What’s New in SAP Integrated Business Planning
1911 (Planned)

SAP Product & Solution Management
October 29, 2019

PUBLIC
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Sneak Preview

Since Q4/2018, the what's new webinar as well as the application help are planned to be available before the actual release data.

Release of SAP Integrated Business Planning 1911 currently planned for **November 6, 2019**.

BUT… things can happen … and features might still be delayed. Therefore: „This is the current state of planning and may be changed by SAP at any time.”

[help.sap.com/ibp](http://help.sap.com/ibp)
Agenda

• Analytics
• IBP Excel Add-in
• Web-based Planning
• Supply Planning
• Demand Planning and Sensing
• S&OP
• Order-based Planning

• Inventory Optimization
• DDMRP
• Best Practices
• Model Configuration
• Normalization
• Integration
• IPS
• System Monitoring

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

- E-mail notification
- Alert rules comparing key figures from different time periods
- Add snooze information on the Alert Overview
- Copy subscriptions
- Order-based Planning alerts with navigation to the View Gating Factors app from the Alert Monitor
E-mail notification

It’s now possible to receive notifications via e-mails when alerts exists. The scheduling of the notification is done via the job template: Custom Alerts Notifications

Dear IBP user:

Your attention is required. The following IBP custom alerts were calculated on 09/24/2019 20:53:08 CET.

Alerts by Priority
- High: 0
- Medium: 39
- Low: 39

Alerts by Subscription
- MTL3_TEST_SUB: 39
- TEST_MTL3_Sub: 39

Alerts by Status
- Active: 78
- Snoozed: 0

Alerts by Assignment
- Assigned to Case: 4
- Unassigned: 74

To view your alerts, open the Monitor Custom Alerts app. Make sure that your alert monitor is refreshed to show the latest alerts.
Alert rules comparing key figures from different time periods

It is now possible to create alert rules to compare data from different time periods. The period offset is maintained on the rule with the negative or positive offset from the calculation period.

Period offset are only available with Alert Definitions that contain a time period in the calculation level.
Snooze information on the Alert Overview

It is now possible to distinguish between snoozed and active alerts in the Custom Alerts Overview.
Copy Subscriptions

Alert Subscriptions can now be created from a copy of an existing subscription
Navigation to the View Gating Factors app from Alert Monitor

Users can navigate to the View Gating Factors app from the Alert Monitor.

Users can see alerts from Order-based Planning data and directly navigate to the app.

Navigation is available with external key figures in the OBP planning area.
IBP Analytics

- Dashboard usability enhancements
- Filter dashboards using a version or scenario
- Refresh date (absolute versus time ago format)
- Custom colors on stacked chart
- Chart thresholds on non-geographic chart types
Dashboard usability enhancements

More information is display about the chart, including information on the chart’s drilldowns
Filtering Dashboard for a Version/Scenario

When the version or scenario is part of the filter, all charts on the dashboard will display the data for the selected version/scenario without having to navigate to the Analytics app.
Refresh date format (relative and absolute)

When users take screenshots of a dashboards or charts, it’s important to know the exact refresh date of data instead of the “time ago “ format. The format can be changed in the dashboard settings.
Custom colors on a stacked chart

Stacked key figures can now be colored with any custom color.
Chart thresholds (on non-geographic chart types)

You can now define thresholds on other type of charts, such on a heatmap chart.
IBP Excel Add-In 1911.2.0
Anna Linden
New Minimum IBP Excel Add-In Version 1808.2.0 
with the upgrade of the IBP backend to IBP 1911

As already announced in the What's New for 1902, we have stepwise updated and subsequently phased-out older versions of the underlying protocols and authenticating standards for SAP Integrated Business Planning. With the upgrade to 1911, you will receive the last change and with that the new minimum Excel version that is required to logon to the IBP backend is set to 1808.2.0, being the first version that supports the changed authenticating standards.

The users using an older IBP Excel add-in will face the following errors upon logging on:

You cannot identify the users using an older add-in version?

NEW Service: Open a ticket on SCM-IBP-XLS-UI and ask for the usernames using an add-in older than 1808!
Performance:
Improved Saving Process by Pre-Send Data Changes

The Pre-Send reduces the waiting time for end users when saving data via the IBP Excel add-in. If Reason Codes and Comments are enabled, the system can already start to communicate data changes to the IBP backend. Here the first steps in the save process can be started while the user is entering data. Parts of the process can be parallelized and that can reduce the waiting time for the user.

- The data is processed while the user is working on the Reason Codes and Comments.
- Only when the user clicks on “Save”, does the system save the pre-processed data.
- When the user clicks on “Cancel” or the “X”, the system reverts any calculations in the backend. However, the data on the user interface is not refreshed. If the user wants to further work on the data, there is no need to re-do all changes.
- In case you user was running simulations beforehand, then did some further data changes, clicked on “Save Data” and then “Cancel”, the system will roll the calculations back to the point of the last simulation in the backend.
During logon the response time is measured using pings. This combines server and network response times. If the response time is slow, the user is notified through an information pop-up about the current slow speed.

As the response time in certain locations/regions/countries can be notoriously slow, the user might see this often or even with every logon, so it can be switched off at any point.

Users and administrator can now enable the information pop-up that appears upon logon when the response time between the user's device and the IBP server is slow. Furthermore, users and administrators can define a custom threshold for the response time in the Settings.
Ribbon Redesign

We have reworked the IBP Excel add-in user interface. The ribbon and the subsequent windows as well as the drop-down menus have been updated with a fresh, homogenous set of icons.
We are introducing the tooltip also for the attributes.

In order to see the tooltip in the attributes tab of the Edit Planning View window, you hover over the attribute name for ~2 seconds.

With the pin button in the upper right corner, you can keep the tooltip on the screen and move it around.

Following information is displayed in the tooltip:
- Attribute Name
- Attribute ID
- Planning Levels in which the attribute is contained
- Master Data Types in which the attribute is contained.
Extension of the tooltip in the Edit Planning View

Navigation between Tooltips

You can now also navigate between Key Figures, Planning Levels, Attributes, Master Data Types, Alerts, and Time Levels directly in the tooltips by clicking on the blue, bold text.

1) Find out which attributes are also contained in the master data type Product

2) Gain further information about the planning levels

3) Gain further information about the time level Monthly
Web-based Planning

Pramod Mane
Cell fixing and Unfixing

- You can now also fix and unfix key figure values in the Web-Based Planning app.
- By fixing key figure values, you can protect them against unintentional changes resulting from disaggregation, data integration, planning operators, or manual changes done by other planners.
- Just like in the IBP Excel add-in, you can fix and unfix values one at a time or several at once.
Support of Attribute Permissions

• As of this release, the **Web-Based Planning** app supports attribute permissions.

• Read attribute permissions must be configured for an end user to enable them to select attributes in the Web-Based Planning app.
Supply Planning
Pramod Mane
New Priority-Based Finite Heuristic

- The time-series-based supply planning finite heuristic creates a finite priority-based demand and supply plan, taking into account certain supply and resource constraints.
- Provides a prioritized, constrained feasible solution, with priorities derived from the costs of demand and sources of supply (higher costs mean higher priority for demands, lower costs means higher priority for sources of supply).
- Only time-series heuristic that enables you to create a supply plan based on priorities.
- The finite heuristic satisfies demands depending on the priority (higher non-delivery costs mean higher priority)
How Does the Time-Series-Based Supply Planning Finite Heuristic Work?

• The time-series-based supply planning finite heuristic takes input key figure values and uses them to calculate a priority-based supply plan, taking certain supply and resource constraints into account, and writes the results to output key figures.

• Demand costs (non-delivery and late delivery costs) and production, transport, and external receipt costs maintained for the time-series-based supply planning optimizer are used by the finite heuristic to determine the order of priority in which demands are satisfied and sources of supply used. All costs are input key figures.

• For demands, the priority is first derived from non-delivery costs, next from late delivery costs, and then from the period. The higher the costs, the higher the priority.

