boyum**it**

Our vision is to **inspire companies** to achieve **sustainable growth** and a **competitive advantage**, now and in the future.

eliminate
automate
delegate

Disclaimer

The following information is being shared in order to outline some of our current product plans, but like everything else in life, even the best laid plans get put to rest.

We are hopeful that the following can shed some light on our roadmap, but it is important to understand that it is being shared for **informational purposes** only, and not as a binding commitment.
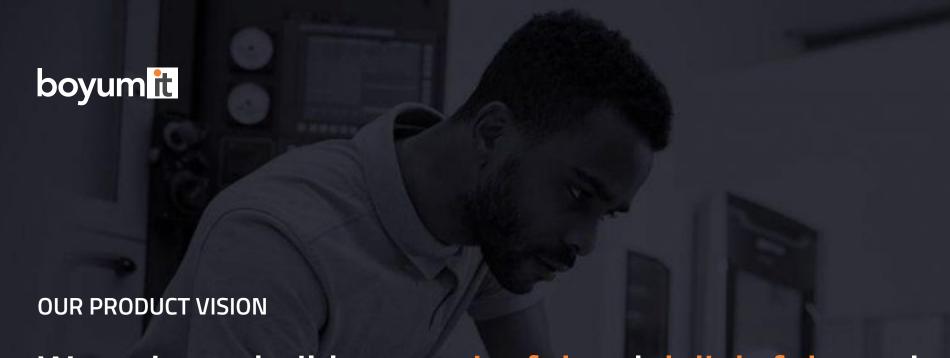
Please do not rely on this information in making purchasing decisions because ultimately, the development, release, and timing of any products, features or functionality remains at the sole discretion of Boyum IT Solutions, and is subject to change.

Contents

1. Product Vision
2. Horizontal
3. Manufacturing
4. Logistics
5. Boyum Cloud

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OUR PRODUCT VISION

We strive to build a meaningful and delightful supply chain management suite that integrates and optimizes supply and demand management within and across small-medium businesses.

Our product vision

PARTNER APPS		Supply chain analytics, insights and recommendations

Extensibility

| SHOP FLOOR DATA COLLECTION | LOGISTICS | MANUFACTURING | QUALITY | SUPPLY CHAIN PROCESS CONFIGURATION | INTEGRATION HUB |

COMMON DATA MODEL

Customer Specific App

General Purpose App

ANY API-BASED ERP ENGINE

SAP BUSINESS APPLICATION FACTORY

SAP Business One

ERP

2021 Q1

2021 Q2

2021 Q3

2021 Q4

OUR FOCUS AREAS

B1 USABILITY PACKAGE

B1 MAILCHIMP

B1 PRINT & DELIVERY

B1 iPAYMENT

CRM FOR OUTLOOK

BEAS MANUFACTURING

PRODUMEX SCAN

PRODUMEX WMS

boyumcloud

B1 ADD-ONS

User experience

Integration across Boyum products

Ease of implementation and configuration

Support for Boyum Cloud and hybrid environments

Most voted community requests

CLOUD APPLICATIONS

Quality inspection management

Production order processing and data collection

Product lifecycle management

Resource planning and scheduling

6

Our product mindset

Quality First

Why? To keep partners and customers confident by using reliable and robust solutions.

How? Fixing product bugs, working for stability, increasing automated test coverage. Investing every day and every step on quality control.

User Experience

Why? To enable users to have a pleasant experience while completing their tasks easily and efficiently.

How? Improving languages and errors messages, improving user flows by reducing number of clicks and making screens more intuitive.

Your Voice Matters

Why? To improve our solutions based on real-life needs from SAP Business One partners and customers worldwide.

How? Sharing ideas with partners, collecting most common needs from our customers. Involving partners in co-innovation and road mapping.

You deserve the best from us

We work hard to deliver the best software for you.

Our reward is the benefit you take from the innovations and enhancements we design to make your life better.

So, we only ask for one thing:
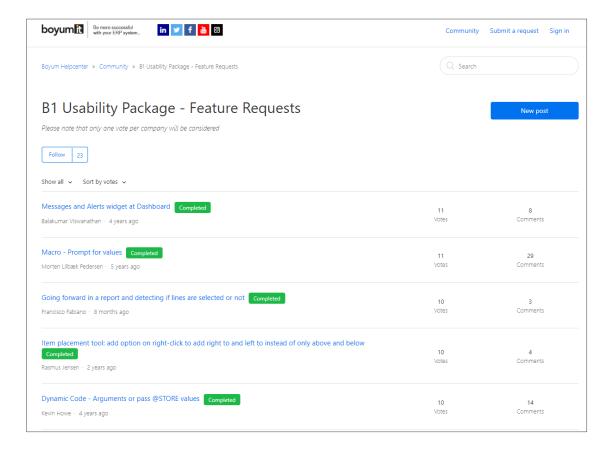**Keep your software up to date.**

It's not every day, so enjoy the ride

1. Go to boyum-solutions.com/download
2. Select your solution
3. Download and install the latest package available

Don't miss the chance! On top of new capabilities, updates contain essential changes to improve the performance, stability, and security of our solutions.

