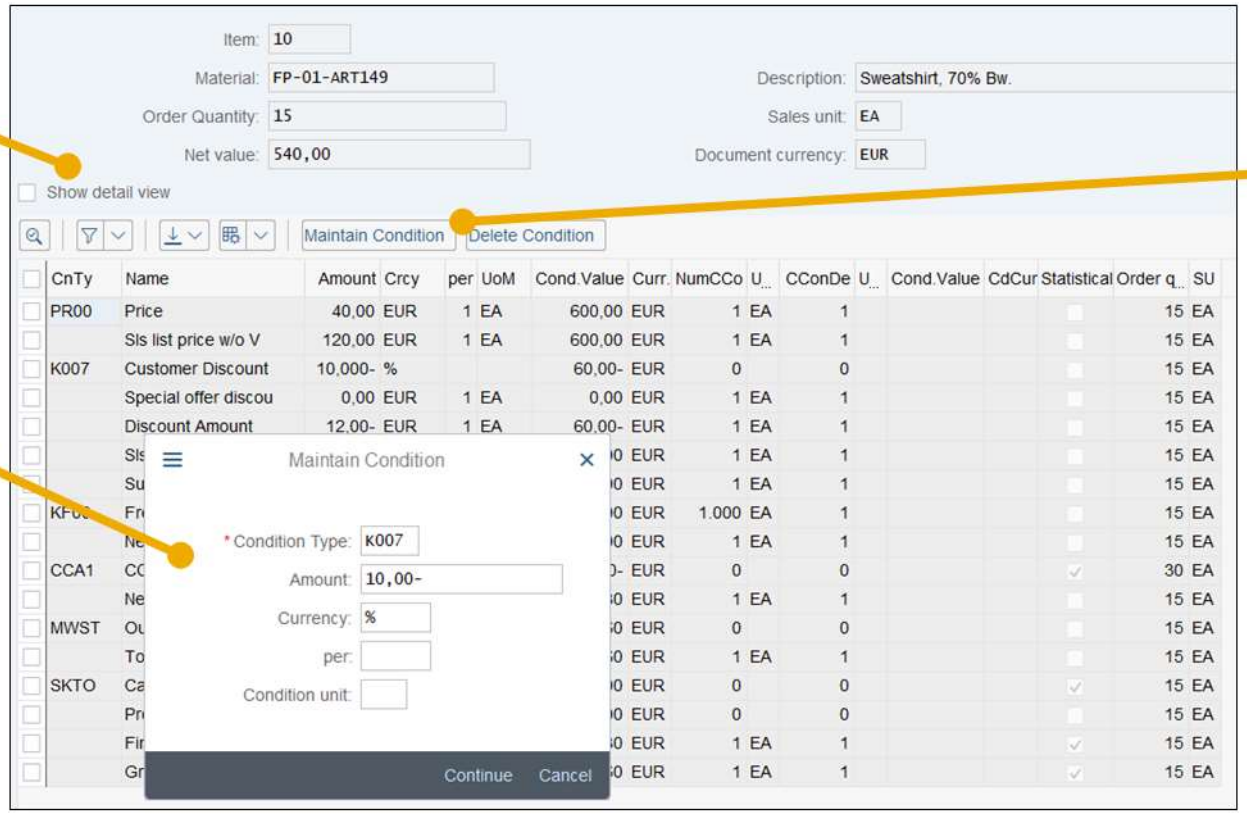
UNDERSTANDING MATERIAL PRICE ANALYSIS

Price calculation per item

- This feature provides a consolidated view of pricing conditions for all variants of a generic material within a sales order. This enables users to quickly assess pricing information and make informed decisions.
- **Key Features:**
  - **Access:** The "Material Price Analysis" button, located on the "All Items" section of the sales order screen, initiates the analysis.
  - **Data Scope:** The analysis covers all variants of the selected generic material within the sales order.
  - **Data Display:** The system presents an aggregated or detailed list of pricing conditions, depending on user preference.

Show details will list all variants with their conditions

Maintain Condition opens the pop up screen. Values get copied to all variants

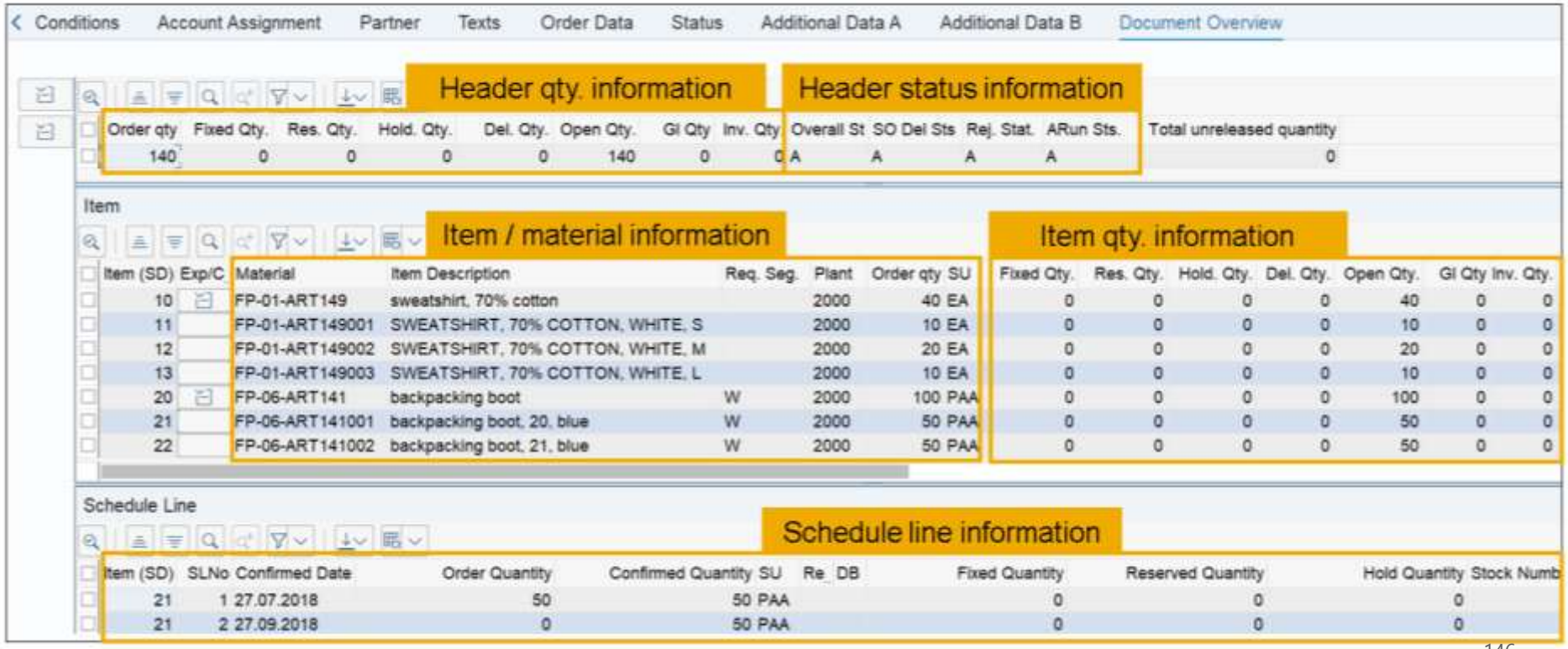


It is possible to **maintain** and to **delete** condition types

THE SALES DOCUMENT OVERVIEW FEATURE

A Comprehensive View

- The document overview screen offers a consolidated view of all relevant information for a sales document on a single tab.
- This comprehensive approach eliminates the need to navigate through multiple screens.
- **Data Organization:**
  - Data is presented in distinct sections within the tab for easy navigation and analysis.
- **Data Levels:**
  - Provides insights into data at the header, item, and schedule line levels.
- **Data Categories:**
  - Displays various data categories such as:
  - Delivered and billed quantities
  - Fashion-specific data (seasons, VAS)
  - Supply assignment (ARun) details
  - Confirmation and fulfillment rates
  - Quantities (ordered, confirmed, delivered, billed)
  - Document statuses at header and item level

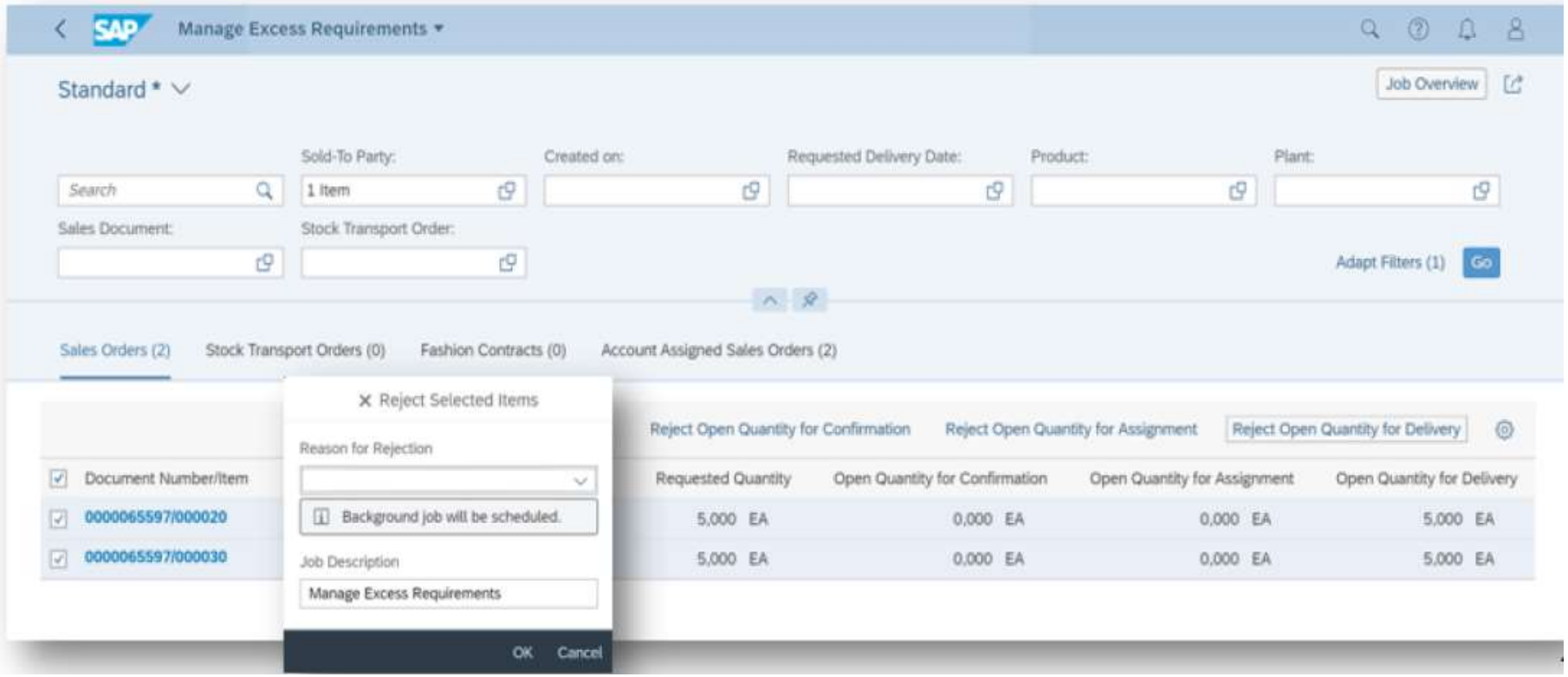


Sales
Manage Excess requirements

MANAGE EXCESS REQUIREMENTS – OVERVIEW

Efficient tool for mass processing of demand cleansing

- **Mass processing to close off excess requirement** from different documents to clear order book from **no longer relevant demands**
  - Displays list of demand documents (Sales Order, Stock Transport Order, Fashion Contracts) containing excess requirement
  - Provides an option to reject excess requirement in online or background mode (also for partially delivered items)
  - Scheduling capability : Provides scheduling capability for users to run excess requirement jobs in background



Distribution

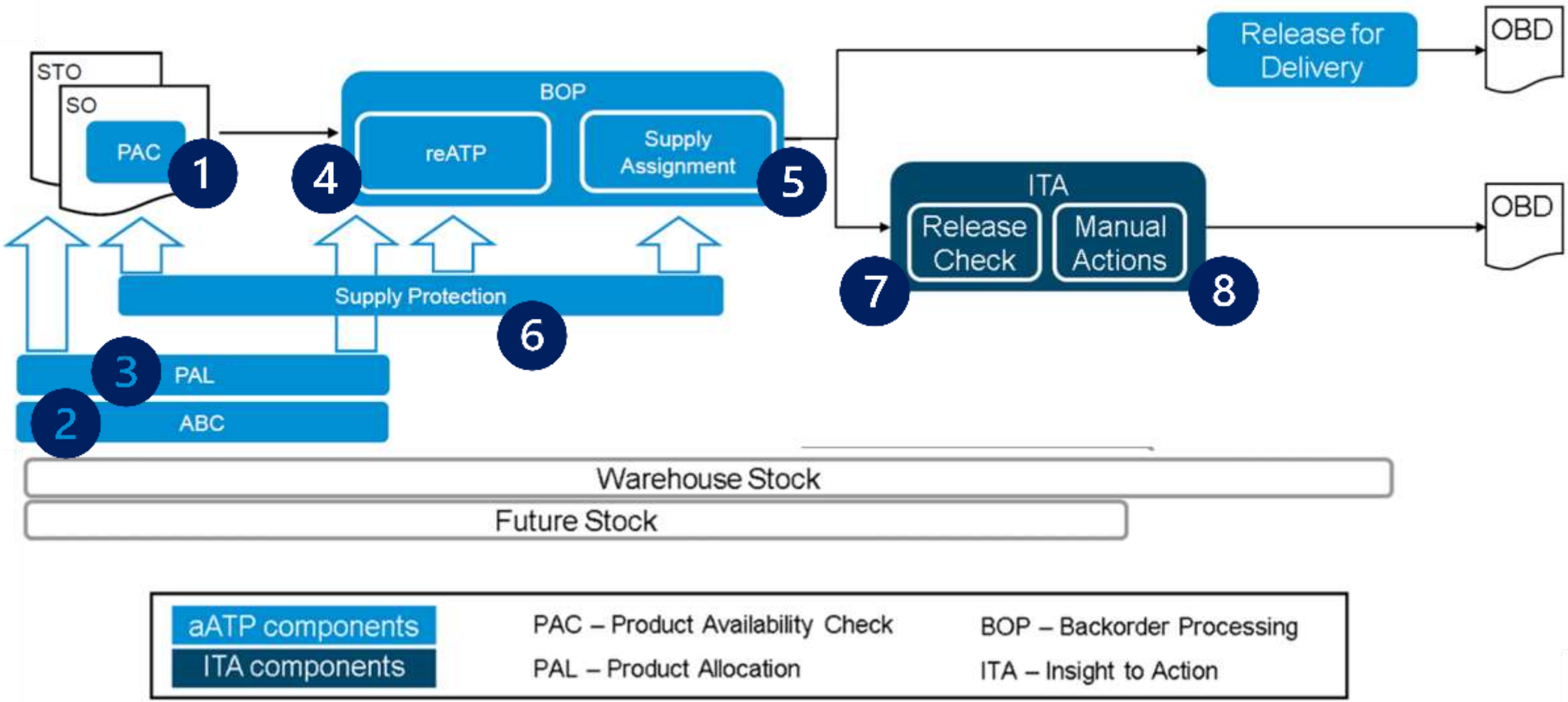
- Advanced ATP for fashion and vertical business
- Monitor Supply Demand

Distribution
Advanced ATP for fashion

ADVANCED ATP FOR FASHION

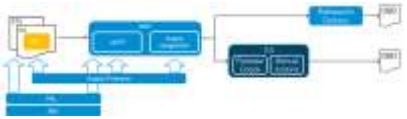
ATP components and related functionality in the context of order fulfillment

- **We'll deep dive in each of the 6 functionalities**



PAC – PRODUCT AVAILABILITY CHECK

As known as “ATP check”



Core Functionalities of ATP:

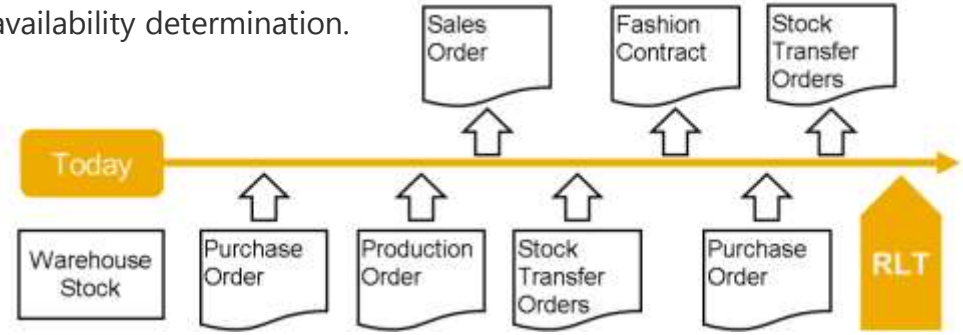
- **Time-Phased Availability Check:** Evaluates product availability for the requested quantity at the specified location and delivery date.
- **Mass Processing Capability:** Enables ATP checks for multiple sales orders or order items simultaneously.
- **Comprehensive Supply Consideration:** Takes into account various supply elements, including planned independent requirements, purchase orders, and stock transfers.
- **Support for Special Stocks and Batches:** Considers specific stock types and batch requirements during the check.
- **Integration with Segmentation:** Incorporates segmentation information for accurate availability determination.

Key Outcomes of ATP Check:

- **Confirmed Delivery Date:** The system proposes a delivery date based on available supply.
- **Unconfirmed Quantity:** Indicates the portion of the order that cannot be immediately confirmed due to insufficient supply.

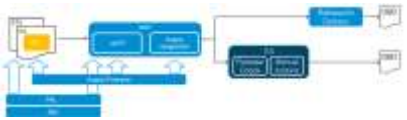
Customization and Configuration:

- Relevant customizing is maintained in: *IMG → Cross-Application Components → Advanced Available-to-Promise (aATP).*
- **ATP Checking Groups:** Define the scope of the ATP check based on material types, plants, and other criteria.
- **ATP Logic:** Configure the ATP logic to determine how supply elements are considered and prioritized.
- **Segmentation Integration:** Ensure ATP checks respect segmentation rules for accurate availability determination.



PAC – PRODUCT AVAILABILITY CHECK

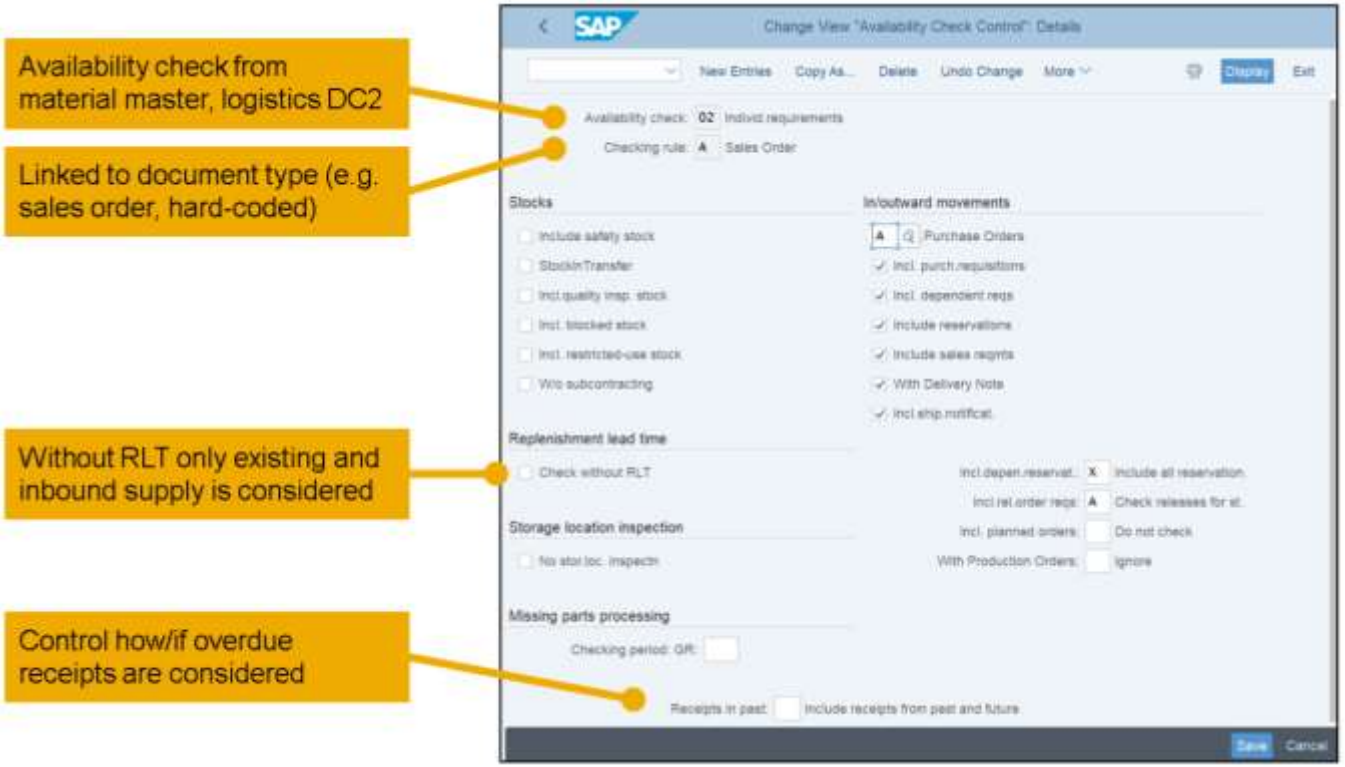
Availability Check control



- **Backward and Forward Checking:** The system first checks if the requested quantity can be fulfilled on the requested delivery date (backward check). If not, it performs a forward check to determine the earliest possible delivery date based on available supply.

