SAP Ariba

Feature at a Glance
Component planning collaboration

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Feature at a Glance

Introducing: **Component planning collaboration**

Customer challenge

Contract manufacturer suppliers and their buyers want a clear view of the planning situation for the production of finished goods and the components to be used.

However at the moment all that a planner supplier/buyer team can do is share planning data separately, resulting in multiple planning items with no relation between each. Other data, such as multi-tier orders/drop shipments of components, is not reflected in the planning views.

Meet that challenge with SAP Ariba

Contract manufacturers and buyers will be able to see the planning and transaction data for the finished good material side-by-side with the planning and transaction information of the components used in its production.

With a comprehensive view of all the information exchanged between the buyer and contract manufacturers about finished good and component materials, as well as projected stock and shortage warning tools, it will be easier to identify quickly any material shortage and address it.

Experience key benefits

A. Single planning view of the material to be produced together with all its direct components required for production.

B. Easy access to all data on planned good inflows and outflows, all network transactions about all the concerned materials.

C. Alerting and monitoring of potential shortages and component bottlenecks.

Solution area

SAP Ariba Supply Chain Collaboration

Implementation information

This feature is **automatically on** for all customers with the applicable solution and is ready for immediate use.

Prerequisites and Restrictions

- See next slide

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Prerequisites

- You must have both the Supply chain collaboration and Planning collaboration entitlements enabled.
- For buyer users, your account must be enabled for the new trading partner portal experience.
- The buyer administrator has set the **Enable component visibility** setting on the **Planning Settings Assign suppliers System default settings** page or any other settings configuration.
- The buyer administrator has imported the Bill of Materials (BOM) for the finished goods from the SAP ERP or SAP S/4HANA to Ariba Network.
- To view the **Component** tile in the **Workbench** tab, you must have the **Component Visibility** permission.

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Exploring Key Benefits

A. Single planning view of the material to be produced together with all its direct components required for production.

B. Easy access to all data on planned good inflows and outflows, all network transactions about all the concerned materials.

C. Alerting and monitoring of potential shortages and component bottlenecks.

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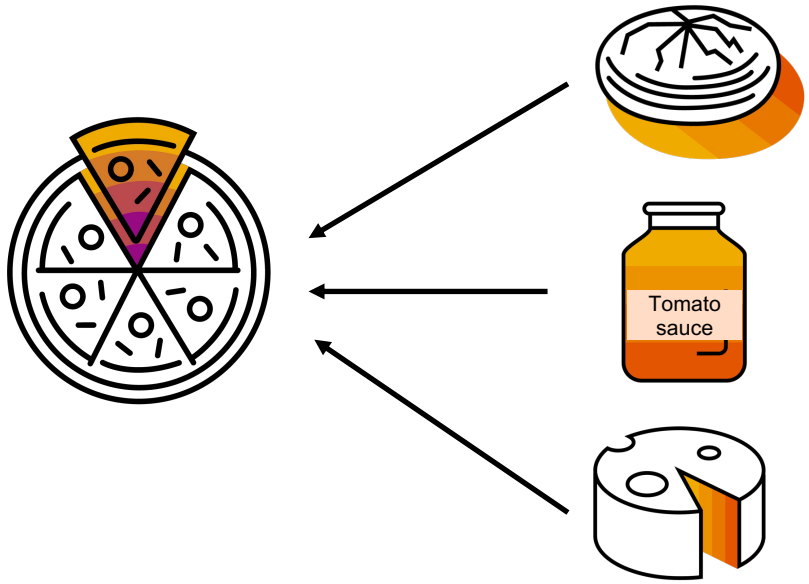
Component planning collaboration solution overview

Example:

Margherita Pizza Co. is a contract manufacturer supplier that produces frozen pizzas for their customer Bakery Bros which, in turn, resells the pizzas to retailers.

Bakery Bros and Margherita Pizza Co. planners work together to ensure the production of the target quantities of pizza.



We'll follow the production steps of a classic Cheese Pizza at Margherita Pizza Co.'s plant 1000.

For the production of the Cheese Pizza, three components are required:

- Dough
- Tomato sauce
- Cheese

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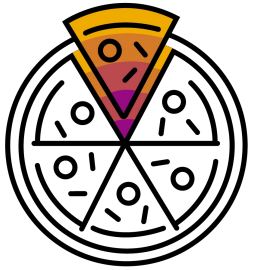
Component planning collaboration solution overview



Example part 1: Planning for the finished good – Data points on the Cheese pizza

Order forecast (Finished good):

Business context: Planners from buyer Bakery Bros share with the Contract manufacturer the forecast of how much Cheese pizza they plan to buy in advance from the Margherita Pizza co. plant so that the manufacturer will be ready to produce once the orders are created.

Technical tool: This time series data is shared by the buyer planning system to the manuf. On the network via Product activity message of Forecast process type.

Note: This is the very first step required for displaying the Component planning collaboration view.

Manufacturer commit (Finished good):

Business context: Manufacturer lets the buyer know whether they can produce the forecasted quantities and shares the commit. They do so after checking that everything is good with the components (more on that in next steps).

Technical tool: Commit time series data is shared by manufacturer via Product replenishment message of Forecast process type. The buyer may consume this message in their planning system.

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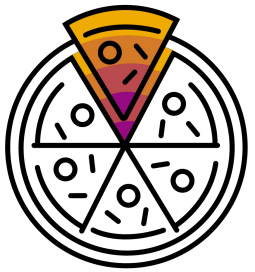
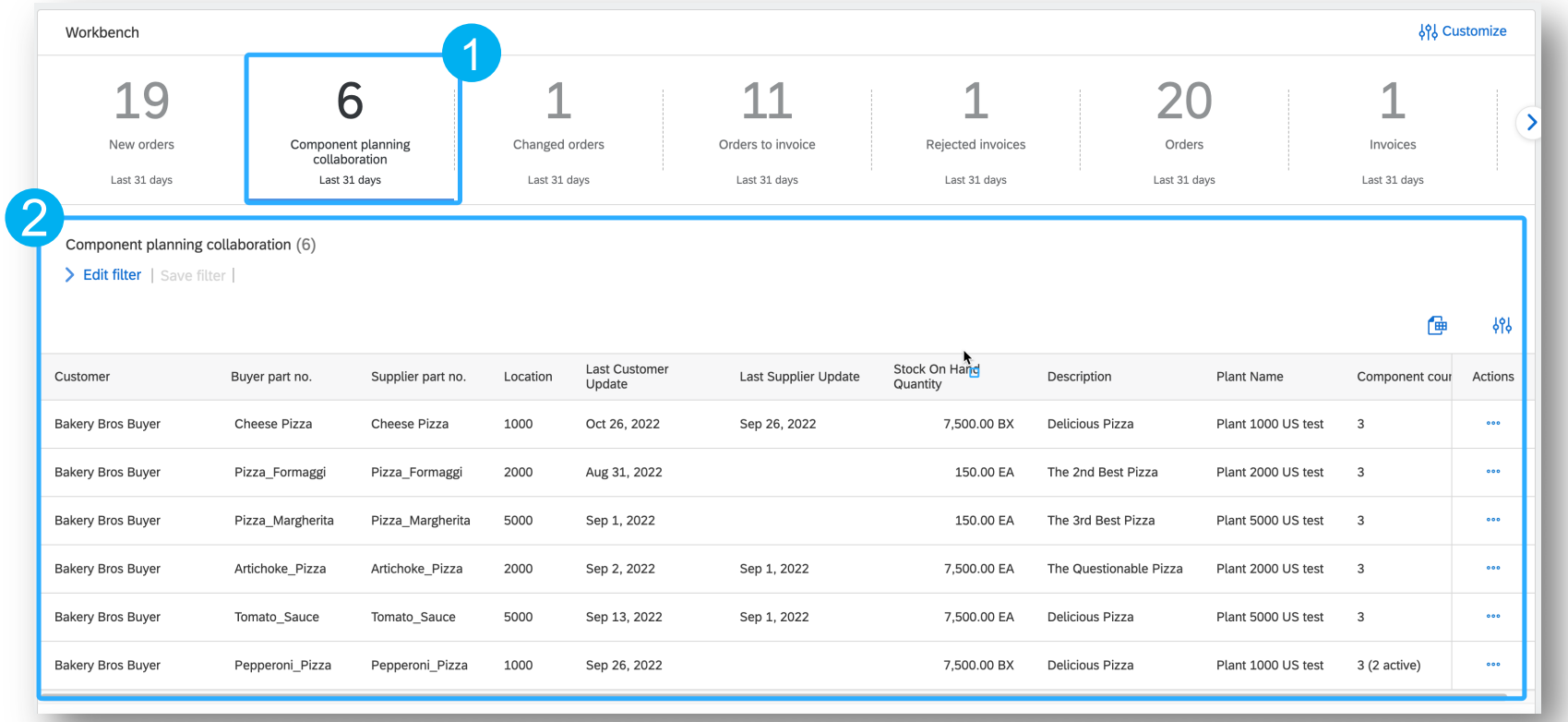
Component planning collaboration solution overview



Example part 1: Planning for the finished good – Data points on the Cheese pizza



1) A new Component planning collaboration tile for the workbench is available

2) The new tile's list page displays all the Finished goods / manufacturer plant combinations for which the buyer has shared Forecast data

Note: the buyer must first share the Forecast data for the material before the corresponding line can appear in the Component planning collaboration tab.

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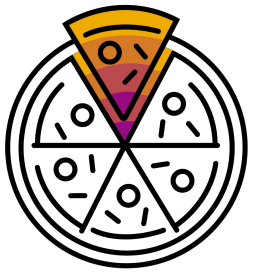
Component planning collaboration solution overview



Example part 1: Planning for the finished good – Data points on the Cheese pizza

Cheese Pizza
Plant 1000 US test

Customer	Supplier part no.	Description	Lead time
Bakery Bros Buyer	Cheese Pizza	Delicious Pizza	2

Bill of materials: Cheese Pizza 0007000

Multitier visibility records

View by: Daily | Starting from: 9/27/2022 | Send data

3 Key figure	27 Sep 2022	28 Sep 2022	29 Sep 2022	30 Sep 2022	1 Oct 2022	2 Oct 2022	3 Oct 2022	4 Oct 2022	5 Oct 2022	6 Oct 2022
Finished good Cheese Pizza Stock on hand: 7500 BX										
Forecast	150	150	150	150	150	150	150	150	150	150
4 Forecast commit				150						
Purchase order inbound										
Purchase order outbound	50									
Transport order inbound										
Transport order outbound			150	500	150					
Copy purchase order inbound										
Copy transport order inbound										
Beginning inventory for finished good	7,500	7,450	7,450	7,300	6,950	6,800	6,800	6,800	6,800	6,800
Ending inventory for finished good	7,450	7,450	7,300	6,950	6,800	6,800	6,800	6,800	6,800	6,800
Planned ending inventory	7,350	7,300	7,300	7,300	6,800	6,650	6,650	6,650	6,650	6,650
Components with shortage	0	0	0	0	0	0	0	0	0	1
Component Cheese Stock on hand: 750 BX										
Component Dough Stock on hand: 2750 BX (21)										
Component Tomato_Sauce Stock on hand: 7500 BX										

3) The details page shows a planning section for each of the materials in the BOM. After sharing the Forecast data for the Finished good, the corresponding planning data is populated.

4) The Forecast and Forecast commit key figures are available by default. Supplier can commit through the UI as in other planning processes.

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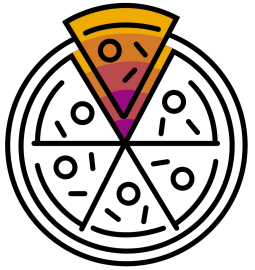
Component planning collaboration solution overview



Example part 1: Planning for the finished good – Data points on the Cheese pizza

Outbound purchase orders and stock transport orders (Finished good)

Business context: Once it's time to execute and deliver the production of Cheese pizza to the final customers (retailers) the buyers of Baker Bros will create orders that will let the Margherita Pizza Co. Team know the details of the delivery. The manufacturer uses this data to finalize the daily production quantities for the short term and understand how much of their stock of Cheese pizza will be going out on a given day.