Your voice matters

You can influence the roadmap on our community site, by submitting feature requests, commenting on existing feature requests, and voting for the features that matter the most to you.

boyum-solutions.com/community

Boyum Learning

Go and start learning any of our products in our new E-learning Hub at: https://www.boyum-solutions.com/learning/e-learning-hub/

Join our certification program and verify your knowledge

As part of our e-learning, we offer a certification program to our partners. Currently available for **Beas Manufacturing, Produmex WMS and B1 Usability Package.**

Get started today at: https://www.boyum-solutions.com/certification

LIFECYCLE MANAGEMENT

Industry solutions, extensions, IoT and mobility

BEAS MANUFACTURING

PRODUMEX WMS

PRODUMEX SCAN

Efficient business processes

B1 USABILITY PACKAGE

CRM FOR OUTLOOK

B1 iPAYMENT

SAP Business One®

MICROSOFT SQL

SAP HANA DB

ON PREMISE & CLOUD

Release Schedule

2020	2021 Q1			2021 Q2			2021 Q3			2021 Q4			2022

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
B1 Usability Package		2021.02	2021.03	2021.04	2021.05	2021.06		2021.08	2021.09	2021.10	2021.11	2021.12
CRM for Outlook		2021.02	2021.03	2021.04	2021.05	2021.06		2021.08	2021.09	2021.10	2021.11	2021.12
B1 iPayment		2021.02	2021.03	2021.04	2021.05	2021.06		2021.08	2021.09	2021.10	2021.11	2021.12
Beas Manufacturing		2021.02	2021.03		2021.05	2021.06		2021.08	2021.09		2021.11	2021.12
Produmex WMS			2021.03			2021.06			2021.09			2021.12
Produmex Scan	2021.01			2021.04			2021.07			2021.10		

Schematic illustration of major deliveries according to current planning may be changed at any time.

About the roadmaps

The purpose of the **roadmaps** is to communicate the direction and planned activities determined to add the most value to the customers of the products. For each of the products, you will find roadmaps that describe the current and future solutions aligning against the business goals to pursue over time:

Recent innovations

Where are our solutions today?

Planned innovations

Upcoming features

Future direction

A proposal for growth throughout the product life cycle

HORIZONTAL PRODUCT ROADMAP

2021 | 1st half year

B1 USABILITY PACKAGE

CRM FOR OUTLOOK

B1 iPAYMENT

Product summaries

- **B1 Usability Package (B1UP)**, is an **award-winning** solution designed to **tailor and automate** SAP Business One

- **CRM for Outlook** provides instant access to **essential information** and makes it easy to **perform SAP Business One tasks from within Outlook**

- **B1 iPayment** makes it easy to accept electronic payments directly from SAP Business One

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PRODUCT VISION FOR BOYUM HORIZONTAL PRODUCTS

Deliver the best user experience in SAP Business One

B1 USABILITY PACKAGE

CRM FOR OUTLOOK

B1 iPAYMENT

Recent innovations

All 3 Products: MSSQL 2019 Support
Added support for MSSQL 2019 that was introduced in SAP Business One 10 PL02.

All 3 Products: Support for longer Item Master Data Names
Added support for new longer SAP Business One item names that was introduced in SAP Business One 10 PL03.

B1UP – Company State System
Added General System that enables you to better track if a database is a production system or a test-system via various visual cues.

B1UP – Produmex WMS Integration
Added option for a customer running both Produmex WMS and B1UP to do deep-linking to WMS objects from Dashboards, SQL Reports and Macro's.

B1UP Dashboards – Calendar Widget Enhancements
Further enhanced the Calendar Module with options to restore calendars back to default, use/define calendar filters, do custom tooltips and custom UF Object Navigation).

B1UP Toolbox – Calendar Replacement
Added option to allow Boyum Calendar System to take over SAP Calendar button in toolbox for a better overall system.

B1 Print and Delivery – Embedded Crystal Reports
Added system that allows you to embed Crystal Report inside SAP Business One database instead of the traditional File based system for easier backup and easier permission setup.

B1 iPayment – Support for more advanced Batch Filters
Option to use Joins in advanced batch filters for more advanced filter scenarios.

B1 iPayment – Link Generator Performance and Usability
Greatly optimized performance and usability of the Mass CC Link generator.

All 3 Products: Quality of life features
Added a total of **62** quality of life features to the various products based on support and community feedback.

| Recent innovations | > | Planned innovations | > | Future direction |

Planned innovations

Boyum Admin Center

New product from the Boyum Horizontal team which aim is to make SAP Business One Management (User management, password change, service restart, etc.) all controlled remotely without the need to log into the customer server (Note: First version will be free prototype to evaluate product market fit).

B1UP – Kanban Boards

New B1 Dashboard Widget / UF Type that can visually present data as can present data as a Kanban Board. Data like Sales Opportunities and Production Orders are especially suitable for this kind of visualization, but system will be fully customizable for any sort of data you wish to represent as long as it have a state.

B1UP – Dashboard Browser Widget

New Dashboard Widget that allow embedded web browser on the dashboard.

B1 Web Dashboards – Login via Service Layer

Add the option to authenticate user-login using SAP Service Layer so DI-API is not needed on the hosting server.

Various

Best and most requested/relevant features submitted in the community: boyum-solutions.com/community

Recent innovations	>	Planned innovations	>	Future direction

B1 USABILITY
PACKAGE

CRM FOR
OUTLOOK

B1
iPAYMENT

Future direction

SAP Business One Web-client integration
Explore any future extension model of the SAP Business One 10 Web client and identify product features that can be brought to the web client.

Cloud Enablement
Explore further possibilities for using Service Layer on Microsoft SQL/HANA and in general make products more cloud-enabled, reducing the need for Server components.

Recent innovations   >   Planned innovations   >   **Future direction**

Manufacturing Product Roadmap

2021 | 1st half year

BEAS
MANUFACTURING

Product summary

Beas Manufacturing, or simply **Beas,** is a manufacturing solution for small to medium-sized businesses who needs support in managing their **manufacturing processes** with **comprehensive features** for scheduling, planning and integration.

PRODUCT VISION OF BEAS MANUFACTURING

Being the most **comprehensive** and **value-adding** manufacturing solution for small-medium businesses

BEAS MANUFACTURING

Recent innovations

Production

Stock transfer request for Work orders.

WMS BIN support in Collective receipt Window.

