



# What's New in SAP S/4HANA for advanced ATP

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# About the Speaker

## **Sujeet Acharya**

- Director, Digital Supply Chain, SAP
- SCM professional with more than 17 years of experience in IT industry. Currently responsible as the Global Solution Owner for SAP's Order Promising portfolio (ATP) along with the regional responsibility of evangelizing SAP's Digital Supply Chain solutions in APJ and Greater China.
- Loves Netflix and Goodreads

# Key Outcomes/Objectives

1. Get an overview of S/4HANA aATP
2. Learn what is new in S/4HANA aATP
3. Get acquainted with the Roadmap of S/4HANA aATP

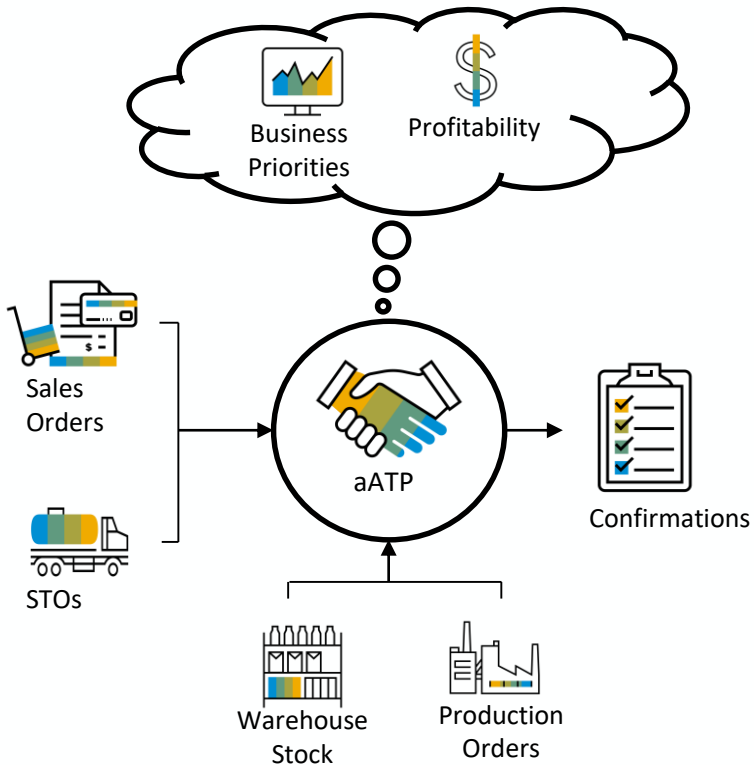
# Agenda

- Functional Overview
  - What's aATP?
  - ATP Evolution
  - Functionalities available
- What's new in aATP?
- Roadmap
- Q&A

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# The Intelligent Order Promising – S/4HANA advanced ATP (aATP)



As an important and integral part of the order fulfillment process, **S/4HANA advanced Available-to-promise** provides accurate and reliable order promise dates considering the relevant stock in real-time, while protecting companies business priorities and profitability goals.



# S/4HANA advanced ATP Functionalities and Value Proposition



**Product Availability Check (PAC)**



**Back Order Processing (BOP)**



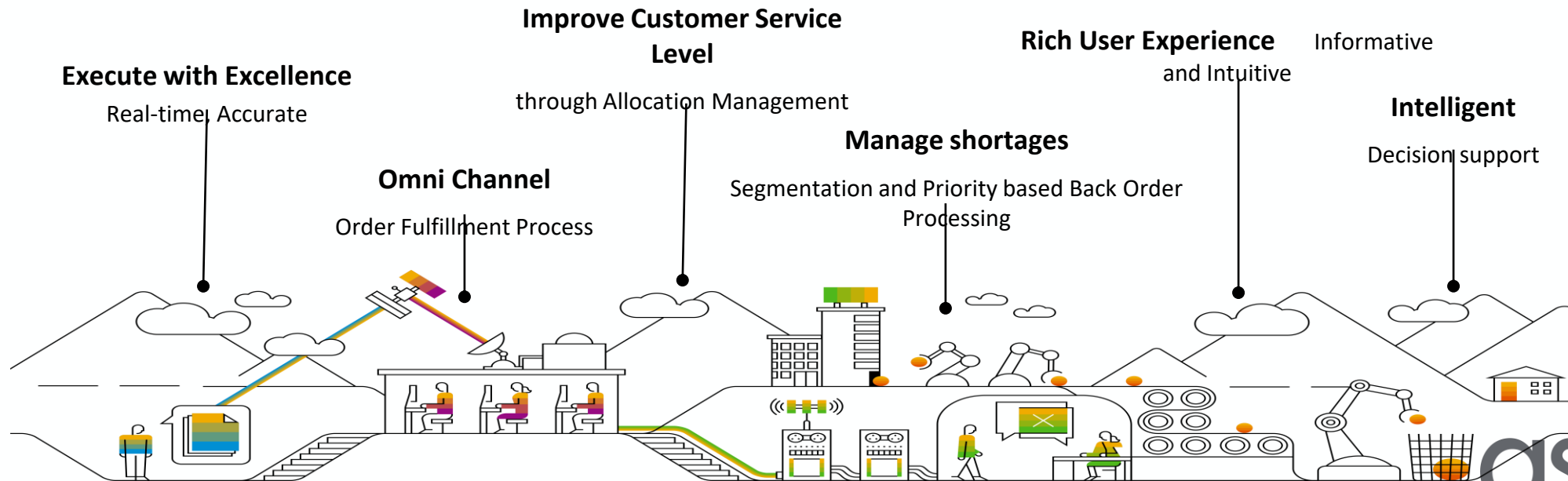
**Product Allocations (PAL)**



**Alternative Based Confirmations\* (ABC)**



**Release for Delivery (RefDy)**



\* Release Restrictions



# S/4HANA advanced ATP – Product Availability Check



## Product Availability Check (PAC)

- ❑ Time phased mass enabled check (parallelization)
- ❑ Supply consideration : All
- ❑ Demand consideration : Sales Orders (SO) & Stock Transport Orders (STO)
- ❑ Support special stocks
- ❑ Support batches