Technical tool: This time series data is calculated by the network aggregating Purchase order quantities purchase order line items with Material no "Cheese Pizza" and Ship from location ID matching the Margherita Pizza Co. plant ID from the Buyer forecast.

Note: There are two key figures that can be populated by orders (**Purchase orders outbound** and **Stock transport orders outbound**) depending on the order type (standard or STO).

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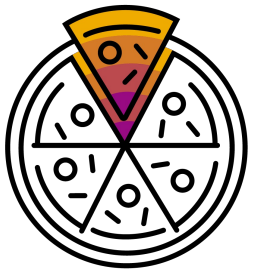
Component planning collaboration solution overview



Example part 1: Planning for the finished good – Data points on the Cheese pizza

Cheese Pizza

Plant 1000 US test

Customer	Supplier part no.	Description	Lead time
Bakery Bros Buyer	Cheese Pizza	Delicious Pizza	2

Multitier visibility records

View by: Daily | Starting from: 9/26/2022

Key figure	26 Sep 2022	27 Sep 2022	28 Sep 2022	29 Sep 2022	30 Sep 2022	1 Oct 2022	2 Oct 2022
Finished good Cheese Pizza Stock on hand: 7500 BX							
Forecast	150	150	150	150	150	150	150
Forecast commit	150				150		
Purchase order inbound							
Purchase order outbound	100	50					
Transport order inbound							
Transport order outbound				150	500	150	
Copy purchase order inbound							
Copy transport order inbound							
Beginning inventory for finished good	0	7,500	7,450	7,450	7,300	6,950	6,800
Ending inventory for finished good	0	7,450	7,450	7,300	6,950	6,800	6,800

5) Purchase order outbound key figure aggregates all the quantities of purchase orders for the Component planning collaboration material and shipping out of the Component planning collaboration plant ID (in our example Material: Cheese pizza and Plant: 1000)

6) Stock transport order outbound aggregates the quantities for transport orders with matching material and plant IDs.

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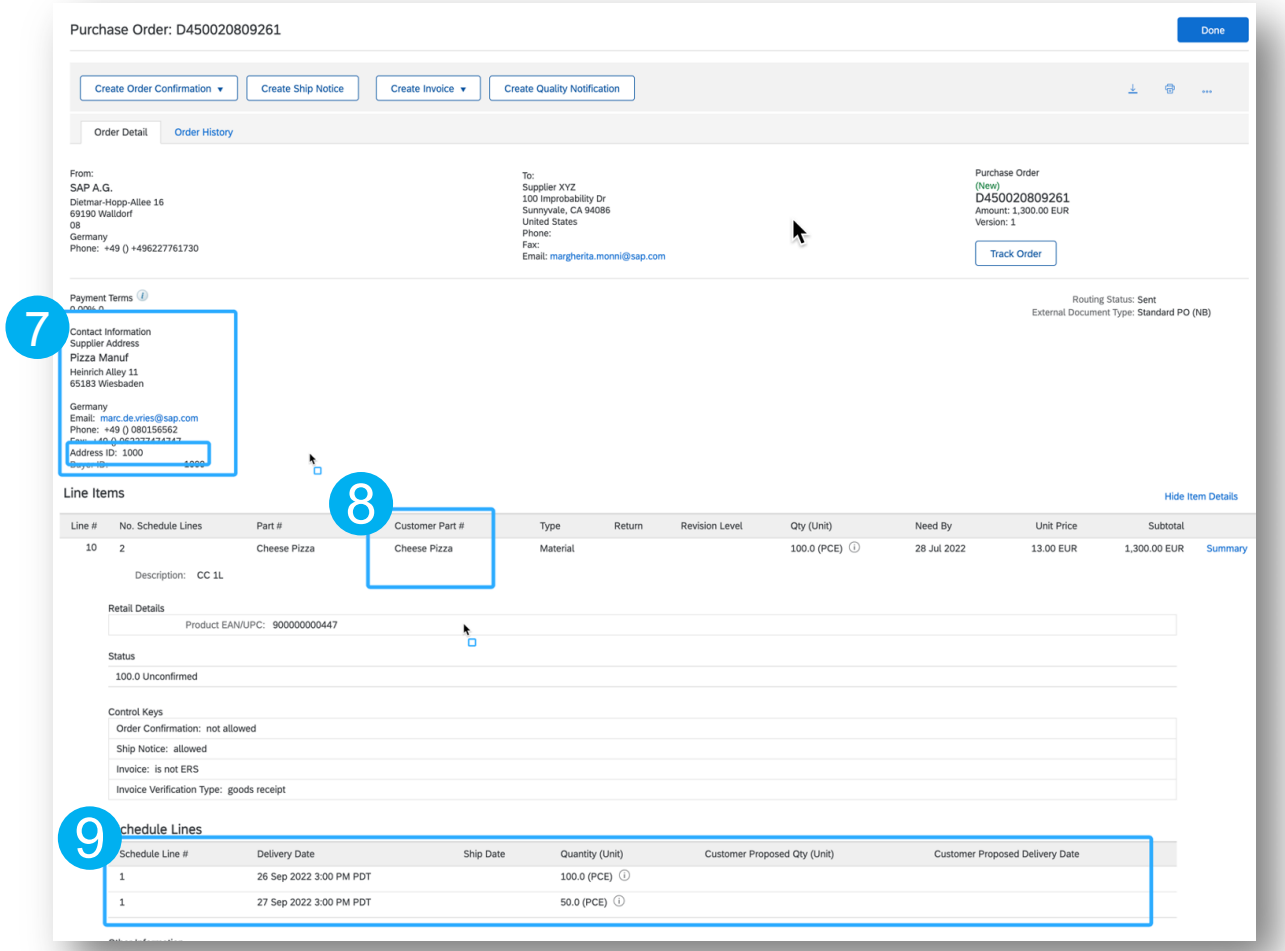
Component planning collaboration solution overview

Example part 1: Planning for the finished good – Data points on the Cheese pizza



7) In order for a Purchase order quantity to be displayed in the Purchase order outbound key figure the Supplier address section of the order must contain the same Plant ID of the Component planning collaboration record…

8) …and match the Material ID of the Component planning collaboration record

9) The quantities of the purchase order schedule lines will be aggregated in the time bucket corresponding to the requested delivery date (or ship date if available)

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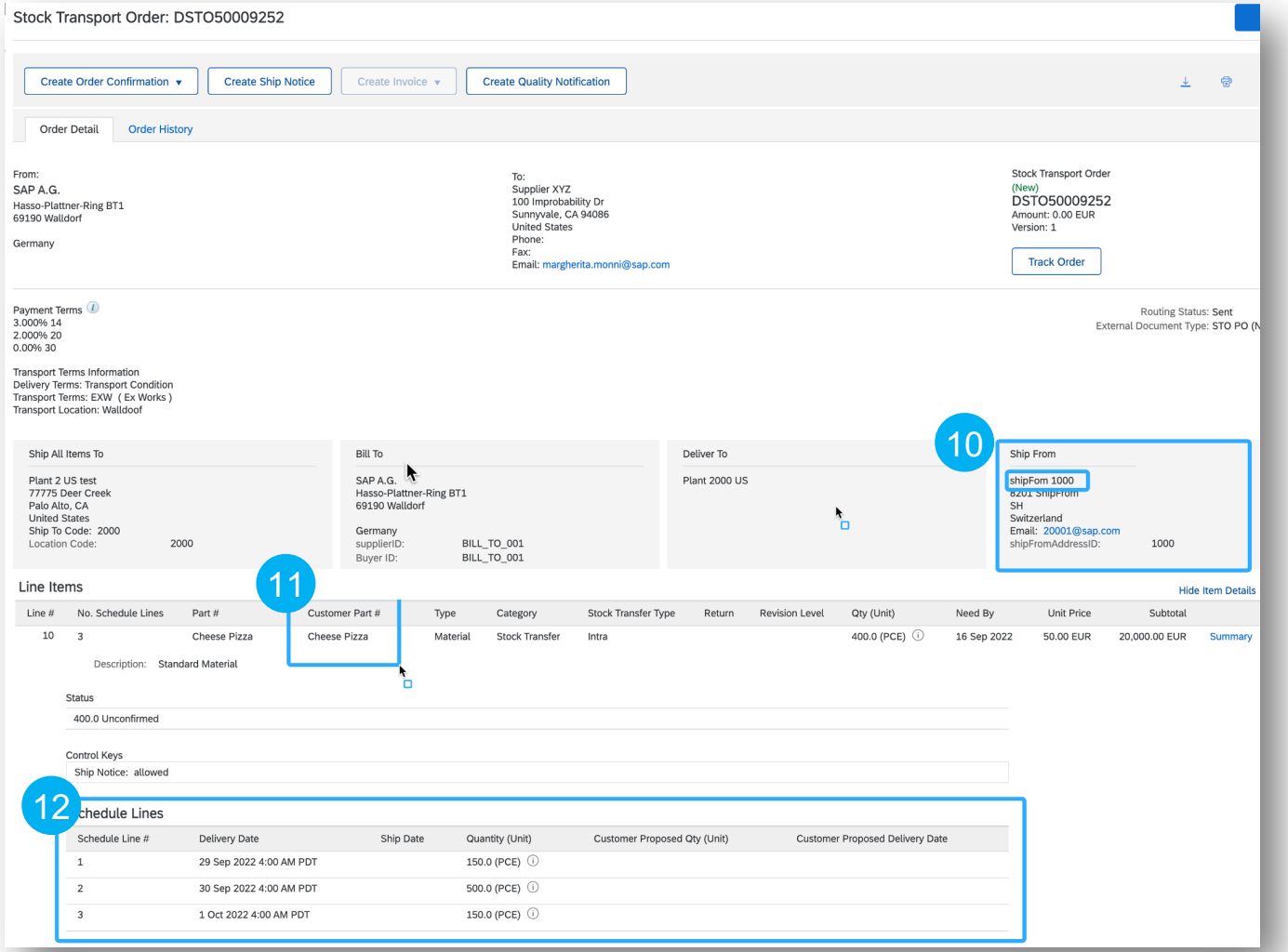
Component planning collaboration solution overview

Example part 1: Planning for the finished good – Data points on the Cheese pizza



10) In order for a Stock transport order's quantity to be displayed in the Transport order outbound key figure the Ship From section of the order must contain the same Plant ID of the Component planning collaboration record…

11) …and match the Material ID of the Component planning collaboration record

12) The quantities of the transport order schedule lines will be aggregated in the time bucket corresponding to the requested delivery date (or ship date if available)

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Component planning collaboration solution overview

Example part 2: Planning for the component – Data points on the Dough

Forecast (Component):

Business context: Planners from buyer Bakery Bros run internally the Material Resource Planning (MRP) to calculate the quantities of ingredients that Margherita Pizza Co will need at their location in order to achieve the production of Cheese pizza planned in the Finished good forecast (see Example part 1) and then share these quantities with the Contract manufacturer.

Technical tool: This time series data is shared by the buyer planning system to the manuf. On the network via Product activity message of Forecast process type.

Note: The planning and the calculation of ingredient requirement is calculated by the buyer using their own planning solution.