Transaction Notification: Validation of the Stock Transfer created from SAP, especially when it comes from a Work Order request and considering reservation system.

Considering Production lot size at the pre-calculation.

MRP

Display additional information for MRP Minimum Inventory by warehouse in the Inflow/outflow window section.

Inventory transfer requests are now displayed in Order recommendation > "Current Income" tab.

The MRP calculation now considers the SAP sales BoM components coming from a forecast or blanket agreement.

Web Apps

Access to the Documents list of an item via a shared folder.

Attach a picture or document in QC data collection apps.

New External operation apps: to Deliver Provisions, Goods Receipt PO app and Issue provisions.

Support to SAP Sales BOM at the picking apps.

Web Product configurator

Review of the Web Product Configurator, including a better login protection, more filter, possibility to show non-configurable items and better support for currency

A setting screen with all Web Product Configurator parameters.

Support for Sales Quotation and a parameter to setup it.

New configurable function to allow "Canceling orders"

Quality Control

Support to save a log for modifications in the complete quality control orders (BEAS_QSFTPOS).

Document type "Inventory Transfer Request" is available in QC transfer.

APS

New functionality to enable background execution in APS calculation.

SAP Integration

New "Advanced production" tab in SAP Item Master Data window (Beta) to enable the user to access the data handled by Beas Manufacturing from SAP Business One window directly.

The layout of Beas windows has changed to align with the organization and button names of SAP windows.

Support of Group of Units at the production features.

Recent innovations > **Planned innovations** > **Future direction**

Recent innovations

Data integration Hub

New "Automatch" to link source to target table automatically.

New button to access Excel templates for definitions.

New target type to import results of the quality control orders.

Change log improvements of imported data from DIH.

New fields added to the definition and general review of Beas tables.

Customization

BSL: Quality control entity collection.

BSL: New External operation entity collection.

New script editor functions to better support of the User Events.

Improvement

Pre-calculation is considering the quantity as per BoM setup.

'Unique Batch' setting ignored when WO receipt is supported by Collective receipt or WebApp.

Batches to be verified – Shelf-Life test option reviewed.

WMS Support Manual Transfer: Full RFID / LUID support

All serial numbers: Window settings added

Inventory History -New tabs: Warehouse stock, By Bin Location, Batch Numbers and Serial Numbers.

Documentation / Online Help based on the Beas Version.

System

Now Beas supports SQL Server 2019.

Support to UDFs setting in list form.

Change log Improvement.

Windows Authentication: Improved login process to support CCC.

| Recent innovations | Planned innovations | Future direction |
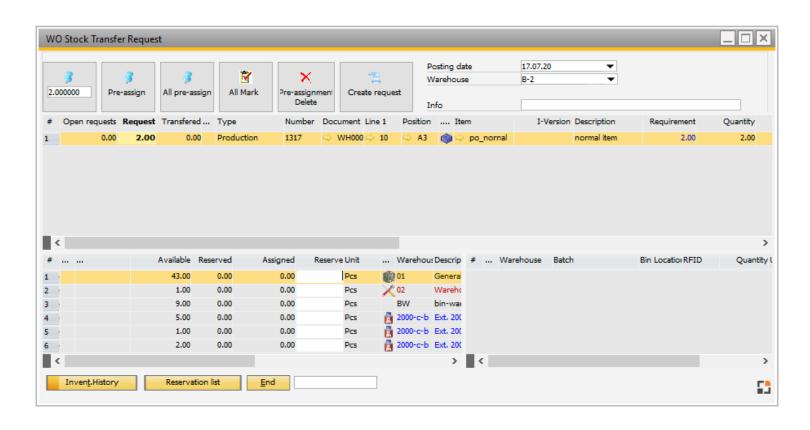
Recent innovations

Stock transfer request for Work orders

This new functionality allows a production user to request partial or total quantities for a production location.
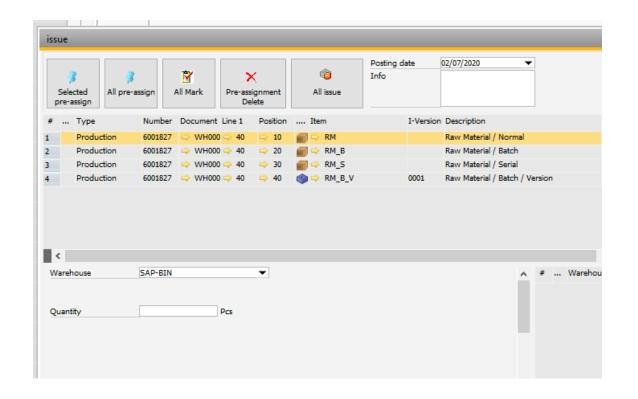
By selecting one or more work orders, the user will be able to call up the Stock transfer Request function, on an interface similar to the Material Issue window.
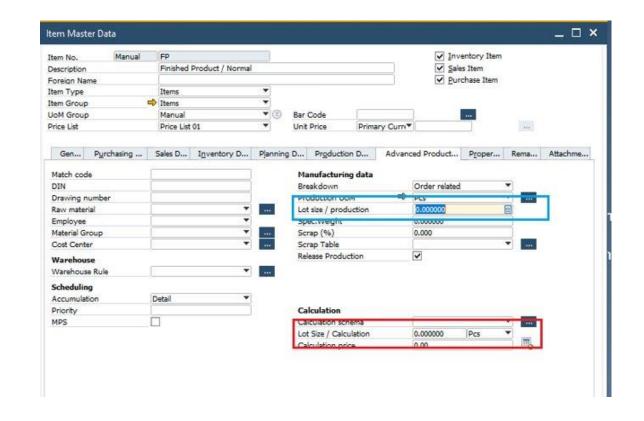

Recent innovations > Planned innovations > Future direction

Recent innovations

WMS BIN support in Collective receipt Window

Now SAP and WMS bin locations are supported at the collective material issue

Recent innovations

Considering Production lot size at the precalculation

A sales employee or Production planner can run a calculation considering "Production Lot size" when exist in the item master data getting the right "Cost" to provide information to the customer or make decision about the quantities ordered by a customer when an item has a Production lot size When production lot size is available, fixed cost has to be multiply as a many lot size that will be required.