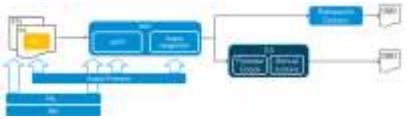
- **Supply and Demand Consideration:** The PAC process takes into account various supply and demand elements, including stock on hand, planned receipts, and existing sales orders.

- **Customization:** Relevant customizing is maintained in *IMG → Cross-Application Components → Advanced Available-to-Promise (aATP) → Product Availability Check (PAC).*

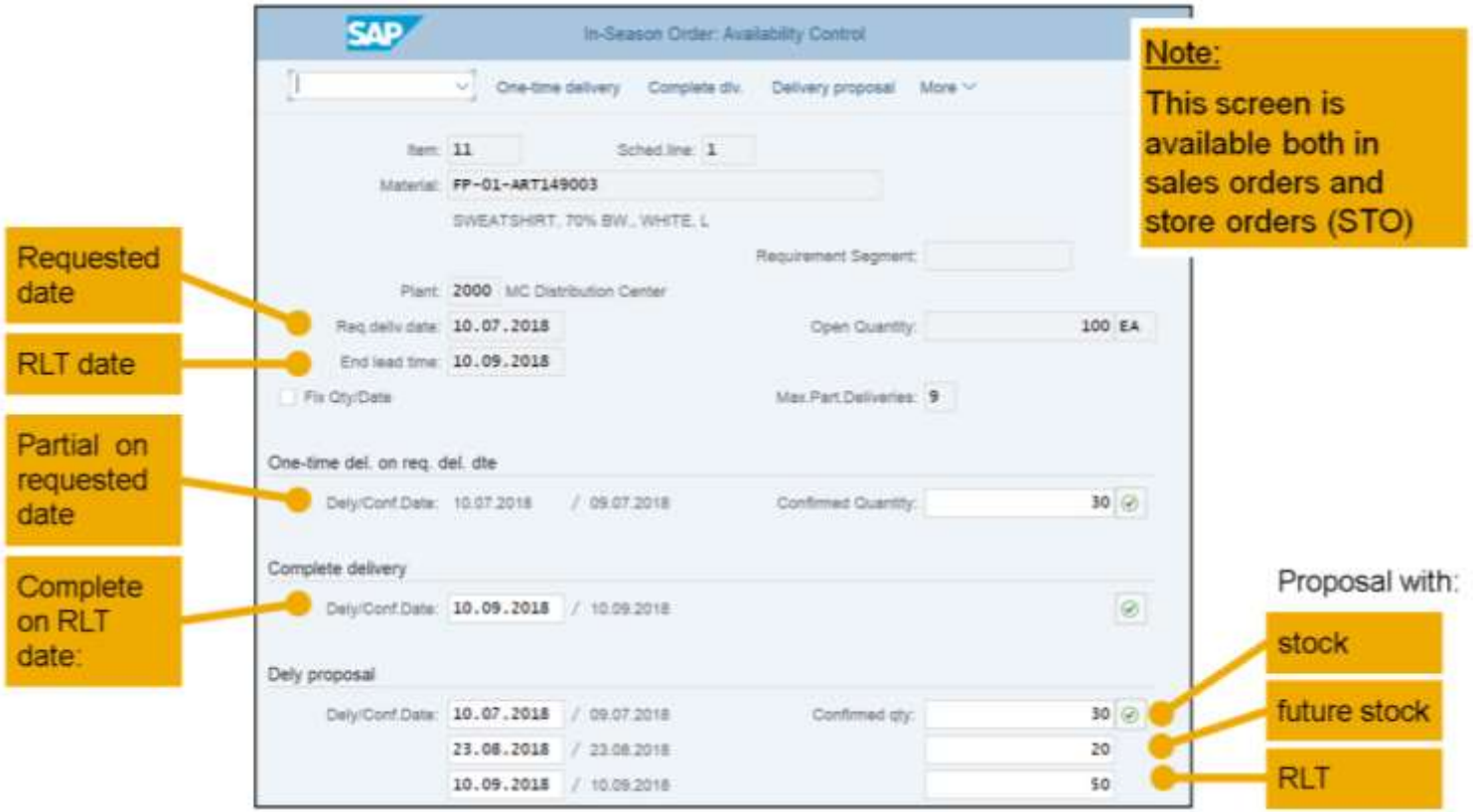


PAC – PRODUCT AVAILABILITY CHECK

Order availability control



- When an ATP check reveals insufficient stock to fulfill a sales order in its entirety, the system presents various options on the ATP result screen:
  - **One-time Delivery:** Only the immediately available quantity is confirmed for delivery.
  - **Complete Delivery:** The entire order quantity is confirmed, with the delivery date adjusted to the earliest possible date based on available stock.
  - **Delivery Proposal:** The system suggests multiple delivery dates and quantities to optimize fulfillment based on stock availability.

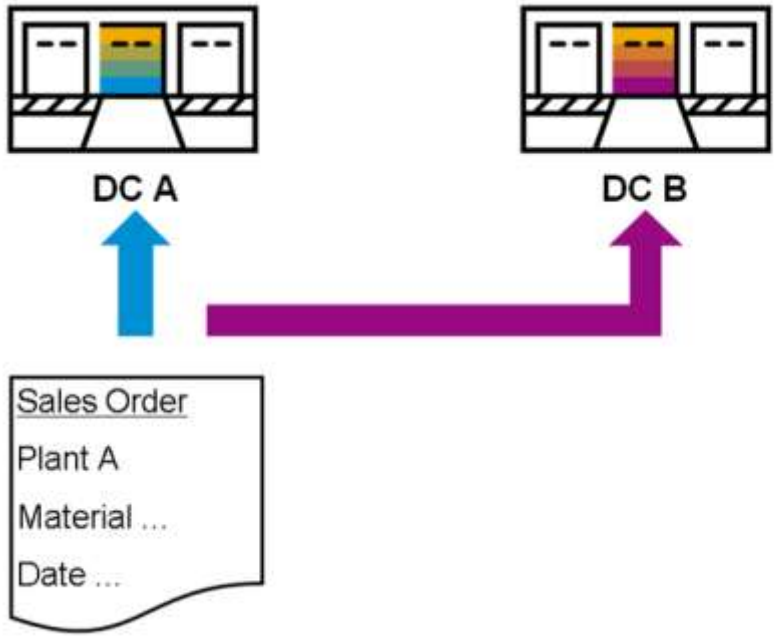


ALTERNATIVE-BASED CONFIRMATION (ABC)

Overview

Key Components of ABC:

- **Requirement:** Defines the desired material, quantity, and delivery date.
- **Alternative Plant:** A potential substitute location for fulfilling the requirement.
- **Substitution Strategy:** Defines the rules for selecting alternative plants based on specific criteria (e.g., proximity, capacity, cost).
- **Alternative Control:** Manages the set of possible alternative plants and their associated characteristics.



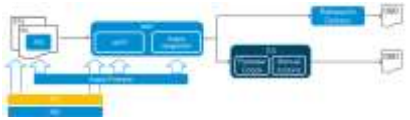
How ABC Works:

1. **Requirement Creation:** A sales order or other demand document generates a requirement.
2. **ATP Check:** The system performs an ATP check to determine if the original requirement can be fulfilled.
3. **Alternative Plant Search:** If the original requirement cannot be fully met, the system searches for alternative plants based on the defined substitution strategy.
4. **Best Alternative Selection:** The system evaluates the identified alternative plants and selects the best option based on factors such as availability, delivery date, and cost.
5. **Confirmation:** The system confirms the order using the selected alternative plant and adjusted delivery date if necessary.

PAL – PRODUCT ALLOCATION

Manage demand and supply effectively

3



- **It ensures that specific demand sources (e.g., sales orders, production orders) do not consume more than their allocated portion of available supply.**

- **Key Features of PAL:**
  - **Demand Restriction:** Sets maximum allowed quantities for specific demand categories or groups.
  - **Supply Protection:** Prevents overcommitment of available supply to individual demands.
  - **Common Stock:** Maintains a shared stock pool for multiple demands without physical separation.
  - **ATP and ARun Integration:** Works seamlessly with ATP and ARun processes to ensure accurate availability checks and supply assignment.

- **Configuration and Implementation:**
  - **PAL Definition:** Specify maximum allowed quantities for demand categories or groups.
  - **ATP Integration:** Configure ATP to consider PAL restrictions during availability checks.
  - **ARun Integration:** Ensure PAL is considered during supply assignment to allocate supply according to defined limitations.

PAL – PRODUCT ALLOCATION

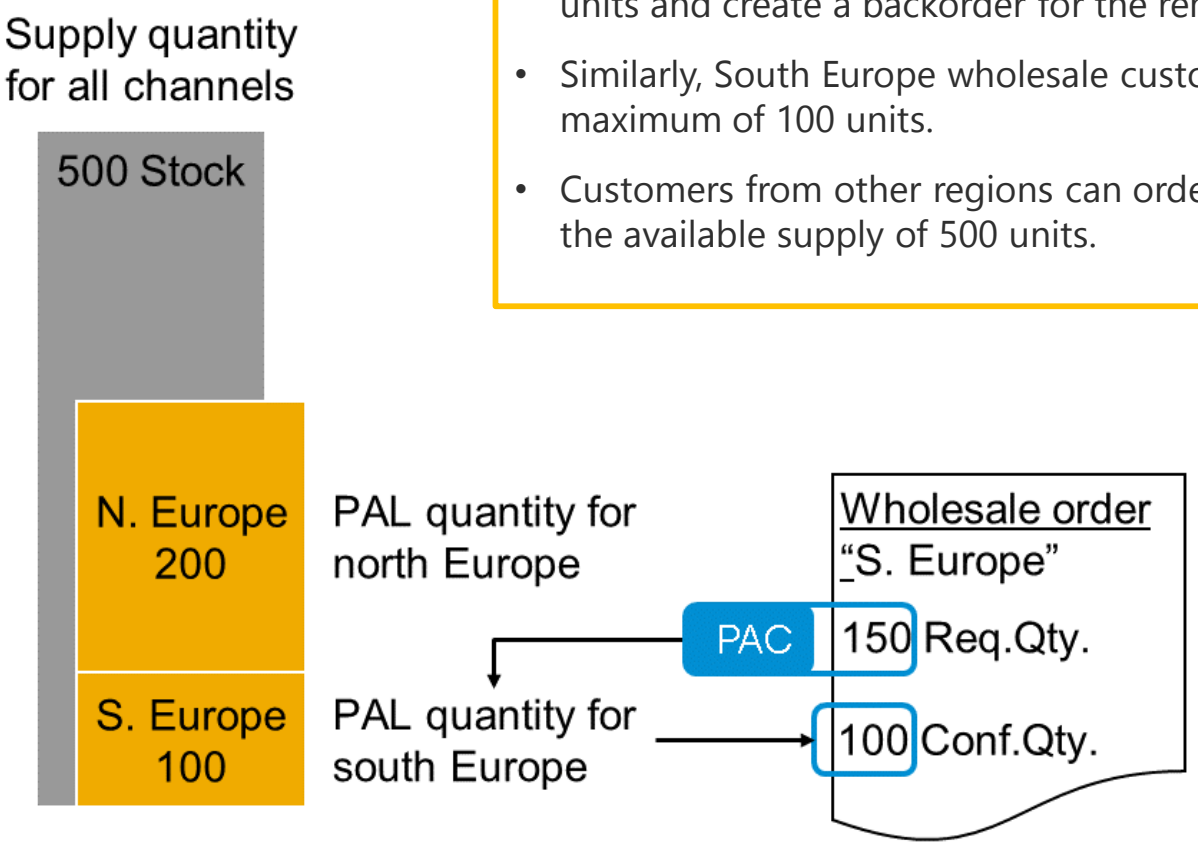
Example

PAL Configuration:

- **Demand Groups:**
  - **Group 1:** North Europe Wholesale
  - **Group 2:** South Europe Wholesale
- **Maximum Quantities:**
  - Group 1: 200 units
  - Group 2: 100 units
- **Other Demands:** No restrictions, can order up to the full available supply of 500 units.

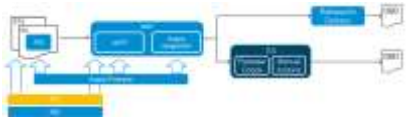
Order Creation:

- When a North Europe wholesale customer places an order for more than 200 units, the system will only confirm 200 units and create a backorder for the remaining quantity.
- Similarly, South Europe wholesale customers are limited to a maximum of 100 units.
- Customers from other regions can order any quantity up to the available supply of 500 units.



PAL – PRODUCT ALLOCATION

Example with time series



Key Points:

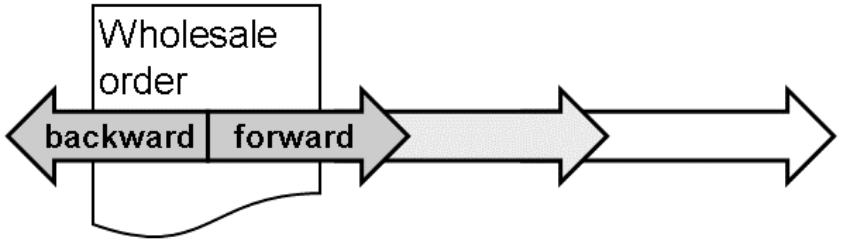
- **Time-Based PAL Quantities:** PAL quantities can be defined for specific time periods, allowing for more granular control over demand.
- **Backward and Forward Scheduling:** The system considers both past and future demand when determining available quantities.
- **Dynamic Adjustments:** PAL quantities can be adjusted over time to reflect changing market conditions and supply chain dynamics.

The example above shows **PAL setup with a time series.**

A wholesale order with requested delivery in May would be confirmed up to:

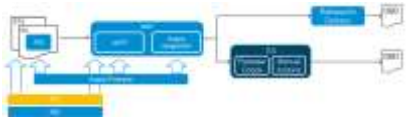
- 150 if neither backward nor forward scheduling is set up.
- 250 if only backward scheduling is set up.
- 350 if only forward scheduling is set up for + 1 month.
- 500 if only forward scheduling is set up for + 2 months (or more).
- 600 is both backward and forward scheduling is set up.

Sales Org.	Channel	Qty. April	Qty. May	Qty. June	Qty. July
Europe	Retail	200	150	100	100
Europe	Wholesale	100	150	200	150
	Σ	300	300	300	250
	Supply	300	350	250	250



PAL – PRODUCT ALLOCATION

Example with sequence



Example 1

- On first level wholesale customer "NY" could be confirmed up to 100, "key account 1" up to 200 and any ("#") other customer cannot be confirmed at all because no quantity is maintained
- On the second level any wholesale customer can be confirmed up to a quantity of 200. Explicit customers defined in level 1 could access the level 2 quantity as well.

Channel	Customer	Quantity	Supply
Level 1			500
Wholesale	New York	100	
Wholesale	Key Acct. 1	200	
Wholesale	#	-	
Level 2			
Wholesale	-	200	

Example 2

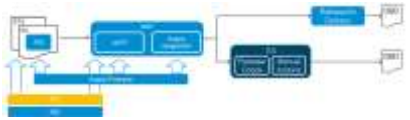
- On first level wholesale customer "NY" could be confirmed up to 100, retail "store 1" up to 200 any other retail store up to 500.
- On the second level any wholesale customer can receive 200 (also "NY" can access this bucket) and any retailer (also "store 1" can access 300.

Channel	Customer Grp.	Quantity	Supply
Level 1			1000
Wholesale	New York	100	
Retail	Store 1	200	
Retail	#	500	
Level 2			
Wholesale	-	200	
Retail	-	300	

PAL – PRODUCT ALLOCATION

Fiori Apps

3



- Create, display and edit product allocation sequences.
- Combine product allocation objects as constraints for product allocation.
- Define alternative sources of product allocation by creating product allocation sequence groups and assigning product allocation objects to a product allocation constraint.
- Maintain the consumption strategy (number of backward and forward consumption periods, consumption unit and allocation factor) for availability checks against product allocation.

- Create, edit and display product allocation objects.
- Define the period types for product allocation objects.
- Define and order the characteristics for product allocation objects.
- Deactivate and delete product allocation objects and their characteristics.

- Assign materials or material-plant combinations to product allocation objects.
- Define validity periods for any assignments.

- Maintain characteristic values and planning allocation quantities for time periods.
- Change the activation status and constraint status of product allocation objects.
- Display the availability situation of the materials in the product allocation objects.
- Release product allocation objects and their planning data for active usage.

Define Allocation Objects
- Name, UoM, period, time zone, check date, SO/STO
- Characteristics (Fields)

Maintain Quantities
- Status, constraint status
- Quantity per field combination/time bucket

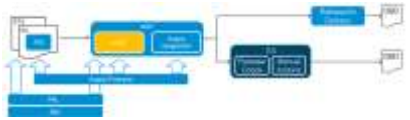
Define Sequences
- Name, consumption settings
- Add Allocation objects
- Validity times

Assign
- Add sequences to Material/Plant
- Validity times

BOP – BACKORDER PROCESSING – RESCHEDULING

reATP helps to maintain alignment between supply and demand in dynamic environments

4



Key Features of Re-ATP:

- **Proactive Response to Supply Changes:** Automatically rechecks availability for existing sales and stock transfer orders when supply changes occur.
- **Confirmation Updates:** Adjusts confirmed delivery dates and quantities based on the new availability situation.
- **Prioritization:** Handles potential conflicts between multiple orders by prioritizing based on order type, customer importance, or other defined criteria.

Benefits of Re-ATP:

- **Improved Order Fulfillment:** Minimizes order cancellations and delays due to supply shortages.
- **Enhanced Customer Satisfaction:** Provides accurate delivery dates and transparent communication about order status.
- **Optimized Inventory Management:** Prevents overselling and stockouts by adapting to changing supply conditions.

Additional Considerations:

- **Re-ATP Frequency:** Determine the optimal frequency for re-ATP checks based on business needs and system performance.
- **ATP Logic:** Configure ATP logic to accurately reflect supply and demand priorities.
- **Customer Communication:** Inform affected customers about changes in delivery dates and quantities.

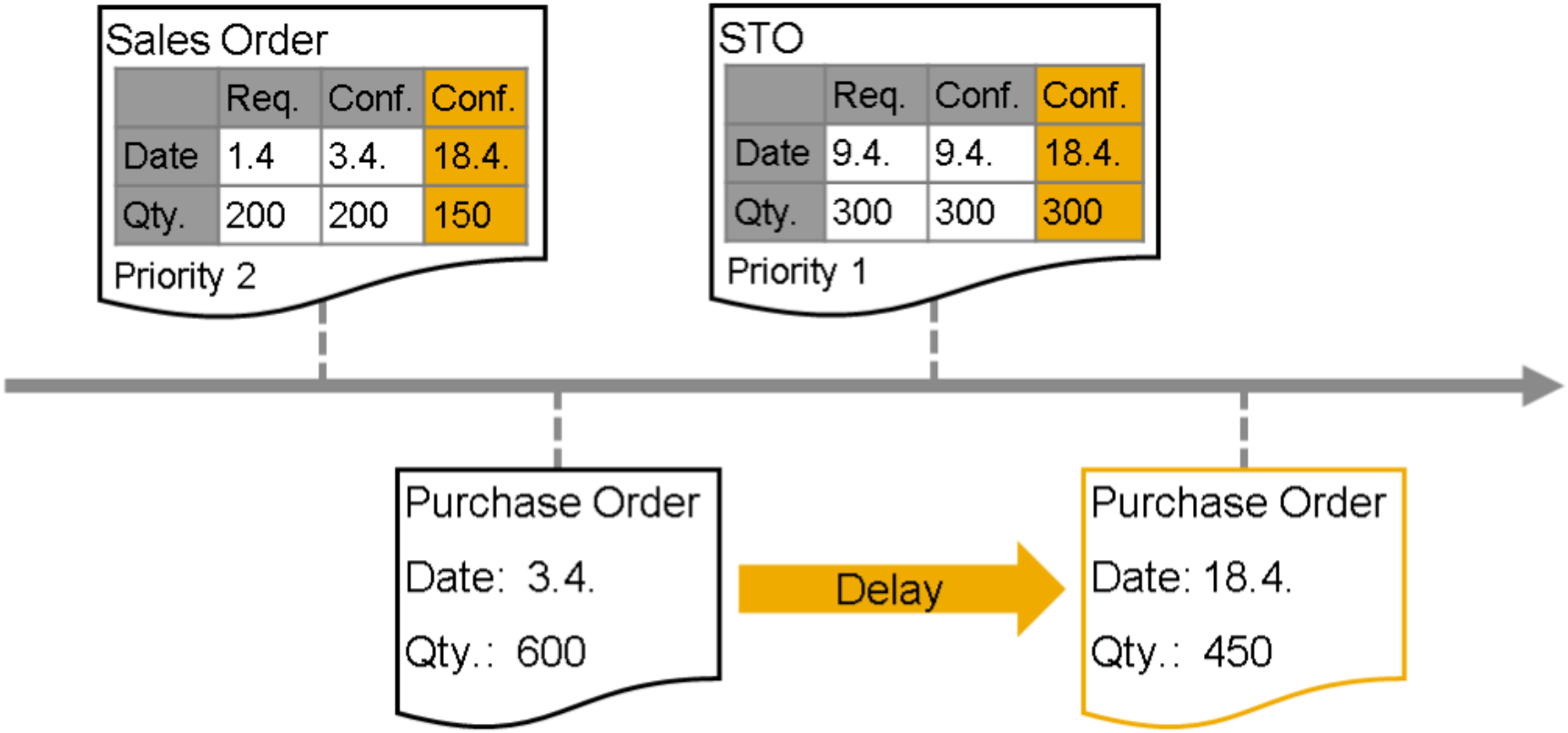
BOP – RESCHEDULING – USE CASE

Example of application

Use Case: Vendor Delivery Delay and Quantity Reduction

The below scenario effectively demonstrates the value of Re-ATP. By re-checking availability after the vendor notification, the system can:

- Identify impacted sales orders and stock transfer orders.
- Adjust confirmed delivery dates and quantities accordingly.
- Prioritize orders based on predefined criteria if necessary.