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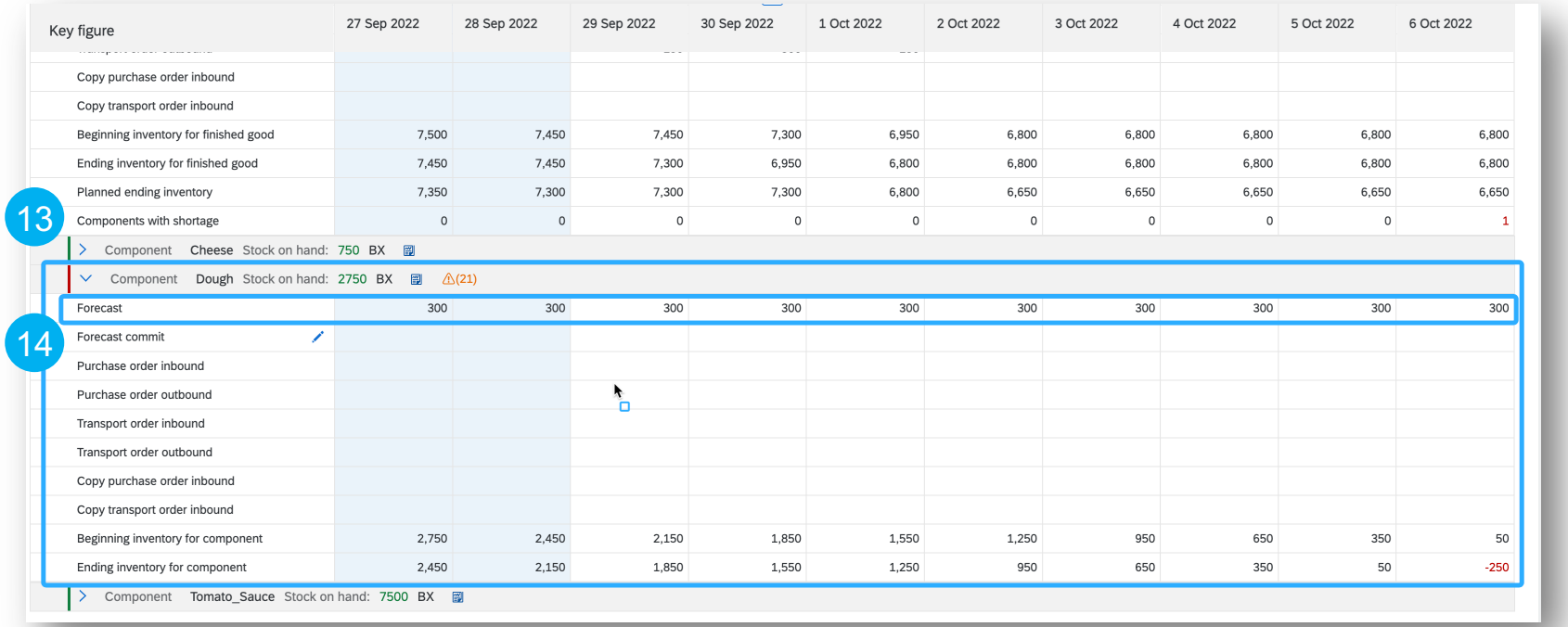
Component planning collaboration solution overview

Example part 2: Planning for the component – Data points on the Dough



Key figure	27 Sep 2022	28 Sep 2022	29 Sep 2022	30 Sep 2022	1 Oct 2022	2 Oct 2022	3 Oct 2022	4 Oct 2022	5 Oct 2022	6 Oct 2022
Copy purchase order inbound										
Copy transport order inbound										
Beginning inventory for finished good	7,500	7,450	7,450	7,300	6,950	6,800	6,800	6,800	6,800	6,800
Ending inventory for finished good	7,450	7,450	7,300	6,950	6,800	6,800	6,800	6,800	6,800	6,800
Planned ending inventory	7,350	7,300	7,300	7,300	6,800	6,650	6,650	6,650	6,650	6,650
Components with shortage	0	0	0	0	0	0	0	0	0	1
Component Cheese Stock on hand: 750 BX										
Component Dough Stock on hand: 2750 BX ⚠(21)										
Forecast	300	300	300	300	300	300	300	300	300	300
Forecast commit										
Purchase order inbound										
Purchase order outbound										
Transport order inbound										
Transport order outbound										
Copy purchase order inbound										
Copy transport order inbound										
Beginning inventory for component	2,750	2,450	2,150	1,850	1,550	1,250	950	650	350	50
Ending inventory for component	2,450	2,150	1,850	1,550	1,250	950	650	350	50	-250
Component Tomato_Sauce Stock on hand: 7500 BX										

13) The planning section for each one of the component materials will appear once the buyer sends planning data for that Material ID.

14) Forecast key figure at the component level informs the supplier of the expected consumption of the material based on buyer's planning calculations.

Note: the expected component consumption forecast is to be calculated by the buyer and shared via Product activity message.

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Component planning collaboration solution overview

Example part 2: Planning for the component – Data points on the Dough

Inbound purchase orders and stock transport orders (Component)

Business context: Baker Bros planners provide the Dough to the Margherita Pizza Co manufacturer by directly shipping it from their own Dough production plant. When it's time so send the Dough out to the manufacturer the buyer sends them a transport order informing them of the incoming quantities being shipped to their own plant.

Technical tool: This time series data is calculated by the network aggregating Purchase order or Transport order quantities\line items with **Material no. = "Dough"** and **Ship To** location ID matching the Margherita Pizza Co. plant ID from the Buyer component forecast.

Note: There are two key figures that can be populated by orders (**Purchase orders inbound** and **Stock transport orders inbound**) depending on the order type (standard or STO).

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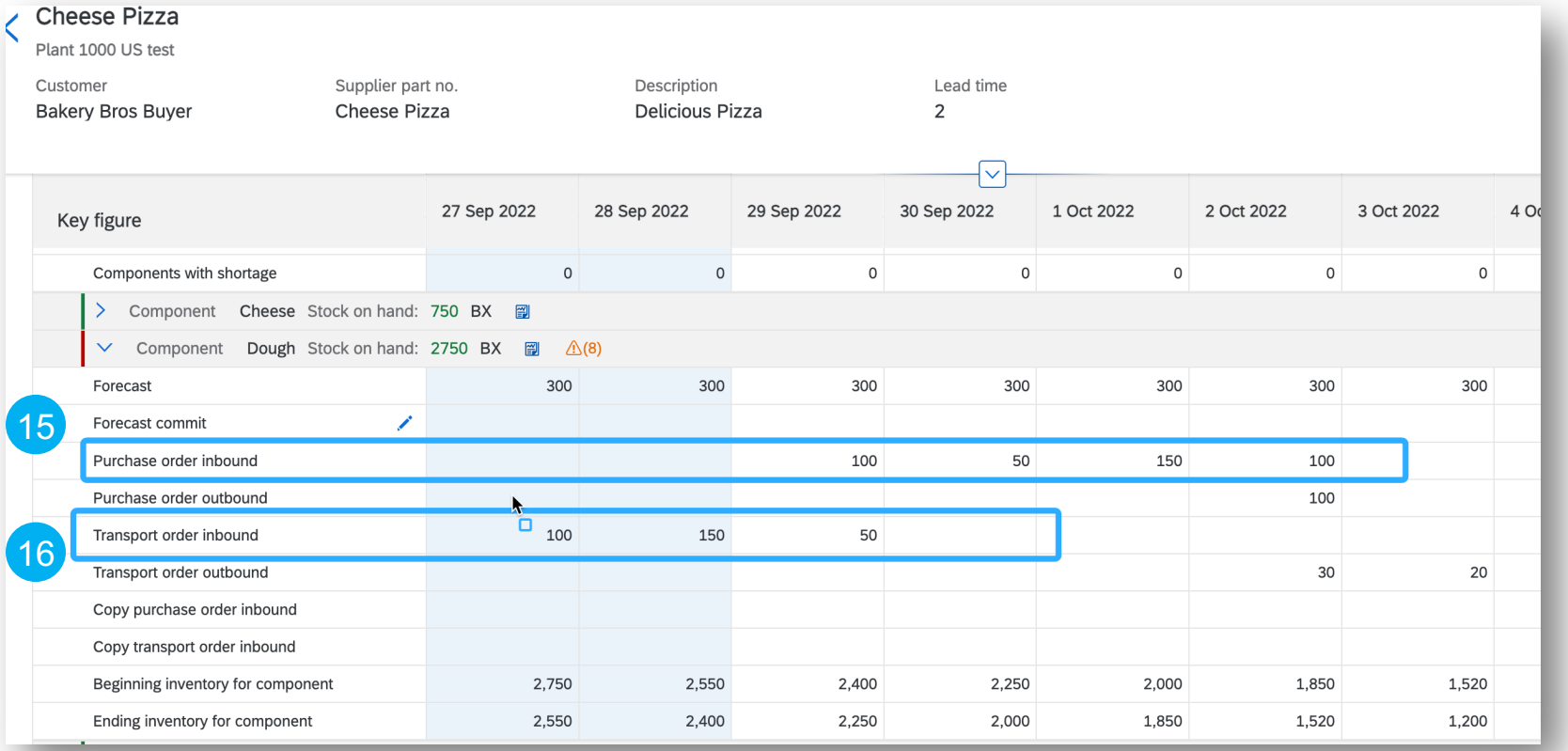
Component planning collaboration solution overview

Example part 2: Planning for the component – Data points on the Dough



Key figure	27 Sep 2022	28 Sep 2022	29 Sep 2022	30 Sep 2022	1 Oct 2022	2 Oct 2022	3 Oct 2022	4 Oc
Components with shortage	0	0	0	0	0	0	0	
Component Cheese Stock on hand: 750 BX								
Component Dough Stock on hand: 2750 BX ⚠(8)								
Forecast	300	300	300	300	300	300	300	
Forecast commit								
Purchase order inbound			100	50	150	100		
Purchase order outbound						100		
Transport order inbound	100	150	50					
Transport order outbound						30	20	
Copy purchase order inbound								
Copy transport order inbound								
Beginning inventory for component	2,750	2,550	2,400	2,250	2,000	1,850	1,520	
Ending inventory for component	2,550	2,400	2,250	2,000	1,850	1,520	1,200	

15) Purchase order inbound key figure aggregates all the quantities of purchase orders for the Component planning collaboration material and shipping to the Component planning collaboration plant ID (in our example Material: Dough and Plant: 1000)

16) Stock transport order inbound aggregates the quantities for transport orders with matching material and plant IDs.