Recent innovations | Planned innovations | Future direction

Recent innovations
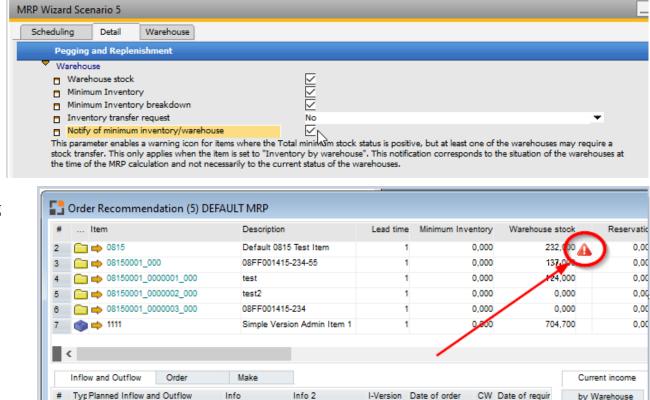
Display additional information for MRP Minimum Inventory by warehouse

Lightweight Installer support

The MRP calculation can display an alert for items where the total minimum stock status is positive but at least one of the warehouses in under minimum stock.
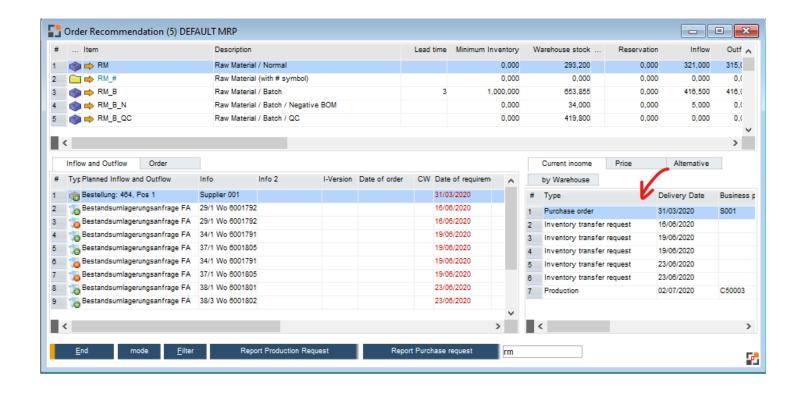
1. Activate "Notify of minimum inventory/warehouse" parameter.

2. Right-click the column header to activate/delete the inventory warning filter.

NOTE: This function only applies if item is set as inventory by warehouse.

| Recent innovations | | Planned innovations | | Future direction |

Recent innovations

Inventory transfer requests are now displayed in Order recommendation > "Current Income" tab

Recent innovations   ›   Planned innovations   ›   Future direction

Recent innovations
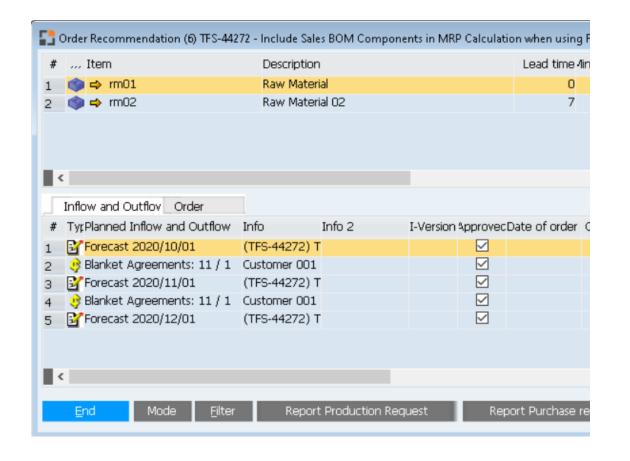
The MRP calculation now considers the SAP sales BoM components coming from a forecast or blanket agreement

NEW: This Feature is to allow the Calculation of Sales order BOM Item created from Forecast or Blanket agreement. In SAP you can find Bill of materials for a Sales Item – if this item is available in a Sales order, its components are visible in the order document.

Note: Support will be only for this Type of SAP BOM. Other types are not supported. For this the system uses Beas Bill of Materials.
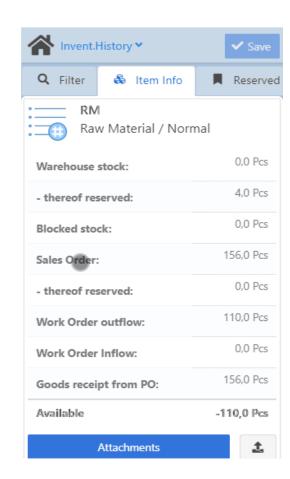
Recent innovations