BOP – RESCHEDULING – HOW DOES IT WORK ?

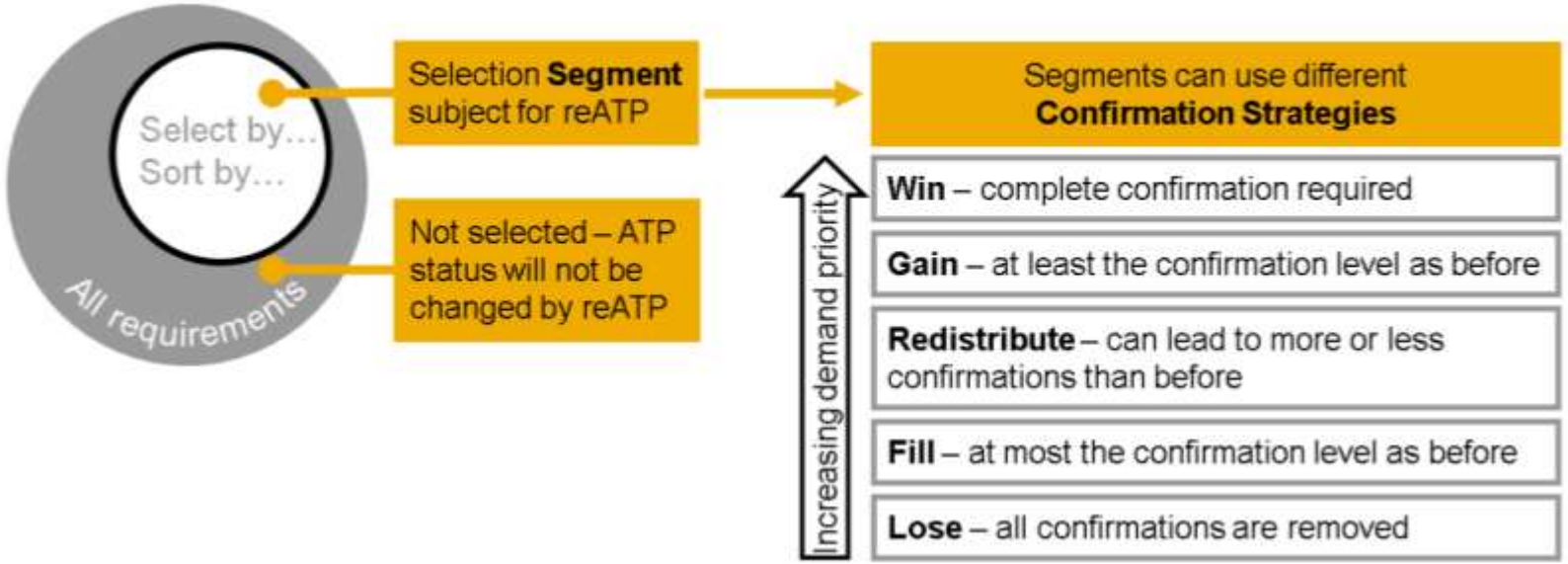
Combining segments and variants

Key Features of BOP:

- **Flexible Requirement Selection:** Allows for precise selection of requirements based on multiple criteria (segments).
- **Multiple Segments:** Enables the combination of different selection criteria within a single BOP variant.
- **Priority-Based Confirmation:** Prioritizes requirements based on segment strategy, ensuring optimal resource allocation.
- **Customizable Confirmation Strategies:** Offers flexibility in defining how requirements are confirmed based on business needs.

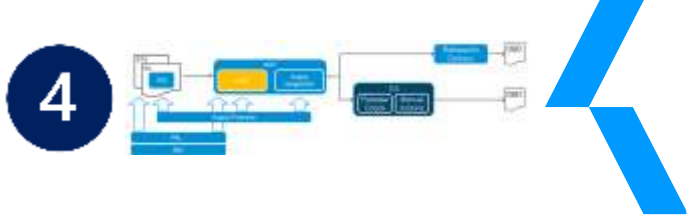
How BOP Works:

1. **Segment Creation:** Define segments with specific selection and sorting criteria for requirements.
2. **Variant Creation:** Combine multiple segments into a BOP variant, assigning a confirmation strategy to each segment.
3. **Requirement Selection:** The system selects requirements based on the defined segments within the BOP variant.
4. **Confirmation:** The system attempts to confirm requirements according to the defined confirmation strategies, prioritizing higher-ranked segments.



BOP – RESCHEDULING – SEGMENTS

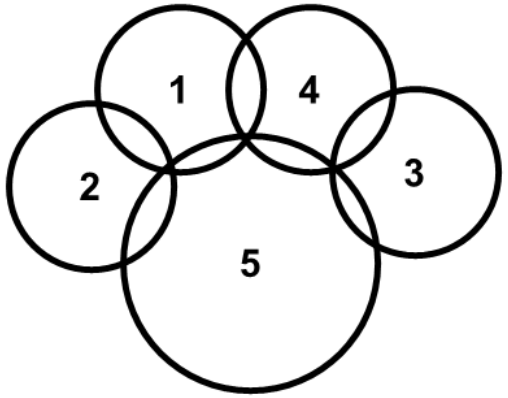
In detail



1.

- BOP segments are defined independently with their specific selection and sorting criteria

2.



- When used together in a BOP variant the selection criteria may overlap

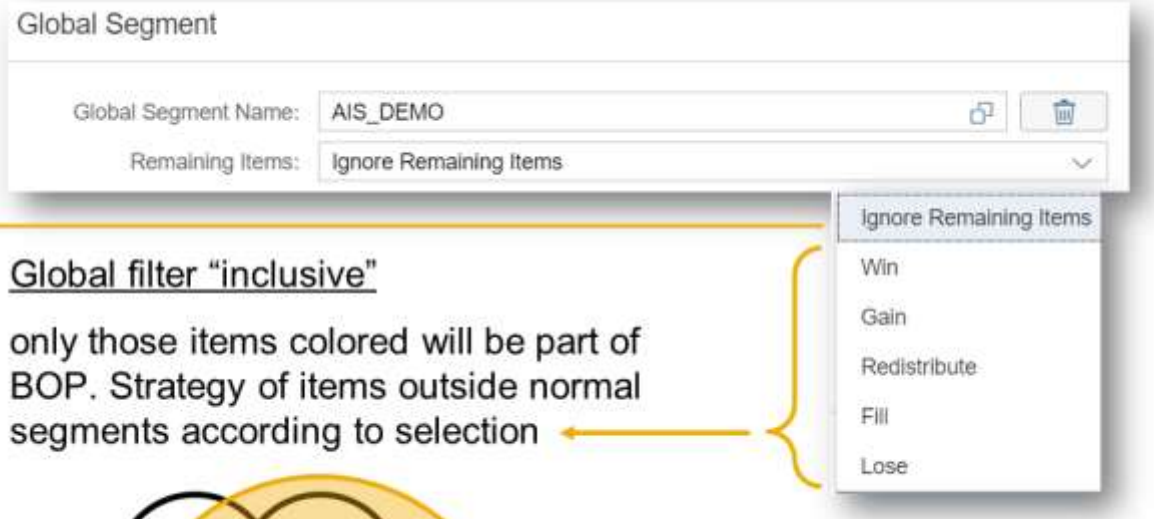
3.

- No item can be selected by two segments. In the BOP variant each segment belongs to a strategy.
- In case of overlapping selections the segment linked to a BOP strategy with higher importance has preference. "Lose" however has selection preference **over all other segments**

BOP – RESCHEDULING – VARIANT

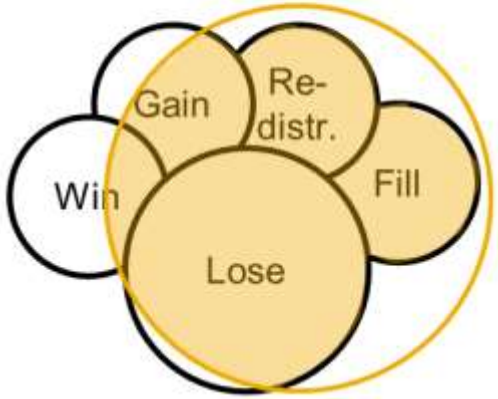
In detail

- A BOP variant can have as many segments with the same strategies as needed. In that case the order of segments with the same strategies define which selection criteria have preference.
- A global segment can be defined in addition to the normal segments to restrict or increase the detailed selection of the segments by one more general selection.



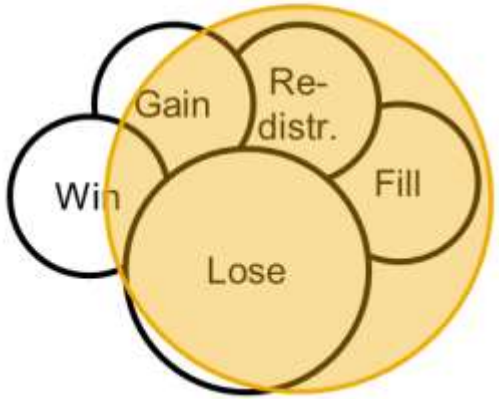
Global filter "Ignore remaining items"

only those items colored will be part of BOP. (Sorting according to normal segments)



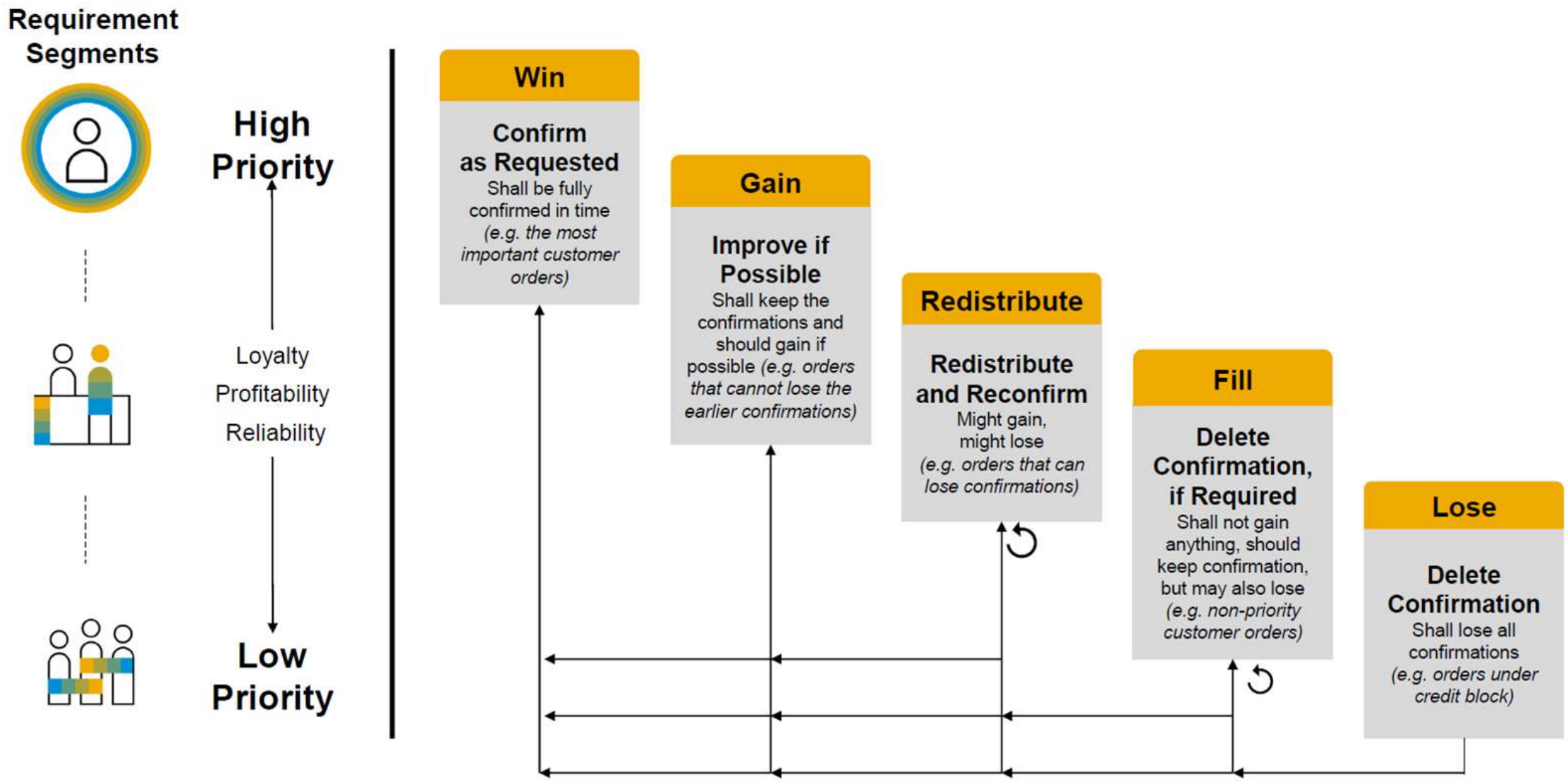
Global filter "inclusive"

only those items colored will be part of BOP. Strategy of items outside normal segments according to selection



BOP – RESCHEDULING – STRATEGIES

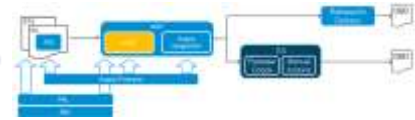
Confirmation strategies in detail



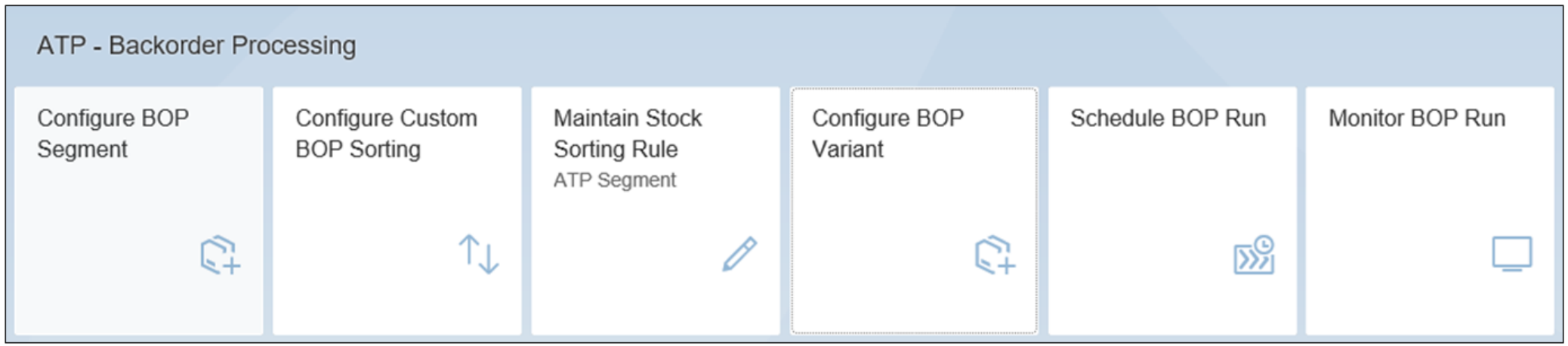
BOP – RESCHEDULING – FIORI CONFIGURATION APPS

Set up and execution of backorder processing is only supported in SAP Fiori

4



- **There are no transactions available in the back end system.**



- Requirement selection
- Requirement sorting

- Stock sorting

- Requirement sorting if alpha-numerical is not wanted/possible

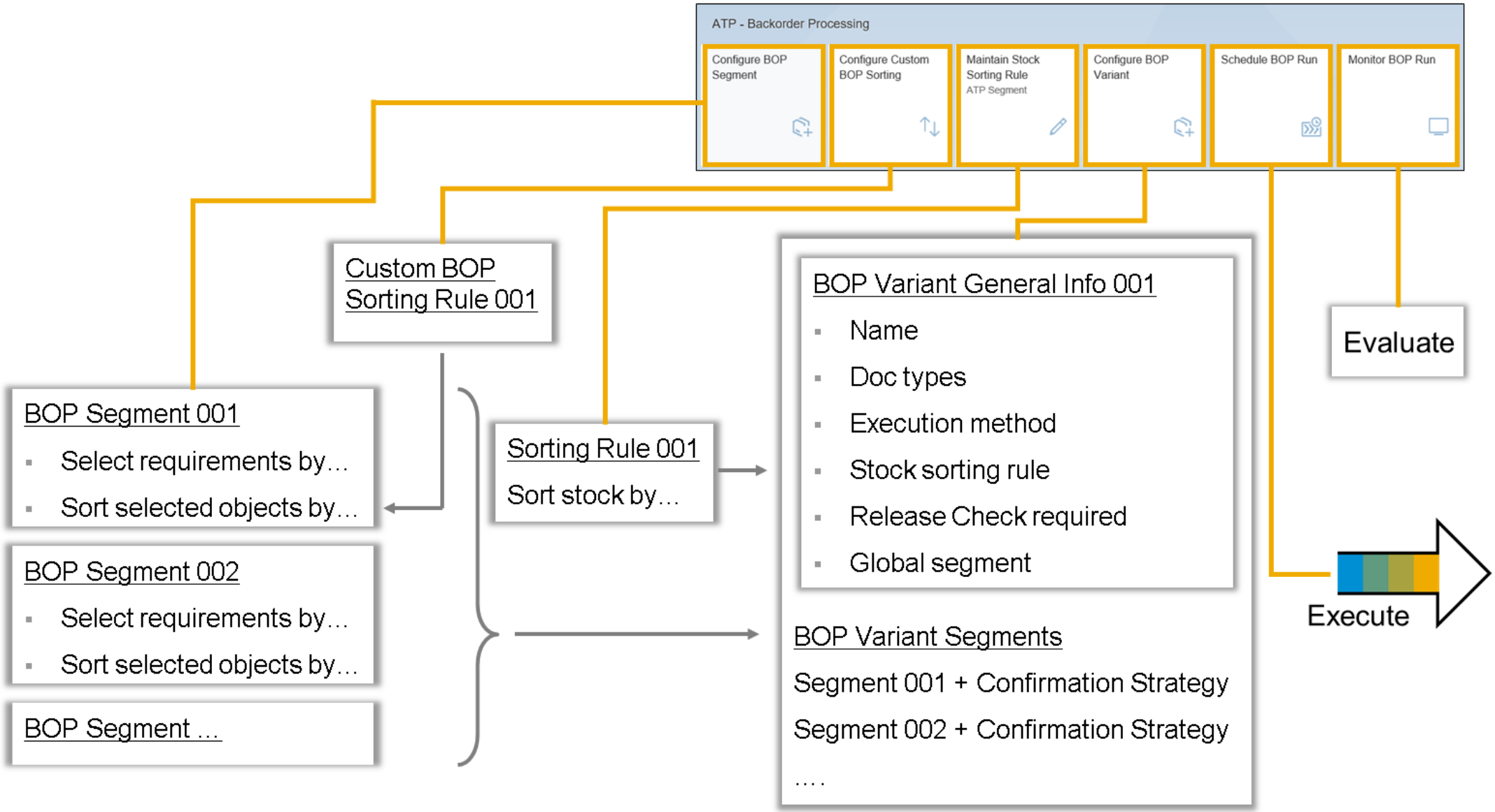
- Requirement doc types (SO/STO)
- Execution methods (ATP /Supply Assignment)
- Confirmation strategies and segments for each strategy
- Stock selection – ATP checking rule

- Schedule the job for selected BOP variant
- Set the execution frequency for the job
- Choose simulation mode
- Activate logging

- View overall confirmations
- View on-time confirmations
- View overall Supply Assignment quantities
- View the logs

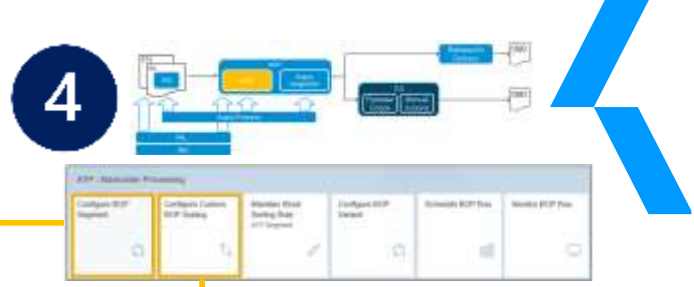
BOP – RESCHEDULING – FIORI CONFIGURATION APPS STEP BY STEP