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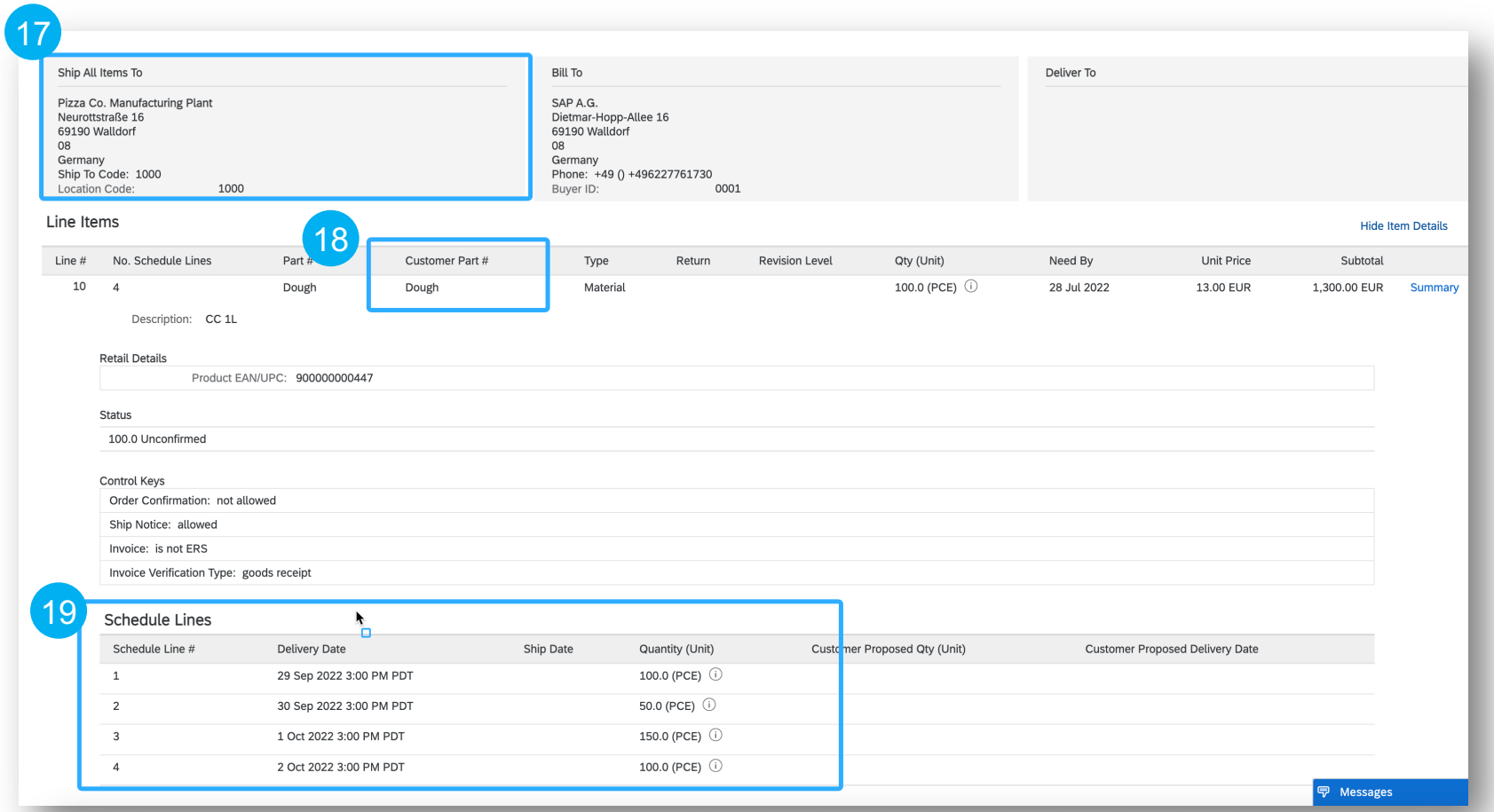
Component planning collaboration solution overview

Example part 2: Planning for the component – Data points on the Dough



17) In order for a Purchase order quantity to be displayed in the Purchase order inbound key figure the Ship To of the order must contain the same Plant ID of the Component planning collaboration record…

18) …and the material must match the Material ID of the Component planning collaboration record.

19) The quantities of the purchase order schedule lines will be aggregated in the time bucket corresponding to the requested delivery date.

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Component planning collaboration solution overview

Example part 2: Planning for the component – Data points on the Dough

Outbound purchase orders and stock transport orders (Component)

Business context: Baker Bros. buyer planners oversee the production of not only Pizza Co. but also other manufacturers like Pie Pros. Pie Pros plant is close to Pizza Co's. Sometimes the Baker Bros planners see that Pie Pros is running low on Dough while Pizza Co has an excess Dough inventory. In this case the buyers may ask Pizza Co to share some of their Dough inventory with the other manufacturer plant and send a transport order for the inventory exchange.

Technical tool: This time series data is calculated by the network aggregating Purchase order or Transport order quantities\line items with **Material no. = "Dough"** and **Ship From** location ID matching the Margherita Pizza Co. plant ID from the Buyer component forecast.

Note: There are two key figures that can be populated by outgoing orders (**Purchase orders outbound** and **Stock transport orders outbound**). The quantities of each line item will be populated in the time bucket matching the Requested Ship Date, if that is missing, the requested delivery date will be used.

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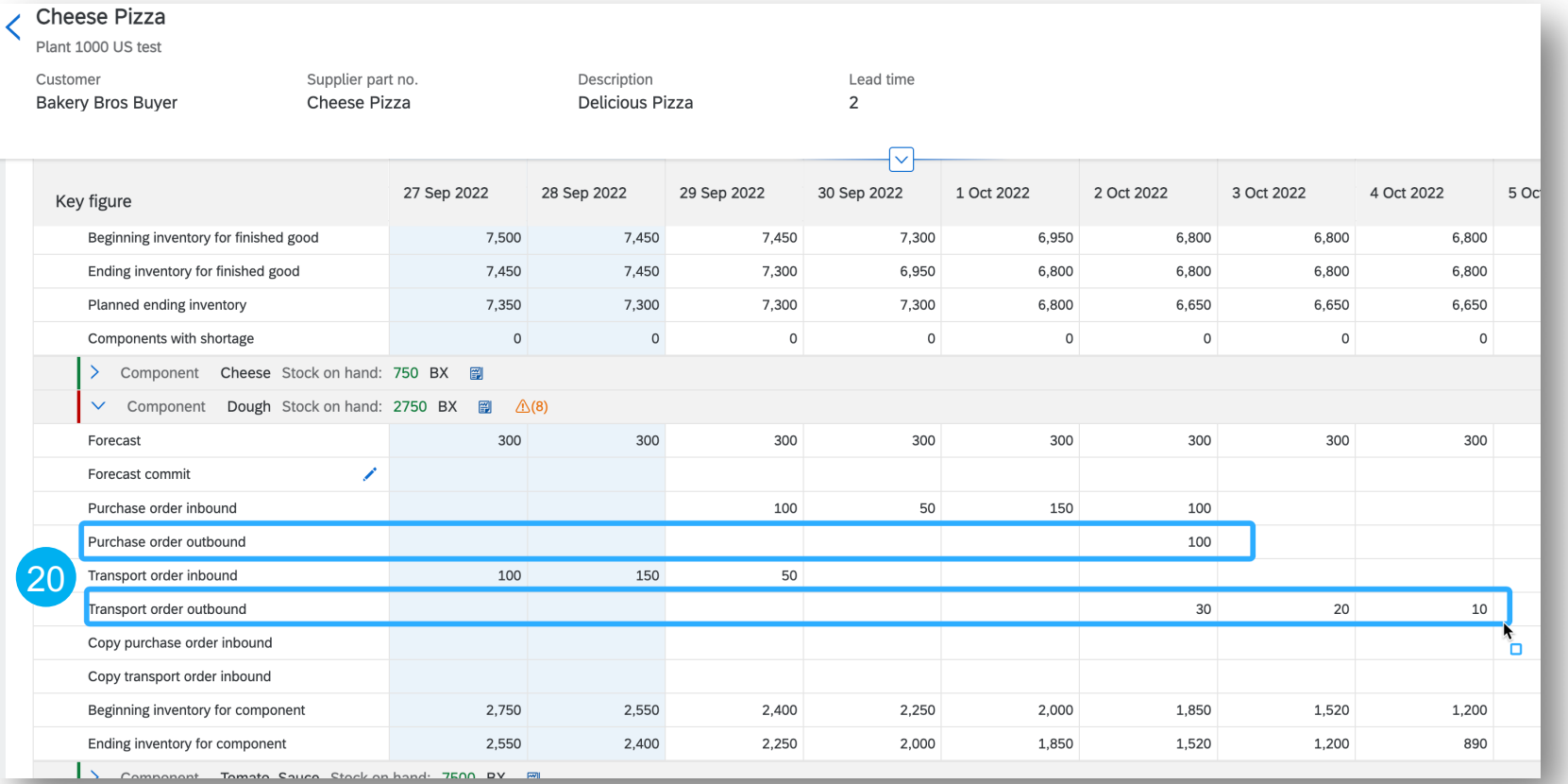
Component planning collaboration solution overview

Example part 2: Planning for the component – Data points on the Dough



Key figure	27 Sep 2022	28 Sep 2022	29 Sep 2022	30 Sep 2022	1 Oct 2022	2 Oct 2022	3 Oct 2022	4 Oct 2022	5 Oc
Beginning inventory for finished good	7,500	7,450	7,450	7,300	6,950	6,800	6,800	6,800	
Ending inventory for finished good	7,450	7,450	7,300	6,950	6,800	6,800	6,800	6,800	
Planned ending inventory	7,350	7,300	7,300	7,300	6,800	6,650	6,650	6,650	
Components with shortage	0	0	0	0	0	0	0	0	
Component Cheese Stock on hand: 750 BX									
Component Dough Stock on hand: 2750 BX ⚠(8)									
Forecast	300	300	300	300	300	300	300	300	
Forecast commit									
Purchase order inbound			100	50	150	100			
Purchase order outbound						100			
Transport order inbound	100	150	50						
Transport order outbound						30	20	10	
Copy purchase order inbound									
Copy transport order inbound									
Beginning inventory for component	2,750	2,550	2,400	2,250	2,000	1,850	1,520	1,200	
Ending inventory for component	2,550	2,400	2,250	2,000	1,850	1,520	1,200	890	
Component Tomato Sauce Stock on hand: 7500 BX									

20) Purchase order outbound and Transport order outbound key figures are populated whenever the buyer shares a purchase orders for the Material ID that matches component material and with Ship from plant ID matching the contract manufacturer plant in the Component planning collaboration record (in our example Material: Dough and Plant: 1000)

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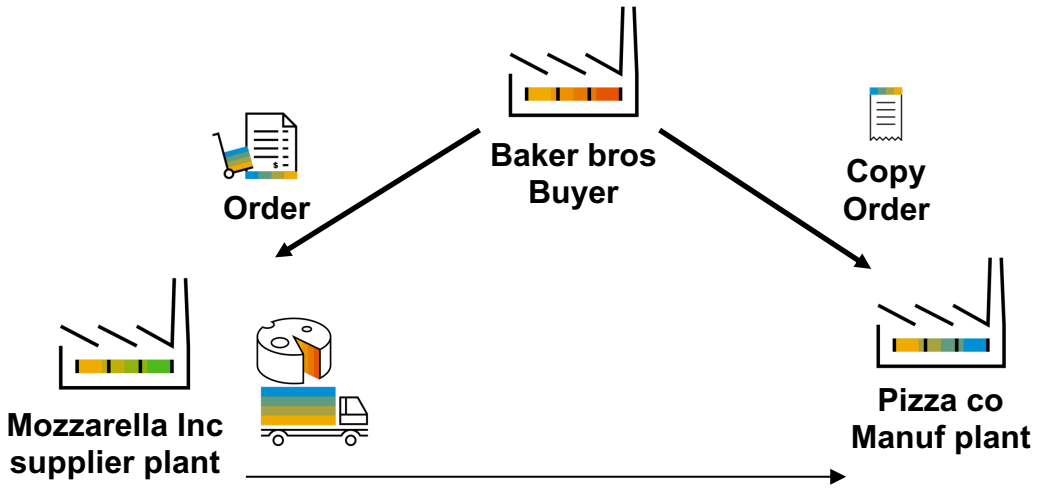
Component planning collaboration solution overview

Example part 3: Planning for the component– Data points on the Cheese

Forecast (Component): Same as example part 2
Inbound dropship purchase orders and stock transport orders (Component)
Business context: Baker Bros. buyer planners source the cheese for the pizzas only from the best cheese makers. They negotiate and maintain the contract with Mozzarella Inc. When the buyers need to restock the Pizza Co. manufacturer cheese stock, they create an order for Mozzarella Inc. Asking them to deliver cheese to the manufacturer location. Baker Bros buyers also send a copy of the same order to manufacturer Pizza Co. to let them know there's a dairy delivery incoming.



Technical tool: This time series data is calculated by the network aggregating **Copy** Purchase order or Transport order quantities\line items with **Material no. = "Cheese"** and **Ship To** location ID matching the Margherita Pizza Co. plant ID from the Buyer component forecast.

Note: These are strictly orders of which the manufacturer is not the main recipient, but only orders of which they have received a copy.