## Back Order Processing (BOP)



## Product Allocations (PAL)



## Alternative Based Confirmations\* (ABC)



## Release for Delivery (RefDy)

### Business Benefits

- Promise what you can deliver / Avoid over-confirmation
- Fast response time during online check and BOP

### Future Outlook

- Fiori based simulation and explanation tool
- Considerations of characteristics and shelf-life



# S/4HANA advanced ATP – Back Order Processing



- ❑ Requirement segmentation and classification : **Win, Gain, Redistribute, Fill** and **Lose**
- ❑ Filter and Sorter for each segment
- ❑ FIORI based set up and result monitor
- ❑ Supply Assignment (ARun)
- ❑ Exception handling with fall back variants
- ❑ Supports Product Allocations
- ❑ Global filters to restrict product and location selection

## Business Benefits

- Manage business priorities and protect customer interest
- Manage multi-channel order fulfillment process
- Ensure right supply assignment to right orders
- Significantly faster than traditional rescheduling

## Future Outlook

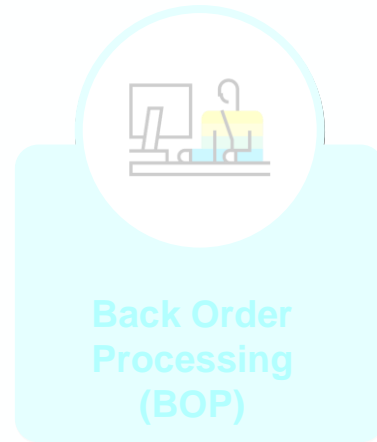
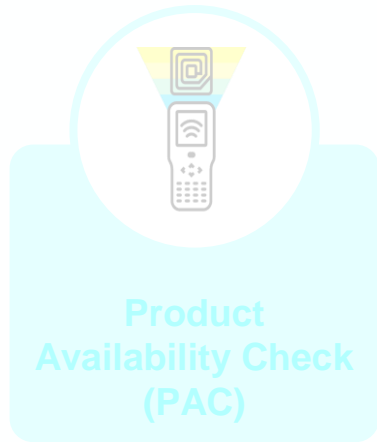
- Interactive Back Order Processing
- BOP to support ABC

# S/4HANA advanced ATP – Back Order Processing



		<u>Confirmation</u>	<u>Selection Criteria</u>	<u>Illustration</u>	<u>Sorting Criteria</u>
<b>Win</b>	Confirm as Requested	<b>100%</b> ↑	e.g. All orders from PRIO 1 customers for today, All back orders, All rush orders		No sorting
<b>Gain</b>	Improve if Possible	↑ ↔	e.g. All orders from PRIO 1 & 2 customers for this week		Sorted by requested delivery date
<b>Redistribute</b>	Might Gain, Might Lose	↑ ↔ ↓	e.g. All standard Sales Orders and Stock Transport orders of the week		Sorted by delivery priority and order creation date
<b>Fill</b>	Delete if Required	↔ ↓	e.g. All internal Stock Transport Orders and quality inspection orders		Sorted by order creation date
<b>Lose</b>	Delete Confirmations	↓ <b>0%</b>	e.g. All orders from customers under credit block		No Sorting

# S/4HANA advanced ATP – Product Allocations



- ❑ Simple and flexible set up
- ❑ Time dependent assignment to product/plant
- ❑ Hierarchical / Sequential allocations
- ❑ Excel download and upload for mass maintenance
- ❑ Importing / exporting allocation quantities from external systems
- ❑ Display and analyze product allocation availability situation
- ❑ Supports PAC, PAL and ABC

## Business Benefits

- Improve customer service levels
- Manage shortage situations
- Protect key customers and products, avoid penalties

## Future Outlook

- Further analytics
- Allocation Management for Stock Protection
- Capacity based allocations

# S/4HANA advanced ATP – Alternative Based Confirmations



## Business Benefits

- Improve order fill rate by intelligently selecting alternative locations


## Future Outlook

- Integration to BOP
- Manual alternative selection
- Product Substitution


- ❑ Determination of the delivering plant with best availability during sales order creation
- ❑ Simple configuration of Alternative Control that allows to activate ABC based on a combination of characteristics
- ❑ Configuration of substitution strategy that allows to specify how to rank alternatives based on SAP-delivered attributes

\* Under Release Restrictions

# S/4HANA advanced ATP – Release for Delivery



**Product Availability Check (PAC)**



**Back Order Processing (BOP)**



**Product Allocations (PAL)**



**Alternative Based Confirmations\* (ABC)**



**Release for Delivery (RefDy)**

## Business Benefits

- Intuitive and fast reassignment of stocks
- Impact analysis while confirmation changes

## Future Outlook

- Forward navigation to the explanation components for
  - Product Allocation (PAL)
  - Product Availability Check (PAC)

- ❑ FIORI based interactive changes to sales order confirmations before releasing the orders to delivery
- ❑ Impact simulation of current ATP situation
- ❑ Direct navigation to Sales Order
- ❑ Display of Batch and Allocation restrictions
- ❑ Visual representation of the stock situation of a material/plant

# S/4HANA advanced ATP – Screenshots

Configure BOP Variant

SAPPHIRE\_DEMO\_FALLBACK\_1

Document Type: Sales Documents

Exception Behavior: Stop Failed Material-Plant Combinations

Global Segment Name: SAPPHIRE\_DEMO\_GLOBAL

Fallback Variant Name: SAPPHIRE\_DEMO\_FALLBACK\_2

Remaining Items: Redistribute

Fallback Behavior: Trigger Fallback for Failed Material-Plant Combinations

WIN GAIN REDISTRIBUTE LOSE

Segment Name Selection Criteria

SAPPHIRE\_DEMO\_BACKORDERS\_1

REQUESTEDDELIVERYDATE of the ATPDOCUMENT is before tomorrow and CUSTOMERGROUP of an ATPDOCUMENT = '01'