Interdependency of the apps

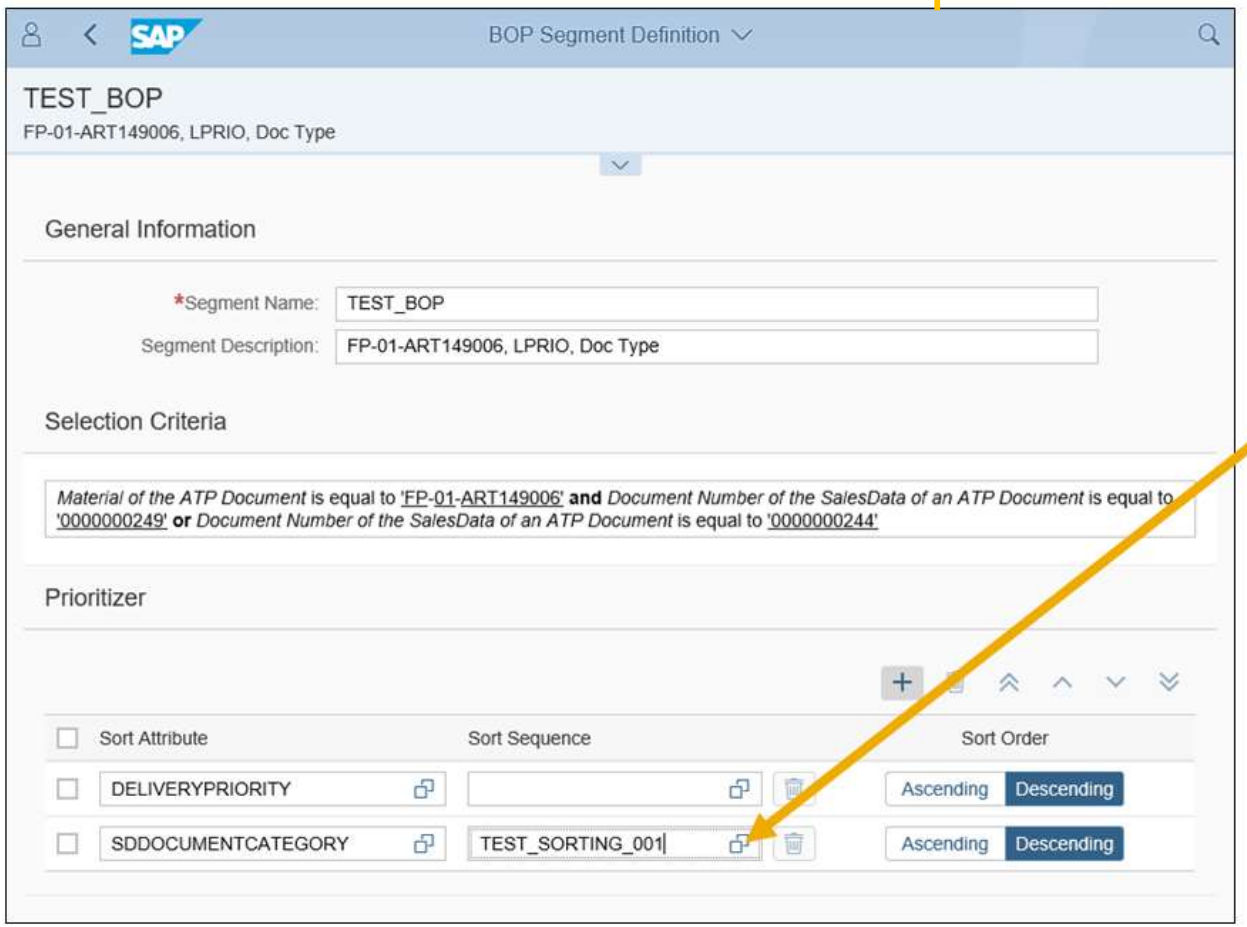


BOP – RESCHEDULING – CONFIGURATION (1/6)

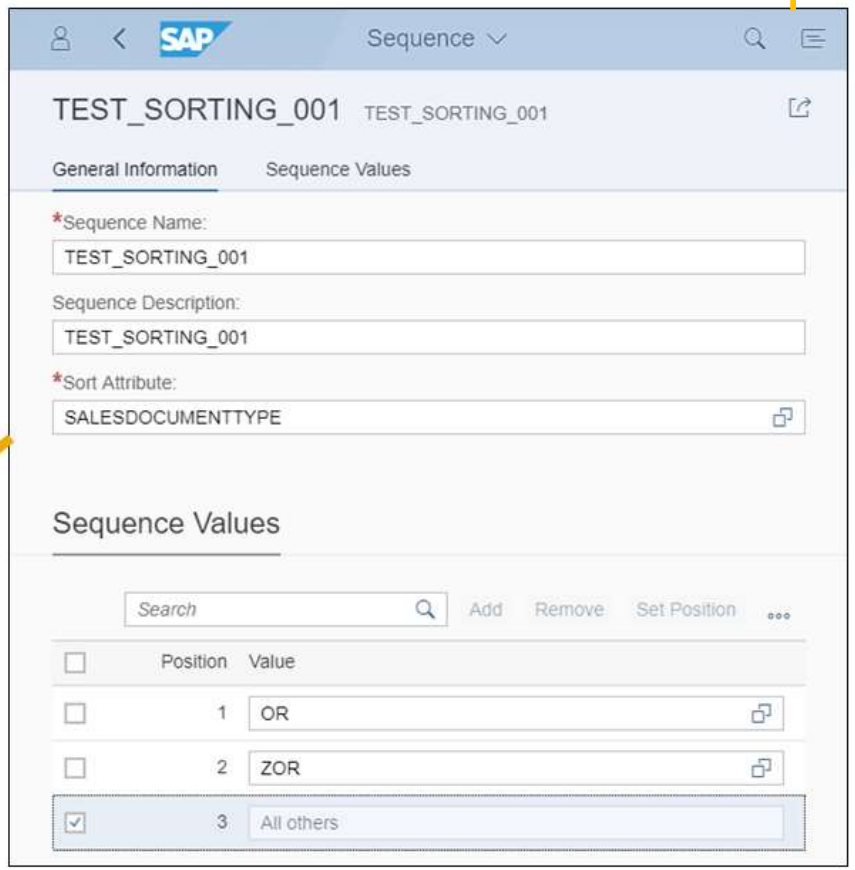
Segments



Maintenance view of BOP segments



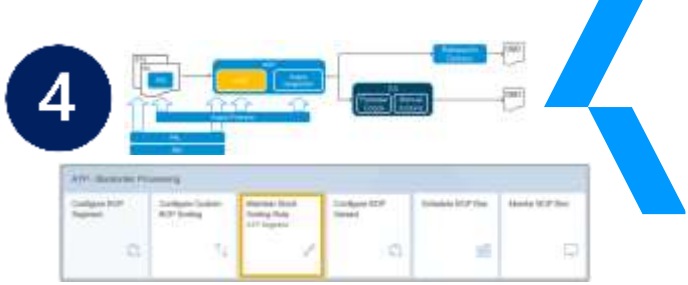
Specific sorting definition



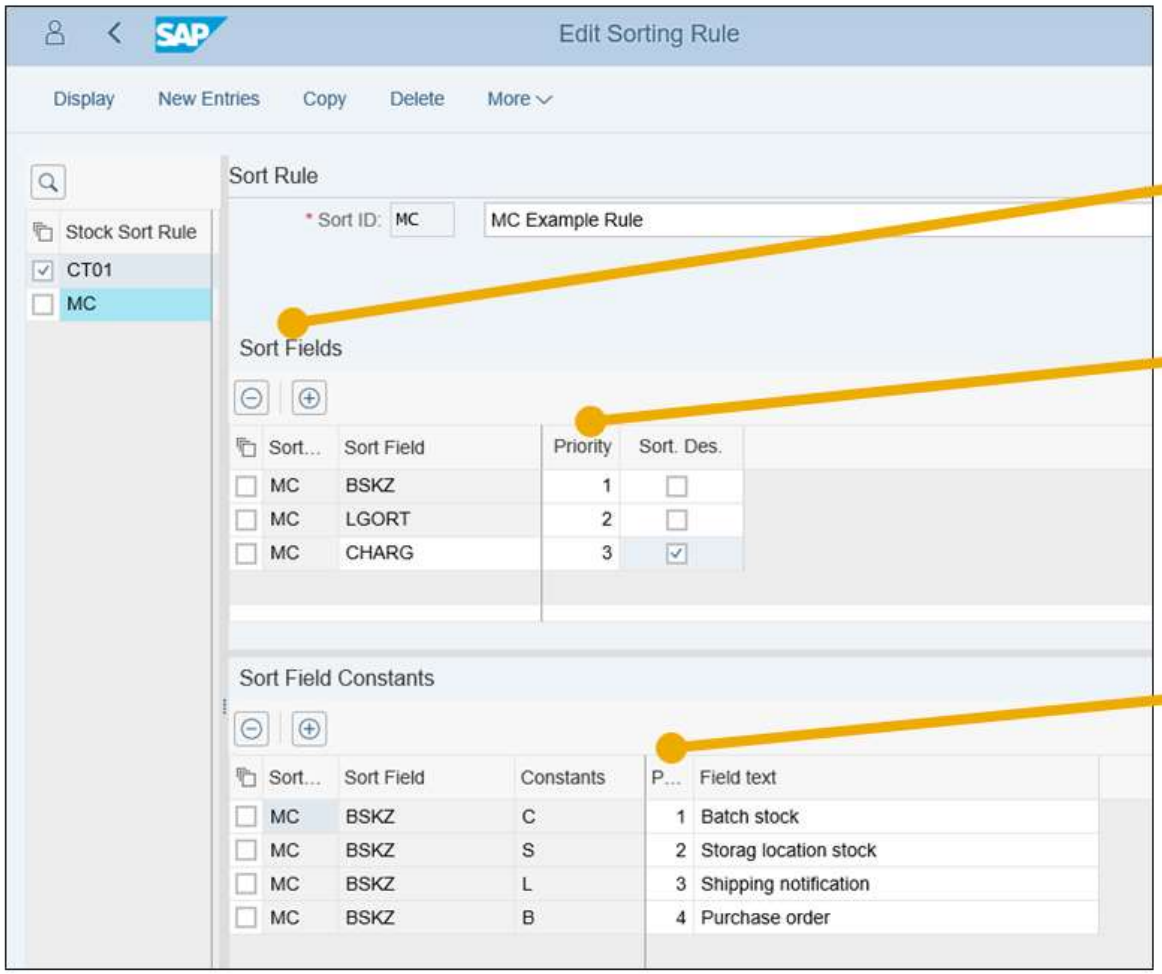
Specify here the selection criteria and the sorting sequence for the requirement documents.

BOP – RESCHEDULING – CONFIGURATION (2/6)

Stock Sorting Rule Maintenance



Maintenance view of the stock sorting rule



Specify the sorting criteria and their usage

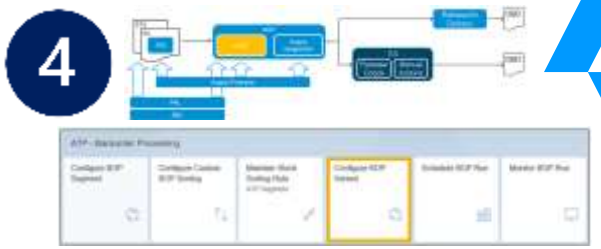
Selection of fields for stock sorting

Define in which sequence the sorting criteria are applied

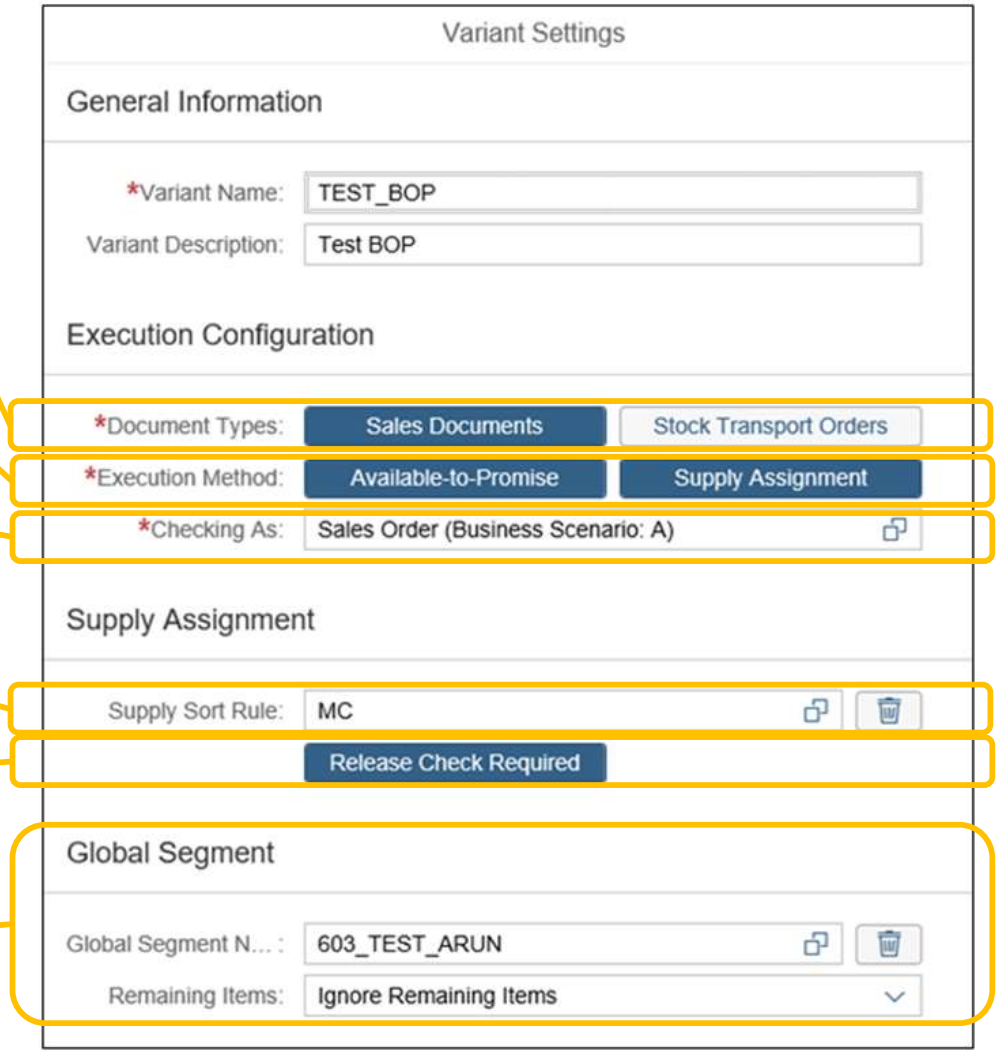
Explicit sorting if alphanumerical sorting will not work

BOP – RESCHEDULING – CONFIGURATION (3/6)

BOP Variant Configuration – create a variant

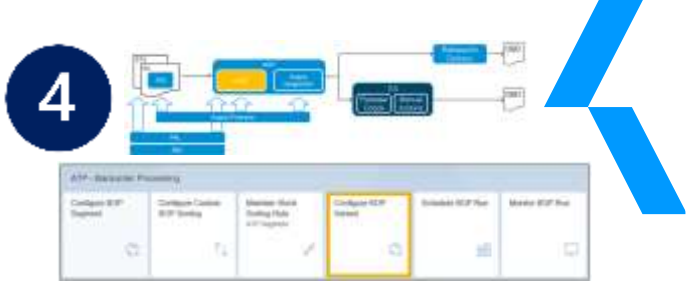


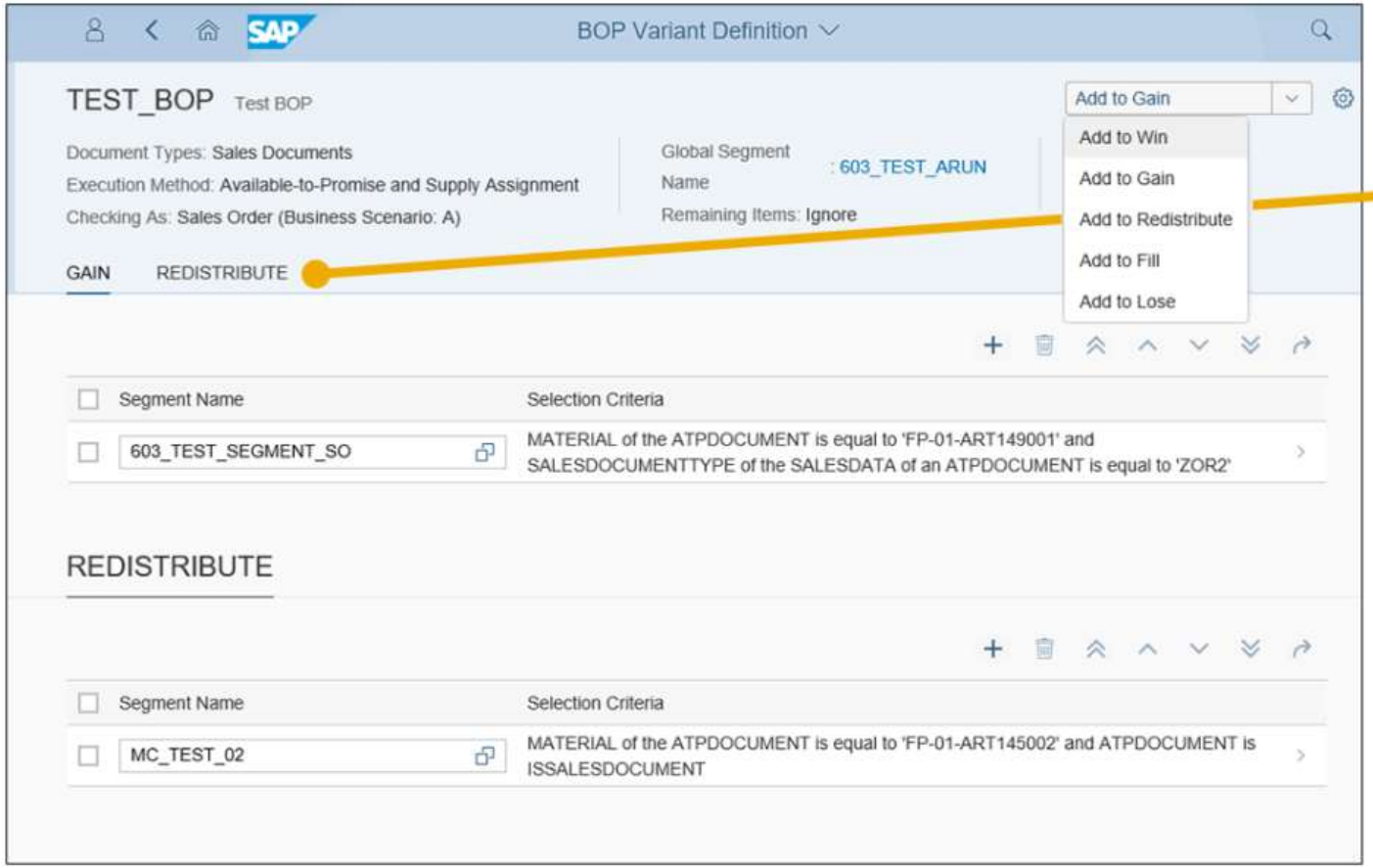
- Possibility to select the relevant **document types** to be considered during execution. The options are SO only, STO only, or both SO and STOs
- Possibility to choose the **execution method** – ATP only, Supply Assignment only, or ATP and Supply Assignment both together
- **Checking rules** is specified, and will pick up the relevant stock elements specified in the scope of check customizing
- Option to choose to provide the **Supply/Stock sorting rule**
- Possibility to choose if **release check** is required or not before creation of outbound delivery
- Possibility to specify the **global segment**



BOP – RESCHEDULING – CONFIGURATION (4/6)

BOP Strategy Configuration



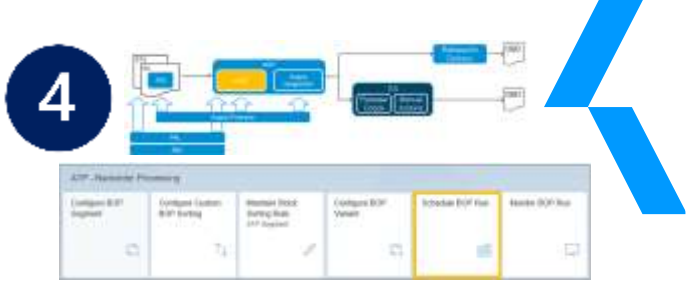


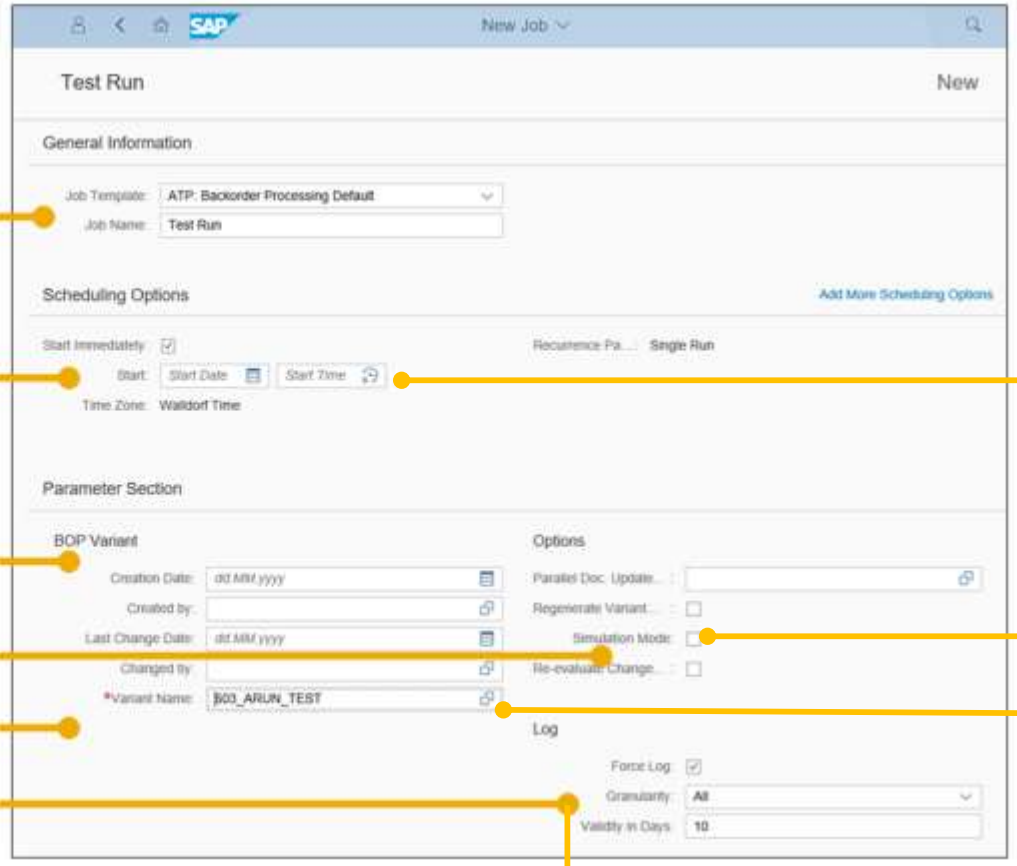
Segments are chosen per BOP strategy

- Specify the BOP strategies to be used and also mention the BOP segments for each of the strategies. Multiple segments can be defined under each strategy.
- In case of multiple BOP segments specified under same BOP strategy, the priority of execution will be in the order sequence as specified under the strategy.