• For sources of supply, the costs are added together along the supply chain to determine which path is more expensive. The higher the costs, the lower the priority.
Not Supported Features as of 1911

- Time-series-dependent features
  - These include production output and component factors, transport and production costs, resource requirements, and validities.
  - *The finite heuristic takes the value of the first period and assumes that the value is constant over the whole planning horizon.*
- Non-storing location-product
- Aggregated Constraints
- Component Substitution
- Customer-Product Substitution
- Fair-Share Distribution
- Validities, for example, production source validity or customer source validity
- Co-production
- Maximum lot-sizes on sources of supply
- Lot-sizing procedures or policies
- Receipts balancing
- Maximum and Minimum values for Transport, Production, and External Receipts
- Resource capacity expansion
- Storage resources
- Sub-periods of maximum coverage
New Optimizer Parameters

In the profile for the TS-Based Supply Optimizer, the following new parameters are available, which you can use to improve the runtime of the algorithm or the quality of the results:

Expert Settings:

Big numerical differences among cost key figures often lead to undesired effects on the optimization results. Numerical focus and numerical scaling are useful to counteract such effects. Numerical pre-optimization splits up the optimizer run into two phases.

For existing profiles, the new parameters are switched off by default.
New Optimizer Parameters

Use finite heuristic as start solution:

You can use this switch to have the finite heuristic run before the optimizer. Just like the latter the finite heuristic considers resource capacities. If discrete decisions are involved in the scenario, using the finite heuristic as a start solution can reduce the algorithm runtime.

Discount non-delivery and late delivery costs

• With this parameter you can provide a discount percentage and which will decrease non-delivery and late delivery costs will in each period.

• The discount percentage applies to the original cost per period.

• This discounting increases the probability for prompt demand fulfillment in the optimizer plan. (Unavoidable non-deliveries or late deliveries tend to be shifted to later periods when the violation costs are lower.)

<table>
<thead>
<tr>
<th>Period</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>5</th>
<th>10</th>
<th>100</th>
<th>101 ff.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original cost</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>50</td>
<td>50</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Discount</td>
<td>-</td>
<td>1%</td>
<td>2%</td>
<td>4%</td>
<td>9%</td>
<td>99%</td>
<td>100%</td>
</tr>
<tr>
<td>Resulting cost</td>
<td>100</td>
<td>99</td>
<td>98</td>
<td>48</td>
<td>44.5</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>
New Parameter for Minimum Transport Handling Policy

• This new parameter, available in the Primary Parameters section of the S&OP Operator Profiles app, lets you control synchronization of the Minimum Transport Supply and Minimum Transport Receipts input key figures.

• Now you can choose to sync them automatically by selecting Coupled, instead of manually having to enter the quantity that leaves the ship-from location in Minimum Transport Supply for the respective period, and the quantity that arrives at the ship-to location in Minimum Transport Receipts for the respective period.

• The default behavior is that these key figures aren't synchronized automatically as Uncoupled is the default, so make sure you choose Coupled to sync them automatically.
Lot-Sizing Procedure Enhancement

• You can now exclude dependent location demand and dependent production demand when using the static and dynamic periods of supply lot-sizing procedures.

• You do this in the Location Product master data type by setting the IGNOREDEPLOCDemand (Ignore Dependent Location Demand) attribute or the IGNOREDEPPRODDemand (Ignore Dependent Production Demand) attribute (as appropriate) to X.
S&OP Key Figure Configuration Checks Now Raise Errors for All Customers

S&OP Key Figure Configuration Checks Will Raise Errors for All Customers in 1911

The following S&OP operator checks introduced in 1902 as warnings, converted to errors for new customers in 1905, and remaining as warnings for existing customers in 1908, have now been converted to errors for existing customers too:

✓ Key figures that you marked as input/output for supply planning during model configuration are valid for the S&OP operator.
✓ Each planning level's key figure root attributes are correct and consistent.

If you are an existing customer and, as a result of these checks, you see such error messages after the upgrade to 1911, you must take action to adjust your planning areas. The corrective action for each of the following message is in the long-text of the application logs for S&OP operator.

- Key Figures Not Recognized
- Attribute Not Expected in Key Figure's Base Planning Level
- Attribute Missing from Key Figure's Base Planning Level

16 September 2019 | Product Webinar | SAP IBP – Customers Impacted by Sales & Operations Planning Operator Warnings [PDF] | [Recording]
Demand Planning

Rainer Moritz
Aggregated lifecycle planning respecting phase-in/out on detailed level:

- Adapt statistical forecast created on aggregated level, such as product group level, according to the phase-in/out settings defined on product/launch dimension level.
- New option can be switched on in the forecast model:
**Statistical Forecasting: Product Lifecycle Management (2/2)**

**Aggregated lifecycle planning respecting phase-in/out settings on detailed level**

**Example:**
- Statistical Forecast is executed on level Product Group/Country
- Product Prod\textsubscript{new} within Product Group A is new, therefore Product Lifecycle settings are maintained
  - Launch dimension is “Country”, means forecast start and phase-in settings are maintained country specific
  - Phase-in start for Prod\textsubscript{new} in country 1 is defined for Jan 2020

**Steps during statistical forecast execution for Product Group A/Country 1:**
- Execute statistical forecast for Product Group A/Country 1
- Disaggregate this forecast “internally”
- For product Prod\textsubscript{new}:
  - Read disaggregated forecast on level Product ID / Launch Dimension = Prod\textsubscript{new}/Country 1
  - Apply Product Life Cycle Settings => Forecast before Phase-in start is removed
- Save and disaggregate the forecast
Clean sales history from promotion impact

- Enhance the promotion elimination preprocessing step to run in **monthly** time granularity (up to now only daily and weekly time granularity were supported).
Forecast Change Point Detection

Level shift 1
Apr 19
Magnitude of Level shift: 40%
Realignment
Manage Realignment Rules App

Enhanced Usability of Key Figure Selection

- You can use the following options to select key figures:
  1. All Key Figures
  2. All Key Figures Except Conversion Key Figures
  3. All Key Figures Except Selected Key Figures
  4. Selected Key Figures

- For options (3) and (4), one or several key figures can be selected in the Key Figures field.

- The list of key figures that can be selected is restricted according to the attributes used in the attribute mapping. Therefore, you need to define the attribute mapping before selecting key figures.
Demand Sensing

Mehmet Demirci
Demand Sensing: Enhanced Algorithms in 1911

Preprocessing: Promotion Elimination (PE)

- PE logic has been enhanced to better quantify baseline demand for Demand Sensing. This helps pattern recognition detect the short term forecast bias more accurately and prevents "over-correcting" for bias in the sensed demand calculation.
- New Product Introductions (and reference-target product mappings) in Demand Sensing are now consistently applied during PE when run together with Demand Sensing – accurately mapping and calculating baseline sales data for new products.

Machine Learning & Pattern Recognition

- Even faster run times for Demand Sensing runs
- Enhanced logging: Demand Sensing will now log & skip demand streams with problem data (e.g., duplicate data, odd data combinations creating numerical issues, etc.) instead of failing entire run.
- Problem demand streams will be logged along with what the issue was and what default values were used to complete the run.
- Forecast Model enhancements for balancing and open-order matching

Postprocessing: Balancing & Open-Order Matching

- With postprocessing: Promotional impacts and baseline demand balanced!
- Large orders!
- Big promotion
- Open Orders
- Sensed Demand
- Promotions
- Baseline Consensus Demand

Without postprocessing

- Without postprocessing
Summary: What’s New in Demand Sensing in IBP 1911

Fine-tuning of the End-to-End Algorithm – for better sensed demand accuracy

- Promotion handling and post-processing capabilities in Demand Sensing have been enhanced
  - Promotion Elimination logic has been enhanced to better quantify baseline demand for Demand Sensing. This helps pattern recognition detect the short term forecast bias more accurately and prevents “over-correcting” for bias in the sensed demand calculation
  - Even if promotions are modeled at a weekly level, Demand Sensing is now able to make individual daily adjustments to sensed demand due to promotional plans
  - New Product Introductions (and reference-target product mappings) in Demand Sensing are now consistently applied during Promotion Elimination when run together with Demand Sensing – accurately mapping and calculating baseline sales data for new products
- For New Product Introductions in Demand Sensing, Product ID as a launch dimension (to assign forecast and launch dates) is now supported
- Balancing & open order matching post-processing logic has been fine-tuned

Enhanced performance and logging:

- Even faster run times for Demand Sensing Full runs: our tests have shown sizeable improvements in Demand Sensing run times on average
- Demand Sensing will now log & skip demand streams with problem data (e.g., duplicate data, odd data combinations creating numerical issues, etc.) instead of failing entire run. Problem demand streams will be logged along with what the issue was and what default values were used to complete the run
- Enhanced technical checks and log messages with actionable information for users – including checks on helper key figures for UoM handling

Change History Snapshot type discontinued:

- You cannot use Change History snapshots anymore for demand sensing: Users won’t be able to configure or upload change history snapshots anymore. Nor will they be able to take new change history snapshots. Any planning areas where change history snapshots were already configured should be re-configured to use lag-based snapshots.