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Component planning collaboration solution overview

Example part 3: Planning for the component – Data points on the Cheese

Key figure	27 Sep 2022	28 Sep 2022	29 Sep 2022	30 Sep 2022	1 Oct 2022	2 Oct 2022	3 Oct 2022	4 Oct 2022
Copy transport order inbound								
Beginning inventory for finished good	7,500	7,450	7,450	7,300	6,950	6,800	6,800	6,800
Ending inventory for finished good	7,450	7,450	7,300	6,950	6,800	6,800	6,800	6,800
Planned ending inventory	7,350	7,300	7,300	7,300	6,800	6,650	6,650	6,650
Components with shortage	0	0	0	0	0	0	0	0
Component Cheese Stock on hand: 5500 BX								
Forecast	150	150	150	150	150	150	150	150
Forecast commit								
Purchase order inbound								
Purchase order outbound								
Transport order inbound								
Transport order outbound								
Copy purchase order inbound			200	50	150	100		
Copy transport order inbound	300	600	300					
Beginning inventory for component	1,500	1,650	2,100	2,450	2,350	2,350	2,300	2,150
Ending inventory for component	1,650	2,100	2,450	2,350	2,350	2,300	2,150	2,000

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21. Copy purchase order inbound and Copy transport order outbound key figures are populated whenever the buyer sends a copy purchase / transport order to the contract manufacturer with Material ID and Ship to Plant ID matching the Component planning collaboration record's.

Note: the contract manufacturer is not the main recipient of the purchase order. The full order is sent by the buyer to the supplier who will carry out the dropship delivery.

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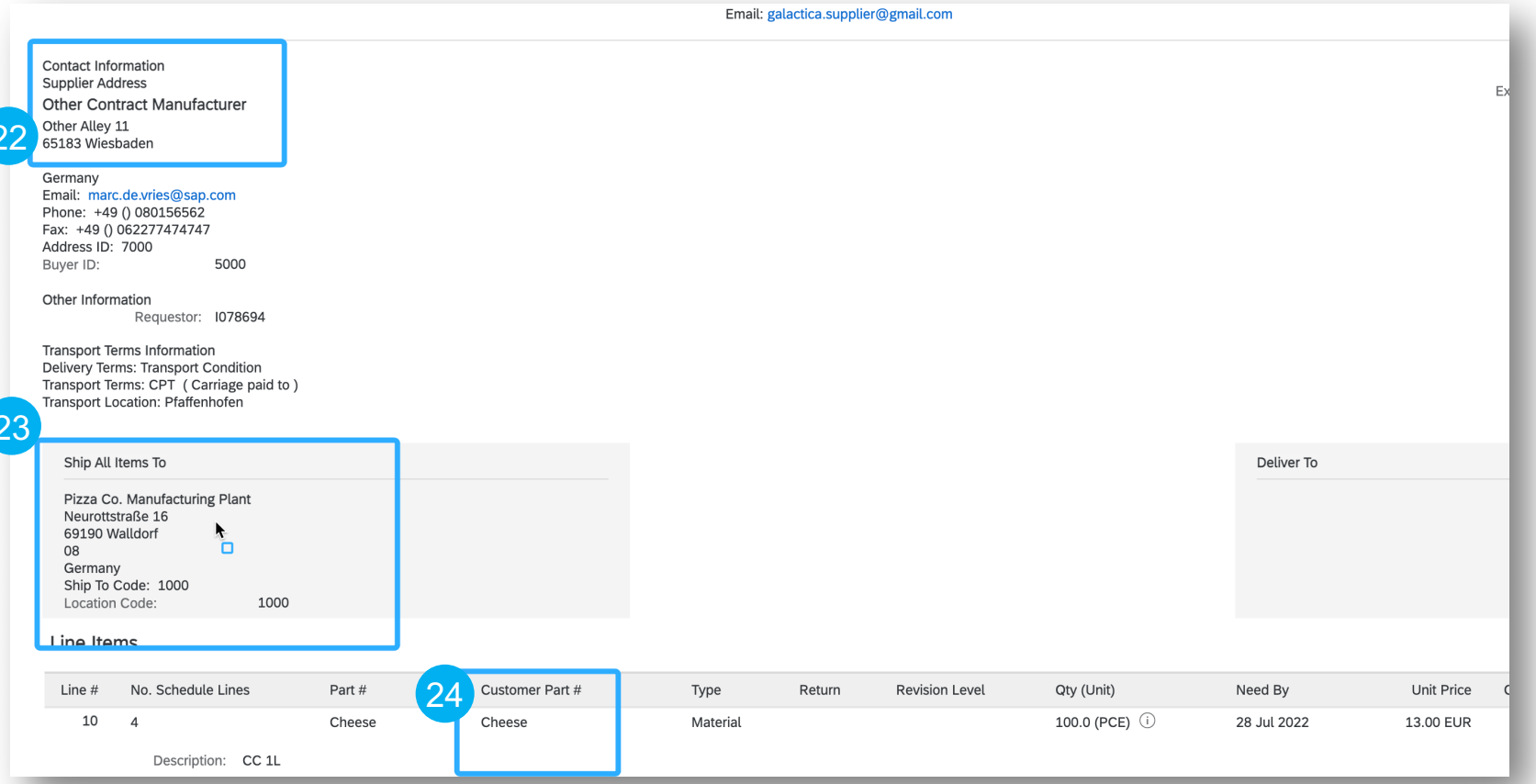
Component planning collaboration solution overview

Example part 3: Planning for the component – Data points on the Cheese



22. Copy purchase / transport orders are sent by the buyer to the dropship supplier that will deliver the goods to the manufacturer supplier. The manufacturer receives a copy of the order and the quantities from this copy orders populate the Copy purchase order inbound and Copy transport order inbound key figures
23. The Ship to location Plant ID ...
24. …and the Material ID of the Copy orders must match the Component planning collaboration record's

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Component planning collaboration solution overview

Example part 4: Planning for the component – Data points on the Tomato sauce

Forecast (Component): Same as example part 2

Supplier commit (Component)
Business context: Margherita Pizza Co. manufacturer produces the tomato sauce used for the pizza production in house. Once the planners from buyer Baker Bros share the expected consumption, the manufacturer commits to the quantities in order to let the buyers know whether the target production is achievable.

Technical tool: Time series data is provided by the supplier by committing on the UI and shared with the buyer planning backend via Product replenishment message of type forecast.

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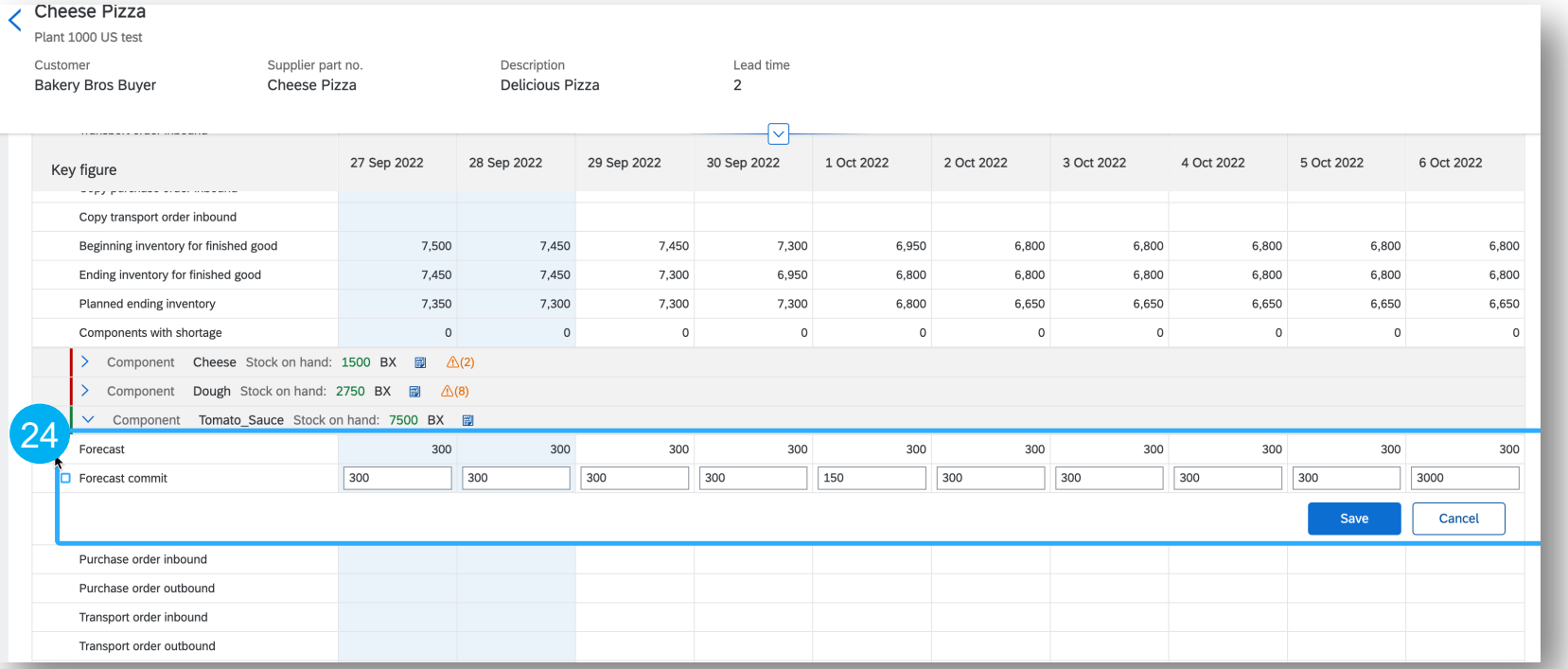
Component planning collaboration solution overview

Example part 4: Planning for the component – Data points on the Tomato sauce



24. As in all other components, the buyer shares the expected consumption forecast via planning message. As the manufacturer is tasked with the production of the component, they will commit themselves to the required quantities and share the commit with the buyer via the usual planning response message.

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Component planning collaboration solution overview

Example part 5: Planning for the component and the finished good - Projected stock levels

In order to understand whether there will be any bottleneck for any material in the future, the SAP Business Network calculates for each time bucket the following inventory projections:

Beginning inventory: represents the stock level at the beginning of each day/time bucket. For the current (today's) time bucket it will be equal to the Stock on hand shared by the buyer / supplier. For any future date it will be equal to the ending inventory of the previous day (or time bucket).
Note: Beginning inventory formula is the same for both Finished good and Component level views

Ending inventory (component): represents the stock level at the end of each day/time bucket for the component. It is calculated as the beginning inventory minus the consumption forecast and outbound orders plus the inbound orders and committed production from the supplier.
Ending inventory = Beginning inventory – Component forecast - Purchase orders outbound - Transport orders outbound + Component commit + Purchase orders inbound + Stock transport orders inbound + Dropship inbound orders + Dropship inbound transport orders

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Component planning collaboration solution overview

Example part 5: Planning for the component and the finished good - Projected stock levels

In order to understand whether there will be any bottleneck for any material in the future, the SAP Business Network calculates for each time bucket the following inventory projections:

Ending inventory (finished good): represents the stock level at the end of each day/time bucket for the finished goods based on order data. It is calculated as beginning inventory minus outbound orders quantity plus the committed production from the supplier.

Ending inventory = Beginning inventory - Purchase orders outbound - Transport orders outbound + Forecast commit

Planned ending inventory (finished good): represents the stock level at the end of each day/time bucket for the finished goods based on planning data. It is calculated as beginning inventory minus forecast from the buyer plus the committed production from the supplier.