BOP – RESCHEDULING – CONFIGURATION (5/6)

BOP Run





Job descriptions

Scheduling options

Search options for variant name

Simulation Mode

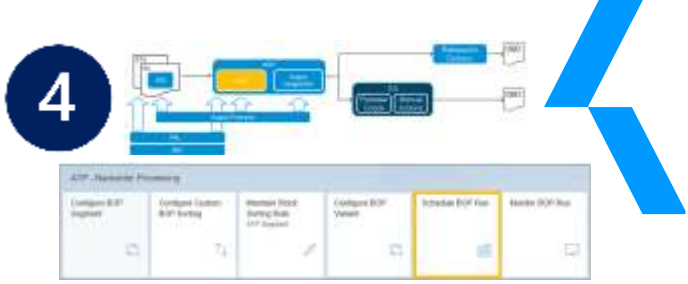
Variant name

Logging settings

- The jobs can be schedule for immediate run or for a later date and time. The frequency of the job runs can also be defined and set up.
- Possibility to specify if it's a simulation run or actual execution with order updates.
- Specify the BOP variant name which needs to be scheduled
- Possibility to choose the log option, if selected the logs will be created and can be seen in the BOP monitor app.

BOP – RESCHEDULING – CONFIGURATION (6/6)

BOP – Fallback Variant

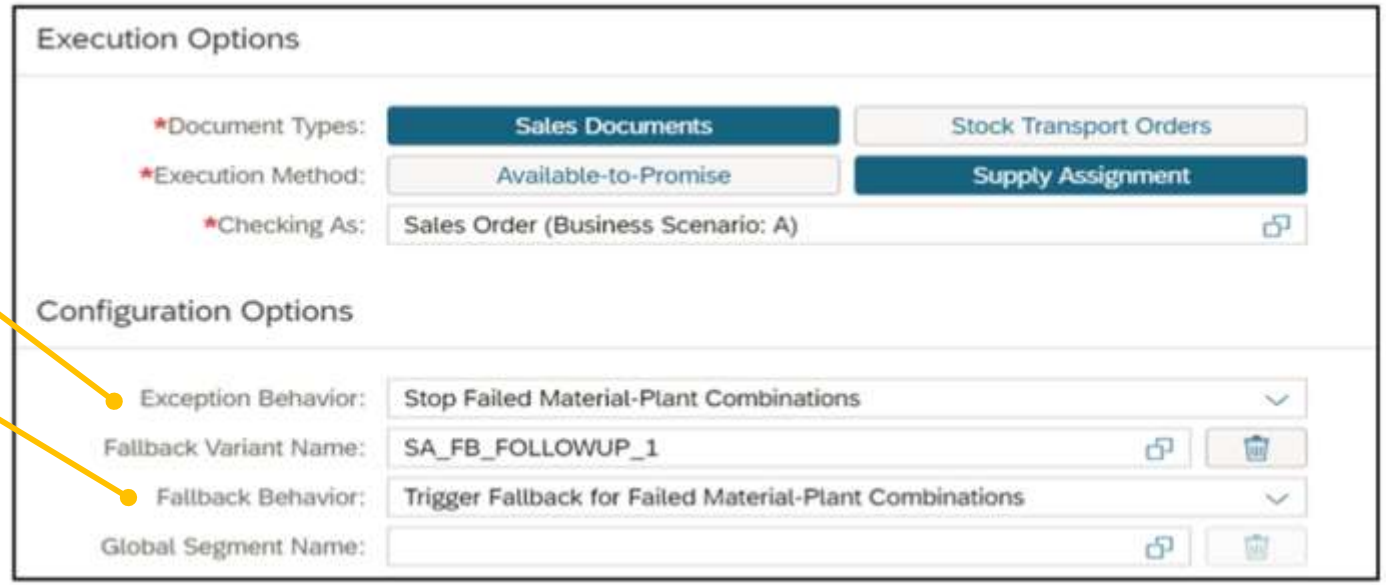


- During BOP execution, exceptions can occur due to
  - Win (WINNER) segment not getting full on time confirmations
  - or Gain (GAINER) segment getting worse confirmation than before.

- Using Fallback Variants these exceptions can be handled more intelligently. It can be maintained in the BOP Variant configuration app.

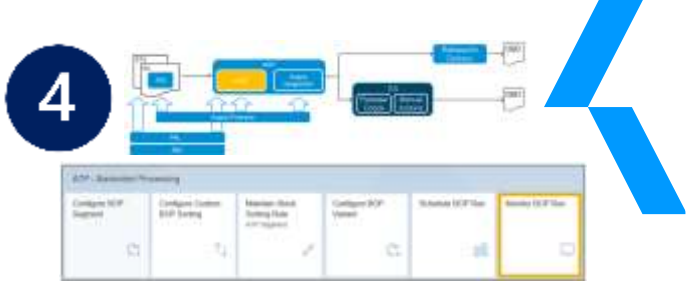
- The reaction on exception can be
  - **STOP** the processing of **ALL** selected requirements
  - **STOP** processing **ONLY** for Material/Plant combinations with exceptions

- The selection of requirements for the fallback variant can be :
  - **RESTRICTED** by the exceptional Material / Plants of the previous step (BOP Variant)
  - **UNRESTRICTED** (selection is independent from the previous steps)



BOP – RESCHEDULING – MONITOR (1/3)

Overview



- The executed jobs including simulations, can be seen here with details of:
  - Variant name, user name, job details and processing status
  - Overall confirmations and details of old confirmation quantity vs. the new confirmation quantity
  - Overall supply assignment quantity and details of old vs. new assignment quantities

Executed variants and mode

Status with or w/o issues

ATP confirmation

ARun fulfillment

Options

Monitor BOP Run

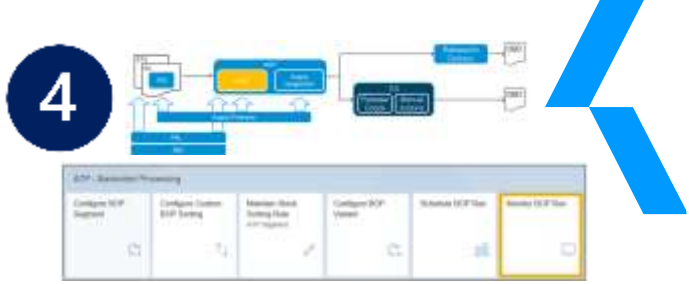
All (54) | Confirmation Issues (32) | Processing Issues (4)

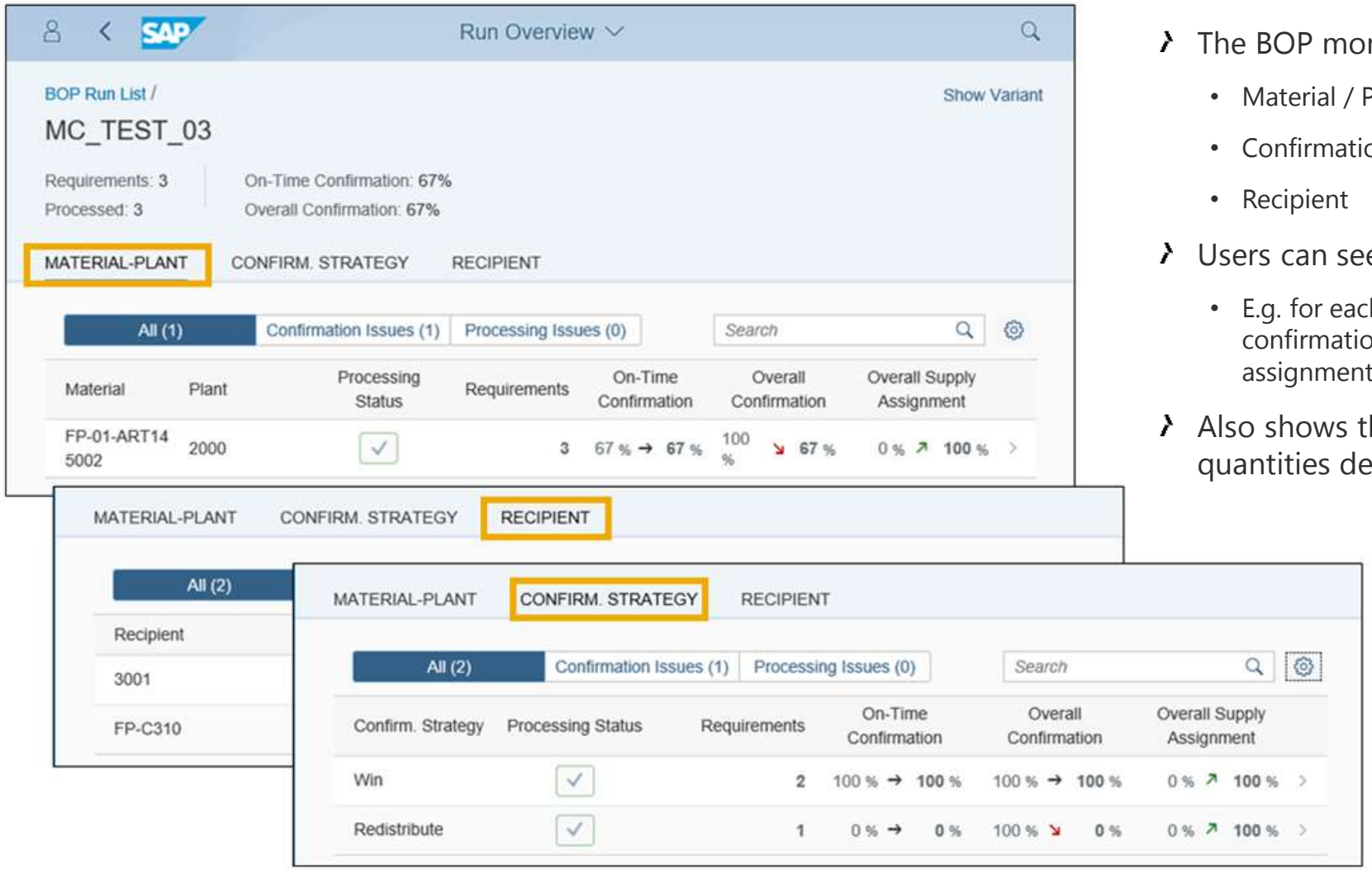
Search

Variant Name	User Name	Started	Confirmed	Processing Status	Requirements	On-Time Confirmation	Overall Confirmation	Overall Supply Assignment	Log
TEST_BOP Simulation	FPA_BOP	02.07.2018, 14:29	02.07.2018, 14:29	✓	2	50 % → 50 %	100 % → 100 %	0 % → 0 %	Show Log
TEST_BOP Simulation	FPA_BOP	02.07.2018, 14:26	02.07.2018, 14:26	✓	2	50 % → 50 %	100 % → 100 %	0 % → 0 %	Show Log
TEST_BOP Simulation	FPA_BOP	02.07.2018, 14:23	02.07.2018, 14:23	✓	4	100 % → 100 %	100 % → 100 %	0 % → 0 %	Show Log
TEST_BOP	FPA_BOP	25.06.2018, 09:54	25.06.2018, 09:54	✓	2	0 % ↗ 50 %	100 % → 100 %	0 % → 0 %	
TEST_BOP	FPA_BOP	25.06.2018, 09:52	25.06.2018, 09:52	✗	2	0 % → 0 %	100 % → 100 %	0 % → 0 %	
MC_ARUN_TEST_01	FPA_BOP	06.03.2018, 13:34	06.03.2018, 13:34	✓	2	50 % → 50 %	100 % → 100 %	0 % ↗ 50 %	
MC_TEST_03	FPA_BOP	23.02.2018, 15:01	23.02.2018, 15:01	!	3	67 % → 67 %	100 % ↘ 67 %	0 % ↗ 100 %	
MC_TEST_01	FPA_BOP	22.02.2018, 17:21	22.02.2018, 17:21	🔒	3	67 % → 67 %	100 % → 100 %	0 % → 0 %	

BOP – RESCHEDULING – MONITOR (2/3)

Result details

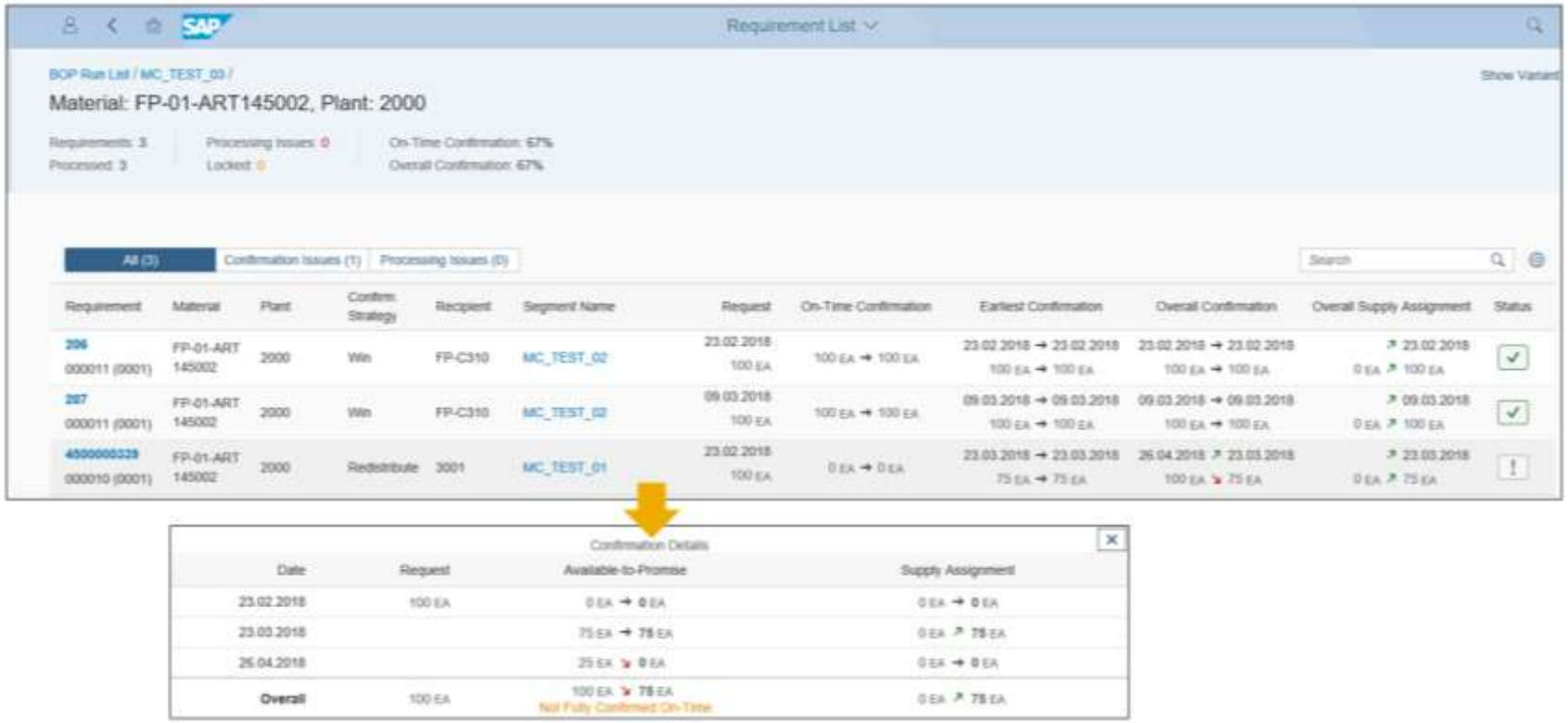


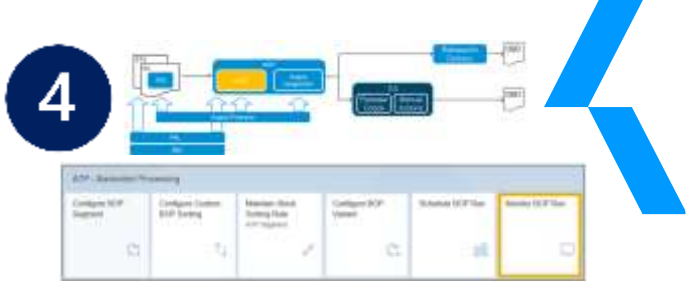


- The BOP monitor can show the results by
  - Material / Plant
  - Confirmation Strategy
  - Recipient
- Users can see the overall quantity at different levels
  - E.g. for each material/plant combination, know the on time confirmation, overall confirmations as well as overall supply assignment quantities.
- Also shows the quantity change between the old and the new quantities derived based on this BOP run.

BOP – RESCHEDULING – MONITOR (3/3)

2nd & 3rd level of drilldown



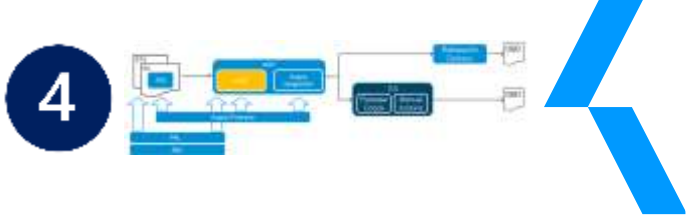


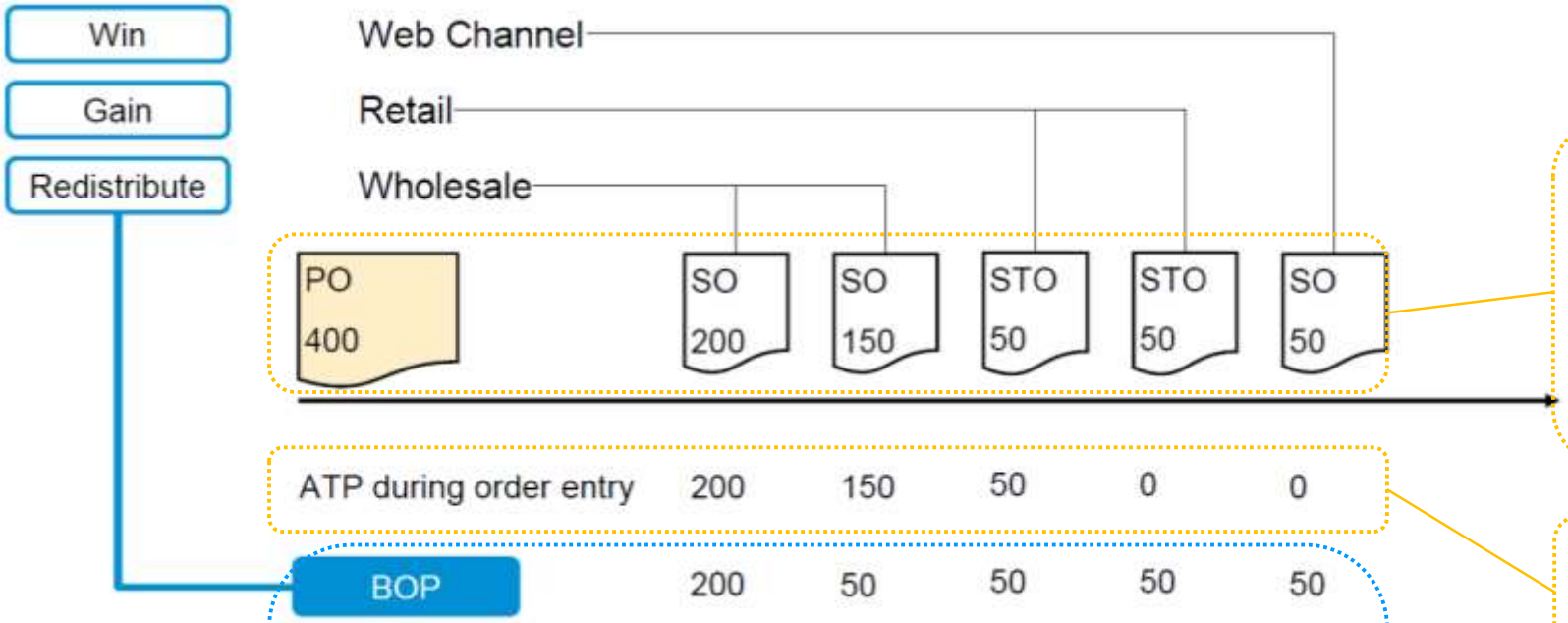
- The **2nd level** of drill down in BOP monitor app shows the overall quantity for each combination of requirement (SO/STO), item and requested schedule line.
  - For each combination, know the on time confirmation, earliest confirmations, overall confirmations as well as overall supply assignment quantities.
  - Also shows the quantity change between the old and the new quantities derived based on this BOP run.