Forecast Model enhancements for balancing and open-order matching:

- Ability to define default values for balancing and open-order matching parameters (overwrite of defaults for individual combinations still possible)
- Ability to turn off balancing and open-order matching (for customers who have sophisticated forecast consumption logic that kicks in after and outside of Demand Sensing)
Forecast Model Enhancements for Balancing and Open-Order Matching

- Forecast Model app now allows users to set Balancing & Open-Order Matching settings
- Forecast Model screen for Demand Sensing Full and Update algorithms will now also include the following fields:

  - **Disable Balancing and Open Order Matching:**
    - [ ] If this checkbox is checked, Demand Sensing will not run its balancing & open order matching steps that are a part of its postprocessing logic.
  - **Default Uplift Balancing Periods:** 2 Weeks
  - **Default Baseline Demand Balancing Periods:** 1 Weeks
  - **Default Maximum Baseline Demand Balancing %:** 40%

  Represents the % of demand forecast the baseline demand balancing logic is allowed to consume during "edge" weeks (i.e., the weeks on the outer ends for Baseline Demand Balancing Periods or Base Bucket Length)

  Represents the number of weeks backward and forward the user wants to let the algorithm go from a week with planned promotions to associate high sales signals with planned promotions and balance the impact of promotions across the periods where they may impact sales. May also be referred to as the Uplift Bucket Length.

  Only editable in the Promotion Elimination Forecast Model screen

  Represents the number of weeks backward and forward the user wants the algorithm to go for every week in the planning horizon while running forecast consumption to balance baseline demand by analyzing oversell-undersell patterns. May also be referred to as the Base Bucket Length.

- Before 1911, these settings could only be set up by creating customer Master Data types (i.e., DSSETTINGS). Individual overrides for these Forecast Model settings are still possible through the use of DSSETTINGS master data uploads
Sales & Operations Planning
Raghav Jandhyala
Driver Based Planning - Embedded Charts for Driver Analysis

To help planners better understand the potential impact of the drivers and analyze which Drivers to include in plan.

- Associate one or more Analytics Charts and/or Alert Charts to a Driver Planning View
- For example, Top 5 Opportunities, Consensus with Risks and Opps, Risks above Threshold Alert
- Charts are filtered based on Planning View filters
- Navigate to Analytical Charts or Monitor Custom Alerts App
- Table/Chart view, Zoom In/Out. Full Screen and Chart Caching
Mass edit one or more Driver Attributes directly in the data grid

Asynchronous save of changed Driver Attributes

UI shows pending Driver updates and automatically refreshes when updates are completed

Drag and drop attribute values; Drop-down lists for selection directly in the grid.

For example, Include Budgeted and High Prio Opportunities to the Plan; Carry forward to next cycle.
Driver Based Planning - Other Enhancements

Version Support

- Create Drivers for versions other than the base version
- Only one version can be selected when creating a Driver Planning View

Permissions Support

- Attribute Permissions – Only attributes for which the user has permissions are displayed.
- Permission Filters – Key Figures editability based on attribute values is now supported.
Step Sequence Definition in Manage Processes App

- Allows planners to define the display sequence of the process steps, without having to change the Relative Start Dates and Duration.
- Especially useful for the display sequence of parallel steps.
Process Automation: Flexible definition of Previous Step

- Provides additional flexibility to explicitly define the Previous Step in addition to the date-based determination of the previous step.

For example,

- Step 2A starts automatically when Previous Step 1A is completed
- Step 2B starts automatically when Previous Steps 1A and 1B are completed

- Especially useful for modeling dependencies on parallel steps
- If Previous Step is not specified, the step dates are used to determine previous step.
Order-based Planning
Ralf Heimburger, Andrew Boyle, Claus Bosch
Multiple Source support within Order-Based Planning
Multiple Source Integration into Individual Planning Areas (available with IBP1905)
Multiple Source Integration into a Common Planning Area (available with 1911)
Master data & transactional data from the same source system

* Data is harmonized before the integration to IBP
Multiple Source Integration into a Common Planning Area (available with 1911)
Master data from central source & transactional data from other source systems

* Data is harmonized before the integration to IBP
Example: Multi-ERP Integration as of 1911
Enhancements in Integration Profiles App

Functionality:

- Assign planning area to integration profile
- Add new logical system(s)
  - New logical system is added to same integration profile
- Replace logical system
  - Logical system is replaced by new logical system.
- Remove logical system
  - Base version and all planning versions referencing the base version must be cleared beforehand (e.g. integration job with flag: Erase Prev. Integrated data)
Enhancements in Apps

- All relevant OBP apps are enhanced with the *Logical System* attribute.
- For example, the Apps "View Location Materials", "View Projected Stock"
Inbound Quota and Alternating Source of Supply Selection
Modes for Source of Supply Selection

Source of Supply Selection by Priority

- **Heuristic**
  - Behavior: Only if demand cannot be fulfilled using the highest priority source of supply, the planning switches to the next Source of Supply according to priority
  - Relevant for finite and infinite supply chain levels, as a source of supply can be constrained on the upstream levels of the supply chain
- **Optimizer**
  - Source of Supply decision is done based on the overall procurement costs defined for the upstream supply chain.

Source of Supply Selection by Inbound Quota

- **Heuristic**
  - Behavior: Choose source of supply that fulfills the Inbound Quotas the best.
  - Mainly relevant for infinite supply chain levels, for which no other criteria exist to level the supply on multiple sources of supply
- **Optimizer**
  - Behavior: Inbound Quotas are an additional soft constraint which can be violated weighted by cost.

Alternating Source of Supply Selection

- **Heuristic**
  - Behavior: Instead of using the highest priority source of supply, consuming constraints on this level for the full horizon, planning switches to lower priority sources of supply which can fulfill the demand nearer to the demand.
  - Only relevant for finite supply chain levels. For infinite supply chain levels, planning will behave as for Source of Supply Selection by Priority.
- **Not relevant for Optimizer**
The mode that should be used for source of supply selection is defined by the Source of Supply Selection Profile in IBP.

Source of Supply Selection Profile needs to be replicated manually (ID and description) to S/4-/ ERP Add-On using transaction “Profile Maintenance” (/IBP/ECC_MDSET).

The Source of Supply Selection Profile is assigned to the location material in S/4-/ ERP Add-On using transaction and integrated to IBP via in openAPI.

If no Source of Supply Selection Profile is assigned to the location material then planning will use Source of Supply Selection by Priority (same behavior as in 1908).
How to setup Source of Supply Selection by Inbound Quota in IBP?

Define a Source of Supply Selection Profile with profile type “Quota”

Define in the Quota Settings the period type, for which the quota split should be achieved (any period types from time profile can be used, but not mixed)

Source of Supply Selection by Inbound Quota cannot be mixed with other modes for Source of Supply Selection.

Quota Key Figure Maintenance and Normalization:

- Via the minimum & maximum key figures define the ratio between the sources of supply, how they should be used to fulfill the demand per period.