Access to the Documents list of an item via a shared folder

Recent innovations
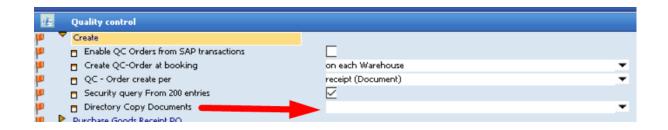
Attach a picture or document in QC data collection apps
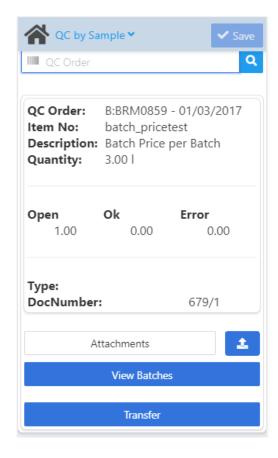
Attach an image or document in QC data collection
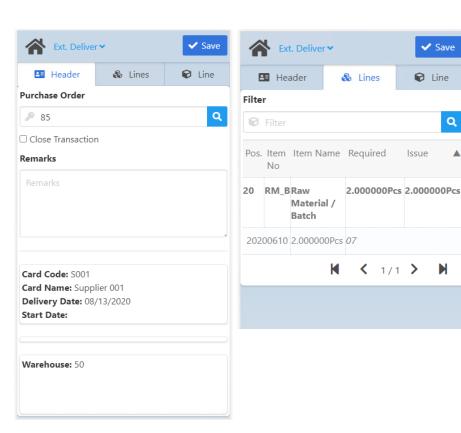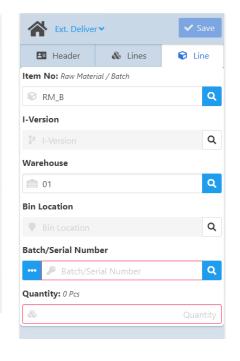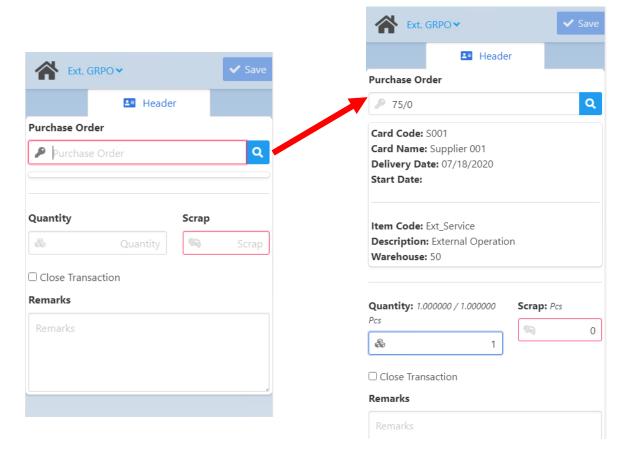
apps:

QC by Sample

QC by Test

Qc Transfer

Recent innovations

New External operation apps: Goods Receipt PO app

This app allows the user to register the goods receipt of external services (this process creates a good receipt PO of the created Purchase order, this goods receipt is for the Service).
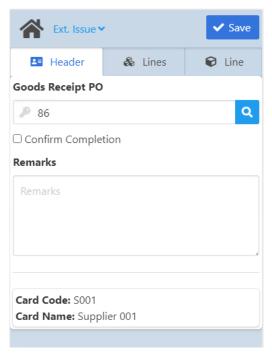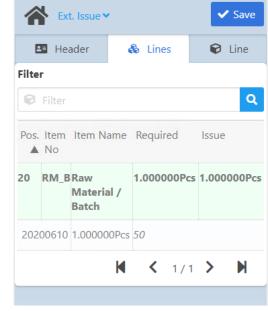
BEAS MANUFACTURING

Recent innovations

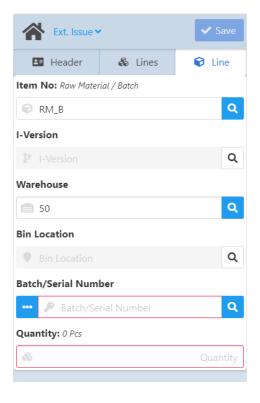**New External operation apps: Issue provisions**

This app is provided as an optional step that depends on the General parameter. The apps allows to report the material issue related to the external process.
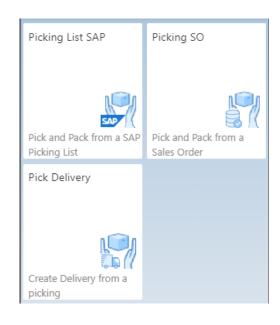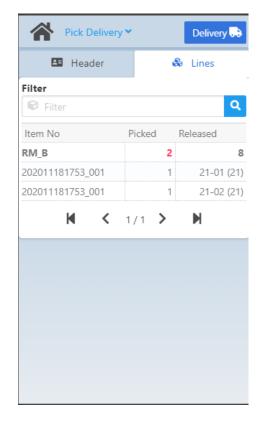
Ext. Issue

External: Issue Provision

Ext. Issue ✓ | ✓ Save

Header | Lines | Line

Goods Receipt PO

🔑 86

☐ Confirm Completion

Remarks

Remarks

Card Code: S001
Card Name: Supplier 001

Ext. Issue ✓ | ✓ Save

Header | Lines | Line

Filter

Filter

Pos.	Item	Item Name	Required	Issue
▲ No				
20	RM_B	Raw Material / Batch	1.000000Pcs	1.000000Pcs
20200610	1.000000Pcs	50		

⏮ ◀ 1 / 1 ▶ ⏭

Ext. Issue ✓ | ✓ Save

Header | Lines | Line

Item No: *Raw Material / Batch*

🔑 RM_B

I-Version

I-Version

Warehouse

🏬 50

Bin Location

📍 Bin Location

Batch/Serial Number

••• 🔑 Batch/Serial Number

Quantity: *0 Pcs*

Quantity

Recent innovations ❯ Planned innovations ❯ Future direction

Recent innovations

Support to SAP Sales BOM at the picking apps

Now the Web App "Pick SO" support Sales BoM Items, (non-inventory items) allowing to pick its component, partially also. This also impact the delivery process.

