SAP Business One

Advanced Available-to-Promise

Delivery Schedule Management

Version 1.0

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What is ATP?

Available to Promise (ATP) is one of the main components of inventory management that seeks to find out how many of their products can businesses guarantee to their customers by a certain agreed date. ATP provides insight into what can be promised, preventing businesses from overcommitting production and shipping resources without knowing order volumes.

ATP considers existing stock, incoming stock, and customer orders to determine how much can be promised to customers. This is critical in industries with volatile demand, as it enables companies to meet customer needs without overextending resources.

ATP key roles:

- **Managing Customer Expectations:** Providing an exact delivery date boosts customer trust and confidence.
- **Controlling Inventory levels:** Accurate ATP data prevents overstocking or stockouts by aligning inventory with actual demand.
- **Enhancing Production Planning:** By tracking current stock and incoming shipments, companies can optimize production schedules.

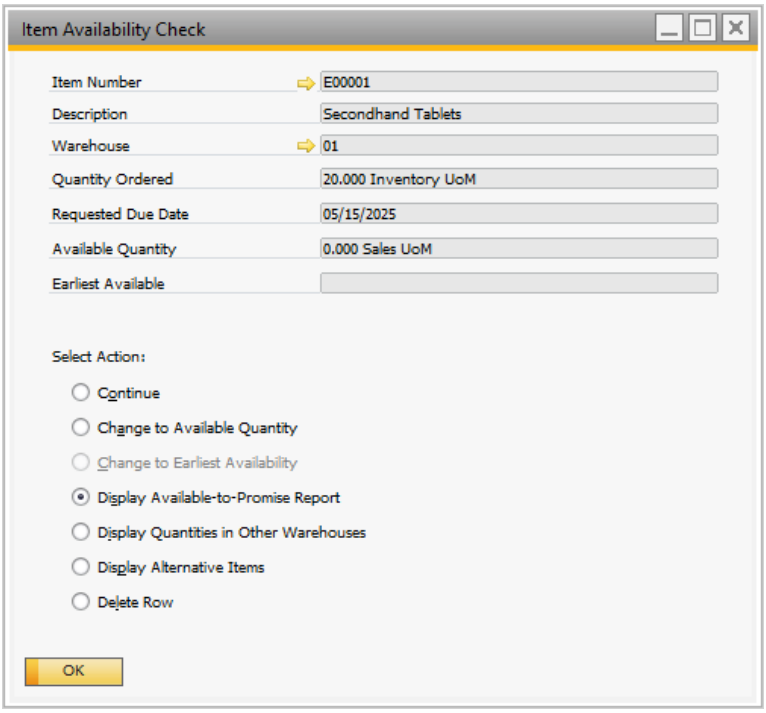
Item Availability Check in SAP Business One

How Available-to-Promise helps your business: A sales order commits to delivering items by a specific date and the Item Availability Check ensures you can meet this commitment.

As you enter the quantity for an item in a sales order, The standard availability check automatically checks row quantities for sales documents. If quantities are insufficient, a pop-up offers options to switch warehouses, select alternative items, adjust quantities, or view a multi-warehouse report.

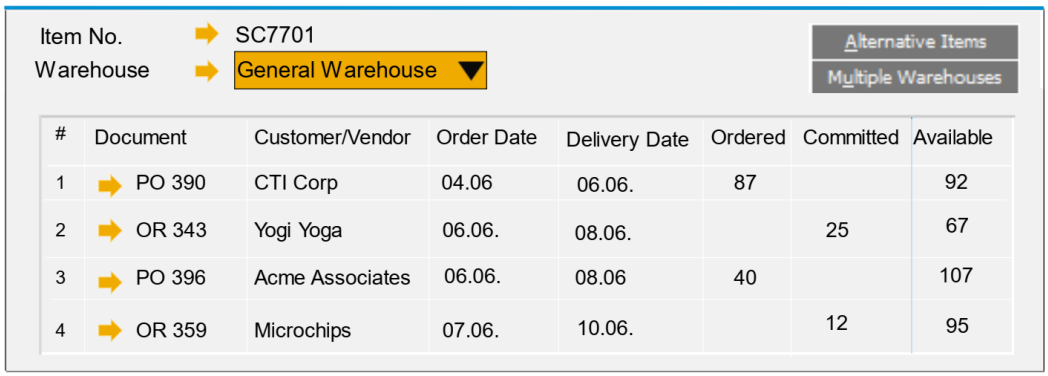
The Standard Availability Check provides these options:

- switch warehouses,
- choose alternative items,
- change quantities, or
  View a multi-warehouse report



Available-to-Promise (ATP)

From this window or the Item Master Data, you can access the Available-to-Promise (ATP) report. This report matches sales orders with available stock, aiding decisions to fulfill orders and monitor stock levels.