- Inbound quotas are defined as percentage, means values between 0 and 1.

- Sources of supply without a minimum and maximum inbound quota defined for the relevant period are not considered in inbound quota handling nor normalization.

- If the sum of all minimum inbound quotas is greater than 1, then the minimum inbound quotas will be normalized. This means all ratios will be reduced proportionally so that the sum equals 1 afterwards. Null values are considered as 0.

- The same normalization holds for maximum inbound quotas, and: negative values are considered as 1. Null values are considered as 1 (but only if a minimum quota is defined).

- Inbound quota is always applied on the net output quantity of the supply element without scrap.
The heuristic as well as the optimizer are calculating the deviation between the planned and fix supply per source of supply and the inbound quotas given by the key figures. This calculation considers min and max inbound quota key figures.

**Heuristic**

- Supply is created for the source of supply which minimizes the deviation to the inbound quotas.
- Supply for one demand quantity is not split up by inbound quotas, but planning tries to fulfill the demands by one supply element using one source of supply. However, if demand can not be fulfilled by one supply element because of lot sizes constraints or manual adjustments, then the additional supply elements might be created for other sources of supply to minimize the deviation to the inbound quotas.
- Inbound quotas are no constraint, but only a way to select the best source of supply. Inbound quotas do not restrict the fulfillment of independent demands. Inbound quotas will be violated, if constraints restrict the planning.
- Sources of supply without a minimum and maximum inbound quota defined for the relevant period are considered with lowest priority. These sources of supply will only used, if supply cannot be created for any of the sources of supply with inbound quota maintained.
- Delivered quantities are considered to balance quota ratio for further demands.
Planning Behavior of Source of Supply Selection by Inbound Quota

**Optimizer**

- Inbound quotas are considered as a soft constraint.
- Cost are defined in the planning run profile, either as penalty cost value or calculated by the system, to achieve pseudo-hard constraint.
- Optimizer might split supply for a single demand on multiple sources of supply to achieve a minimum distance to the inbound quotas.
- Sources of supply without a min and max inbound quota defined for the relevant period are considered with lowest priority. These sources of supply will only used, if supply cannot be created for any of the sources of supply with inbound quota maintained.
- Delivered quantities are considered to balance quota ratio for further demands.
Remarks and Limitations

Inbound Quotas may be violated in post processing in some cases:
- Projected Stock polishing (order shift), Safety Stock, Lot Size polishing, Order Merge

Different behavior in comparison to S&OP optimizer
- OBP: Sources of supply without a minimum and maximum inbound quota defined for the relevant period are considered with lowest priority. These sources of supply will only used, if supply cannot be created for any of the sources of supply with inbound quota maintained.
- S&OP would use these sources of supply assuming minimum inbound quota = 0 and maximum inbound quota = 1.

Using inbound quotas for sources of supply with constraints, calendars, validities, … so that supply is created at different dates for the sources of supply might result in unexpected planning results.
- Heuristic choose the source of supply which achives the quota the best even if different quota periods might be affected.

No split of lots enforced by inbound quotas in heuristic
- Global engine parameter to force split of supply. Relevant for huge, sporadic demands w/o fair share and lot size

No integration of Quota Arrangements from S/4 or ERP to IBP

See EKT materials for more details and examples…
How to setup Alternating Source of Supply Selection in IBP?

Define a Source of Supply Selection Profile with profile type “Priority or Alternating”

Define in the Selection Mode Settings a range of source of supply priorities for which alternating Source of Supply selection should be used

Alternating Source of Supply Selection can be mixed with Source of Supply Selection by Priority

- In the example on the right hand side, planning would use in a first step only sources of supply with priority less then 10.00 to fulfill the demand using the sources of supply strictly by priority.
- Only if this is not possible, then planning would use source of supply with a priority between 10.00 and 19.99 to fulfill the demand using alternating source of supply selection.
- If the demand still could not be satisfied, then planning would use all remaining sources of supply according to their priority.
Planning Behavior of Alternating Source of Supply Selection

Heuristic

- Behavior: Instead of using the highest priority source of supply, consuming constraints on this level for the full horizon, planning switches to lower priority sources of supply which can fulfill the demand nearer to the demand.
  - Planning creates supply using the Source of Supply with highest priority.
  - If the supply cannot be created at the requested, but only earlier e.g. because of resource capacity, then planning tries to fulfill the demand using lower priority sources of supply nearer to the demand date.
  - Sources of supply are considered according to the priority.
  - Planning switches to lower priority sources of supply if the pre-build is more then 24:00h.
    - If the demand cannot be fulfilled within 24:00h earlier than the requested date by any source of supply, then the procedure is repeated with 48:00h, 72:00h, ….

- Only relevant for finite supply chain levels. For infinite supply chain levels, planning will behave as for Source of Supply Selection by Priority.

Not relevant for Optimizer

See EKT materials for more details and examples…
Shipping/Receiving/Transportation Calendar

With IBP1911 Order-based planning supports separate calendars for transportation (transportation calendar), goods issue (shipping calendar), and goods receipt (receiving calendar).

Shipping/receiving calendar/transportation calendar

Shipping/receiving calendar at the location (location/material) have the purpose for scheduling the duration of the goods issue/receipt times considering non-working days.

You can also maintain the transportation calendar on the level of the mode of transport or on the transportation lane/product. Purpose of the calendar is scheduling the duration of the transportation times considering non-working days.

You need version OpenAPI 1911 to assign the newly supported calendars and integrate.
Activities and Calendar (IBP1911)

**Planned Order**
- Production Activity/Activities
- GR Activity

**Transport / Purchase Req**
- GI Activity (= 0)
- Transport Activity
- GR Activity

**Factory Calendar**
- Receiving Calendar = Factory Calendar

**Shipping Calendar**
- Transportation Calendar

**Receiving Calendar**
New App for Viewing Planning Calendars

If you have assigned factory calendars in your SAP ERP or SAP S/4HANA on-premise system for use as factory, shipping, receiving, or transportation calendars in order-based planning, these are integrated into IBP via SAP HANA Smart Data Integration. When you start to use SAP Integrated Business Planning 1911, planning calendars are created based on these integrated factory calendars.

You can use the new Planning Calendars app to display planning calendars. Using this app, you can view the number of working and non-working days in the current and previous years, and display workday-related details of the factory calendar on which the planning calendar is based.
New Demand Prioritization
Demand prioritization rules work as a sequence of demand prioritization segments. The prioritization of demands happens as follows:

- On a rough basis by placing the demands in different segments
- On a granular basis within these segments according to the sort attributes or the fair-share set profile
Create Planning Run Profile – Demand Prioritization Rules

A Demand Prioritization Rule consists of multiple segments:

- Pre-Allocation Segment covers all demands that need to be treated by default with highest priority (e.g. delivery demands types)
- 1-n Segments that define priority of demands
- The Catch-All Segment covers all demands that aren’t allocated to higher prioritized segments already

You have two alternatives for setting the Pegging strategy:

- Prefer just-in-time supply
- Prefer stable supply

As an alternative for using sort attributes to determine the sequence of segment demands you can also use the Prioritization Type „Demand Fair-Share Segment“
View Demands by Priority App / Planning Run Jobs

In contrast to the old View Demands by Priority App (to be deprecated) you need to select the planning run profile and Planning start date / Time Zone.

Job template

The Planning Run Profile is now a mandatory field.

Make sure that Demand Prioritization Rules for used Planning Run Profiles are configured.
Way Forward

As currently planned the following Apps and Job Templates won’t be available anymore after the Upgrade to IBP 2005:

- Rules for Demand Prioritization – App to be Deprecated
- View Demands by Priority – To be Deprecated
- Jobs: To be Deprecated – Deployment, Constraint Forecast, Confirmation (all also “as Operator), Constraint Forecast Using Optimizer

Consequences

- All customers just starting to configure the Demand Prioritization shouldn’t use the above mentioned Apps/Jobs
- All customers who are using the Apps/Jobs today need to re-configure the rules based on the new solution and start using the new Apps/Jobs
Enhancements
Flexible Periodicity

New period settings have been introduced. The new settings will enable to see the relevant dates also in other periodicities (e.g. weeks). The columns can be selected/deselected if needed.