Monitor BOP Run

BOP Run List / Summary - SAPPHIRE\_DEMO\_MAIN / Material: CP1020, Plant: 1010

Requirements: 9 Processed: 9 Requirements Fully Confirmed On-Time: 44%

Processing Issues: 0 Not Processed: 0 Requirements Fully Confirmed: 44%

Requirement	Material	Plant	Confirm. Strategy	Recipient	Segment Name	Request	On-Time Confirmation	Earliest Confirmation	Overall Confirmation	Processing Status	Confirmed on Status
29605 000080 (0001)	CP1020	1010	Win	E-MARKT	SAPPHIRE_DEM...	05/29/2018 100 PC	0 PC → 100 PC	0 PC → 100 PC	0 PC → 100 PC	✓	□
36502 000070 (0001)	CP1020	1010	Win	REALTECH	SAPPHIRE_DEM...	05/29/2018 100 PC	0 PC → 100 PC	0 PC → 100 PC	0 PC → 100 PC	✓	□
29605 000070 (0001)	CP1020	1010	Gain	E-MARKT	SAPPHIRE_DEM...	05/29/2018 300 PC	0 PC → 300 PC	05/29/2018 → 05/29/2018 200 PC → 300 PC	05/29/2018 → 05/29/2018 200 PC → 300 PC	✓	□
36502 000060 (0001)	CP1020	1010	Redistribute	REALTECH	SAPPHIRE_DEM...	05/29/2018 300 PC	0 PC → 300 PC	05/29/2018 → 05/29/2018 300 PC → 300 PC	05/29/2018 → 05/29/2018 300 PC → 300 PC	✓	□
36502 000080 (0001)	CP1020	1010	Redistribute	REALTECH	SAPPHIRE_DEM...	05/29/2018 300 PC	0 PC → 0 PC	05/29/2018 → 05/29/2018 300 PC → 0 PC	05/29/2018 → 05/29/2018 300 PC → 0 PC	✓	□
47301 000030 (0001)	CP1020	1010	Redistribute	PRINTWOR LD	SAPPHIRE_DEM...	05/29/2018 100 PC	0 PC → 0 PC	0 PC → 0 PC	0 PC → 0 PC	✓	□
47401 000040 (0001)	CP1020	1010	Redistribute	EZONE	SAPPHIRE_DEM...	05/29/2018 100 PC	0 PC → 0 PC	0 PC → 0 PC	0 PC → 0 PC	✓	□
47301 000040 (0001)	CP1020	1010	Redistribute	PRINTWOR LD	SAPPHIRE_DEM...	05/29/2018 100 PC	0 PC → 0 PC	0 PC → 0 PC	0 PC → 0 PC	✓	□
47401 000050 (0001)	CP1020	1010	Redistribute	EZONE	SAPPHIRE_DEM...	05/29/2018 100 PC	0 PC → 0 PC	0 PC → 0 PC	0 PC → 0 PC	✓	□

Manage Product Allocation Planning Data

TN\_001 TN 001

Selection Range: 25.11.2016 - 09.02.2017

Sales Organization	Distribution Channel	Ship-to party - Cust.	Status	Constraint Status	21.11.2016	28.11.2016	05.12.2016	12.12.2016	19.12.2016	26.12.2016	02.01.2017	09.01.2017
0001	01	FAL_CUS_01			10	15	20	30	10	15	20	10
0001	01	FAL_CUS_02			10	15	20	30	10	15	20	10
0001	01	FAL_CUS_03			10	15	20	30	10	15	20	10

Product Allocation Overview

Standard

Allocation Object: Period Range: Characteristic Value Combination:

Adapt Filters

Overloaded Periods

Period Start Date	Period End Date	Load
01.09.2017	01.10.2017	24%
18.08.2018	25.08.2018	188%

Highloaded Periods

Period Start Date	Period End Date	Load
01.04.2018	01.05.2018	100%
14.05.2018	21.05.2018	100%
01.07.2019	01.08.2019	100%
01.07.2019	01.08.2019	100%
01.04.2018	01.05.2018	100%

Underloaded Periods

Period Start Date	Period End Date	Load
23.02.2016	24.02.2016	0%
34.02.2016	25.02.2016	0%
25.02.2016	26.02.2016	0%
26.02.2016	27.02.2016	0%
27.02.2016	28.02.2016	0%

Characteristic Value Combinations

Characteristic Value	Load
SM_SO_PMO	100%
CKS16_MKX	67%
0001_01_01_ZAK_MAT_A...	63%
0001_0001_CKS_FERTZ; ...	49%
JJ03	64%

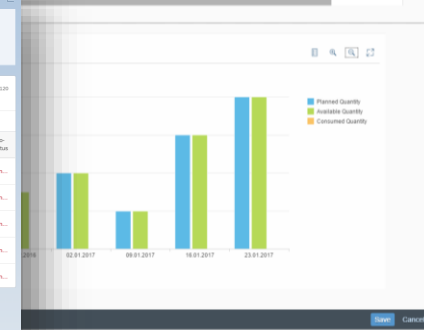
Product Allocation Order Items

228

Product Allocation Order Items by Ava...

Product Allocation Order Items by Requested Delivery Date

Order Item	Order Type	Available-to-Promise Status
2964380 - 20	Sales Order	Partially Con...
400025142 - Stock Transport Order	Stock Transport Order	Partially Con...
2965730 - 10	Sales Order	Partially Con...
2987731 - 20	Sales Order	Partially Con...
2985730 - 30	Sales Order	Partially Con...