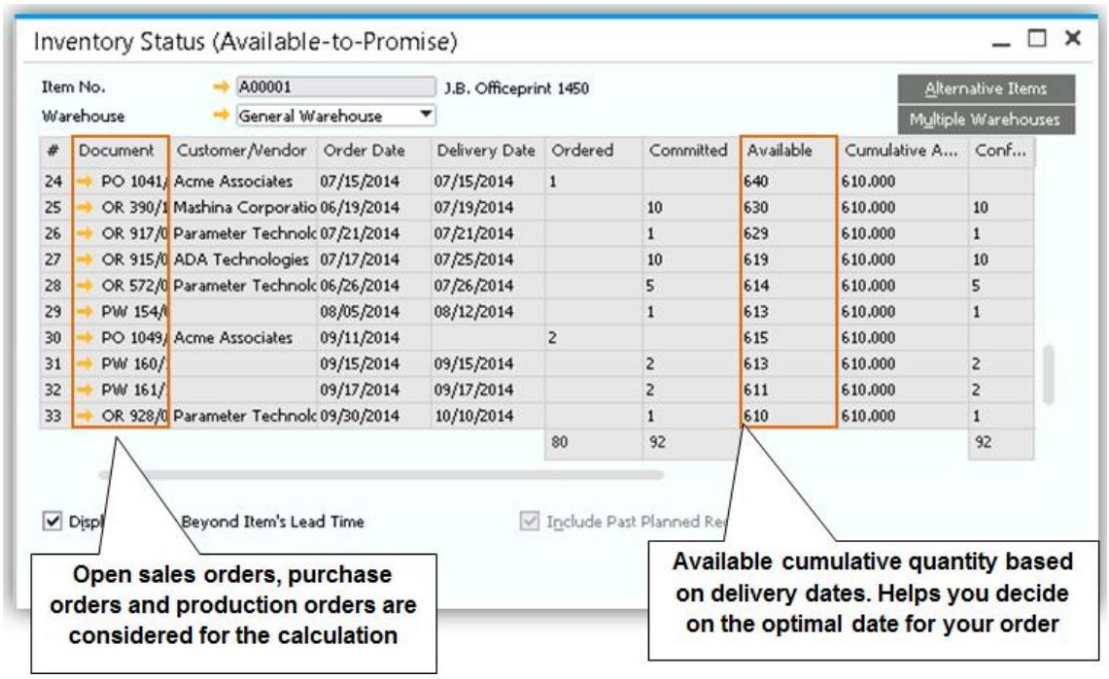


#	Document	Customer/Vendor	Order Date	Delivery Date	Ordered	Committed	Available
1	PO 390	CTI Corp	04.06	06.06.	87		92
2	OR 343	Yogi Yoga	06.06.	08.06.		25	67
3	PO 396	Acme Associates	06.06.	08.06	40		107
4	OR 359	Microchips	07.06.	10.06.		12	95

Advanced Available-to-Promise (ATP)

ATP isn't your only option in SAP Business One. In the HANA version, Advanced ATP offers enhanced features, including:

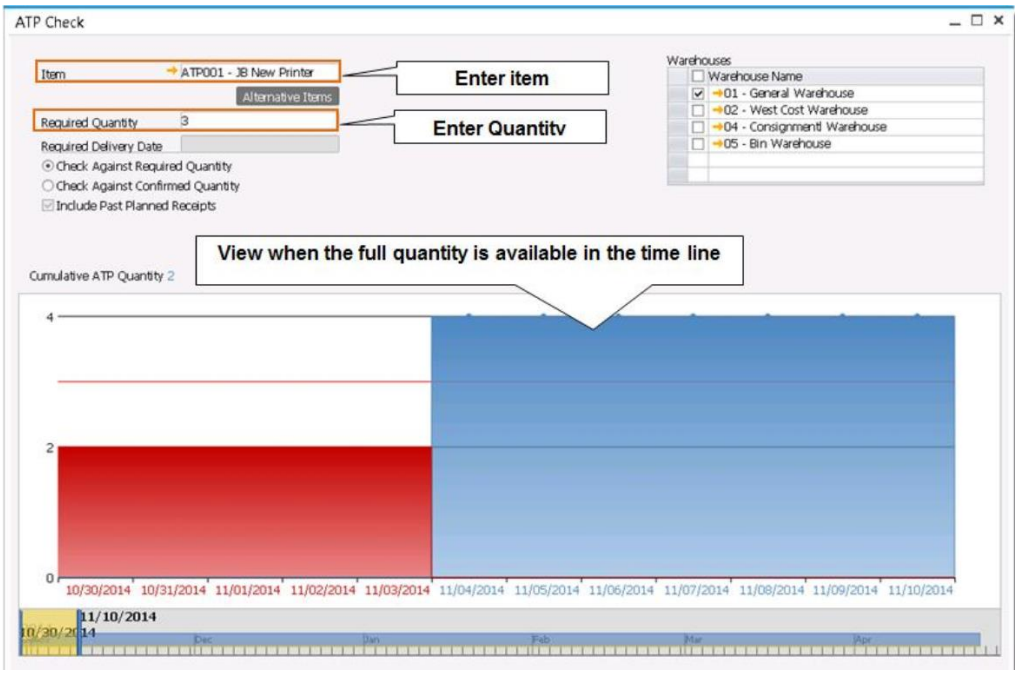
- Create confirmed schedule lines
- View delivery schedule details
- Reschedule deliveries for multiple documents