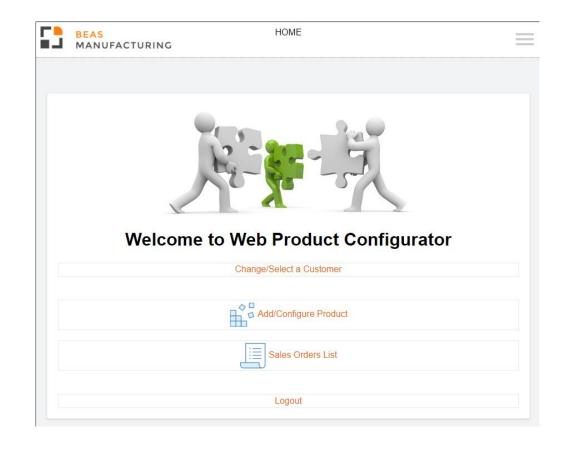| Recent innovations | Planned innovations | Future direction |

Recent innovations

Review of the web Product configurator, including a better login protection, more filter, possibility to show non-configurable items and better support to currency

- Login protection
- Added configurable filters to the product list > App setup
- Fixed problems when adding more than a configurable product with dynamic names
- Right currency is used now and cart displays the right currency
- SO creation uses the right currency and is updated after changing the quantity
- Sale viewer now displays the currencies similarly as in SAP
- Delivery time is adjusted to the maximum considering product lead time

Recent innovations | **Planned innovations** | **Future direction**

Recent innovations

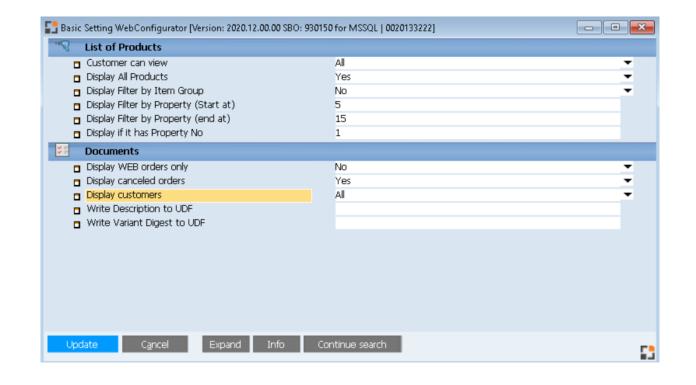**A setting screen with all web Product configurator parameters. Including new parameters**

We have reorganized the parameters of the web configurator:

- The customer has a single place to set their options

- It includes a parameter update tool for existing customers

Moved all setup to global parameters:

- Easier for users to configure the apps

- No need for duplicating parameters shared across different apps for the same program group.

A process will be executed the first time you install this new version to migrate old setup to the new place.

Basic Setting WebConfigurator [Version: 2020.12.00.00 SBO: 930150 for MSSQL | 0020133222]

List of Products
Customer can view	All
Display All Products	Yes
Display Filter by Item Group	No
Display Filter by Property (Start at)	5
Display Filter by Property (end at)	15
Display if it has Property No	1

Documents
Display WEB orders only	No
Display canceled orders	Yes
Display customers	All
Write Description to UDF	
Write Variant Digest to UDF	

Update   Cancel   Expand   Info   Continue search
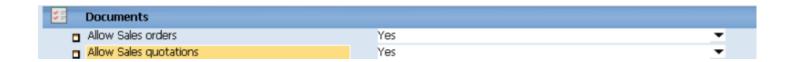
Recent innovations

Web Product configurator Support to Sales Quotation and a parameter to setup it.

We added 2 New parameters that allows Customers to select whether to activate the Sales order or Quotation button. By enabling two parameters, we make the selection easy, and you can have 3 options: Quotation only, Sales order only or both.

The default value will be Sales order, (Sales order cannot be disabled if the Quotation option is turned off)

These two new options affect the main menu to display the entries to display the Sales Order/Quotations and the Cart View to convert the cart into a Sales Quotation or Sales Order (By default the "Allow Sales Orders is Yes" and "Allow Sales quotations is No"
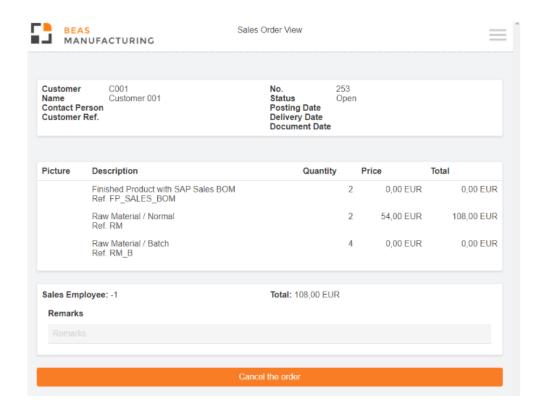
Documents	
Allow Sales orders	Yes
Allow Sales quotations	Yes

Recent innovations | Planned innovations | Future direction

BEAS MANUFACTURING

Recent innovations

New configurable function to allow "Canceling orders"

If a document (Sales Order or Sales Quotation) can be cancelled, then you will see a button at the bottom of the page "Cancel the order".

*A document can be canceled if the status is "Open", no one line is linked to other documents (this include links to Beas work orders).

After you press this new button (when it is available) a short confirmation pop-up should appear to ask you if we can proceed to the cancellation or not.