The period settings have been introduced for Fiori Apps “View Projected Stock”, “Analyze Supply Usage”.

![Image of Fiori App for View Projected Stock](image-url)
Inventory Optimization

Alexis Lozada
Plan inventory with Unit of Measure conversion

- Plan inventory for finished goods, work in process and raw material, using applicable units of measures.
- Quantity-based input key figures listed below must have inputs using the same base unit of measure:
  - IOFORECAST, IOSALES
  - IOMINSTOCKREQUIREMENT, IOMAXINVENTORY
  - TMINLOTSIZE, TINCLOTSIZE, TROUNDING
  - PMINLOTSIZE, PINCLOTSIZE, PROUNDING
  - OUTPUTCOEFFICIENT, COMPONENTCOEFFICIENT
- KPI Profiles created in the Manage Forecast Error Calculations for Inventory Optimization app must be updated with a Target UoM input for accurate calculation of forecast error measures, e.g., Mean Absolute Deviation (MAD).
- Support of unit of measure conversion include significant mandatory changes in the SAP3 sample model:
  - Addition of UOMTO and UOMCONVERSIONFACTOR master data types
  - 7 new planning levels with UOM To master data
  - 23 Helper Key Figures with HCONV prefix for conversion transformation of input key figures.
  - Addition of UOMCONVERSIONFACTOR attribute to quantity-based input and output key figures.
  - Modification of Request calculation of quantity-based input and output key figures.
Improved inventory targets during demand ramp-down and phase-out periods

- Inventory Targets align to same periods when demand ramps down temporarily due to seasonality and/or phases out of from plans.
- Algorithm automatically detects periods of demand ramp-down and/or phase out and new Key Figures indicate when inventory targets are adjusted to such periods:
  - Demand Ramp-Down Indicator: DEMANDRAMPDOWNIND. Detected on a period t when the period’s demand falls below a threshold proportional to the demand moving average. Once detected, the demand ramp down period is at least as long as the exposure period (lead time plus periods between review).
  - Demand Phase-Out Indicator: DEMANDPHASEOUTIND. Detected when all consecutive periods have zero demand including the end of the planning horizon.
- A technical global configuration setting is required:
  - Parameter group: INVENTORY
  - Parameter name: SCAL_HANDLE_DEMAND_RAMP_DOWN
  - Parameter value: NO, YES. If setting not configured, or any other value provided, default Parameter Value: NO
Use Attribute Filter in Excel UI Planning View for Inventory Optimization Simulation and Scenario

- Improve run time and memory usage for Simulation and Scenario when an Excel UI Planning View includes Attribute-Based Filters.
- Attribute-Based Filter selections in the Excel UI Planning View will link to corresponding attribute IO Network ID outputs, hence:
  - the planning area configuration must include the IO Network ID attribute, including planning levels with LOCATIONPRODUCT master data,
  - a baseline batch run of Global (multi-stage) inventory optimization planning must be completed successfully.
- Feature benefit will not apply if Attribute-Based Filter selections result in more than 200 linked IO Network IDs.
- Log messages will indicate when Attribute-Based Filters are not applied to a Scenario or a planning view contains invalid combination of planning unit filter and planning view filter.
- For technical users, a global configuration setting is available for support cases when users are not sure or satisfied with results:
  - Parameter group: INVENTORY
  - Parameter name: USE_PLANNING_VIEW_FILTER
  - Parameter value: NO, YES. If setting not configured, or any other value provided, default Parameter Value: YES
Simplify master data consumption of lot-size rounding values for transportation and production receipts

- Simplify inputs for lot size-rounding for transportation and production for customers with IBP for supply and inventory implemented.
- SAP3 sample model adopts attributes TROUNDING in Master Data Type SOURCELOCATION and PROUNDING in Master Data Type SOURCEPRODUCTION, already used in IBP for supply sample model.
  - Providing inputs for TROUNDING and PROUNDING replaces the requirement to provide inputs for existing attributes as key figures TINCLOTSIZE and PINCLOTSIZE, respectively.
  - Inputs for TROUNDING and PROUNDING will have the same effect in inventory optimization as inputs for TINCLOTSIZE and PINCLOTSIZE.
  - The inventory optimization still consumes inputs for TINCLOTSIZE and PINCLOTSIZE if TROUNDING and PROUNDING have no inputs.
- Adoption of TROUNDING and PROUNDING will apply to planning operators:
  - Global (multi-stage) inventory optimization
  - Calculate Target Inventory Components
  - Decomposed (single-stage) inventory optimization
Improved job resiliency when processing erroneous input data in SAP IBP for inventory

- SAP IBP for inventory algorithm prevents interruption of inventory planning cycle by completing optimization runs in presence of partial erroneous input data.
- The algorithm excludes the partial erroneous input data related to a sub-network or sub-networks and continues the optimization run for inputs of remaining sub-networks.
- If erroneous input data exist for all networks, the algorithm will fail.
- User logs are exposed indicating:
  - warnings for sub-networks with erroneous input data,
  - Errors when all networks have erroneous input data.
- Examples of user logs:
  - “No outputs for exception in network for Product ID 1 and Location ID 2”
  - “Inputs for all networks could not be processed. No outputs returned”
- Job resiliency is supported by planning operators:
  - Global (multi-stage) inventory optimization
  - Calculate Target Inventory Components
  - Decomposed (single-stage) inventory optimization
Added ease of use features for Fiori Supply Chain Network

- Layout drop-down button to render networks charts horizontally or vertically.
- In chart tool tip when hovering over arc/node, display:
  - attribute description for data model attributes: LOCID, PRDID, LOCFR, SOURCEID,
  - UOMTOID for applicable key figures,
  - CURRID for applicable key figures
- Display UOMTOID and CURRID for applicable key figure values in heat map legend.
Demand-Driven MRP (DDMRP)

Atul Bhandari & Poorya Farahani
SAP IBP for demand-driven replenishment
End to End Coverage of the Demand Driven MRP Process

DDMRP is an end-to-end closed loop process covering modelling (step 1-3), planning (step 4) and execution (step 5)

Source: Demand Driven Institute
Algorithm UI Design
Manage DDMRP Profile App

- With 1911, all DDMRP operators can be created/assigned, revised and deleted via the new Manage DDMRP Profiles app.
- With the new ADU operator, planners can schedule a job to re-calculate ADU every day (or on ad-hoc basis)
- The new operator provides more flexibility in terms of which inputs to be used for the calculation, the detail of calculation algorithm, and how the output should be stored.
- Further, this operator calculates CoV, removing the need to run a separate forecast error operator, as was the case in previous releases.
Algorithm UI Design
ADU Profile Structure

➢ Four sets of parameters should be maintained:

- Backward calculation inputs
  - Historical Demand Signal
    - Input Key Figure: DObLINDDEMANDPOAGU
    - Input Horizon Attribute: AQUPASTHORIZON
    - Input Horizon Default: 21
    - Historical Offset: 0

- Forward calculation inputs
  - Future Demand Signal
    - Input Key Figure: DObLINDDEMANDPOAGU
    - Input Horizon Attribute: AQUFUTUREHORIZON
    - Input Horizon Default: 21

- Output ADU Setup
  - Average Daily Usage
    - Output Key Figure: DOUTPUTADU
    - Rolling: Yes
    - Calculation Horizon: 100
    - Replace Nulls with Zero: No
    - Disregard Leading Nulls: Yes

- Output CoV Setup
  - Coefficient of Variation
    - Output Key Figure: DOUTPUTADUCOV (Demand Coefficient of Variation)
    - Input Horizon Attribute: COVHORIZON
    - Replace Nulls with Zero: No
    - Input Horizon Default: 21

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ADU Calculation

Usage of ADU operator and push-planning capability for local ADU calculation

Average Daily Usage

Flexible calculation of ADU with the new operator supporting both static and rolling calculation of ADU, Null handling, offsetting (for reading input and writing the output), and the calculation of CoV.