ATP check is performed for demand documents such as:

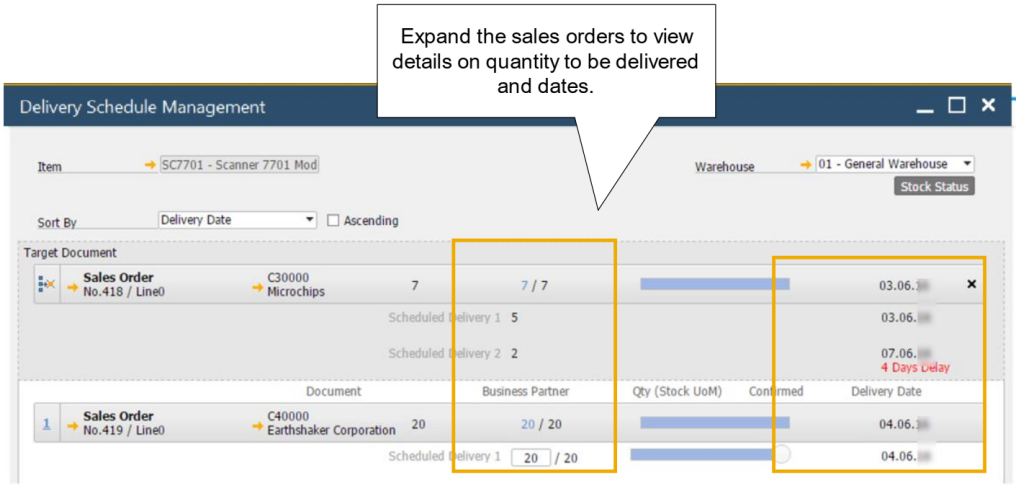
- Sales orders
- A/R reserve invoices
- Inventory transfer requests
- Purchase orders (with negative quantity)
- A/P reserve invoices (with negative quantity)
- Production orders

The ATP Check shows stock availability across different time periods:



Delivery Schedule Management

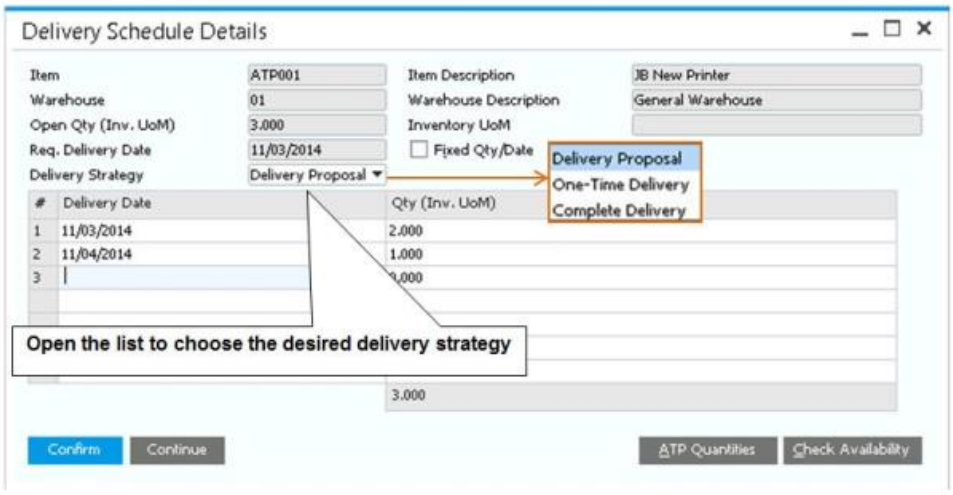
Advanced ATP lets you manage delivery schedules and interactively adjust quantities between orders for various items:



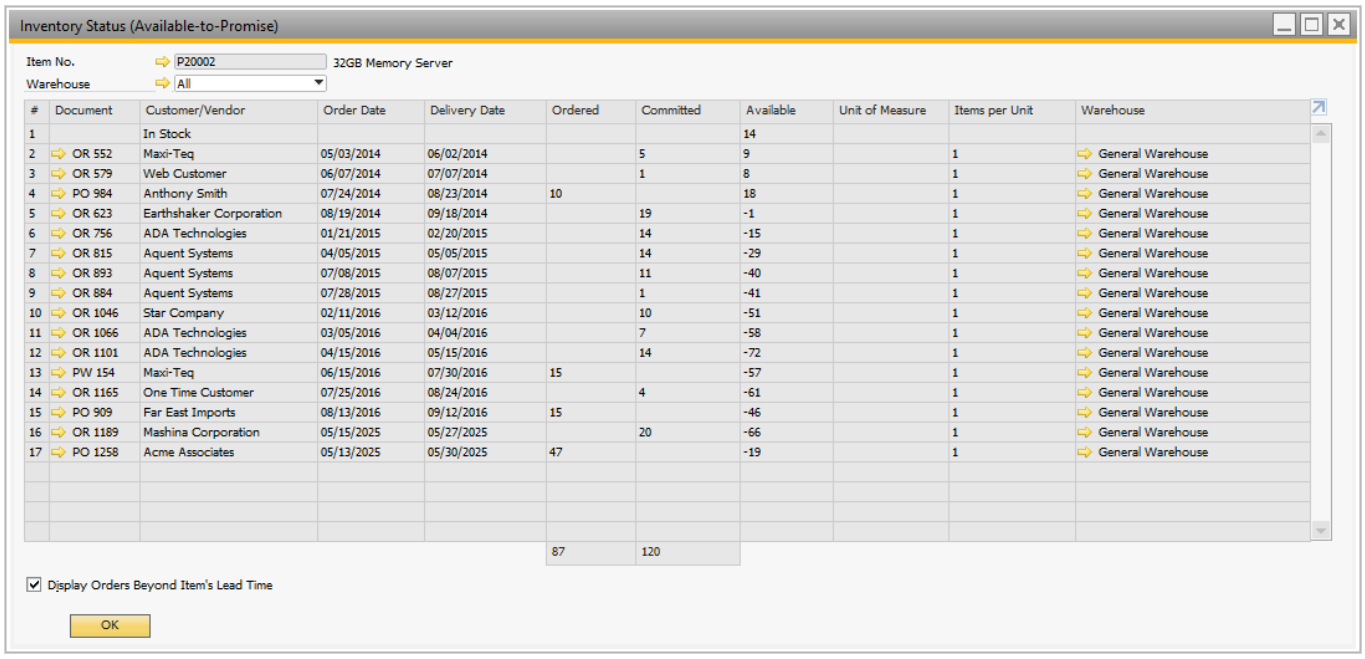
Delivery Schedule Management lets you view all open orders for an item and reschedule a sales order to fulfill customer needs. If there is not enough available quantity on the dates needed, you can choose a delivery strategy:

- Delivery Proposal - Splits the delivery to match available stock
- One-Time Delivery - Ships only items available on time
- Complete Delivery - Delays shipment until the full quantity is ready

Delivery Schedule Details for Selecting Dates and Strategies:



While HANA users benefit from these features, SQL version users can still access the ATP report with drill-down capabilities to view each document:



#	Document	Customer/Vendor	Order Date	Delivery Date	Ordered	Committed	Available	Unit of Measure	Items per Unit	Warehouse
1		In Stock					14			
2	OR 552	Maxi-Teq	05/03/2014	06/02/2014		5	9		1	General Warehouse
3	OR 579	Web Customer	06/07/2014	07/07/2014		1	8		1	General Warehouse
4	PO 984	Anthony Smith	07/24/2014	08/23/2014	10		18		1	General Warehouse
5	OR 623	Earthshaker Corporation	08/19/2014	09/18/2014		19	-1		1	General Warehouse
6	OR 756	ADA Technologies	01/21/2015	02/20/2015		14	-15		1	General Warehouse
7	OR 815	Aquent Systems	04/05/2015	05/05/2015		14	-29		1	General Warehouse
8	OR 893	Aquent Systems	07/08/2015	08/07/2015		11	-40		1	General Warehouse
9	OR 884	Aquent Systems	07/28/2015	08/27/2015		1	-41		1	General Warehouse
10	OR 1046	Star Company	02/11/2016	03/12/2016		10	-51		1	General Warehouse
11	OR 1066	ADA Technologies	03/05/2016	04/04/2016		7	-58		1	General Warehouse
12	OR 1101	ADA Technologies	04/15/2016	05/15/2016		14	-72		1	General Warehouse
13	PW 154	Maxi-Teq	06/15/2016	07/30/2016	15		-57		1	General Warehouse
14	OR 1165	One Time Customer	07/25/2016	08/24/2016		4	-61		1	General Warehouse
15	PO 909	Far East Imports	08/13/2016	09/12/2016	15		-46		1	General Warehouse
16	OR 1189	Mashina Corporation	05/15/2025	05/27/2025		20	-66		1	General Warehouse
17	PO 1258	Acme Associates	05/13/2025	05/30/2025	47		-19		1	General Warehouse
					87	120				