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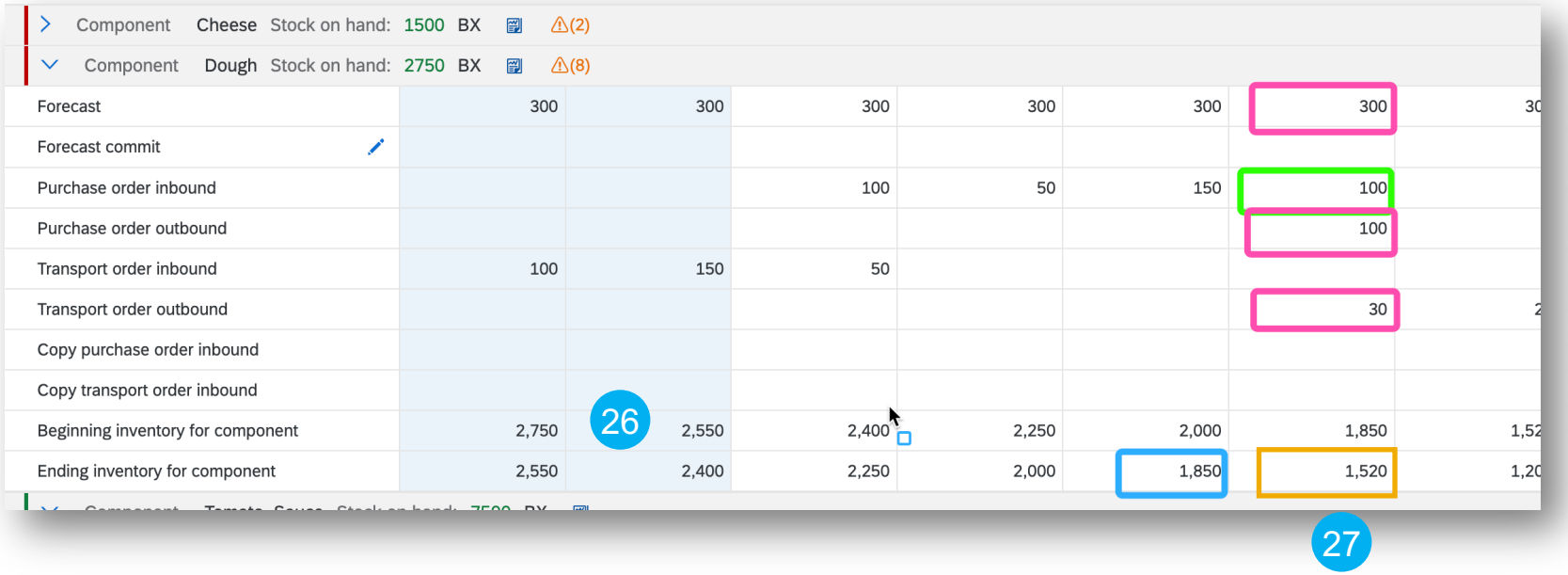
Component planning collaboration solution overview

Example part 5: Planning for the component and the finished good - Projected stock levels



26. The calculation of the projected beginning inventory starts for the current date with Beginning inventory = Stock on hand. For any other date it will be Beginning inventory = Previous day's ending inventory

27. The Ending inventory value is the Beginning inventory + any inbound key figure – any outbound key figure. In the highlighted example the Ending inventory = Beginning inventory + Purchase order inbound - Purchase order outbound – Transport order outbound

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Component planning collaboration solution overview

Example part 6: Bringing it all together – Shortage warning and impact analysis
The Component planning collaboration view offers a variety of tools to identify bottlenecks:

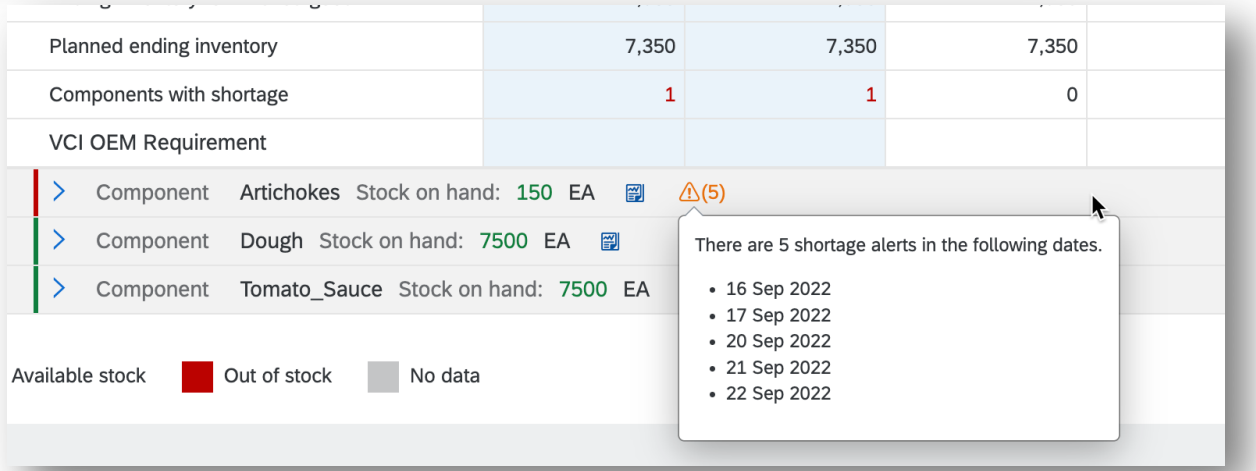
Shortage warning 1: Beginning Ending inventory for both finished good and component is highlighted in red when ≤ 0.

Beginning inventory for component	150	0	-150	-300	-450	-600	-750	-900
Ending inventory for component	0	-150	-300	-450	-600	-750	-900	-1,050

Shortage warning 2: Components with shortage Key figure at the Finished good level shows the count of components that in that time bucket are in shortage (if value is 0 all components have positive Ending inventory).

Components with shortage	1	1	0	0	1	1	1	1

Shortage warning 3: Shortage indicator when component is collapsed shows a warning icon and the list of days with shortage.



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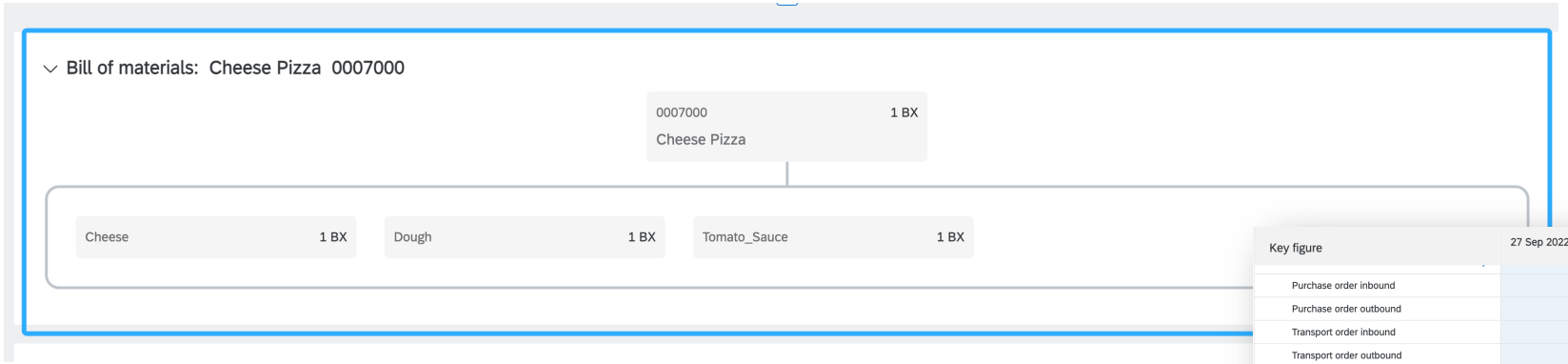
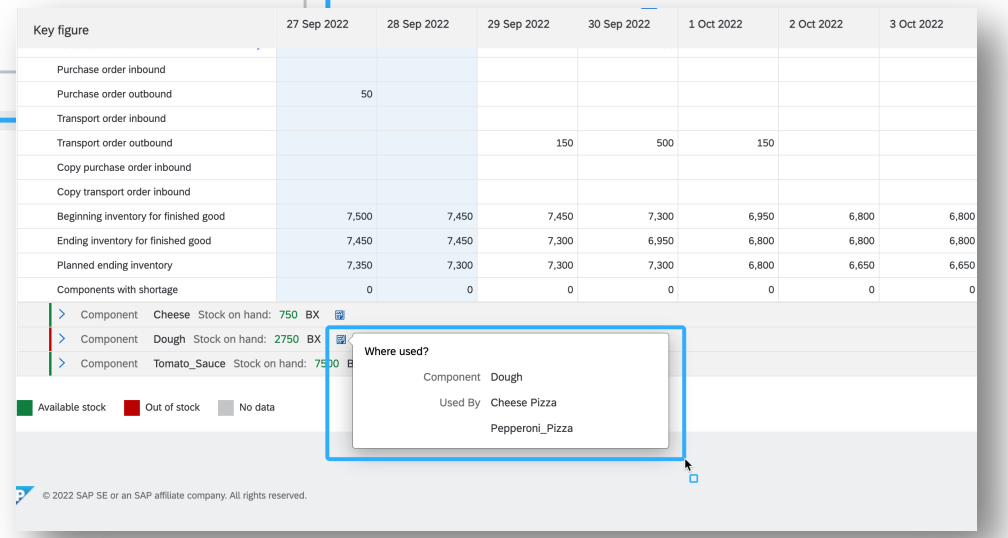
Component planning collaboration solution overview

Example part 6: Bringing it all together – Shortage warning and impact analysis
Once the shortage is identified it is important to understand it's impact. Component planning collaboration offers tools to analyze the cross-material dependencies

Component dependency overview 1: Bill of Material pop up on the Component collaboration view details page allows to review the BOM of the material.



Component dependency overview 2: "Where used" pop up on the details page allows to see whether a component is used by multiple finished goods.



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Component planning collaboration
Exploring Key Benefits

A. Single planning view of the material to be produced together with all its direct components required for production.

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A. Single planning view - continued

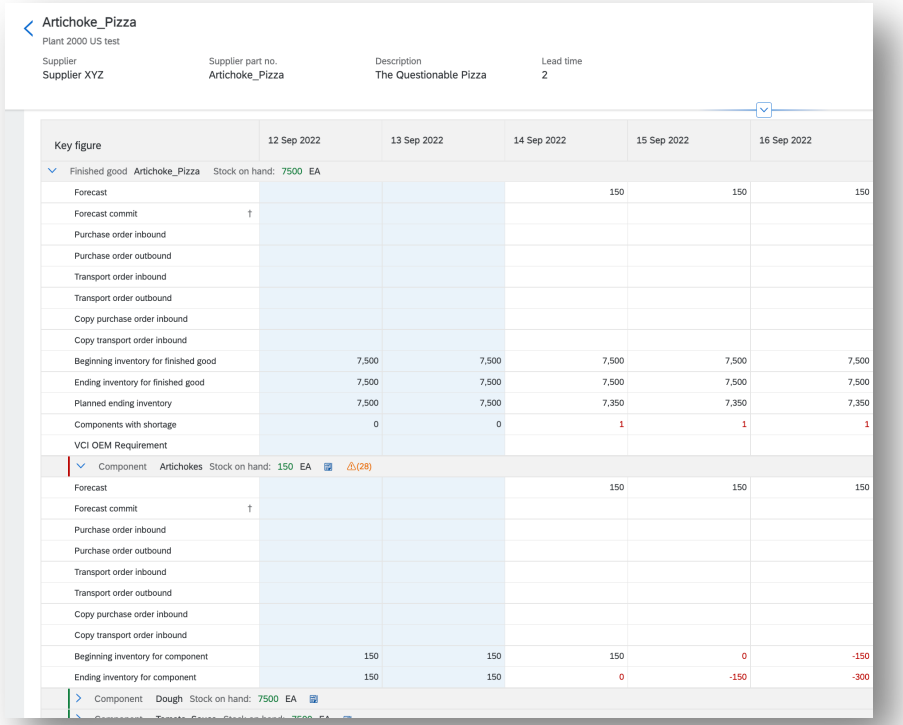
In order for the Component planning collaboration view to appear to users the following 3 steps are required:

1. Activate Component planning collaboration view for contract manufacturer trading partners.
2. Post Bill of Material (BOM) for the desired materials.
3. Post product activity messages (Forecast process type) with Customer part no. and Plant matching either the BOM's finished good or components.