ADU Calculation for Components

For every buffer, pull orders are generated for execution and push orders are generated for planning. ADU is calculated based on the past consumption and planned demand (forecast or (push-based) dependent demand) for every product-location according to the given setup in the ADU operator.
Algorithm Concept
Running via Excel vs. Application Jobs

➢ **Note:** ADU operator like other DDMRP operators can be triggered both from Excel or from the application jobs.

➢ When running from Excel, the planner needs to select at least one of the existing subnetworks for the job to be run.

➢ In 1911, running ADU via filter is only possible via sub-network selection.
Strategic Inventory Positioning and Buffer Sizing

Step 1 – Strategic Decoupling

- It has to be decided where inventory buffers should be positioned within the product structure and supply chain
- Primary question to be answered before sizing the inventory
- Related to BOMs as well as facilities

Factors influencing location of decoupling points:

- Customer tolerance time
- Market Potential lead time
- External & internal variability
- Sales order visibility horizon
- Inventory leverage and flexibility
- Critical operation protection
Buffer Positioning

Usage of User Input in determining the decoupling points across the supply chain

User Defined (non)decoupling points

Users can upload an attribute that pre-sets the decision for (non)decoupling point setup at specific location-products.

Recommend Decoupling Points Operator

The recommend decoupling point operator takes the user defined settings into account and will set the decoupling points in the rest of the supply chain where necessary.

Further, the recommend decoupling points algorithm is improved in 1911 to position buffers more effectively.
 Execution of orders in DDMRP is based on buffer priorities. However, buffer priority is only calculated for buffers. Thus prioritization of orders on non-decoupling points depends on the priority of the buffer that is to be served from the non-decoupling point.

 With 1911, a new operator is designed to map every product-location to its first downstream buffer.

 With this information, prioritization of orders on non-decoupling points can be done based on the information about the buffer that is served by them.
Map to Target Decoupling Points
To support prioritization of orders

New Master Data added to SAP8
The operator results are stored in attributes of the newly defined Master data.
We recommend to rerun the operator with any change in status of buffer positions.

Review of decoupling points mapping
Decoupling points mapping is stored and can be reviewed in the master data attributes upon running the operator.
With ever run, the table is deleted and regenerated to reflect the current status of the mapping
This table is also integrated via CPI-DS to ERP and can be viewed there.
In 1911, mapping between every prod-location with its immediate next downstream decoupling point is integrated from IBP to further support priority based scheduling/execution of orders.
Demand-Driven Replenishment: Order Generation
Uploaded Data for DDMRP Heuristics in ERP

- The two fields under external interface allows reviewing the status of individual plant-materials based on the uploaded data from IBP into the two ERP staging tables:

- Demand driven material shows all prod-locs in scope for DDMRP indicating decoupling points and their DLT and their existing (not converted) order recommendation

- Note that order rec column is cleared after every DDMRP run

- With the next integration job new order recommendations will be uploaded to this table

- In 1911, buffer status along with the color code are further integrated from IBP to support priority based execution of orders
Visibility and Collaboration
Step 5 – Project On-hand Status via the Excel Template

Inventory Projection Within and Outside the DLT

In 1911, push supply elements are calculated outside the DLT within ERP and integrated back to IBP as non-confirmed supply orders.

This allows inventory projection to be calculated within and outside the DLT, by summing over the confirmed and non-confirmed supply orders and deducing the total expected demand in each period.

Execution Monitoring / Alerting: when projected inventory goes deep in the red zone, the planner might start thinking of options to expedite existing supply orders
Scenarios

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

Use Filters to narrow down objects for modeling decoupling point decisions
In 1911, it is possible to run DDMRP buffer analysis app on existing planning filters, as well as Ad hoc filters.

Ad hoc filters can be applied to an existing planning filter to further restrict the selection set.

However, Ad hoc filters defined on the DDMRP Buffer analysis app cannot be stored for future use.
SAP Best Practices for SAP IBP – 1911 Update
Andreas Munk
New scope and changes in V17.1911

- Technical upgrade to SAP Integrated Business Planning 1911
- The *IBP for demand-driven replenishment – strategic buffer positioning* and *IBP for demand-driven replenishment – buffer setup and adjustment* scope items have been updated using the new planning operator for ADU calculation.
- The *IBP – time-series-based inbound integration with SAP S/4HANA* scope item has been enhanced with the following master data: currency, exchange rate, production resource, and minimum production receipts.
- The order-based planning scope items have been updated using the Planning Run Profile for the prioritization rules.
- The *IBP for response and supply – supply review – optimize* scope item has been enhanced with a new planning view for cost rates.
- A new Tips and Tricks document titled Driver-Based Planning describes how to include driver-based planning into the sales and operations planning process.
- A new Tips and Tricks document titled S&OP License only describes which SAP Best Practices content you can use and how you can use it when you only have an S&OP license. This document is only available for partners.
- Remodeled inventory key figures in SAPIBP1 by adding UoM conversion
- Added new key figures and a new calculation to SAPIBP1 to keep in sync with SAP3 (Inventory)
Planning Run Profile

- Defines rule-based settings for planning runs
- Independent from planning area
- Maximum Lateness Rule
- Cost Rule
- Preconfigured Profile for Fair Share and Inventory Cost

Scope items

- IBP for response and supply – supply and allocations planning
- IBP for response and supply – response planning
- IBP for response and supply – deployment planning
SAP Best Practices for SAP Integrated Business Planning

Where to get it

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

Download the following assets:

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

Model Configuration

Balazs Buday
Adding a (new) attribute to **multiple** PLs was never so easy!

You can add the new attribute right after assigning it to the PA...

... or you can assign it later.
The assignment dialog groups the planning levels by the MDT presence and even supports you with analyzing the calculation chain and the attribute sourcing criteria to meet in the related calculations.
If a valid KF@PL form is originated from an **attribute transformation**, the system marks it with this icon and helps the understanding with a popover.
Valid attributes in the calculation expressions are color-coded and have a popover available for them.
Not-yet-existing or deleted calculation inputs are marked with orange to grab attention.

Later, when you define or fix the incorrect calculation inputs, the system automatically displays them as „normal”.
Depending on **Base Planning Level** and **Convert Using** characteristics, the system tries to identify the **Conversion Planning Level** used for standard UoM and Currency modeling.

If **Conversion Planning Level** is successfully identified, the system **proposes it and prepares** the standard calculation in the calculation editor to speed up standard UoM/Curr conversion modeling.
When you validate a calculation, the system checks the attribute set present on the input and output side required for successful Activation.
You can freely tag your KFs, creating your own categories. It does not inactivate the Planning Area.

Use your #tags for easy KF filtering.
The Disaggregation Expression now has code completion and a Validation to prevent and catch errors early (IBP 1911).
For experimental purposes, we plan to include „Focus Mode“ for IBP 1911, where you can quickly jump between key figures for mass maintenance.

It’s feature set will be enhanced in 2002, and any feedback is welcome here.
Normalized Data Model and its Prerequisites

Gabor Mittweg
Normalized Data Model – Introduction

What is it?
• No change in processes or in functionality
• Data is stored on planning level instead of planning area

Why is it done?
• Less data to be processed using the normalized data model
• The normalized data model will reduce memory consumption
• Normalization will improve performance, robustness and scalability
Switching to a Normalized Data Model

PL Roots

 STORED KEYFIGURES FOR EACH PLANNING LEVEL

TIME PERIOD

Level 1

Level 2

Level 3

Level n

Time Period Data

PERIODID

Level 1

A

Level 2

A

Level 3

A

...
Roadmap to normalization

How to get your system normalized?
• Systems provisioned with IBP 1908 use the normalized data model
• Existing systems will require data migration
• IBP migration team will inform selected customers and align on the schedule and details
• Data migration to normalized tables is planned to start with IBP 2002

Prerequisites of data migration
• Enhanced version of Activation (ABAP-based calculation scenario generation) >> The enhanced version of the planning area activation has been enabled for all customers as of IBP 1911
• Using HANA Calculation View as the data source of the calculation scenario >> Managed by SAP
• No errors reported by the planning model check function

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

**Suggested house-keeping:** delete obsolete or unused

- planning areas,
- master data and
- data from the planning area

Clean up reduces the number of modeling issues to be fixed and as a result there is less data to be migrated.