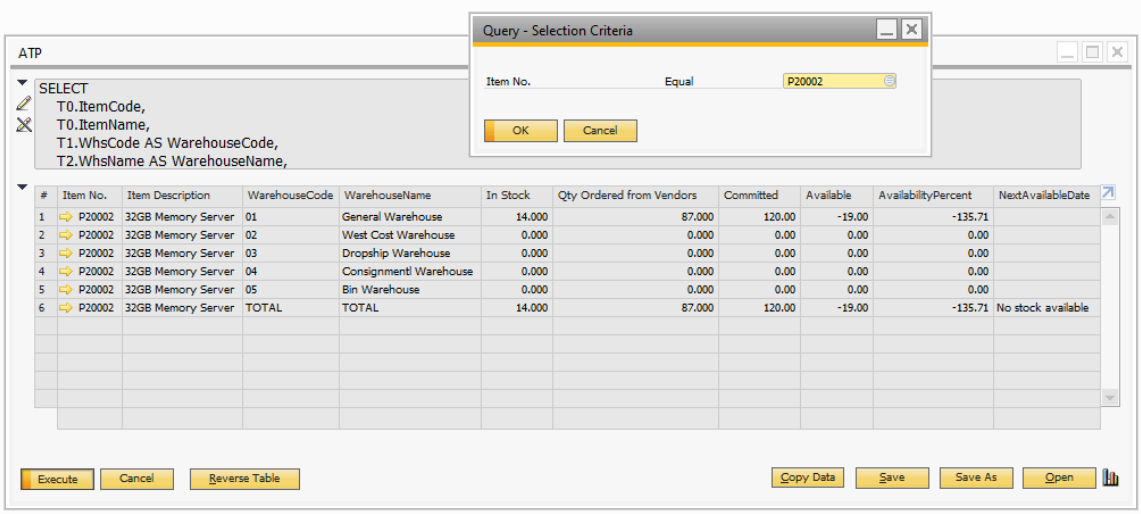
ATP enhances inventory management by providing precise delivery insights, while the SAP Business One (SBO) query generator allows you to create highly customizable reports. SBO empowers you to save queries for convenient reuse, effortlessly filter and sort data, and easily copy reports offering functionality remarkably similar to Excel. Additionally, seamlessly integrate SBO queries with Microsoft Excel or Power BI via a robust SQL database connection to unlock real-time data access and significantly improve reporting capabilities with advanced analytics.

Understanding the ATP Report Concept

Writing an ATP Inventory Check SQL Query in the Query Generator can help reduce extra effort. To calculate Available-to-Promise (ATP), the available quantity and related open documents must be considered to determine the Next Available Date.

Available Quantity = In Stock - Committed + Ordered

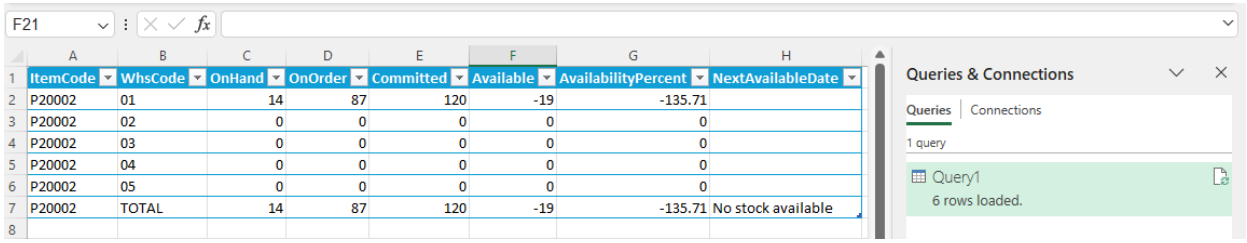
ATP Inventory SQL Query



#	Item No.	Item Description	WarehouseCode	WarehouseName	In Stock	Qty Ordered from Vendors	Committed	Available	AvailabilityPercent	NextAvailableDate
1	P20002	32GB Memory Server	01	General Warehouse	14.000	87.000	120.00	-19.00	-135.71	
2	P20002	32GB Memory Server	02	West Cost Warehouse	0.000	0.000	0.00	0.00	0.00	
3	P20002	32GB Memory Server	03	Dropship Warehouse	0.000	0.000	0.00	0.00	0.00	
4	P20002	32GB Memory Server	04	Consignment! Warehouse	0.000	0.000	0.00	0.00	0.00	
5	P20002	32GB Memory Server	05	Bin Warehouse	0.000	0.000	0.00	0.00	0.00	
6	P20002	32GB Memory Server	TOTAL	TOTAL	14.000	87.000	120.00	-19.00	-135.71	No stock available

Connecting to Microsoft Excel

1. **Setup ODBC:** In ODBC Data Source Administrator (64-bit), add System DSN for SQL Server, name it (e.g., "SAPB1"), set server, use SQL authentication, select SAP B1 database, test, save.
2. **Link Excel:** Go to Excel > Data > Get Data > From Microsoft Query, pick DSN, log in. (Enable legacy wizard in Options if needed.)
3. **Run Query:** In Microsoft Query, click SQL, paste SAP B1 query, execute, return data to Excel.