Back Order Processing

Release for Delivery

RFDY FIT Material: Check Level

Material: DB\_RFD\_FIT\_CHECK\_LEVEL

Plant: DBFT - Karlsruhe

Horizon: 96 h

Confirmed Quantity: 45

Available Quantity: 40

Unconsidered Qty: 0

SD Document	Sold-To Party	Delivery Priority	Sales document type	Document Date	Req. Mat. Avail. Date	Shipping Dates	Confirmation	Constrained By
31259	Bosselmann & Friends FIT GmbH	02 - Normal item	CR - Standard Order (CR)	19.05.2017	19.05.2017 +45 days	Wed. 05.07. Wed. 05.07. Wed. 05.07.	0 → 40 EA	
31261	Bosselmann & Friends FIT GmbH	01 - High	CR - Standard Order (CR)	19.05.2017	19.05.2017 +45 days	Wed. 05.07. Wed. 05.07. Wed. 05.07.	5 → 9 EA	
31260	Bosselmann & Friends FIT GmbH	02 - Normal item	CR - Standard Order (CR)	19.05.2017	19.05.2017 +45 days	Wed. 05.07. Wed. 05.07. Wed. 05.07.	40 → 50 EA	
31262	Bosselmann & Friends FIT GmbH	02 - Normal item	CR - Standard Order (CR)	19.05.2017	19.05.2017 +45 days	Wed. 05.07. Wed. 05.07. Wed. 05.07.	0 → 70 EA	

Product Allocations

Release for Delivery App



# Agenda

- Functional Overview
  - What's aATP?
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  - Functionalities available
- **What's new in aATP?**
- Roadmap
- Q&A

# What's new in 1809 Release in S/4HANA advanced ATP?



## Product Allocations (PAL) :

- ✓ Display and analyze product allocation availability situation
- ✓ PAL Alignment Services: Automatically reorganize product allocation planning data (allocation quantities and assignments) after deletion, deactivation or reactivation of CVCs
- ✓ Field extensibility for Product Allocation Object and Sequence (including corresponding APIs):
- ✓ Characteristic catalog extension for STOs
- ✓ Enable download and upload of product location to product-allocation-assignment data in file format
- ✓ Enable mass deletion of product/location assignments in "Assign Product to Product Allocation" app



## Back Order Processing (BOP) and Release for Delivery (RefDy):

- ✓ Automated exception handling with BOP fallback variants
- ✓ Display Dates/Times of plants in their respective timezone
- ✓ Visualize the constraints imposed by Delivery Groups in RefDy



## Alternative Based Confirmations (ABC):

- ✓ Configure Alternative Control: Allows to activate ABC based on a combination of characteristics
- ✓ Configure Substitution Strategy: Allows to specify how to rank calculated alternatives based on SAP-delivered attributes
- ✓ Initial determination of the delivering plant with best availability during sales order creation



# Product Allocation Overview : PAL Monitor

- Drill down and analyze the product allocation situation for product allocation objects, characteristic value combinations and periods on different levels
- See order items with different ATP statuses which performed a product allocation check
- Drill down into order items and identify all consumed product allocation quantities and the order in which the quantities have been consumed

The image displays two SAP screenshots. The top screenshot, titled 'Product Allocation Overview', shows a dashboard with several key metrics and filters. It includes sections for 'Overloaded Periods', 'Highloaded Periods', 'Underloaded Periods', 'Characteristic Value Combinations', and 'Product Allocation Order Items'. A donut chart shows the distribution of ATP statuses: Fully Confirmed Later (79), Partially Confirmed or Unconfirmed (120), and Fully Confirmed On-Time (29).

The bottom screenshot, titled 'Monitor Product Allocation Order Items', provides a detailed table of order items with their respective ATP statuses and quantities.

Order Item	Order Type	Material	Plant	Requested Delivery Date	Requested Quantity	Confirmed Quantity	Delivered Quantity of Current Item	Available-to-Promise Status
4900039212 - 10	Stock Transport Order	XENARC_COOL_BLUE (Xenon cool blue headlight lamps)	0001 (Werk 0001)	13.02.2018	1,000 EA	1,000 EA	0,000 EA	Fully Confirmed On-Time
4500034132 - 11	Stock Transport Order	MSDR_ATP010 (Test For, extra small, yellow, length 24)	F051 (Plant)	15.02.2018	1,000 EA	1,000 EA	0,000 EA	Fully Confirmed On-Time
2932965 - 10	Sales Order	ZAK_MAT_ATP_001 (ZAK_MAT_ATP_001)	0001 (Werk 0001)	26.03.2018	17,000 KG	17,000 KG	0,000 KG	Fully Confirmed Later
2932965 - 20	Sales Order	ZAK_MAT_ATP_001 (ZAK_MAT_ATP_001)	0001 (Werk 0001)	26.03.2018	2,000 KG	1,000 KG	0,000 KG	Partially Confirmed or Unconfirmed
2963261 - 10	Sales Order	DB_R4D_IDV_PAL (RFDY Individual Material: PAL Integratio)	0B03 (Achem 1)	18.04.2018	100,000 EA	0,000 EA	0,000 EA	Partially Confirmed or Unconfirmed
2977113 - 10	Sales Order	CKS_FERT1 (Carsten's finished product 1)	0001 (Werk 0001)	18.04.2018	150,000 EA	0,000 EA	0,000 EA	Partially Confirmed or Unconfirmed
2931264 - 10	Sales Order	CKS_FERT3 (Carsten's finished product 3)	0001 (Werk 0001)	19.04.2018	20,000 KG	20,000 KG	0,000 KG	Fully Confirmed Later
2943560 - 10	Sales Order	CKS_FERT2 (Carsten's finished product 2)	0001 (Werk 0001)	21.04.2018	80,000 EA	80,000 EA	80,000 EA	Fully Confirmed Later
2931071 - 10	Sales Order	CKS_FERT1 (Carsten's finished product 1)	0001 (Werk 0001)	25.04.2018	200,000 EA	0,000 EA	0,000 EA	Partially Confirmed or Unconfirmed
2932177 - 10	Sales Order	CKS_FERT1 (Carsten's finished product 1)	0001 (Werk 0001)	25.04.2018	100,000 EA	0,000 EA	0,000 EA	Partially Confirmed or Unconfirmed
2905579 - 10	Sales Order	CKS_FERT1 (Carsten's finished product 1)	0001 (Werk 0001)	25.04.2018	200,000 EA	0,000 EA	0,000 EA	Partially Confirmed or Unconfirmed

# Product Allocation: Automatic reorganization of planning data

In the app **Manage Product Allocation Planning Data** the system can now move the planned allocation quantities and corresponding assigned quantities automatically to a collective characteristic value combination (CVC) when a CVC is to be deleted or deactivated /reactivated.