Result:

Finished good planning section

Components planning sections



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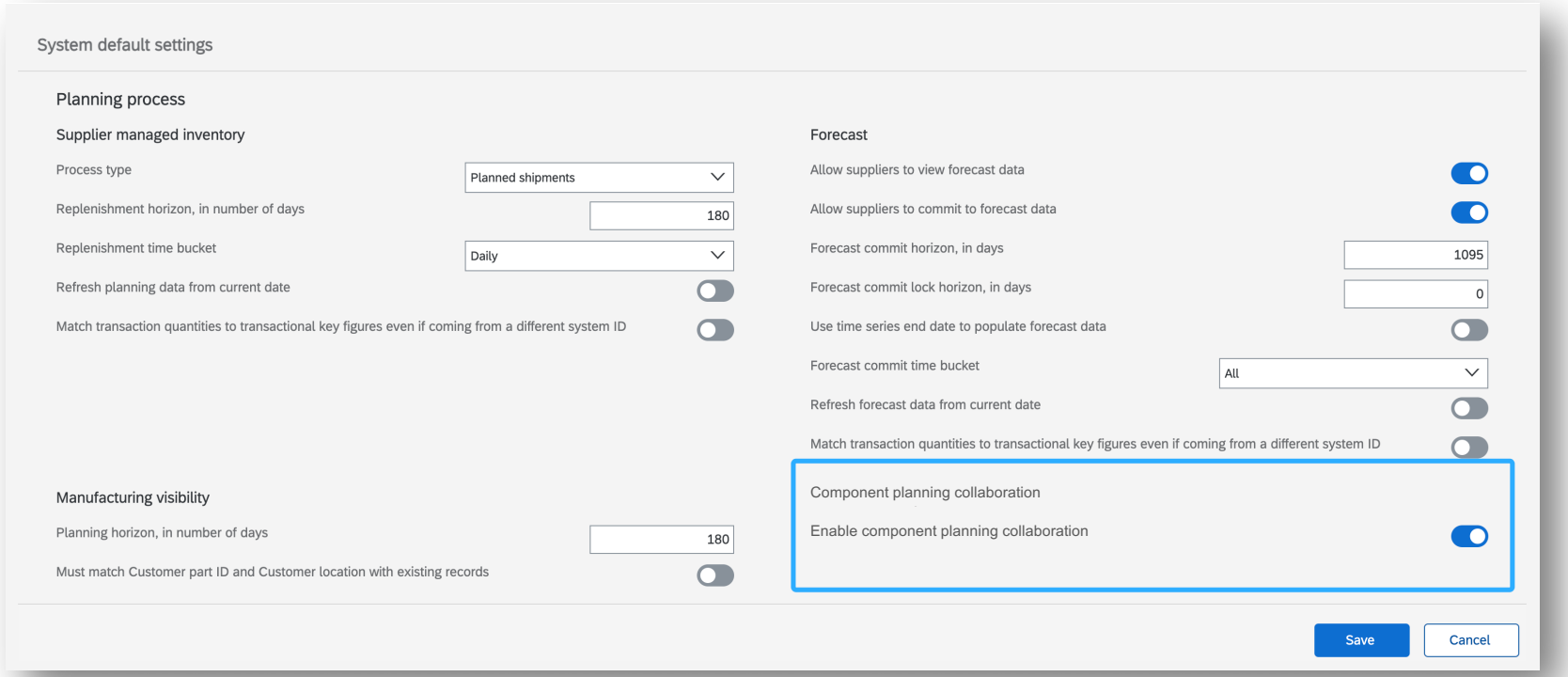
A. Single planning view - continued

1. Activate Component planning collaboration view for contract manufacturer trading partners.

A new setting section for Component planning collaboration is available in the Planning settings > Assign suppliers page.
Buyer admins can turn the setting Enable component planning collaboration for the suppliers or supplier groups that they wish to have access to the new Component planning collaboration functionality.



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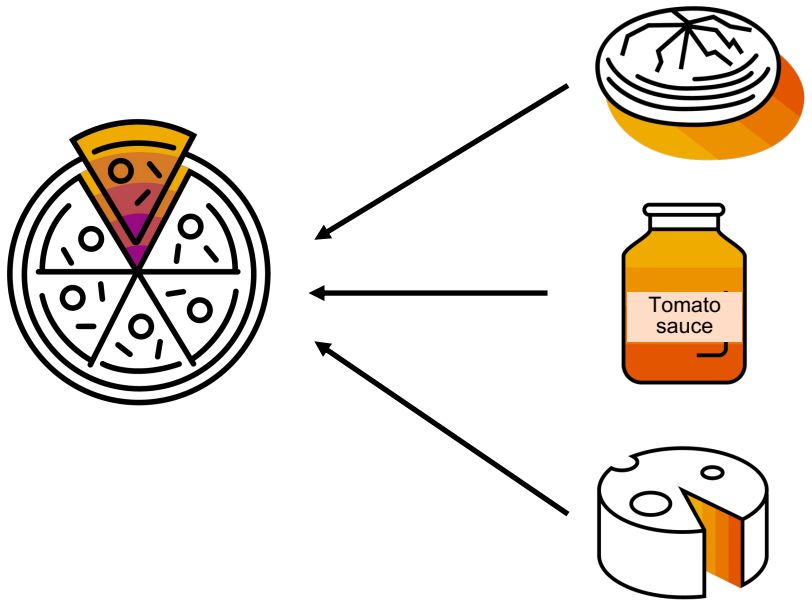
A. Single planning view - continued

2. Post Bill of Material (BOM) for the desired materials.

Post the Bill of Material through CIG, see for documentation: [IG-30682: Support for importing bill of materials into Ariba Network]



Example BOM:

Bill of Material no: 00700
Material: Cheese_Pizza
Plants: 1000

Required components:

- Dough
- Tomato_Sauce
- Cheese

Note: Component planning collaboration supports only one BOM per finished good (BOM header material) / plant combination at a time.

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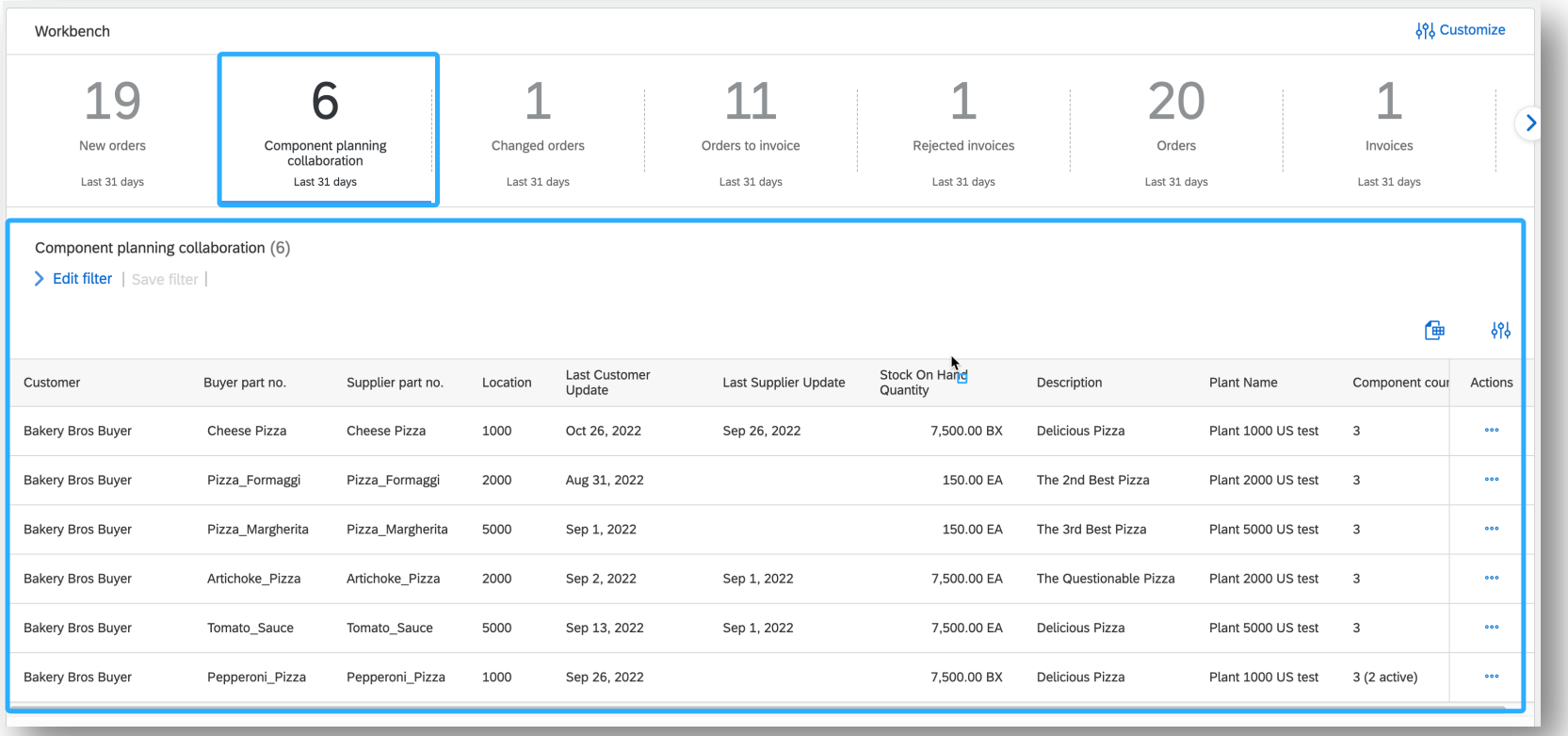
A. Single planning view - continued

3. Post product activity messages (Forecast process type) with Customer part no. and Plant matching either the BOM's finished good or components.



Component planning collaboration records will be created as soon as the buyer shares planning data for a material that is a Finished good in one of the uploaded BOMs.

The component sections within the Component planning collaboration details page will be displayed as soon as the buyer shares planning data for that component material

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Component planning collaboration
Exploring Key Benefits

B. Easy access to all data on planned good inflows and outflows, all network transactions concerning FG and all its components, end of day projected stock view.

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B. Easy access to all data on planned good inflows and outflows

For both the Finished good and Component section the user will see three types of key figures:

1. Planning time series key figures
2. Transaction summary key figures
3. Projected stock key figures

1) Planning time series key figures

   By default we offer Forecast and Commit (for both Finished good and Component)
   Forecast represent the expected need of a given material, be it a Finished good that needs to be shipped or the expected consumption of a Component used in the production of Finished goods.
   Commit represent the expected production of either Finished Goods or Components the supplier provides.
   Buyer admin can adjust and add custom key figures using manage view functionalities as in other planning views.

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B. Easy access to all data on planned good inflows and outflows

For both the Finished good and Component section the user will see three types of key figures:

1. Planning time series key figures
2. Transaction summary key figures
3. Projected stock key figures

2) Transaction summary key figures

Aggregation of quantities for different transactions where the Material and Plant ID match either Finished good or Component.

Transactions considered:
>Purchase orders (POs)
>Stock transport orders (STOs)
>Copy Purchase orders
>Copy Stock transport orders

Purchase orders and Stock transport orders can be further divided in Outbound or Inbound orders.
>The Inbound orders are the ones where the Planning plant (the Contract manufacturer's plant) is bound to receive the goods (Plant ID is in the Ship To of the order)
>The Outbound orders are the ones where the Planning plant (the Contract manufacturer's plant) is bound to send the goods (Plant ID is in the Ship From of the order).

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B. Easy access to all data on planned good inflows and outflows

For both the Finished good and Component section the user will see three types of key figures:

1. Planning time series key figures
2. Transaction summary key figures
3. Projected stock key figures

3) Projected stock key figures
Calculation of projected stock based on the different Transaction summary and Planning time series key figures.