	A	B	C	D	E	F	G	H
1	ItemCode	WhsCode	OnHand	OnOrder	Committed	Available	AvailabilityPercent	NextAvailableDate
2	P20002	01	14	87	120	-19	-135.71	
3	P20002	02	0	0	0	0	0	
4	P20002	03	0	0	0	0	0	
5	P20002	04	0	0	0	0	0	
6	P20002	05	0	0	0	0	0	
7	P20002	TOTAL	14	87	120	-19	-135.71	No stock available
8								

Replicating the ATP Report with SQL and Power BI Integration

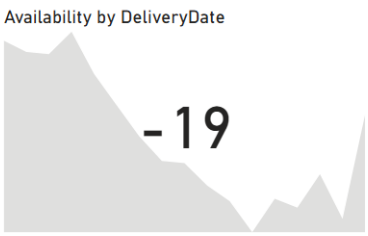
To enhance SAP Business One's ATP reporting, replicate the ATP report using this SQL query logic in GitHub. Connect Power BI to your SAP Business One SQL Server database, load the query, and build a dynamic dashboard to monitor inventory levels in real-time for data-driven decisions. (Test your query in a safe environment to ensure compatibility with your database schema.)

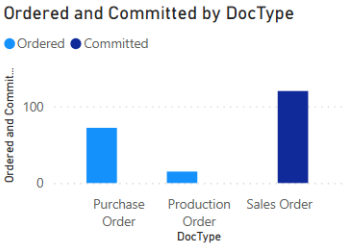
Microsoft Power BI Dashboard

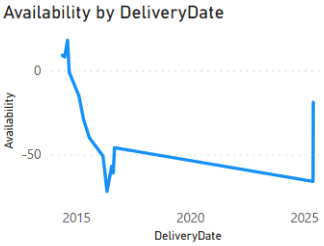
Power BI Template

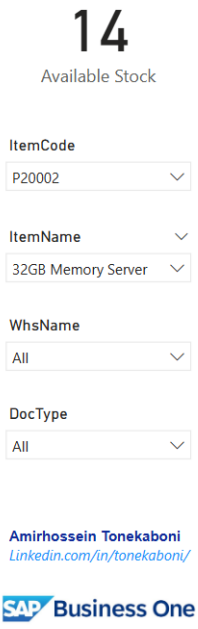
Available-to-Promise

ItemCode	ItemName	DocType	BPCode	BPName	OrderDate	DeliveryDate	Ordered	Committed	Available	Warehouse
P20002	32GB Memory Server	Available Stock		In Stock			0.00	0.00	14	
P20002	32GB Memory Server	Sales Order	C20000	Maxi-Teq	2014-05-03	2014-06-02	0.00	5.00	9	General Warehouse
P20002	32GB Memory Server	Sales Order	C99998	Web Customer	2014-06-07	2014-07-07	0.00	1.00	8	General Warehouse
P20002	32GB Memory Server	Purchase Order	V23000	Anthony Smith	2014-07-24	2014-08-23	10.00	0.00	18	General Warehouse
P20002	32GB Memory Server	Sales Order	C40000	Earthshaker Corporation	2014-08-19	2014-09-18	0.00	19.00	-1	General Warehouse
P20002	32GB Memory Server	Sales Order	C50000	ADA Technologies	2015-01-21	2015-02-20	0.00	14.00	-15	General Warehouse
P20002	32GB Memory Server	Sales Order	C70000	Aquent Systems	2015-04-05	2015-05-05	0.00	14.00	-29	General Warehouse
P20002	32GB Memory Server	Sales Order	C70000	Aquent Systems	2015-07-08	2015-08-07	0.00	11.00	-40	General Warehouse
P20002	32GB Memory Server	Sales Order	C70000	Aquent Systems	2015-07-28	2015-08-27	0.00	1.00	-41	General Warehouse
P20002	32GB Memory Server	Sales Order	C25000	Star Company	2016-02-11	2016-03-12	0.00	10.00	-51	General Warehouse
P20002	32GB Memory Server	Sales Order	C50000	ADA Technologies	2016-03-05	2016-04-04	0.00	7.00	-58	General Warehouse
P20002	32GB Memory Server	Sales Order	C50000	ADA Technologies	2016-04-15	2016-05-15	0.00	14.00	-72	General Warehouse
P20002	32GB Memory Server	Production Order	C20000	Maxi-Teq	2016-08-02	2016-07-30	15.00	0.00	-57	General Warehouse
P20002	32GB Memory Server	Sales Order	C99999	One Time Customer	2016-07-25	2016-08-24	0.00	4.00	-61	General Warehouse
P20002	32GB Memory Server	Purchase Order	V1010	Far East Imports	2016-08-13	2016-09-12	15.00	0.00	-46	General Warehouse
P20002	32GB Memory Server	Sales Order	C42000	Mashina Corporation	2025-05-15	2025-05-27	0.00	20.00	-66	General Warehouse
P20002	32GB Memory Server	Purchase Order	V10000	Acme Associates	2025-05-13	2025-05-30	47.00	0.00	-19	General Warehouse
Total							**87.00**	**120.00**		









Case Scenario: Multi-Warehouse ATP in SAP Business One

Background: A manufacturing company with warehouses in City A and City B effectively uses SAP Business One for comprehensive inventory management. On May 15, 2025, Customer C places an order for 150 units of product X, with a delivery deadline set for June 1, 2025.