The screenshot displays the SAP Product Allocation Object interface. At the top, it shows 'Product Allocation Object' and 'CKS01 Productive use with CKS\_FERT1'. Below this, there is a 'Selection Range' field set to '31.07.2018 - 01.05.2019'. The main area is titled 'Product Allocation Planning Data (9)' and contains a table with columns for Sales Organization, Ship-to party - Custo..., Status, Constraint Status, and various dates from 01.07.2018 to 01.04.2019. A red arrow points to the row for Sales Organization '0001' and Ship-to party 'TN\_CUS\_02', which is highlighted in blue. The 'Status' column for this row is 'Active', and the 'Change Status' dropdown menu is open, showing 'Active' and 'Inactive' options. Below the table, there is a 'Consumption' chart showing 'Planned Quantity' (blue bars), 'Available Quantity' (green bars), 'Negative Available Quantity' (red bars), and 'Consumed Quantity' (orange bars) over time. A dialog box titled 'Question' is overlaid on the bottom right, asking 'Transfer quantities to collective allocation?' with 'Yes' and 'No' buttons.

Sales Organization	Ship-to party - Custo...	Status	Constraint Status	01.07.2018	01.08.2018	01.09.2018	01.10.2018	01.11.2018	Active	01.01.2019	01.02.2019	01.03.2019	01.04.2019
#	#	Active	Restricted Availability	0	0	0	0	0	Inactive	0	0	0	0
0001	#	Active	Restricted Availability	0	0	0	0	0	0	0	0	0	0
0001	1	Active	As in Sequence Constraint	0	0	0	0	0	0	0	0	0	0
0001	36	Active	As in Sequence Constraint	0	0	0	0	0	0	0	0	0	0
0001	41	Active	As in Sequence Constraint	0	0	0	0	0	0	0	0	0	0
0001	TN_CUS_01	Active	Restricted Availability	0	0	0	0	0	0	0	0	0	0
0001	TN_CUS_02	Active	As in Sequence Constraint	100	120	80	50	50	50	50	50	0	0
0002	#	Active	Restricted Availability	0	0	0	0	0	0	0	0	0	0
0002	TN_CUS_03	Active	Restricted Availability	16	16	16							

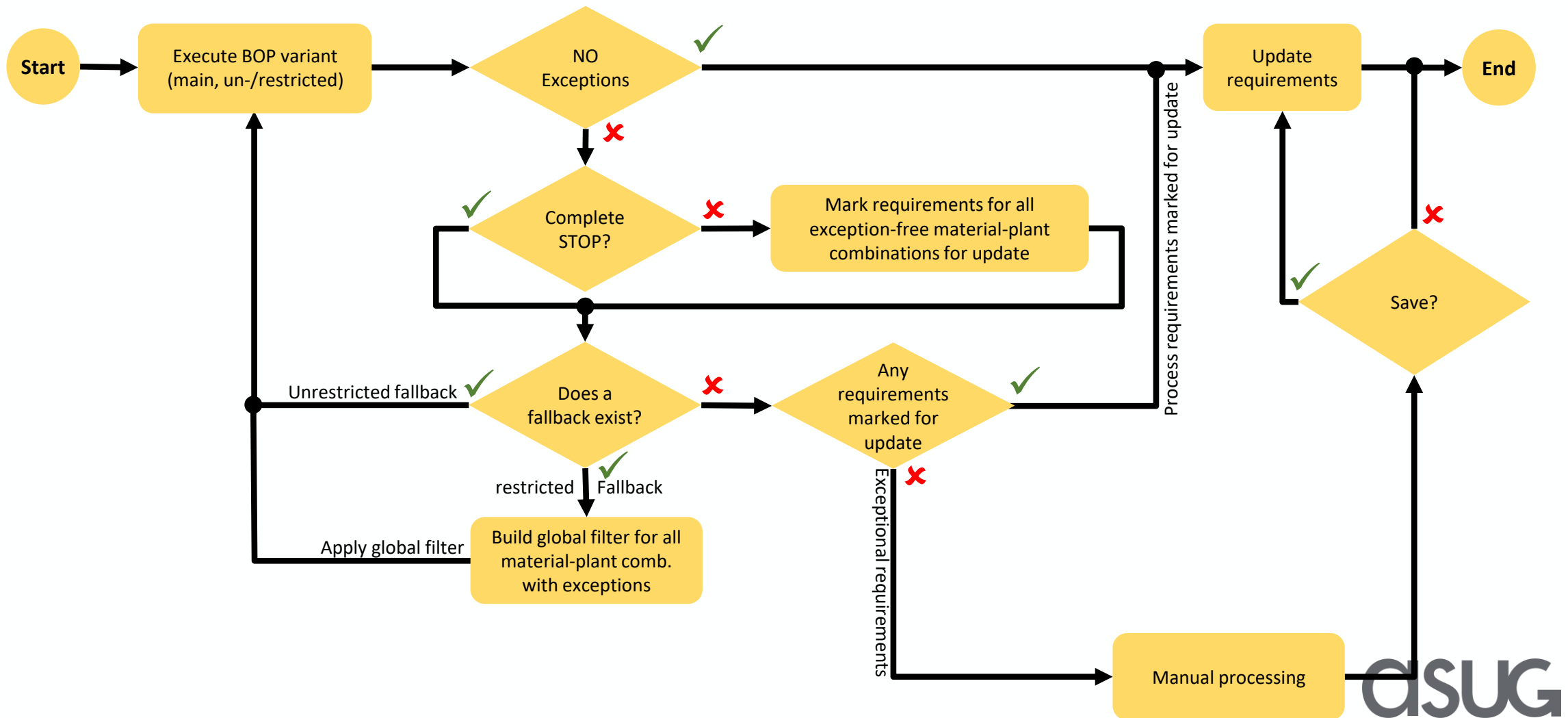
# Product Allocation: Manage Product Allocation Planning Data app supports download/upload with native MS Excel (file format XLSX)