- The **3rd level** of drill down in BOP monitor app is a pop-up where we can see the overall quantity at the material availability date of requirement (SO/STO), item and requested schedule lines.
  - For each unique date, you get to know the confirmations as well as supply assignment quantities.
  - It also shows the quantity change between the old and the new quantities derived based on this BOP run.

BOP – RESCHEDULING – CONFIRMATION STRATEGY EXAMPLE

How BOP can be used to prioritize demand from different sales channels in a situation of limited supply





- **Scenario :**
  - Five orders which are created while a PO is available as future supply
  - Wholesale orders are created first
  - Followed by retail
  - And finally web channel

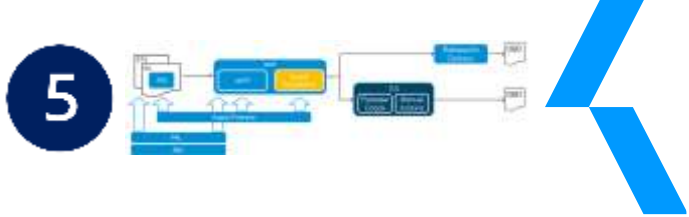
- ATP during order creation confirms on a first come first serve. The result is that retail and web orders are not getting confirmed.

- BOP can pick up the orders and one segment per channel is used. Within each segment the sorting could be first come first serve again.

- As a result the web order gets fully confirmed. Same is true for retail. Wholesale has only 250 left which are confirmed against the two orders. The order that was created first gets fully confirmed the other only partially.

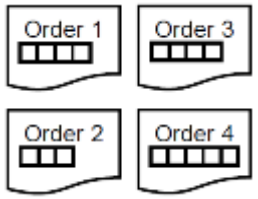
BOP – BACKORDER PROCESSING – SUPPLY ASSIGNMENT

Sequential and Proportional Assignment



Scenario

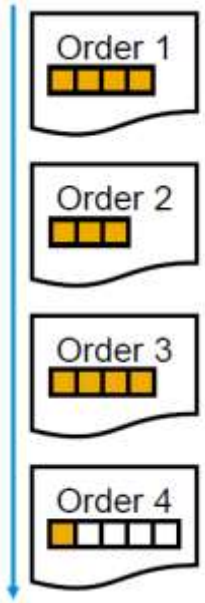
- 4 orders with total demand of 16



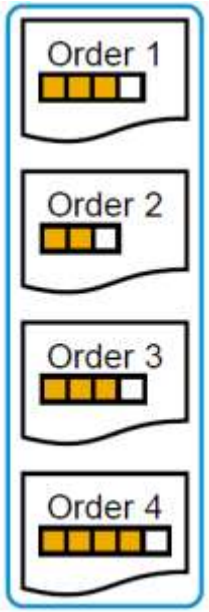
- Total supply is 12

As demand exceeds available supply, different assignment strategies can be used

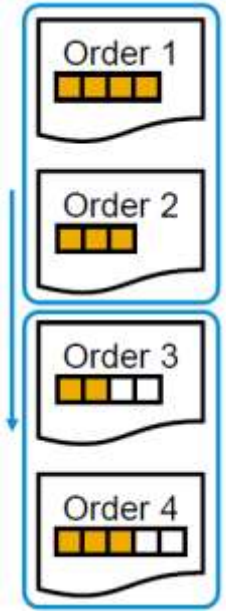
Sequential
following sorting criteria



Proportional
all orders in one group



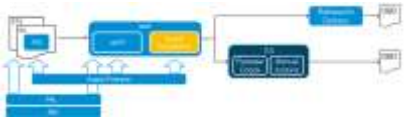
Proportional
orders in two groups



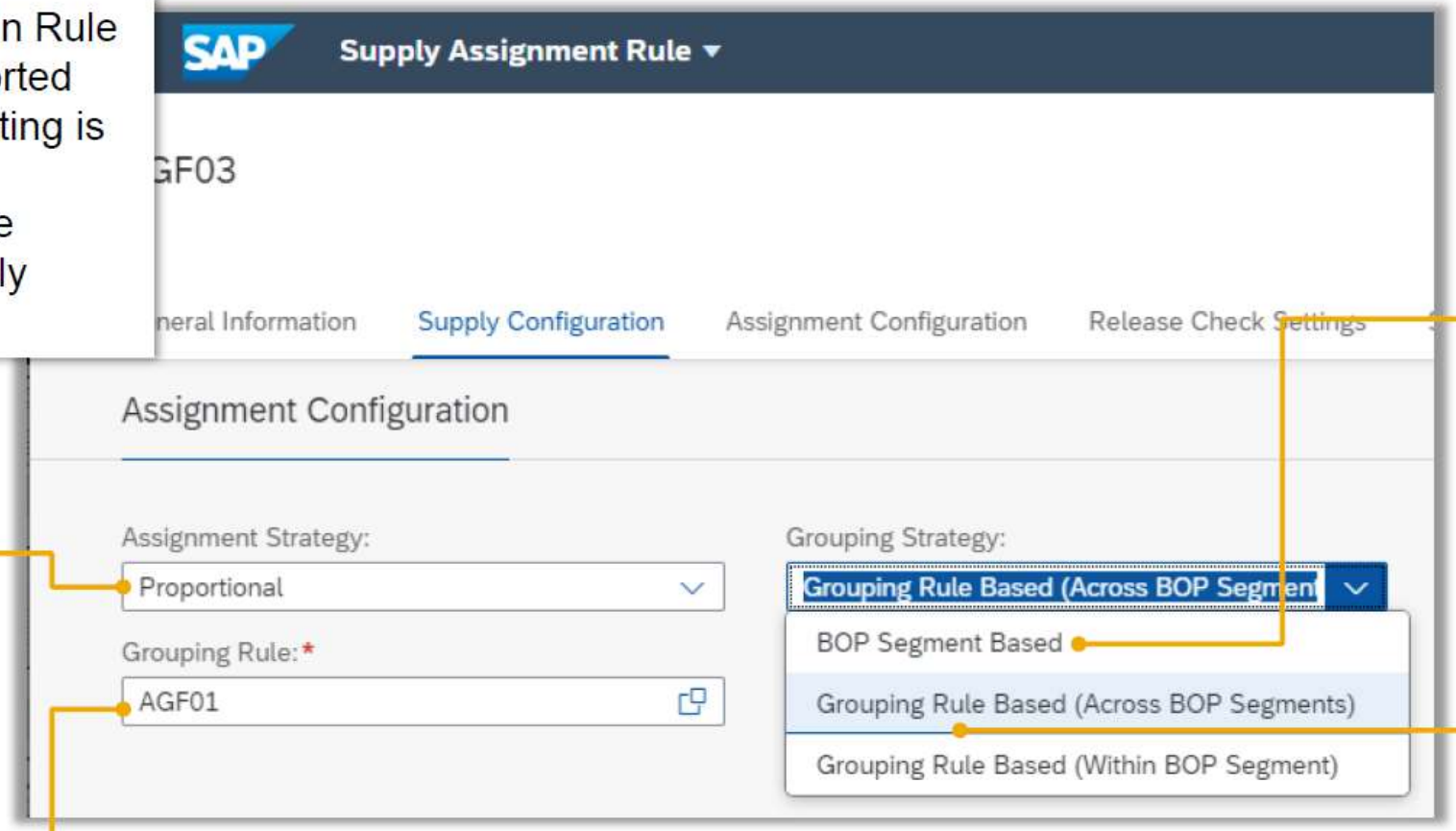
BOP – BACKORDER PROCESSING – SUPPLY ASSIGNMENT

Proportional Assignment

5



- Activated in the ARun Rule
- Future supply supported
- Only static stock sorting is supported
- Future supply can be restricted with “supply horizon”



BOP segment based forms demand groups for each segment used in the BOP variant

Assignment strategy **Proportional** to be selected.

If grouping rule based is selected the **grouping rule** is to be selected from the available rules

If a **specific grouping rule** is used it can group **within** each group that is formed by BOP segments or it can form groups independently from BOP segments (**Across**)

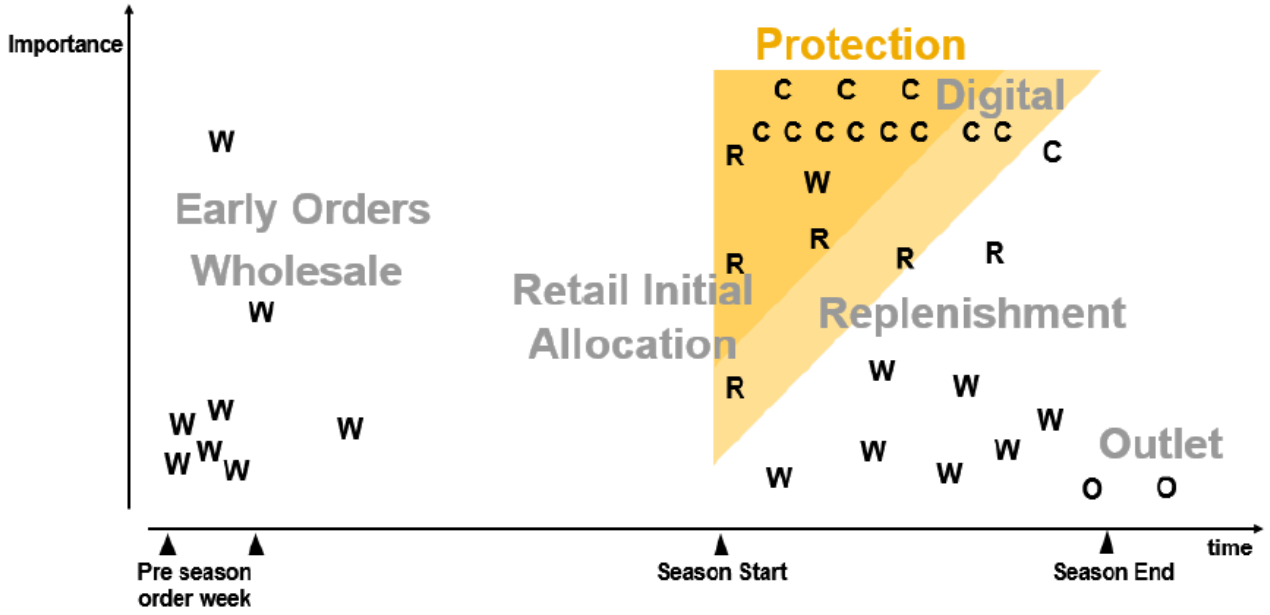
Proportional logic sets the overall demand of a group in relation to the available supply and assigns this percentage to each demand in the group

SUPPLY PROTECTION – WHAT IS IT?

Reserving a portion of available stock for specific customer segments, sales channels, or other defined criteria

Key Benefits of Supply Protection:

- **Prioritization of Important Customers:** Ensures that key customers or channels receive the necessary stock even in times of shortage.
- **Optimized Inventory Management:** Prevents stock depletion for critical customer segments.
- **Improved Customer Satisfaction:** Reduces stockouts for prioritized customers, leading to higher customer satisfaction.
- **Simplified Inventory Management:** Eliminates the need for physical stock separation.



How Supply Protection Works:

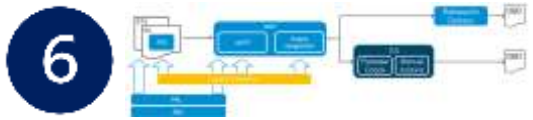
- **Definition of Protection Groups:** Identify customer segments, sales channels, or other criteria for supply protection.
- **Allocation of Protected Quantities:** Define the amount of stock to be protected for each protection group.
- **ATP and ARun Integration:** Supply protection is considered during ATP checks and supply assignment processes to ensure protected quantities are reserved.

Challenges and Considerations:

- **Balancing Supply and Demand:** Striking the right balance between protecting critical segments and fulfilling overall demand.
- **Dynamic Adjustments:** Regularly reviewing and adjusting protection levels to adapt to changing market conditions.
- **System Configuration:** Proper configuration of protection groups and allocation rules is essential for effective implementation.

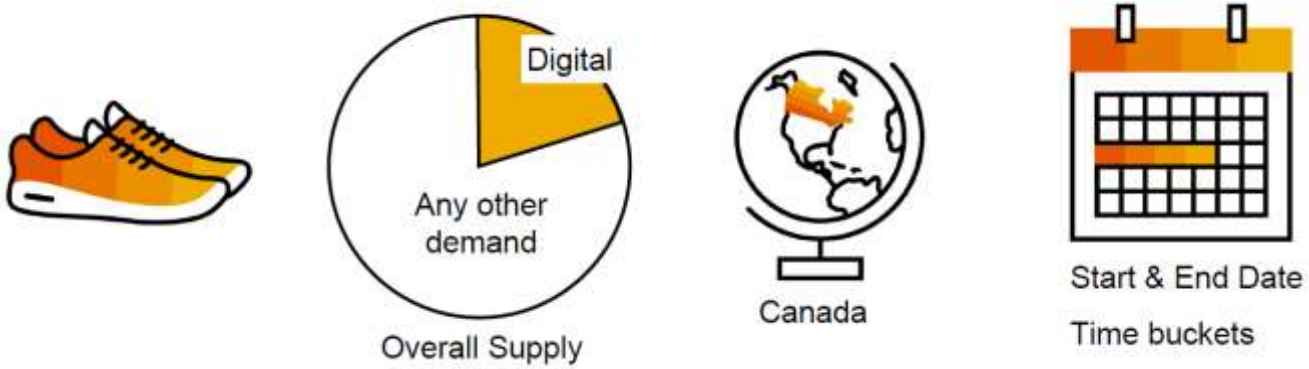
SUPPLY PROTECTION – HOW IS IT WORKING ?

In details



Scenario:

- **Product:** A specific article / pair of shoe.
- **Protection Quantity:** 100 pieces per month.
- **Time Period:** October 1st to January 31st.
- **Customer Segment:** Distribution channel "digital" in country "CA".



Configuration and Implementation:

- **Supply Protection Object:** Define a protection object with the specified article, distribution channel, country, and time buckets (months).
- **Protection Quantity:** Assign a protection quantity of 100 pieces for each month within the defined time period.
- **ATP and ARun Integration:** Ensure the system considers the protection object during ATP checks and supply assignment.

How it Works:

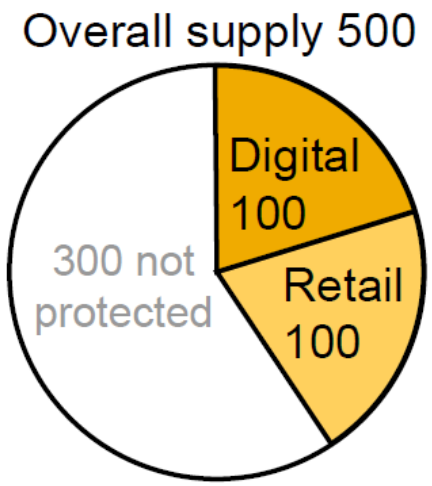
- **Demand Creation:** When a sales order is created for the specified article, distribution channel, and country within the defined time period, the system checks the available supply considering the protection quantity.
- **Supply Allocation:** If the order quantity exceeds the remaining protection quantity, only the allowed quantity is confirmed, and the excess is placed on backorder.
- **Time-Based Adjustments:** As the time period progresses, the system automatically adjusts the available protection quantity based on the defined time buckets.

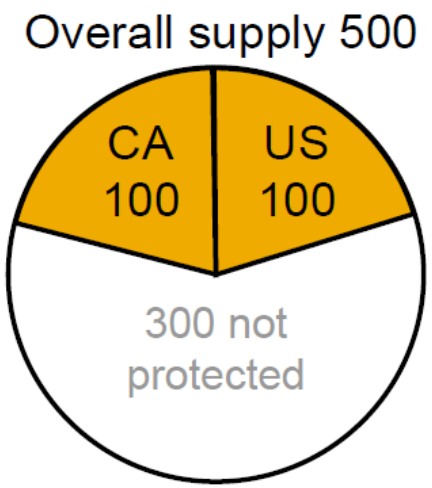
SUPPLY PROTECTION – HORIZONTAL VS. VERTICAL

Vertical and Horizontal Protection can be combined to support complex protection scenarios

Vertical Protection

- **Prioritization of Demand:** Establishes a hierarchy among demand groups.
- **Protected Quantities:** Higher priority groups have access to the full supply, while lower priority groups have access to the remaining supply after higher priority groups have been fulfilled.
- **Example:** Digital demand (highest priority) has access to the entire supply, while retail demand (lower priority) is restricted to a portion of the supply.





Horizontal Protection

- **Equal Protection for All Groups:** Ensures that each demand group has a protected quantity.
- **Mutual Protection:** No demand group can consume the entire supply, preventing depletion for other groups.
- **Example:** Demand from North America and Europe is protected equally, preventing one region from consuming the entire supply.

Combined Approach

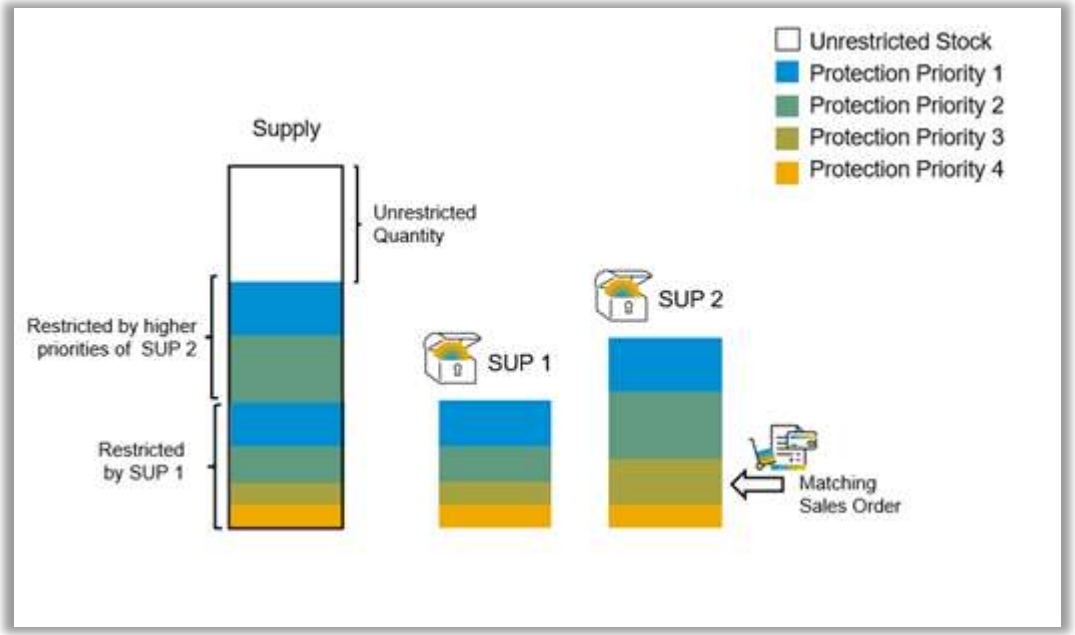
- **Vertical and Horizontal Protection can be combined** to create a more complex protection strategy.
- **Example:** Prioritize digital demand over retail demand (vertical protection) while ensuring a minimum quantity for each region (horizontal protection).

SUPPLY PROTECTION – RESERVED QUANTITIES & RESTRICTION

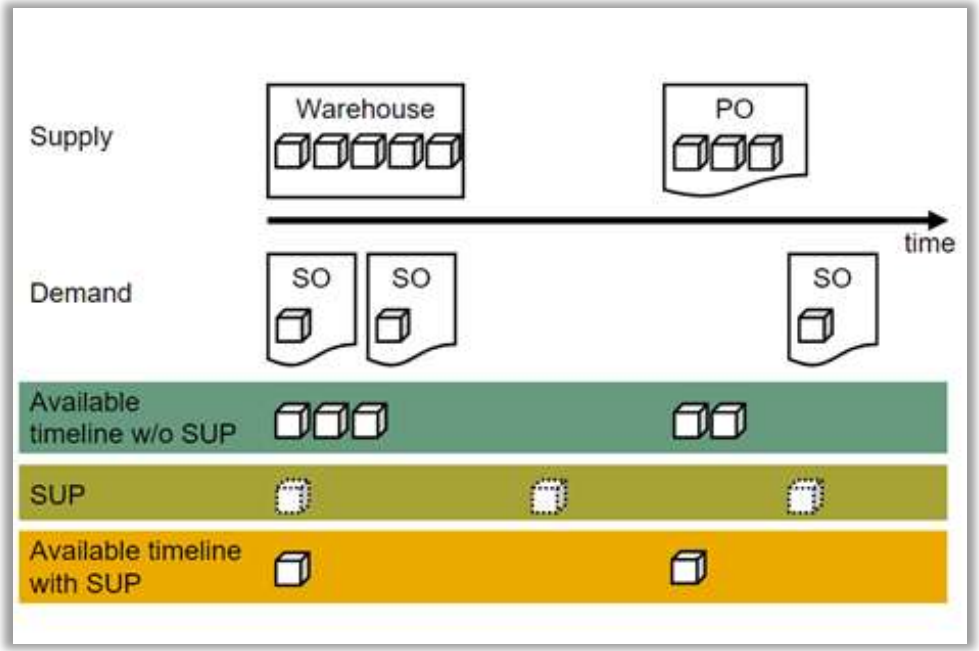
Supply protection works like a virtual demand reservation

- **Supply protection works like a virtual demand reservation, the available stock will be reduced virtually.**

- **For example, for the e-commerce channel, every other demand element must respect these reserved quantities as a restriction.**



Supply Protection helps to **protect quantities for specific key channels, customers, market units**, or any other group(s) defined by a combination of characteristics, in shortage situations.