>Beginning inventory: The projected stock at the beginning of the day (time bucket). It is equal to the Ending inventory of the previous day.
>Ending inventory: The projected stock at the end of the day (time bucket). It is equal to Beginning inventory plus or minus any of the Inbound/Outbound flows of goods based on Transaction summary and Planning time series key figures
>Planned ending inventory: Similar to Ending inventory but uses only the Planning time series key figures.

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Component planning collaboration
Exploring Key Benefits

C. **Alerting and monitoring of potential shortages and component bottlenecks.**

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C. Alerting and monitoring

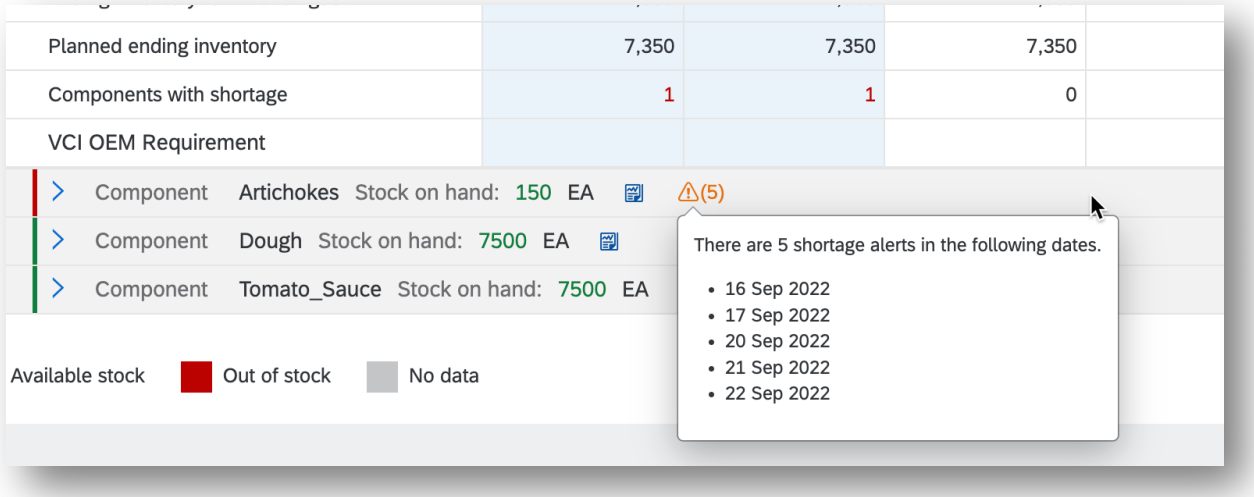
Shortage warning 1: Beginning Ending inventory for both finished good and component is highlighted in red when ≤ 0

Beginning inventory for component	150	0	-150	-300	-450	-600	-750	-900
Ending inventory for component	0	-150	-300	-450	-600	-750	-900	-1,050

Shortage warning 2: Components with shortage Key figure at the Finished good level shows the count of components that in that time bucket are in shortage (if value is 0 all components have positive Ending inventory)

Components with shortage	1	1	0	0	1	1	1	1

Shortage warning 3: Shortage indicator when component is collapsed shows a warning icon and the list of days with shortage.



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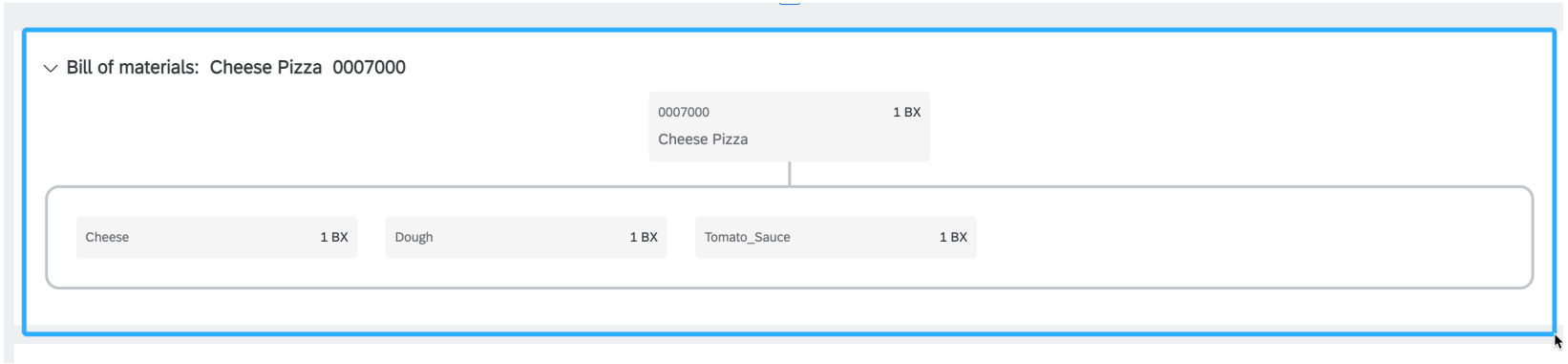
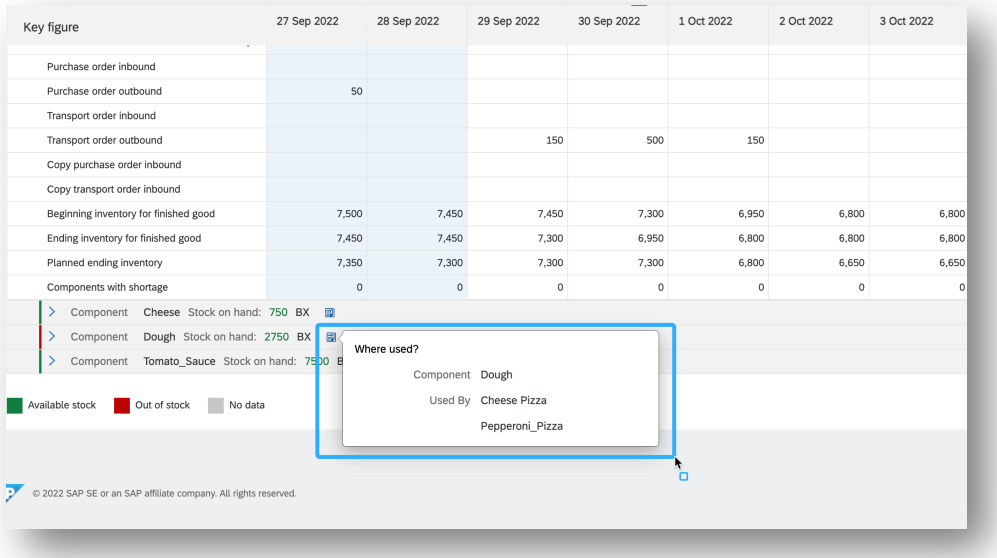
C. Alerting and monitoring

Component dependency overview 1: Bill of Material pop up on the Component collaboration view details page allows to review the BOM of the material.



Component dependency overview 2: “Where used” pop up on the details page allows to see whether a component is used by multiple finished goods.



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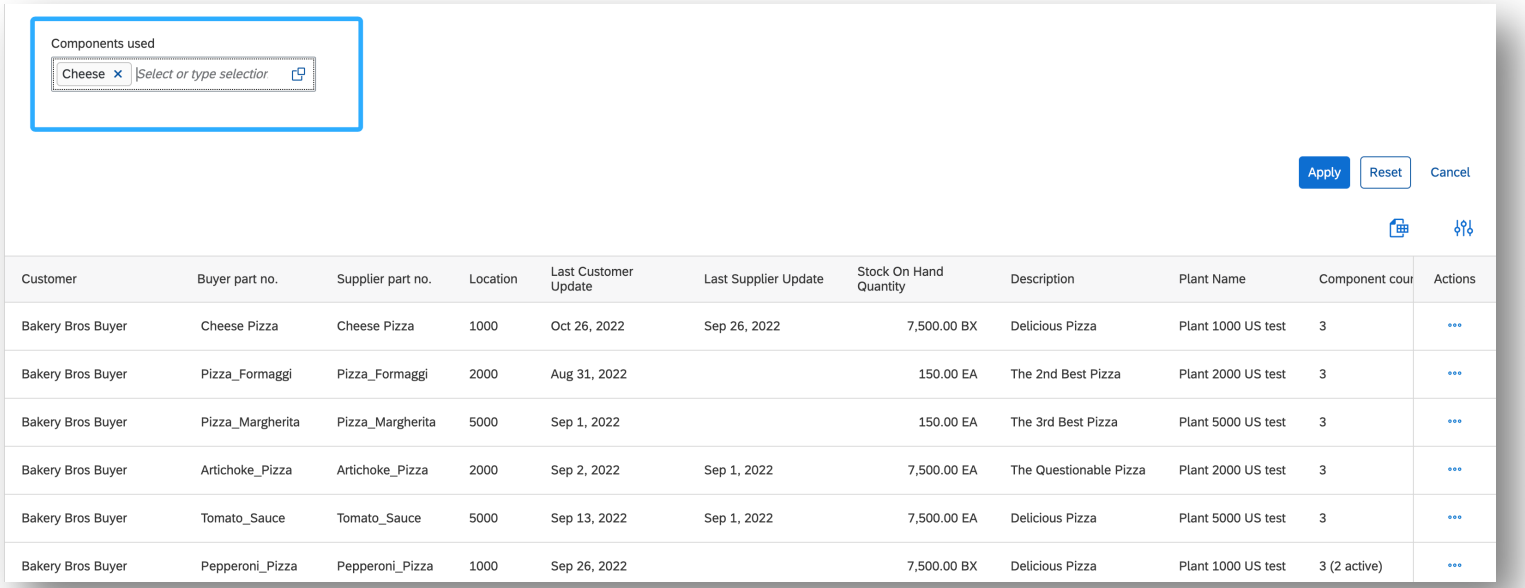
C. Alerting and monitoring

Component dependency overview 3: Search by components used in the workbench list page allows to identify all the finished goods that use a specific component.



Customer	Buyer part no.	Supplier part no.	Location	Last Customer Update	Last Supplier Update	Stock On Hand Quantity	Description	Plant Name	Component cour	Actions
Bakery Bros Buyer	Cheese Pizza	Cheese Pizza	1000	Oct 26, 2022	Sep 26, 2022	7,500.00 BX	Delicious Pizza	Plant 1000 US test	3	•••
Bakery Bros Buyer	Pizza_Formaggi	Pizza_Formaggi	2000	Aug 31, 2022		150.00 EA	The 2nd Best Pizza	Plant 2000 US test	3	•••
Bakery Bros Buyer	Pizza_Margherita	Pizza_Margherita	5000	Sep 1, 2022		150.00 EA	The 3rd Best Pizza	Plant 5000 US test	3	•••
Bakery Bros Buyer	Artichoke_Pizza	Artichoke_Pizza	2000	Sep 2, 2022	Sep 1, 2022	7,500.00 EA	The Questionable Pizza	Plant 2000 US test	3	•••
Bakery Bros Buyer	Tomato_Sauce	Tomato_Sauce	5000	Sep 13, 2022	Sep 1, 2022	7,500.00 EA	Delicious Pizza	Plant 5000 US test	3	•••
Bakery Bros Buyer	Pepperoni_Pizza	Pepperoni_Pizza	1000	Sep 26, 2022		7,500.00 BX	Delicious Pizza	Plant 1000 US test	3 (2 active)	•••

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Additional Information

- Component planning collaboration supports display of only one level of BOM (one finished good material and its direct component)
- Component planning collaboration supports display of up to 30 components per finished good
- Only Forecast product activity message can be used to display planning data in Component planning collaboration
- Bill of material data must be successfully uploaded before posting product activity message for the component planning collaboration view to be displayed
- Custom views and customer defined attributes are not available for CPC functionality
- Excel is not supported
- Component planned consumption (Component forecast) is to be calculated in the buyer backend and shared by the buyer via planning collaboration. SAP Business Network will not provide expected component consumption calculation.
- Warning shortages are calculated only for the first 30 daily time buckets

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