The **Manage Product Allocation Planning Data** app now also supports the use of MS Excel (open office file format XLSX) for downloading/ uploading product allocation characteristic value combinations

The screenshot displays the SAP S/4HANA 'Manage Product Allocation Planning Data' app interface. The top section shows object details for 'CKS\_STO\_01' (Carsten productive STO 01), including period type (Week 02), time zone (Central Europe), and creation details. Below this is a table of 'Product Allocation Planning Data (7)' with columns for Purchasing Group, Storage location, Route, Status, Constraint Status, and a grid of dates from 03/05/2018 to 04/23/2018. An overlaid Microsoft Excel spreadsheet shows the same data in a tabular format, with columns for Product #, Purchasing Group, Storage location, Route, and a grid of dates. The Excel interface includes the ribbon menu and the file name 'CKS\_STO\_01\_20180306104202.xlsx'.

Product #	Purchasing Group	Storage location	Route	03/05/2018	03/12/2018	03/19/2018	03/26/2018	04/02/2018	04/09/2018	04/16/2018	04/23/2018
CKS_STO_001	001	102A	#	0	0	0	0	0	0	0	0
CKS_STO_001	001	102A	TR0001	0	0	0	0	0	0	0	0
CKS_STO_002	002	101A	#	0	0	0	0	0	0	0	0
CKS_STO_002	002	101A	TR0002	0	0	0	0	0	0	0	0

# Backorder Processing: Process overview for fallback variants



# Backorder Processing: Fallback variant setup in Configure BOP Variant app

The screenshot displays the SAP Configure BOP Variant application interface. The top navigation bar includes the SAP logo and the title 'Configure BOP Variant'. The main content area shows the configuration for variant 'ATP\_FB\_MAIN'. A red circle highlights the 'Exception Behavior' section, which is set to 'Stop Failed Material-Plant Combinations'. Below this, the 'Fallback Variant Name' is 'ATP\_FB\_FOLLOWUP\_1' and the 'Fallback Behavior' is 'Trigger Fallback for Failed Material-Plant Combinations'. Other settings include 'Document Types: Sales Documents', 'Checking As: Sales Order (Business Scenario: A)', and 'Global Segment N... : ATP\_FB\_GLOBAL'. The 'Remaining Items' are set to 'Ignore'. Below the configuration, there are tabs for 'WIN', 'REDISTRIBUTE', and 'FILL'. The 'REDISTRIBUTE' tab is active, showing a list of segments: 'ATP\_FB\_CUST\_HIGH', 'ATP\_FB\_CUST\_MEDIUM', and 'ATP\_FB\_CUST\_LOW'. The 'FILL' tab is also visible.

The bottom part of the screenshot shows the 'Monitor BOP Run' application. The top navigation bar includes the SAP logo and the title 'Monitor BOP Run'. The main content area shows the 'BOP Run List / ATP\_FB\_MAIN Summary, Simulation'. The user is 'CB99', started on '03/28/2018, 17:01', and completed on '03/28/2018, 17:03'. The requirements are 17, processed 17, and locked 0. The processing issues are 0, and requirements fully confirmed on-time is 59%. The requirements fully confirmed are 59%. A red circle highlights the 'FALLBACK RUNS' tab. Below the tabs, there is a table with columns: Variant Name, Started, Completed, Processing Status, Requirements, Requirements Fully Confirmed On-Time, Requirements Fully Confirmed, and Log. The table shows three simulation runs: 'ATP\_FB\_MAIN' (Failed), 'ATP\_FB\_FOLLOWUP\_1' (Failed), and 'ATP\_FB\_FOLLOWUP\_2' (Successful).

Variant Name	Started	Completed	Processing Status	Requirements	Requirements Fully Confirmed On-Time	Requirements Fully Confirmed	Log
ATP_FB_MAIN Simulation	03/28/2018, 17:01	03/28/2018, 17:01	✗	16	69% → 69%	69% → 69%	Show Log >
ATP_FB_FOLLOWUP_1 Simulation	03/28/2018, 17:01	03/28/2018, 17:02	✗	7	57% → 57%	57% → 57%	Show Log >
ATP_FB_FOLLOWUP_2 Simulation	03/28/2018, 17:02	03/28/2018, 17:03	✓	17	71% ↘ 59%	71% ↘ 59%	Show Log >

# What's coming in 2019 in S/4HANA advanced ATP?



## Product Allocations (PAL) :

- ✓ Further vertical consumption strategies within product allocation sequences
- ✓ Calculate a feasible confirmation by simultaneously considering multiple product-allocation objects as alternative sources of supply
- ✓ Integration of product allocation checks based on capacity and production in the advanced available-to-promise (aATP) check (product allocations after product availability checks)
- ✓ Define and maintain new characteristics based on value groups of existing characteristics



## Back Order Processing (BOP) and Release for Delivery (RefDy):

- ✓ Backorder Processing: Use custom and standard fields for sorting and filtering
- ✓ Simplify BOP Segment App
- ✓ Worklist Refresh for Release for Delivery App