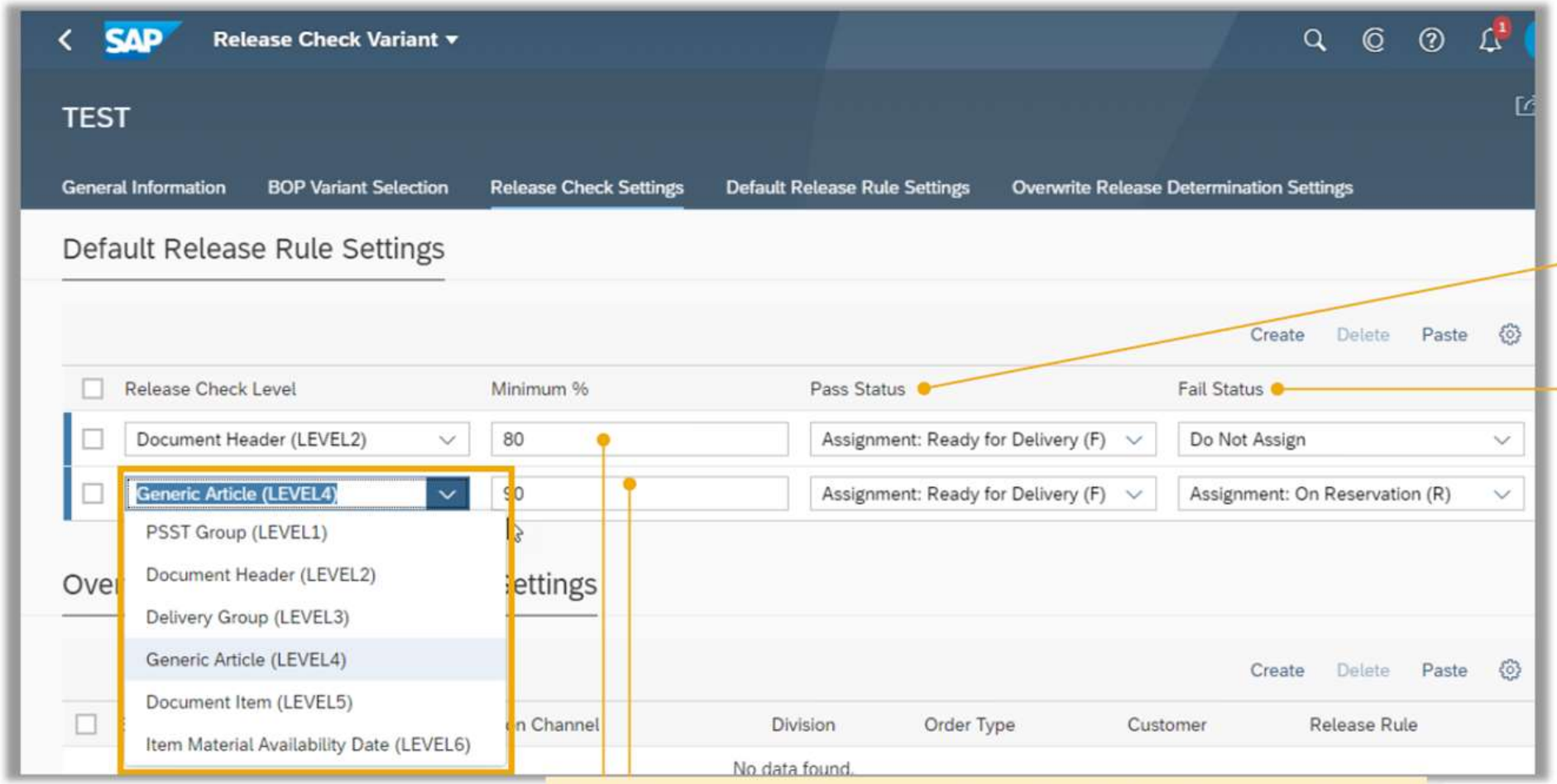


- **Availability Check** compares stock in hand and future supply tight to a timeline and **available quantity per date**

- **Supply protection** adds an additional level during the calculation : **protected quantities**

ITA – INSIGHT TO ACTION – RELEASE CHECK

Release check variant



If assigned quantity <u>higher</u> than minimum quota

- Status **F** can be obtained

If assigned quantity <u>lower</u> than minimum quota

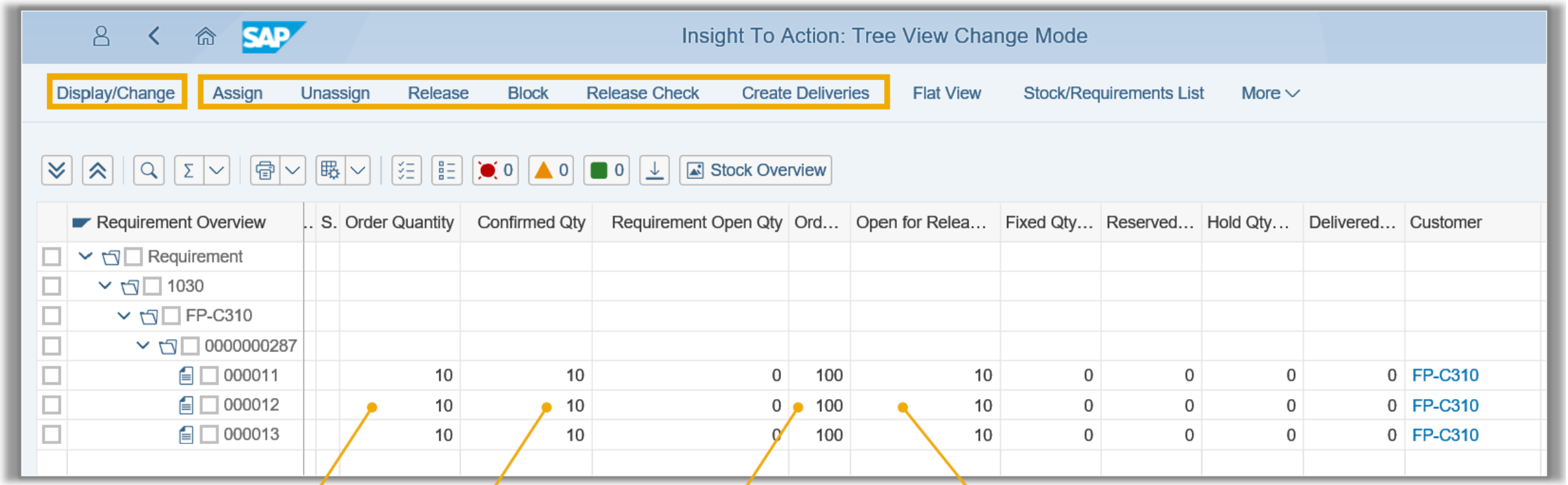
- no allocation happens
- allocation in **R** can be obtained.

A minimum quota (percentage) can be defined on every level

Release check starts checking on lowest level defined and uses result on next higher level for next check.

ITA – INSIGHT TO ACTION – MANUAL ACTIONS

Online features



Requirement Overview	S.	Order Quantity	Confirmed Qty	Requirement Open Qty	Ord…	Open for Relea…	Fixed Qty…	Reserved…	Hold Qty…	Delivered…	Customer
Requirement											
1030											
FP-C310											
0000000287											
000011		10	10	0	100	10	0	0	0	0	FP-C310
000012		10	10	0	100	10	0	0	0	0	FP-C310
000013		10	10	0	100	10	0	0	0	0	FP-C310

Requested quantity

ATP-confirmed quantity

Assignment percentage

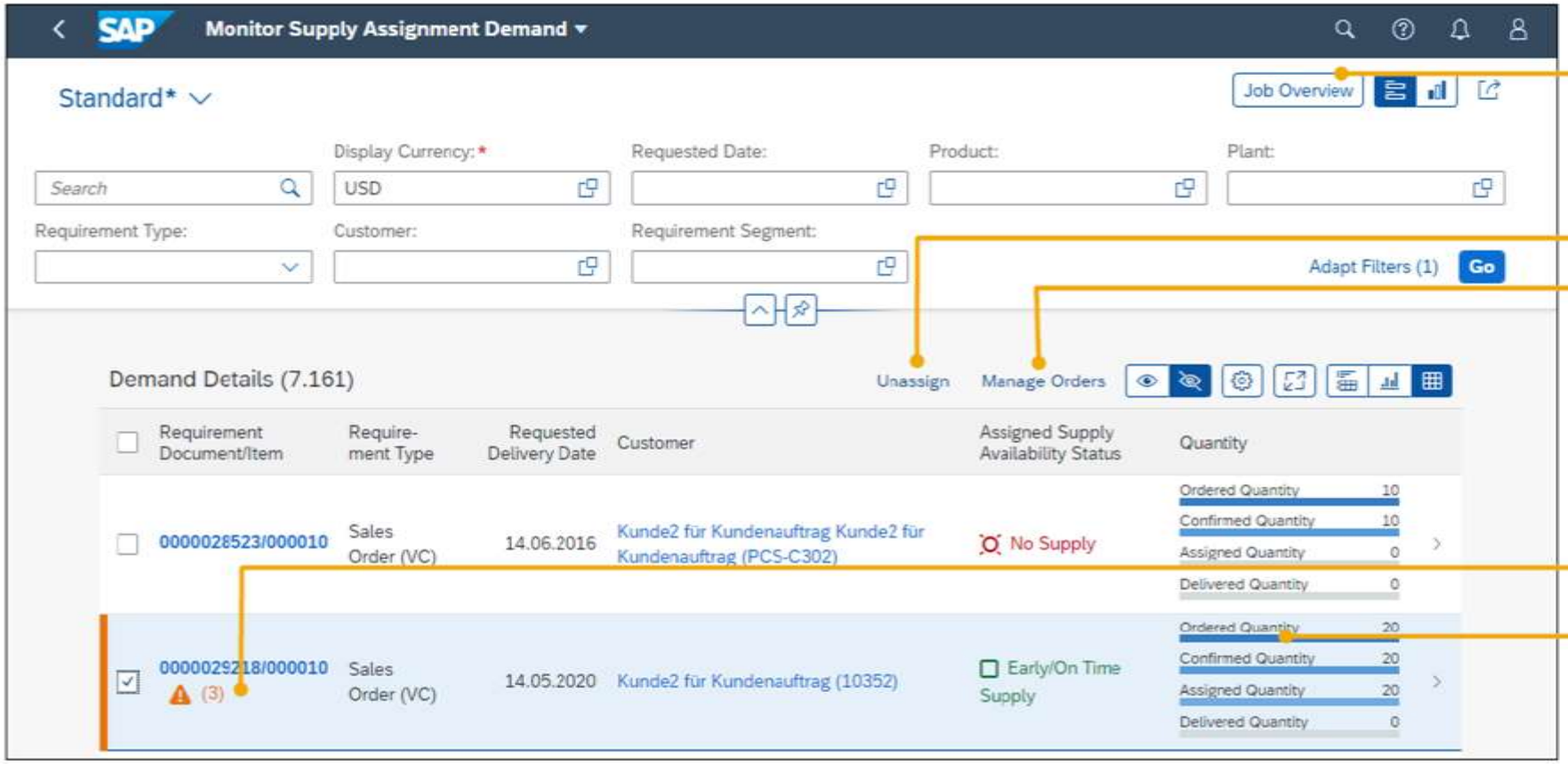
Status O quantity

Distribution
Monitor Supply Demand

MONITOR SUPPLY ASSIGNMENT DEMAND

New App to monitor and analyze demand documents for any exception

- Ability to remove assignment from document items where immediate management of stocks is required



Results can be shown after changes have been applied

Supply Assignment can be (partially) undone

Short-cut to the app "**Manage Sales Orders Fashion**" for the orders selected.

Exceptions / Messages

Details of ordered / confirmed / assigned / delivered quantities

SUPPLY DEMAND OVERVIEW – FIORI APPLICATIONS

Supply Demand Overview (SDO) applications provides an overview of current supply and demand situation

- Supply Demand Overview – enables to visualize and analyze
  - Overall Supply, Overall Demand and Supply
  - Demand Assignment situation
  - Based on preconfigured and/or freely definable steps and KPIs.
  - Specific dimensions (such as sales organization etc.) and measures (such as open demand quantity, open supply quantity, confirmed quantity, assigned quantity, delivered quantity, etc.)
  - With flexible slicing and dicing

SUPPLY DEMAND COCKPIT (1/2)

Full transparency on overall Supply & Demand situation at a glance with smart exception handling

Key Features and Benefits

- **Centralized Overview:** Offers a single point of access to all relevant supply assignment information.
- **Intelligent Exception Handling:** Prioritizes critical issues through intelligent alerts and notifications.
- **Flexibility and Customization:** Enables users to filter data and select relevant dimensions for analysis.
- **Proactive Actions:** Empowers users to take immediate actions based on the insights gained from the dashboard.

Potential Implementation Considerations

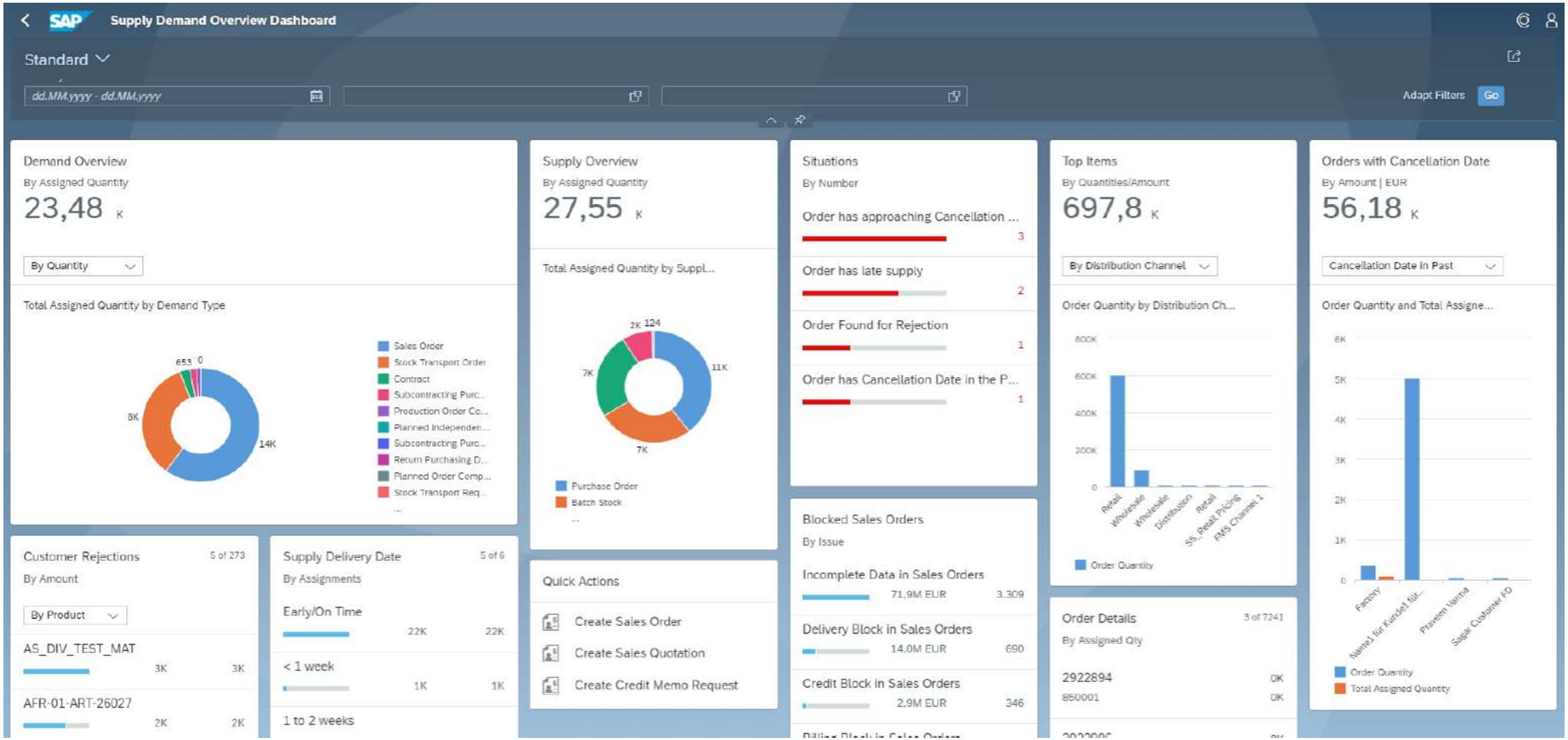
- **Integration with ITA Exception Framework:** Leveraging existing exception handling mechanisms can streamline the development process and ensure consistency.
- **Data Model:** A robust data model is essential to capture and aggregate the required supply assignment data efficiently.
- **User Interface:** A user-friendly and intuitive interface is crucial for effective interaction with the dashboard.
- **Performance Optimization:** Ensure the dashboard performs efficiently even with large volumes of data.

Additional Features and Enhancements

- **Predictive Analytics:** Incorporate predictive analytics to forecast potential supply shortages or surpluses.
- **What-If Analysis:** Enable users to simulate different scenarios and assess their impact on supply chain performance.
- **Collaboration Tools:** Integrate collaboration features to facilitate communication and coordination among stakeholders.
- **Mobile Access:** Provide mobile access to the dashboard for on-the-go decision-making.

SUPPLY DEMAND COCKPIT (2/2)

Full transparency on overall Supply & Demand situation at a glance with smart exception handling



Manufacturing

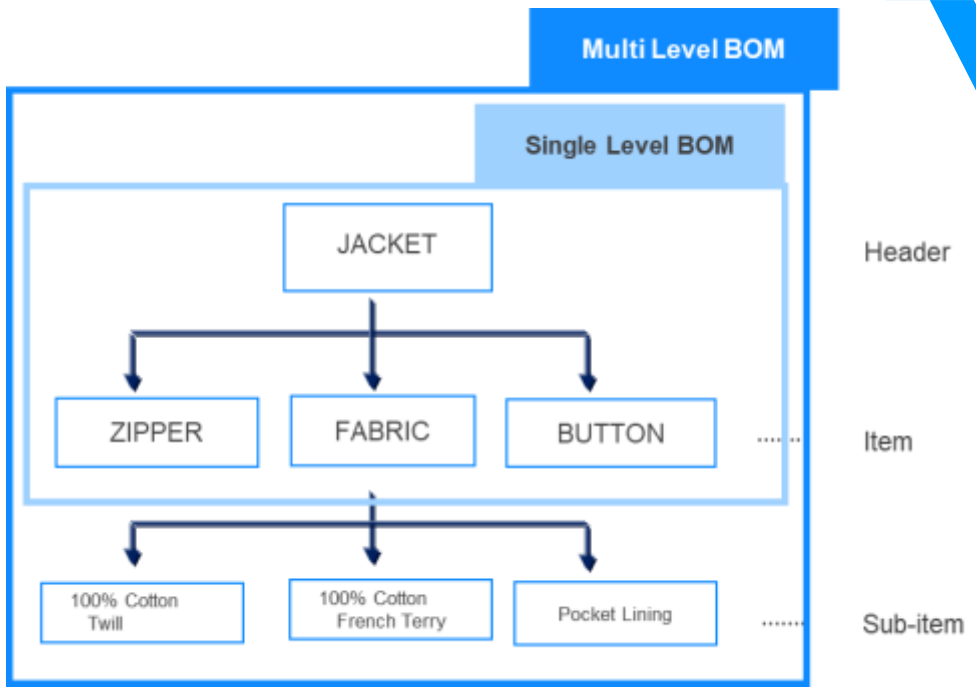
- Master Data
- Master planned & production orders
- PCW
- Markers
- Feasibility Analysis
- Subcontracting integration
- Integration SAP Mill Products (Textile Solution)