**Meet modeling requirements of normalized table structure**

- Five suppressible errors are introduced in IBP 1911, for more information, see section *Checks for Stored Key Figures Read from Incompatible Input Planning Levels* in section *Model Configuration*.
- Active instance of the planning area shall comply to the latest modeling requirements. It will be reactivated after data migration.
- Key figures that you marked as input/output for supply planning during model configuration must be valid for the S&OP operator, for more information, see section *S&OP Key Figure Configuration Checks Now Raise Errors for All Customers* in section *Time-Series-Based Supply Planning*.
Normalization related suppressible checks

List of normalization related suppressible validation checks:

• Input Planning Level Has More Attributes than Base Planning Level
• Input Planning Level Does Not Contain All Root Attributes of Base Planning Level; Calculation Doesn't Exist
• Input Planning Level Does Not Contain All Root Attributes of Base Planning Level; Calculation Exists
• Input Planning Level Does Not Contain All Root Attributes of Base Planning Level; Calculation Is Not Used
• Stored Values of Key Figures, with Different Base Planning Levels, Are Read from the Same Planning Level
Time Series Based Integration using CPI-DS
Time Series Based Integration

Data Flow

SAP CPI-DS:
SAP Cloud Platform Integration for data services, formerly known as:
SAP HANA Cloud Platform, integration service for data services (HCI-DS)

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# Pre-Packaged Content for Periodic Data Transfer of Master Data from Add-On for S/4 HANA On Premise and ERP to Unified Planning Area

<table>
<thead>
<tr>
<th>Object</th>
<th>Template</th>
<th>Data Flow</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning Unit</td>
<td>IBP_MD_S4_ERP_AddOn</td>
<td>IBP_MD_PlanningUnit_AddOn</td>
<td>Hard-Coded Best Practices Content</td>
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<tr>
<td>Customer</td>
<td>IBP_MD_Customer_AddOn</td>
<td>IBP_MD_Customer_AddOn</td>
<td>Extractor /IBP/LOCATION_ATTR</td>
</tr>
<tr>
<td>Location</td>
<td>IBP_MD_Location_AddOn</td>
<td>IBP_MD_Location_AddOn</td>
<td>Extractor /IBP/LOCATION_ATTR</td>
</tr>
<tr>
<td>Product</td>
<td>IBP_MD_Product_w_Text_AddOn</td>
<td>IBP_MD_Product_w_Text_AddOn</td>
<td>Extractor /IBP/PRODUCT_TEXT</td>
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<tr>
<td>Resource</td>
<td>IBP_MD_Resource_w_Text_AddOn</td>
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<tr>
<td>Unit of Measure</td>
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<td>IBP_MD_UOM_w_Text_AddOn</td>
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<tr>
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<td>Extractor /IBP/PRODUCT_UOM_ATTR</td>
</tr>
<tr>
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<td>IBP_MD_LocationProduct_AddOn</td>
<td>Extractor /IBP/LOCATIONPRODUCT_ATTR</td>
</tr>
<tr>
<td>Location Source (Transportation Lane)</td>
<td>IBP_MD_SourceLocation_AddOn</td>
<td>IBP_MD_SourceLocation_AddOn</td>
<td>Extractor /IBP/SOURCELOCATION_ATTR</td>
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<tr>
<td>Customer Source</td>
<td>IBP_MD_SourceCustomer_AddOn</td>
<td>IBP_MD_SourceCustomer_AddOn</td>
<td>Extractor /IBP/SOURCECUSTOMER_CI_ATTR</td>
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<tr>
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<tr>
<td>Production Data Structure Header</td>
<td>IBP_MD_SourceProduction_Addon</td>
<td>IBP_MD_SourceProduction_Addon</td>
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<td>Production Data Structure Item</td>
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<td>IBP_MD_ExchangeRate_Addon</td>
<td>Extractor /IBP/EXCHANGE_RATES_ATTR</td>
</tr>
</tbody>
</table>

- **Added in 1911**
- **Enhanced in 1911**
- **Unchanged in 1911**

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Pre-Packaged Content for Periodic Data Transfer of Key Figures from Add-On for S/4 HANA On Premise and ERP to Unified Planning Area

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<tbody>
<tr>
<td>Resource Capacity Supply</td>
<td>IBP_KF_S4_ERP_AddOn</td>
<td>IBP_KF_CapaSupply_AddOn</td>
<td>Extractor /IBP/CAPASUPPLY_KF</td>
</tr>
<tr>
<td>Initial Inventory</td>
<td></td>
<td>IBP_KF_InitialInventory_AddOn</td>
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</tr>
<tr>
<td>Minimum Receipt</td>
<td></td>
<td>IBP_KF_MinReceipt_AddOn</td>
<td>Extractor /IBP/ORDER_KF</td>
</tr>
<tr>
<td>Minimum Production</td>
<td></td>
<td>IBP_KF_MinProduction_AddOn</td>
<td>Extractor /IBP/ORDER_KF</td>
</tr>
</tbody>
</table>

This is the current state of planning and may be changed by SAP at any time.
Pre-Packaged Content for Periodic Data Transfer of Key Figures from Add-On for ERP to IBP Demand Driven Replenishment Planning Area

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<tr>
<td>Supply Order</td>
<td>IBP_DDR_KF_ERP_AddOn</td>
<td>IBP_DDR_KF_SupplyOrder</td>
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<td>On Hand Inventory</td>
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<td>Actuals Quantity</td>
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<tr>
<td>Non-Confirmed Order</td>
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</table>

Added in 1911       Enhanced in 1911       Unchanged in 1911

This is the current state of planning and may be changed by SAP at any time.
Pre-Packaged Content for Periodic Data Transfer of Key Figures from IBP Demand Driven Replenishment Planning Area to Add-On for ERP

<table>
<thead>
<tr>
<th>Object</th>
<th>Template</th>
<th>Data Flow</th>
<th>Target</th>
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<tbody>
<tr>
<td>Demand Driven Product Location</td>
<td>IBP_DDR_KF_to_ERP_AddOn_via_WS</td>
<td>IBP_DDR_to_ERP_DDPrdLoc</td>
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<tr>
<td>Time Dependent Buffer Level</td>
<td>IBP_DDR_to_ERP_BufferLvl</td>
<td>IBP_DDR_to_ERP_BufferLvl</td>
<td>Table /IBP/EDD_BLT via FM IBP_EDD_BLT_FILL</td>
</tr>
<tr>
<td>Downstream Decoupling Points</td>
<td>IBP_DDR_to_ERP_DsDcplngPnt</td>
<td>IBP_DDR_to_ERP_DsDcplngPnt</td>
<td>Table /IBP/EDD_DS_DCP via FM IBP_EDD_DS_DCP_FILL</td>
</tr>
</tbody>
</table>

Incompatible change: After upgrading the ERP Add-On DDMRP customers need to reload the webservice definitions

Added in 1911   Enhanced in 1911   Unchanged in 1911

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This is the current state of planning and may be changed by SAP at any time.
Order Based Integration using SDI
Integration for Order-Based Planning:

New features in 1911

Integration of shipping, receiving and transportation calendar
• Supported for order based planning areas only in 1911

Selection profile for source of supply

Multiple integration sources for one common planning area
• See next slides
1. Single Source Integration *(Available before IBP 1905)*

![Diagram](image.png)
2. Multiple Source Integration into Individual Planning Areas (As off IBP1905)
3a. Multiple Source Integration into a Common Planning Area (As off IBP 1905)
Master & Transactional Data from the same source system

* Data is harmonized before the integration to IBP

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3b. Multiple Source Integration into a Common Planning Area (As off 1911)
Master Data from Central Source & Transactional Data from other Sources

* Data is harmonized before the integration to IBP

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This is the current state of planning and may be changed by SAP at any time.
IBP Integration with SAP Cloud Platform Identity Provisioning Service (IPS)

Integrating SAP Cloud Platform Identity Provisioning Service with IBP

• The communication scenario SAP_COM_0193 allows you to connect to SAP Cloud Platform Identity Provisioning Service with SAP Integrated Business Planning

• Using this communication scenario you can provision business users and assign business roles to business users from an identity management system, for example, SAP Cloud Platform Identity Authentication Service in SAP Integrated Business Planning
IBP – IPS Integration Scenario
Unmesh Gandhi
User Provisioning via SAP Cloud Platform Identity Provisioning Service

- The communication scenario SAP Cloud Platform Identity Provisioning Integration (SAP_COM_0193) allows you to connect to SAP Cloud Platform Identity Provisioning Service with SAP Integrated Business Planning.