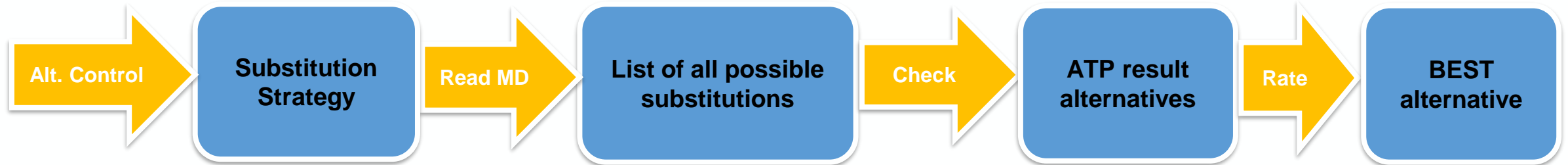


## Alternative Based Confirmations (ABC):

- ✓ Tie-breaking criteria for suitable plants
- ✓ Context specific settings in substitution strategy
- ✓ Support reevaluation of alternatives in back-order processing
- ✓ Additional determinations to choose best plant

# Alternative Based Confirmation

## Location Substitution



- Features of new ABC:
  - Easy to configure Alternative Control
  - Decision to trigger during Sales Order Creation and/or Back Order Processing (BOP)
  - Dynamic selection of alternative : **Best fit** vs **First fit**
  - Supports Product Allocations
  - Alternative Determination rules: **Max-Earlier Confirmation**, **Full Confirmation**, **On-Time Confirmation**
  - Tie-Breaker logic for equally placed alternatives.

# ABC (Alternative based confirmation)

## SetUp: Substitution Strategy

Available 1809  
FPS 01

You can use the **Configure Substitution Strategy** app to define an alternative plant to be used in case the originally requested plant cannot provide sufficient quantity for a confirmation.

Strategy Name	Strategy Description	Substitution Item Type	Created By	Created On	Changed By	Changed On
<input type="checkbox"/> New Strategy <i>Unsaved Changes by D027</i>		Force Inline Substitution				
<input type="checkbox"/> New Strategy	Substitution for all plants	Force Inline Substitution				
<input checked="" type="checkbox"/> SIMPLE_PLANTS <i>Draft</i>	Simple Plant Substitution	Force Inline Substitution				
<input type="checkbox"/> AC_STRATEGY_TEST	AC Strategy Test 1	Force Inline Substitution				
<input type="checkbox"/> AC_STRATEGY_TEST_COPY	AC Strategy Test 2	Force Inline Substitution				

**General Information**    Substitution Method Sources

Substitution Method:  
Plant Substitution

**Substitution Method Sources**

Substitution Method Source  
All eligible plants

Apply

**General Information**    Substitution Methods    Building Rule

\*Strategy Name:  
SIMPLE\_PLANTS

Strategy Description:  
Simple Strategy

Substitution Item Type:  
Force Inline Substitution

**Substitution Methods**

Substitution Method  
Plant Substitution

**Building Rule**

Alternative Determination  
MAX\_ON\_TIME\_CONFIRMATION (Maximum Confirmation Earlier)

Save    Cancel



# ABC (Alternative based confirmation)

## Activation: Alternative Control

Available 1809  
FPS 01

Maintain characteristic combinations for which a certain substitution strategy should be determined

Maintain Control Characteristics

Sales Order Alternative Controls / Control Characteristic List

Removing or re-ordering character...  
1) You can only delete character...  
2) You can only move character...

Add Characteristics

Characteristic

- Sales Document
  - Business partners
  - Name of Person Responsible for Creating the Object
  - Sales Office
  - Customer Group
  - Sales Organization
  - Sales Document Item
  - SD Document Category
  - Distribution Channel
  - Division

OK Cancel

Configure Alternative Control

Sales Order

Alternative Controls (7)

Sales Document Type	Customer Number	Substitution Strategy	Active	Created By
FCQ	SG_ABC1	SG_TEST	<input checked="" type="checkbox"/>	GADRE
NOR	CUST_1002	SG_TEST	<input checked="" type="checkbox"/>	GADRE
TA	BS_CUST	SG_TEST	<input checked="" type="checkbox"/>	GADRE
TA	CUST_1002	SG_TEST	<input checked="" type="checkbox"/>	GADRE
TA	SG_ABC1	SG_TEST	<input checked="" type="checkbox"/>	GADRE
TWOR	TW_CUST	TW_INLINE	<input checked="" type="checkbox"/>	WERTH
ZRS1	CUST_500	RSP_TEST	<input checked="" type="checkbox"/>	GADRE

# ABC (Alternative based confirmation)

## SetUp: Alternative Determination

You can use have multiple different **Alternative Determinations** to rank the possible alternatives (plants) and identify/choose the best of them.

In case you have **multiple determinations**, the subsequent ones are applied only in case the previous ones did not lead to **any** confirmation.

Currently the following three determinations are implemented:

- Max-Earlier Confirmation
- Full Confirmation
- OnTime Confirmation

Planned 1909

The screenshot shows the SAP S/4HANA configuration interface for a strategy named 'STD\_HAWA\_FOR\_VIP\_CUST'. The main configuration area includes fields for 'Strategy Name', 'Strategy Description', and 'Substitution Item Type'. A modal window titled 'Alternative Determination' is open, displaying a search bar and a table of available determination types: 'FULL\_CONFIRMATION', 'MAX\_EARLIER\_CONFIRMATION', and 'ON\_TIME\_CONFIRMATION'. The 'Building Rule' section below shows a list of items with radio buttons, where 'FULL\_CONFIRMATION' is currently selected.