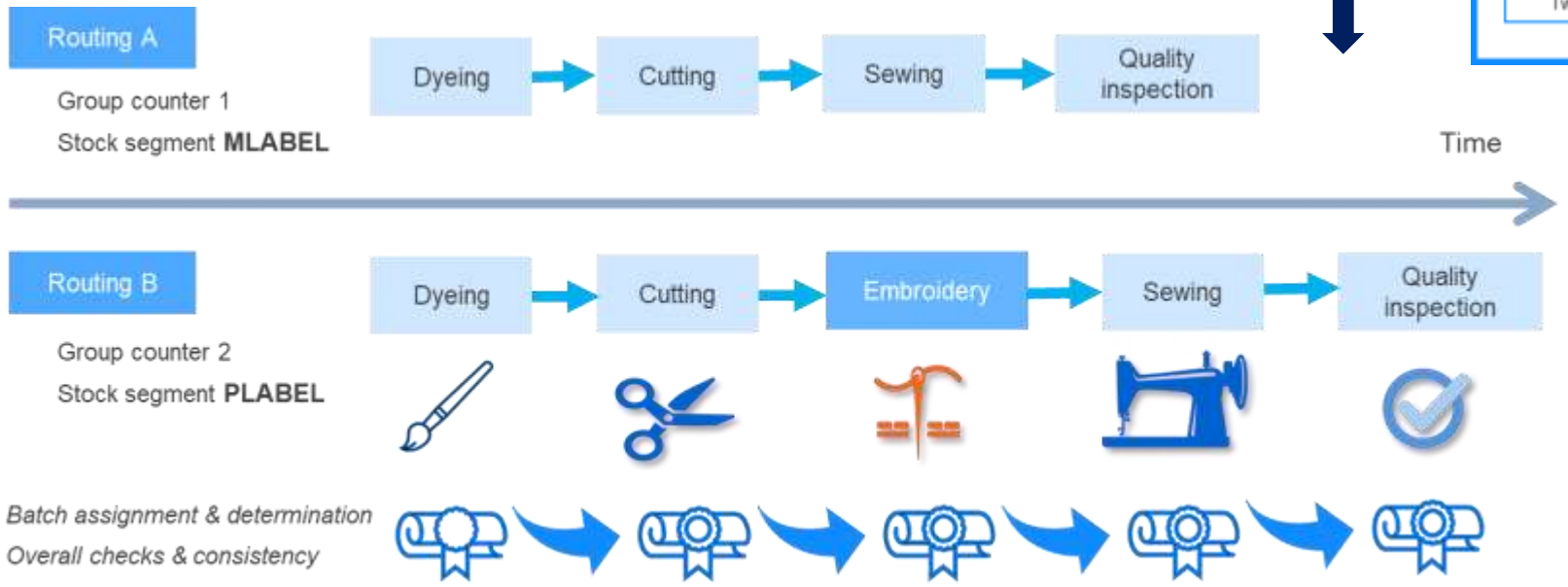
Manufacturing Master Data

GENERAL MASTER DATA CONCEPTS

Material consistency during the production process

- **Multi-level BOMs** to cover complex & multi-level manufacturing processes
- **Fashion Routing** –
  - Description of operations to be carried out, and in which sequence
  - Assignment of required work center, production resources & tools
  - Batch assignment & determination with characteristics (e.g. : dyeing)
  - Allows multiple routing depending on Segmentation (if activated)





- **BOMs are relevant for:**
  - **Material Requirements Planning**
  - **Material Staging during production**
  - **Product Costing**

Manufacturing
Master planned & production orders

MASTER PLANNED AND MASTER PRODUCTION ORDERS

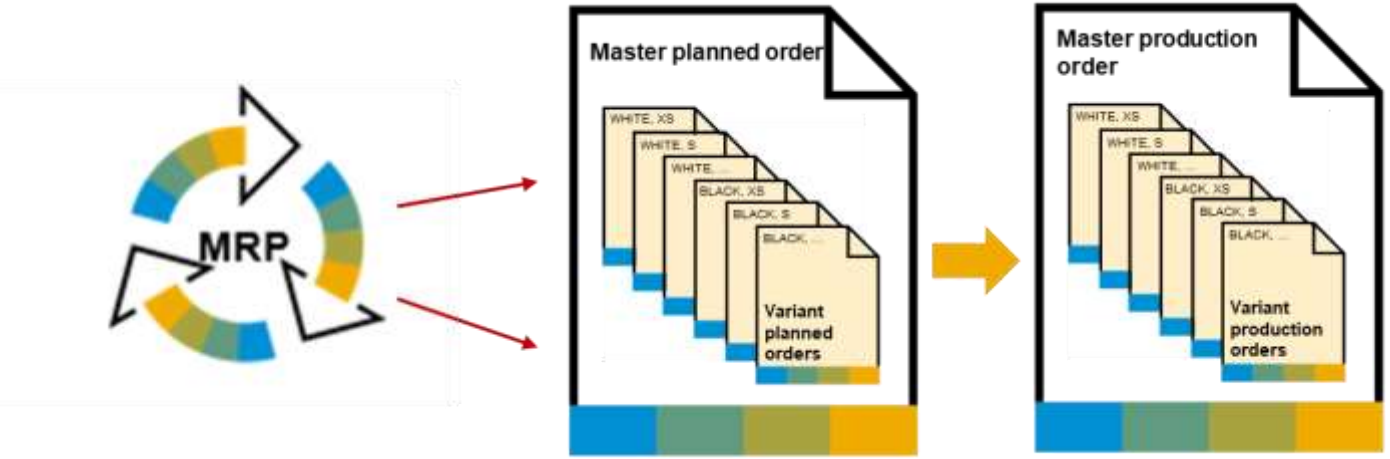
Effectively grouping variants and optimizing production processes

- In the fashion industry, products often consist of multiple variants (e.g., sizes, colors) that need to be produced together to optimize production processes. The standard SAP approach of creating individual planned or production orders for each variant is often inefficient for fashion-specific requirements.

- **Solution: Grouping Variants**

To address this challenge, SAP S/4HANA for fashion and vertical business offers the ability to group variants together for planning and production purposes.

- **Key Features:**
  - **Master Data Structure:** The system supports a master data structure that allows for multiple variants within a single article.
  - **MRP Integration:** MRP can create grouped planned orders for multiple variants, improving efficiency.
  - **Production Order Creation:** Master production orders can be created for a group of variants, enabling combined production planning and execution.
  - **Variant Configuration:** Advanced variant configuration can be used to define product variations and their relationships.



Manufacturing
Production Control Workbench (PCW)

PRODUCTION CONTROL WORKBENCH – TRANSACTION FSH_PCW

Manages the entire production cycle from one single processing window

Marker

Refer to next chapter...

Aggregated component overview

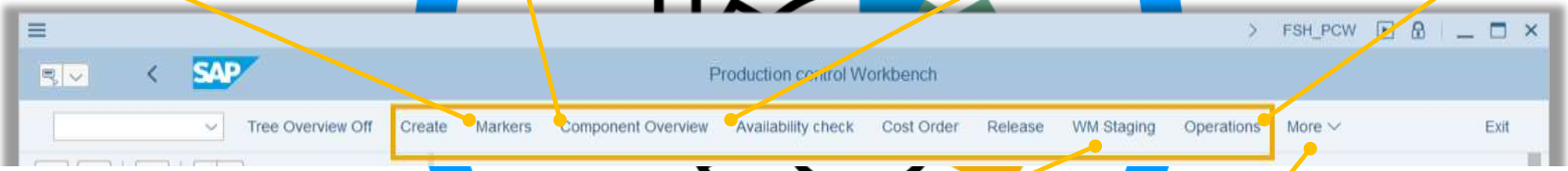
As component quantity is calculated per variant in production order, this view shows summed up requirements per component for respective master production order

ATP check

Availability check for components can be carried out manually before master production order release, results are displayed for individual production orders

Operation overview

Operations for each individual production order are displayed in single view



WM staging

Batch assignment made in production order is transferred to warehouse management system so that required batches can be picked

Fixed batch assignment

Fabric may vary slightly in shading. During goods receipt, fabric roles from different color lots can be assigned to different batches. To make sure all goods in a production order, or even several pieces of garments belonging to each other, are made from same batch, these batches need to be determined for a production order. Once selected, batches need to be fix assigned to make sure they cannot be used in another production order

Sub-contracting

If external operation is included in master production order, respective purchase requisitions can be checked and maintained from the PCW. When desired operation is selected, you can branch off to subcontracting cockpit

PRODUCTION CONTROL WORKBENCH – ORDERS MANAGEMENT

Processes & functions

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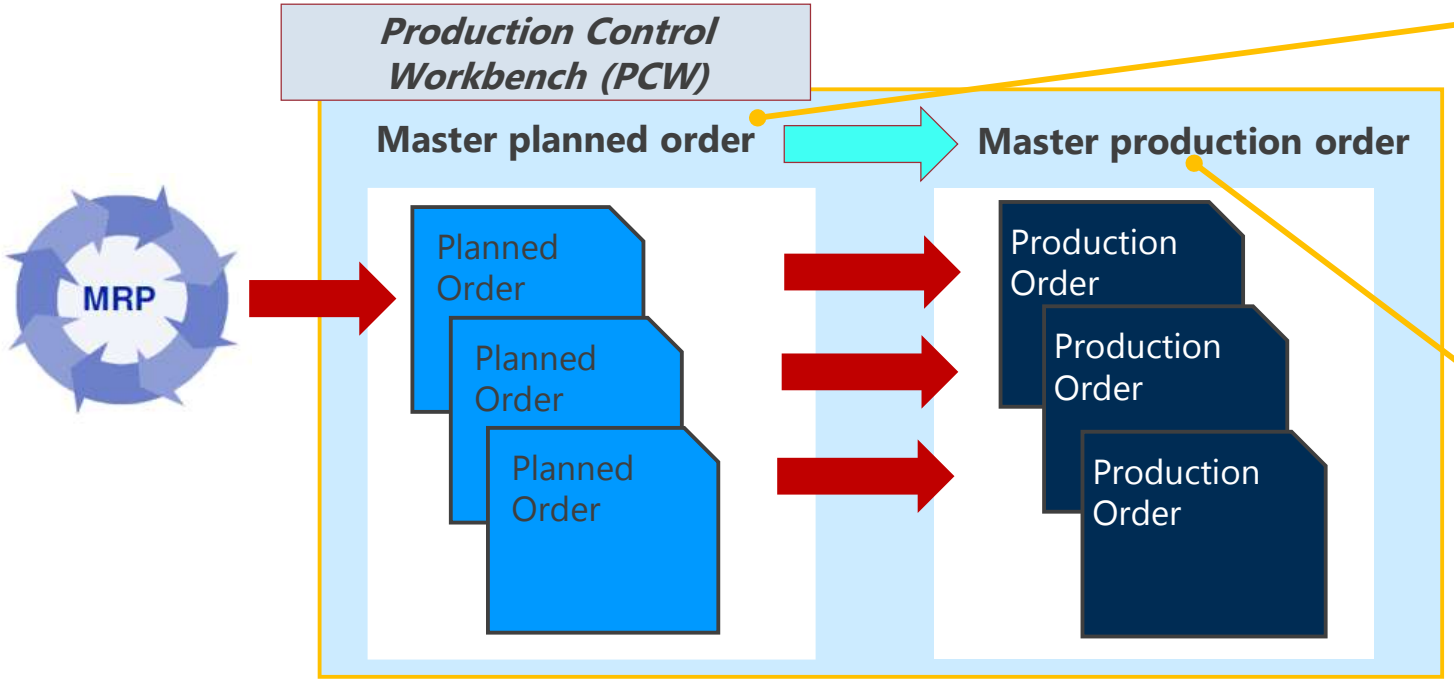


Functions: Master planned order

- Manual creation using variant matrix
- Component Overview
- Schedule
- Availability Check
- Conversion to master production order

Functions: Master production order

- Manual creation using variant matrix
- Component Overview
- Availability Check
- Release of Production Overview
- Confirmation
- Goods Issue
- Goods Receipt
- Technically complete
- Close

- Planned orders are created in MRP or manually in PCW
- Master planned order = group of planned orders

- Planned orders are converted into production orders or are created in PCW
- Master production order = group of production orders

Manufacturing Markers

MARKERS

Understanding Markers

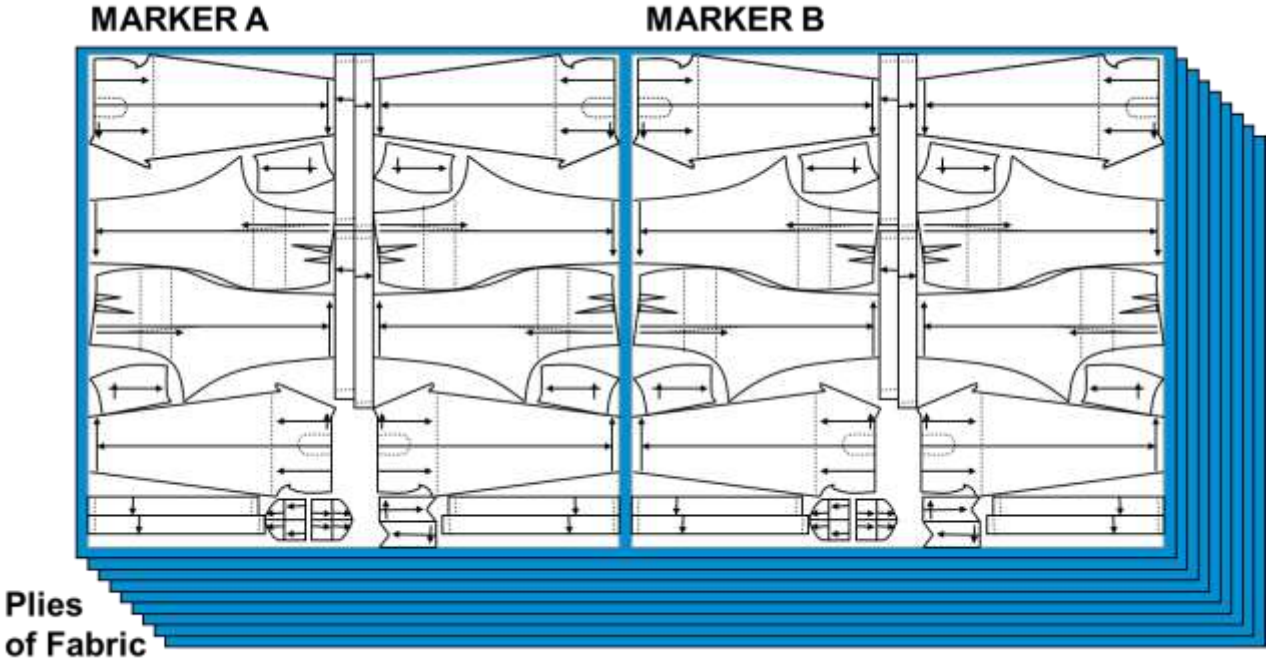
- Markers are a crucial element in the fashion industry, representing a layout of fabric pieces to optimize material utilization during the cutting process.

Key Characteristics of Markers:

- **Definition:** A marker is a specific arrangement of pattern pieces on a fabric width to maximize material efficiency.
- **Uniqueness:** Each marker has a unique name and dimensions.
- **Repetition:** Markers can be repeated multiple times to accommodate different order quantities.
- **Digital Format:** Markers can be stored electronically and used to drive numerically controlled cutting machines.

Role of Markers in Production Planning:

- **Material Utilization:** Markers are essential for optimizing fabric consumption and reducing waste.
- **Production Planning:** Marker data is used to calculate the required fabric quantity for production orders.
- **Cutting Process:** Markers provide instructions for cutting machines, ensuring accurate and efficient fabric cutting.



MARKERS – CHALLENGES AND CONSIDERATIONS

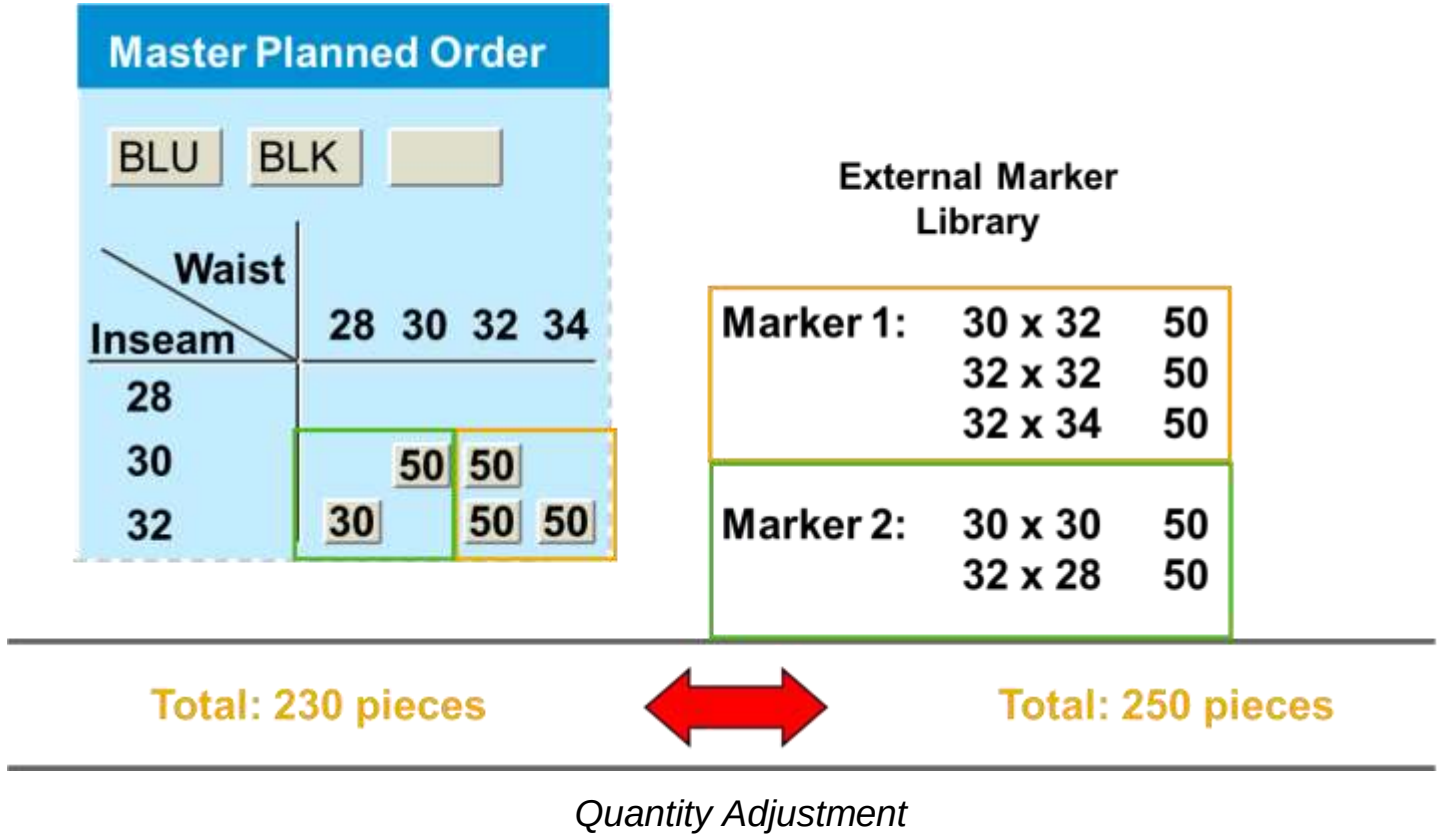
Improve production processes and reduce material costs

Challenges and Considerations:

- **Marker Creation:** Developing efficient markers requires expertise and specialized software.
- **Marker Library:** Maintaining a library of markers for different product types and fabric widths is essential.
- **Quantity Adjustment:** The actual quantity produced might differ from the planned quantity due to marker yield, requiring adjustments in production planning.

Benefits of Marker Management:

- **Reduced Material Waste:** Optimized fabric utilization leads to cost savings.
- **Improved Production Efficiency:** Efficient cutting processes increase productivity.
- **Better Planning:** Accurate material requirements based on marker data enhance production planning.



Manufacturing Feasibility Analysis

FEASIBILITY ANALYSIS

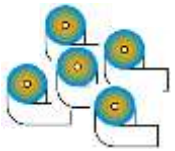
Challenge & features

- In the fashion industry, managing component availability for multiple production orders is a complex task due to the shared use of materials and the critical nature of certain components.

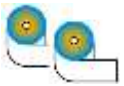
- Feasibility analysis helps address this challenge by providing a comprehensive overview of open production orders and their component requirements. This allows for informed decision-making regarding production scheduling and prioritization.

- **Key Features of Feasibility Analysis:**
  - **Component Overview:** Displays the usage of components across multiple production orders.
  - **Material Availability:** Assesses the availability of critical components, such as fabric and branded buttons.
  - **Production Prioritization:** Supports decision-making on which orders to prioritize based on component availability and delivery dates.
  - **Resource Optimization:** Helps balance resource utilization and prevent bottlenecks.

- **Benefits of Feasibility Analysis:**
  - **Improved Production Planning:** Enables more accurate production scheduling and resource allocation.
  - **Reduced Production Delays:** Minimizes disruptions caused by component shortages.
  - **Enhanced Material Management:** Optimizes material usage and reduces waste.
  - **Better Customer Service:** Improves on-time delivery by prioritizing critical orders.



Critical component stock on hand



Critical component stock missing

Manufacturing
Integration SAP Mill Products
(Textile Solution)

INTEGRATION OF TEXTILE SOLUTION (PART OF SAP MILL PRODUCTS)

Greater efficiency, flexibility, and control over the entire value chain

The Challenge

- Traditional fashion businesses often operate as separate entities for manufacturing and retail. This separation leads to inefficiencies in data management, planning, and execution. Vertically integrated fashion companies, which handle both fabric manufacturing and garment production, face additional complexities in managing the entire value chain.

The Proposed Solution

This challenge is adressed by introducing a single article concept that covers the entire product lifecycle, from yarn to finished garment. This approach offers several key benefits:

- **Unified Master Data:** A single article serves as the foundation for all processes, eliminating data inconsistencies and redundancies.
- **End-to-End Visibility:** Provides a comprehensive view of the product lifecycle, enabling better decision-making and planning.
- **Improved Collaboration:** Facilitates collaboration between different departments involved in the value chain.
- **Increased Efficiency:** Streamlines processes and reduces data entry efforts.

Key Features and Benefits

- **Classic Variant Configurator:** Allows for defining product variations based on attributes like color, size, and material.
- **Advanced Variant Configurator:** Provides more complex configuration capabilities for products with multiple levels of variations.
- **Batch Unit of Measure:** Enables management of different product units (e.g., meters for fabric, pieces for garments) within a single article.

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