- You can provision business users and assign business roles to business users from an identity management system, for example, SAP Cloud Platform Identity Authentication Service.
User Provisioning via SAP Cloud Platform Identity Provisioning Service (IPS)

- Create Business Roles
- Upload Business Users
- Create Groups
Identity Authentication Service – Create Users and Groups

- Provision users to IAS (from customer idP, from files or via manual creation)
- Create user groups with the same name like the business roles in IBP
- Assign users to the groups
IPS is used to provision identities and their authorizations to various cloud and on-premise apps.

### Implementation Scenarios (Systems)

<table>
<thead>
<tr>
<th>Source Systems</th>
<th>Target Systems</th>
<th>Proxy Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Identity Directory</td>
<td>Local Identity Directory</td>
<td>Local Identity Directory</td>
</tr>
<tr>
<td>SAP Analytics Cloud (Beta)</td>
<td>SAP Analytics Cloud (Beta)</td>
<td>SAP Analytics Cloud (Beta)</td>
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<tr>
<td>SAP Application Server ADAP</td>
<td>SAP Application Server ADAP</td>
<td>SAP Application Server ADAP</td>
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<td>SAP Cloud Platform ARAP Environment</td>
<td>SAP Cloud Platform ARAP Environment</td>
<td>SAP Cloud Platform ARAP Environment</td>
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<tr>
<td>SAP Cloud Platform Account Members</td>
<td>SAP Cloud Platform Account Members</td>
<td>SAP Cloud Platform Account Members</td>
</tr>
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<td>SAP Cloud Platform Java/HTML5 Apps</td>
<td>SAP Cloud Platform Java/HTML5 Apps</td>
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<td>SAP Commissions</td>
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<td>SAP Concur</td>
<td>SAP Concur</td>
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<tr>
<td>SAP Fieldglass</td>
<td>SAP Fieldglass</td>
<td>SAP Fieldglass</td>
</tr>
<tr>
<td>SAP HANA (S/4HANA)</td>
<td>SAP HANA (S/4HANA)</td>
<td>SAP HANA (S/4HANA)</td>
</tr>
<tr>
<td>SAP SuccessFactors</td>
<td>SAP SuccessFactors</td>
<td>SAP SuccessFactors</td>
</tr>
<tr>
<td>Sales Cloud – Analytics &amp; AI (Beta)</td>
<td>Sales Cloud – Analytics &amp; AI (Beta)</td>
<td>Sales Cloud – Analytics &amp; AI (Beta)</td>
</tr>
<tr>
<td>Cloud Foundry UIA Server</td>
<td>Cloud Foundry UIA Server</td>
<td>Cloud Foundry UIA Server</td>
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<td>Google G Suite</td>
<td>Google G Suite</td>
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<td>LUSP Server</td>
<td>LUSP Server</td>
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<td>Microsoft Active Directory</td>
<td>Microsoft Active Directory</td>
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<td>Microsoft Azure Active Directory</td>
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<tr>
<td>SCIM Systems</td>
<td>SCIM Systems</td>
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<tr>
<td>S/4HANA Server (Beta)</td>
<td>S/4HANA Server (Beta)</td>
<td>S/4HANA Server (Beta)</td>
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<td>SAP Cloud for Customer</td>
<td>SAP Cloud for Customer</td>
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<td>SAP HANA (database)</td>
<td>SAP HANA (database)</td>
<td>SAP HANA (database)</td>
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<tr>
<td>SAP DecemeN Center</td>
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<td>SAP DecemeN Center</td>
</tr>
</tbody>
</table>
IBP – IPS – IAS Scenario

- Configure the IAS as source system and the IBP as target system.
- Run the IPS job

**Jobs**

<table>
<thead>
<tr>
<th>Job Type</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Read Job</td>
<td>Run Now, Schedule, Resume</td>
</tr>
<tr>
<td>Resync Job</td>
<td>Run Now</td>
</tr>
</tbody>
</table>

**Logs**

<table>
<thead>
<tr>
<th>Entity</th>
<th>Action</th>
<th>Read</th>
<th>Created</th>
<th>Updated</th>
<th>Deleted</th>
<th>Stipped</th>
<th>Failed</th>
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<tbody>
<tr>
<td>user</td>
<td>IAS_IBPZKDDEF</td>
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<td>42</td>
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<tr>
<td>user</td>
<td>IBP_IBPZKDDEF</td>
<td>WRITE</td>
<td>0</td>
<td>10</td>
<td>9</td>
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</tr>
</tbody>
</table>
JAM – IPS – IAS Scenario

- Configure the IAS as source system and the JAM as target system.
- Run the IPS job
System Monitoring

Unmesh Gandhi
The communication scenario SAP_COM_0068 allows you to retrieve IBP Resource Consumption and IBP System Tasks details from external systems.

The Resource Consumption External OData service (/IBP/RES_CONS_STATS_API_SRV) allows you to retrieve the SAP HANA Memory and SAP HANA CPU usage of your IBP system.

The Monitor System Tasks External OData Service (/IBP/TASKMON_EXT_SRV) allows you to retrieve the tasks that have finished executing on the system and which have been recorded.

The Monitor System Tasks App has been enhanced with details page to show the KPIs associated with a specific task.
Documentation Updates
Christoph Ulbert
What’s New Overview: „! Must know“ in Types Column

- In addition to
  - **Changed**
  - **New**
  - **Prepare next release**

  **⚠️ Mandatory task after upgrade**

  there’s the

  - **! Must know**

  type since 1908.

  This type is used to mark entries in the

  *What’s New overview of which you have to take note immediately after the upgrade.*
SAP Fiori Launchpad: *What’s New Mode for Web Assistant*

- The *Web Assistant* now comes with two modes:
  - *What’s New mode* (red hotspots) → To highlight changes of the new release directly in the app.
  - *Regular mode* (green hotspots) → User assistance for existing and, of course, new features in the app.
SAP Fiori Launchpad: What’s New Mode for Web Assistant
Roadmap

https://help.sap.com/ibp  →  Roadmap

SAP Integrated Business Planning Road Map

Strategic Roadmap Webinar (May 16, 2019):
https://dam.sap.com/a/Qe9kSE4
EKT Material can be found on the Innovation Discovery
Designed for Consultants

EKT = Early Knowledge Transfer

Find the innovations and features that you can turn into tangible value for your business. Use the link to uncover existing and planned innovations for the IBP Suite.

https://go.support.sap.com/innovationdiscovery/#/innovations/searchid=00109B147E561ED8AC88FDAEE3FFC0CA
Thank you.

Today’s Presenters from Product Management:

- alexis.lozada@sap.com – Inventory Optimization
- Andreas.munk@sap.com - IBP Best Practices
- andrew.boyle@sap.com - Order-based Planning
- anna.linden@sap.com – IBP Excel Add-In
- atul.bhandari01@sap.com – Demand Driven MRP (DDMRP)
- balazs.buday@sap.com - Model Configuration
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- reinhard.sudmeier@sap.com – Integration
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