Alternative Determination Name	Alternative Determination Description
FULL_CONFIRMATION	
MAX_EARLIER_CONFIRMATION	
ON_TIME_CONFIRMATION	

Alternative Determination
<input checked="" type="radio"/> FULL_CONFIRMATION
<input type="radio"/> MAX_EARLIER_CONFIRMATION

# ABC (Alternative based confirmation)

## SetUp: Alternative Determination – TIE-breaker logic

Planned 1909

If there are multiple plants which can confirm equally  
(e.g. several plants can confirm the full requested quantity on the requested date),  
**which one is chosen?**

Currently the following tie-breakers are hard coded:

- Prefer the alternative plant which is in the same country than the ship-to-party (*if still not unique, then...*)
- Prefer the alternative plant which is in the same region than the ship-to-party (*if still not unique, then...*)
- Prefer the alternative plant with shorter transit time (*if still not unique, then...*)
- Prefer the alternative plant with shorter overall delivery time, incl. pick&plan (*if still not unique, then...*)
- Prefer the originally requested plant (*if original plant is no valid alternative, due to its confirmation situation, then...*)
- Choose the plant according to alphabetical sorting (*4-digit plant no. – numbers are preferred over characters*)

Planned 1909

## Product Allocation – Logical “AND”

### Scope

- Ability to calculate a feasible confirmation by simultaneously considering multiple product-allocation objects as alternative sources of supply
- Checking of each product-allocation object within the alternative source of supply and final confirmation of the minimum object of all confirmations (logical "**AND**" connection of product allocation constraints)

### Key Benefits

- Enhance the product allocation sequence to allow multiple overlapping sequence constraints within a sequence group (alternative source of supply)
- Allow to combine sequence constraints with different check date time types and periodicities
- Confirmation result that is the minimum of all product-allocation constraints within a sequence group (logical "AND" connection of constraints)

Planned 1909

# Product Allocations: Capacity Allocations

## Scope

- Integration of product allocation checks (PALs) based on capacity and production in the standard ATP check
- Enhance Fiori app "Manage Product Allocation Sequences" to offer maintenance of capacity/production based allocation plans
- Execution of an additional product allocation check based on capacity and production after the product availability check

## Key Benefits

- Ability to execute a PAL after a PAC – in addition to the sales product allocation check that is performed before a product availability check
- Modeling of restrictions based on production capacities or supply constraints in the additional product allocation check
- Allocation type wherein the first the product availability is checked and then, based on the results of the product availability check, the product allocation check is performed

# Agenda

- Functional Overview
  - What's aATP?
  - ATP Evolution
  - Functionalities available
- What's new in aATP?
- **Roadmap**
- Q&A

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# S/4HANA advanced ATP Timelines

- Backorder Processing (BOP) – Set Up and Results Monitor
- Product Allocation (PAL)– set up and check
- Release for Delivery app

- BOP: Automated exception handling with BOP fallback variants
- ABC: Initial determination of the delivering plant with best availability during sales order creation
- PAL: Display and analyze product allocation availability situation

- Interactive BOP
- ATP Analytics
- Fair Share logic in BOP
- Stock Protection
- Service Parts ATP
- aATP integration with Production
- aATP integration with Transportation Scheduling
- Machine Learning capabilities



2015

- ATP Controller (backend)
- Product Availability Check (mass-enabled)



2016

- BOP: Supply Assignment Run
- BOP: Usability enhancements
- PAL: Product Allocation Sequence
- STO support in BOP, PAL and Release for Delivery
- RefDy: Usability enhancements
- API's for PAC & PAL



2017



2018

- ABC : Location Substitution supported in BOP
- ABC: Manual alternative selection
- ABC: Product Substitution
- PAL: Capacity based Allocations
- PAL: Logical AND relationship between PAL Objects
- PAC Explanation tool



Planned



Product Vision



# Further information ...

## [Discover SAP S/4HANA Help Portal](#)

The screenshot shows the SAP S/4HANA Help Portal homepage. At the top, it says "SAP S/4HANA" and "With SAP S/4HANA (SAP Business Suite 4 SAP HANA), SAP is providing a new product and a next generation of business applications – simple enterprise software for big data and designed to help you run simple in the digital economy." Below this is a search bar with the text "Search through all documents on this page". There are three main sections: "Getting Started" with a "Getting Started Guide" link, "What's New" with a "New and changed features in this release" link and language options (English, Deutsch), and "Additional Information" with links for "SAP Fiori Cloud for SAP S/4HANA", "Administration Guide for Implementation", and "SAP S/4HANA Requirements for Partner Solutions: On Promise Guide".

## [Discover S/4HANA](#)

The screenshot shows the S/4HANA landing page with the headline "Immediate, intelligent, and integrated ERP". Below the headline is a navigation bar with tabs for "Core Finance", "Plan to Product", "Order to Cash", "Procure to Pay", and "Request to Service". The "Core Finance" section is highlighted, featuring a video thumbnail of two people looking at a tablet. The text describes SAP S/4HANA as the digital core of a business and provides a "Learn more" button.

## [Discover SAP HANA Cloud Platform](#)

The screenshot shows the SAP HANA Cloud Platform landing page. The headline is "SAP HANA Cloud Platform" with the sub-headline "Rapidly build and deploy apps with our in-memory platform-as-a-service (PaaS)". Below this is a paragraph describing the platform's capabilities. On the right side, there is a photograph of two people working at a computer.

## [SAP S/4HANA Roadmap](#)

The screenshot shows the SAP S/4HANA Roadmap page. The headline is "SAP Road Maps" with the sub-headline "SAP Road Maps communicate the solution and product direction so you can optimize business value and the return on your IT investment." Below this are two columns: "Solution Road Maps" and "Product Road Maps", each with a brief description of their focus.

## [SAP Customer/Partner Community for ATP \(by invitation only\)](#)

The screenshot shows the SAP Customer/Partner Community for ATP page. It features a "Shopping Cart" icon with "ATP" text, a "Customer/Partner Co-Innovation of ATP Solution" section with "111 Members" and an "Invite" button, and a "SAP HANA Advanced ATP Co-Innovation" section with "490 Views" and various action buttons. There is also a photograph of a group of people in a meeting.

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# Presentation Materials

Access the slides from 2019 ASUG Annual Conference here:

<http://info.asug.com/2019-ac-slides>

# Q&A

For questions after this session, contact us at [sujeet.acharya@sap.com](mailto:sujeet.acharya@sap.com)

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