Situation: The "Item Availability Check" shows a total of 80 units available across City A and City B, which is clearly less than the 150 needed (with City A holding 80 units and City B 90, adjusted for commitments).

Using ATP: The ATP check shows 30 units from City A and 50 from City B. SQL users use the ATP report with drill-down to review inventory details. HANA users apply the "Delivery Proposal" strategy to split the order.

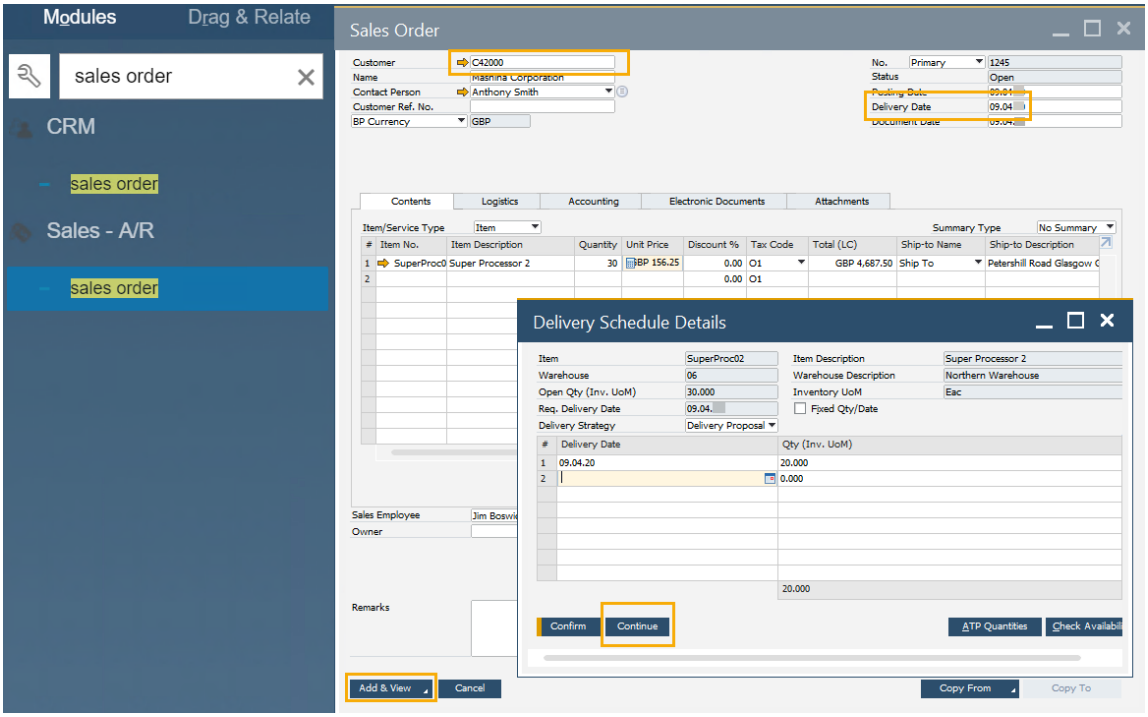
Decision: The company delivers 80 units by June 1 using available stock and backorders 70 units for June 15, pending production. SQL users confirm via the report; HANA users set confirmed dates with schedule management.

Outcome: ATP effectively manages expectations and optimizes inventory—SQL provides valuable visibility; HANA enhances scheduling with improved precision.

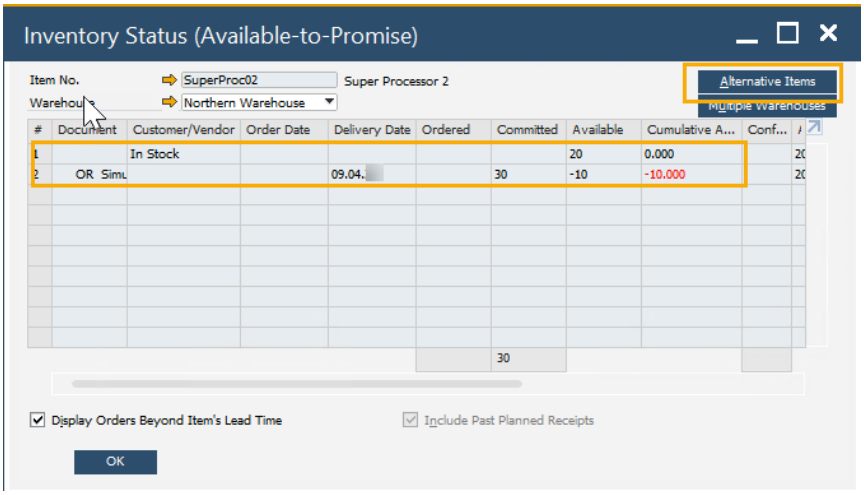
SAP ATP Scenario (Case Study)

Create a sales order customer C42000 for 30 processors. How can you check that the majority of the delivery will be from the northern warehouse? How can you ensure the customer receives the quantities they need?

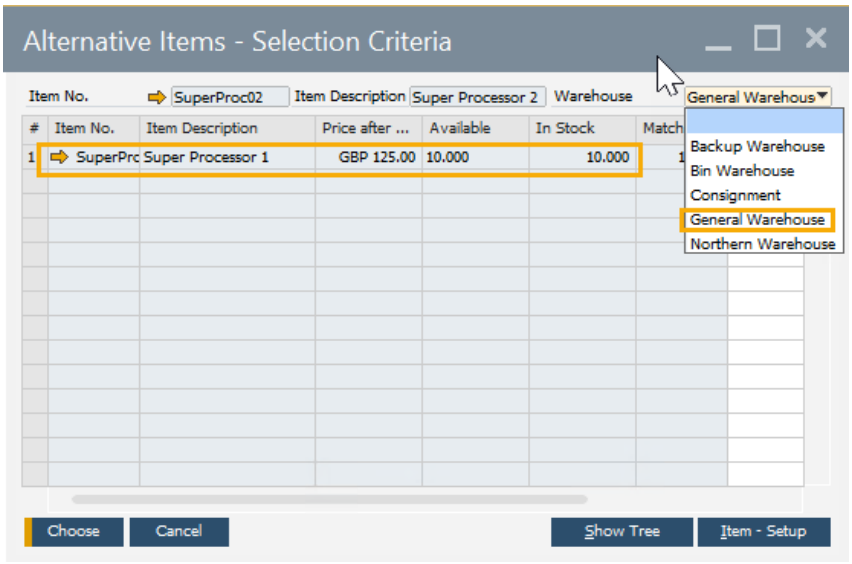
Create a sales order for item that you created for the northern warehouse.



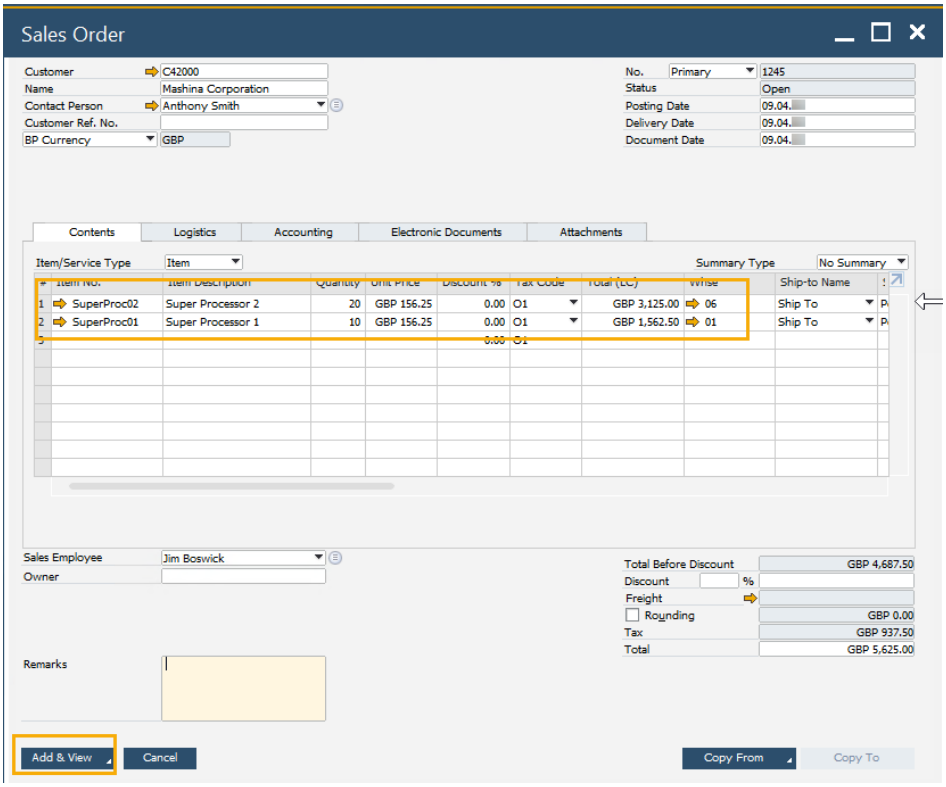
When you save the sales order, you will see a pop up showing only 20 in the warehouse. Choose Continue to close the Delivery Schedule window. Since there is a shortage of available stock for the delivery date in the northern warehouse, you can check available options by right clicking on the Quantity field and choosing Available to Promise.



Users have the option to check for the same item in another warehouse or to display alternative items. If you choose Display Alternative Items, be sure to check if an alternative is available in other warehouses, such as the main warehouse.



Adjust the sales order to supply 20 of the items in the northern warehouse and 10 of the items in the main warehouse. After making the adjustments, save the sales order and deliver all the items to the customer. Check the postings from the delivery.



About This Document

References and Further Learning:

- ChatGPT
- SAP Help Portal
- Uneecops Website
- Pioneer YouTube Video
- Projectline YouTube Video
- SAP Training Booklet Case Studies

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Date: May 2025