The result will be a message (instead of the button) with the text "The order was cancelled" or "The document cannot be cancelled, because the production/deliver process has started" if it happened any error.

| Recent innovations | Planned innovations | Future direction |

Recent innovations

Support to save a log for modifications in the complete quality control orders (BEAS_QSFTPOS)
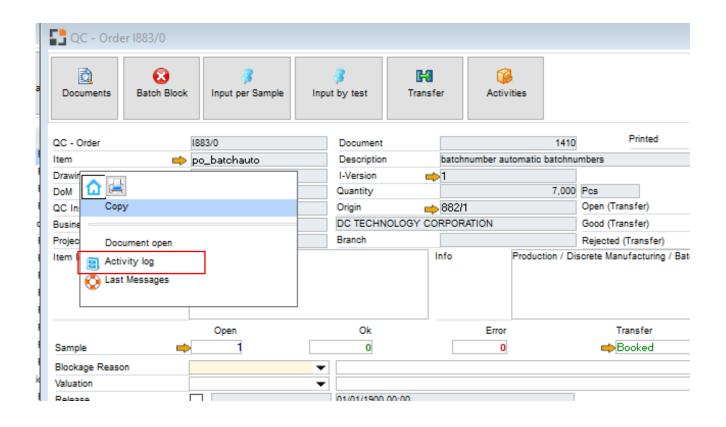
Past: In the QC order only the log information of changes made in the current window were available.

Example:

in "Input per Sample" - Activity log shows only the changes made in the current sample.

In "Measurement" window shows only the changes of the current measurement line.

New: You can see all changes related to the QC Order.
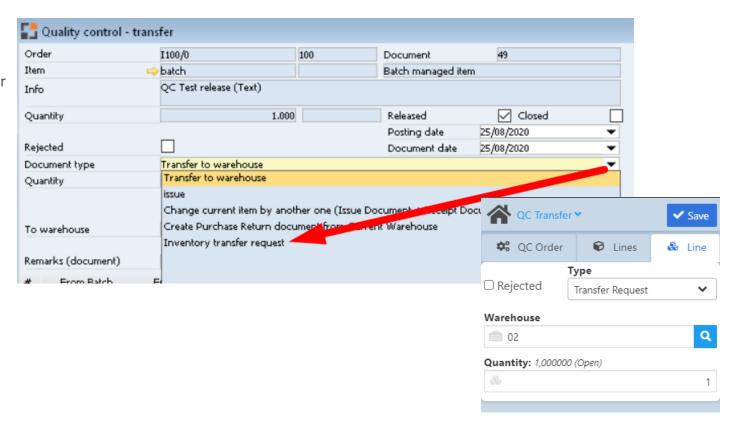
Recent innovations

Document type "Inventory Transfer Request" is available in QC transfer

Document type "Inventory Transfer Request" added to QC Transfer window, it works in the same way as the regular "Transfer to warehouse" but it doesn't support bin located warehouse. Bin-location warehouses are excluded from the dropdown when you select this option.

*Note: this option is hidden when the source warehouse is a bin located warehouse.

The web app "QC Transfer" has been updated also to support this type of document with the same restrictions as the desktop version:
- unable to select the document type "Transfer Request" if the source warehouse is bin located (Dropdown is turned red and you can't continue)
- hidden all bin located target warehouses (and not manually

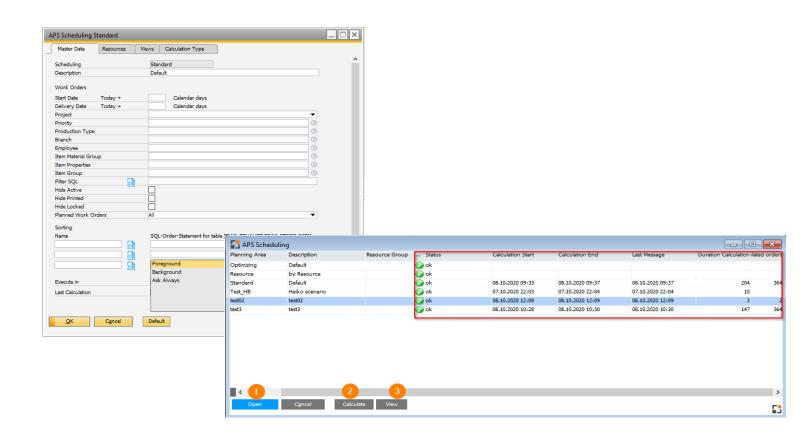| Recent innovations | | Planned innovations | | Future direction |

Recent innovations

New functionality to enable background execution in APS calculation

New field to select how the calculation should be done: "Execute in":

- Background: when starting the calculation, a separate task for the calculation is opened. While the calculation is running, it is possible to work with Beas, and the APS Browser shows the status of the calculation.
- Foreground: The calculation is done direct in the application. While the application is running, it is not possible to work in Beas.
- Ask always: When starting the calculation, you can choose if the calculation should be done in the back- or foreground.

NEW layout and button design:
- APS overview has new fields to show information on actual calculation status.
- Buttons follow the logic of MRP and Batch Calculation

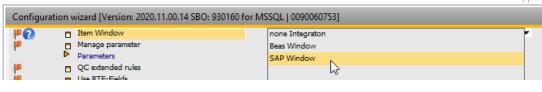| Recent innovations | | Planned innovations | | Future direction |

Recent innovations

New "Advanced production" tab in SAP Item Master Data window (Beta) to enable the user to access the data handled by Beas Manufacturing from SAP Business One window directly
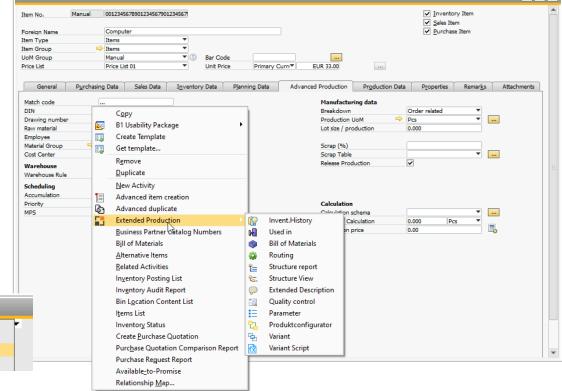
NEW: Beas Item master data window complete

functionality is available in the SAP Item master data

window with the help of:

- separate tab

- new right-click menu options

Condition:

- NEW setting in Configuration Wizard

Recent innovations
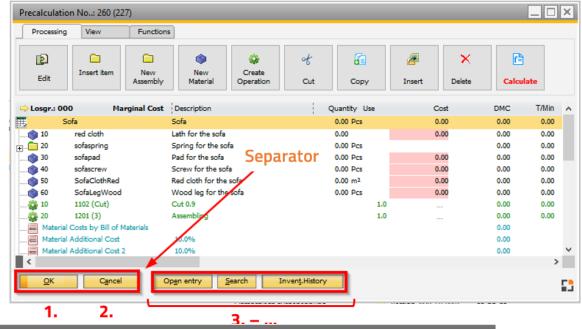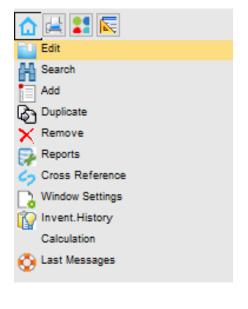
The layout of Beas windows has changed to align with the organization and button names of SAP windows.

The layout of Beas windows has changed to align with the organization and button names of SAP windows.

- SAP-style button arrangement
- Certain functions moved to context menu
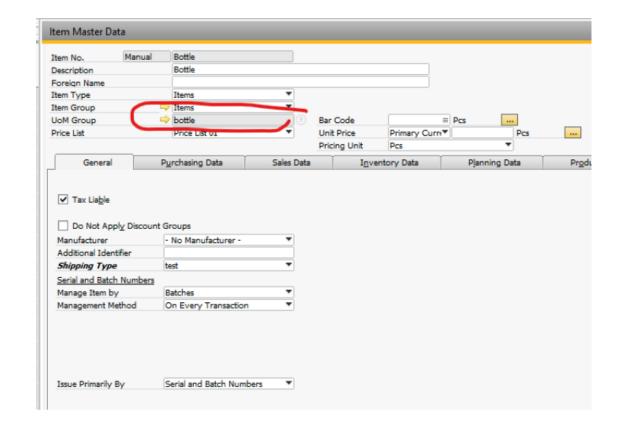- SAP toolbar support

Recent innovations

Support of Group of Units at the production features

If this is activated, you can choose as Production UoM, Inventory UoM and in Bill of Material as Input UoM only the UoM's defined in the UoM Group.

The system uses the factor defined in the UoM Group as conversion factor,

All program areas support this: Master Data (Item, Bill of Material, UoM Definitions), MRP, Calculation, Purchase system, Precalculation and so on.

| Recent innovations | Planned innovations | Future direction |

Recent innovations

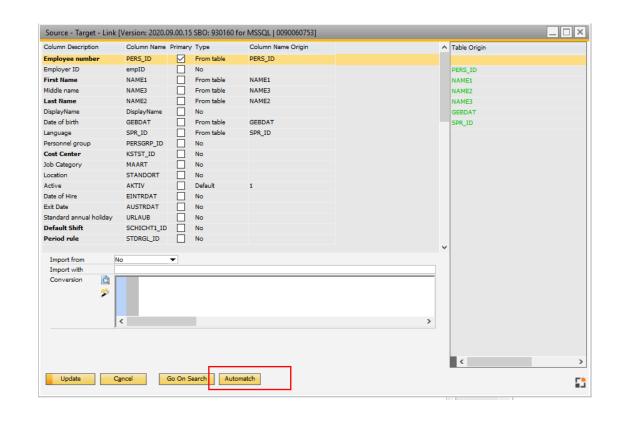**New "Automatch" to link source to target table automatically**

NEW FUNCTIONALITY: New button:

"**Automatch**".

When pressing this button, the system attempts to link the source table to

the target table automatically.

Therefore, the system checks if the field name (or the description) matches

the field in the target table.

- If an entry is found, the field is automatically linked.

- Fields that are already linked will not be changed or deleted.

- Fields that are linked will be displayed in **green**.

- Fields that are not linked will stay in **black** color.

- Fields that are assigned more than once, will be shown in red.

- Fields with a "_" in the name also can be matched.

| Recent innovations | Planned innovations | Future direction |

Recent innovations

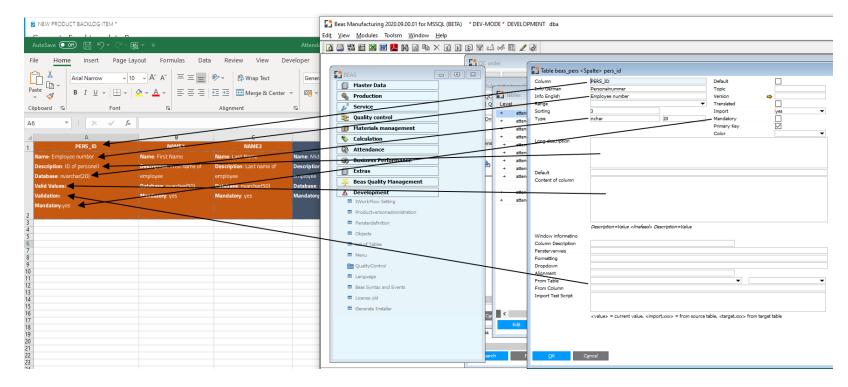**New button to access Excel templates for definitions**

By clicking on the **Open HUB templates** button, you can access the folder with Excel templates for each table definition in Beas.

The first row in the Excel sheet stores the field ID, and the second one the necessary information related to a field - name, description, data type and possible values.

Orange fields are mandatory.

Blue fields are optional.
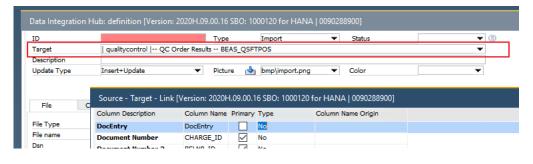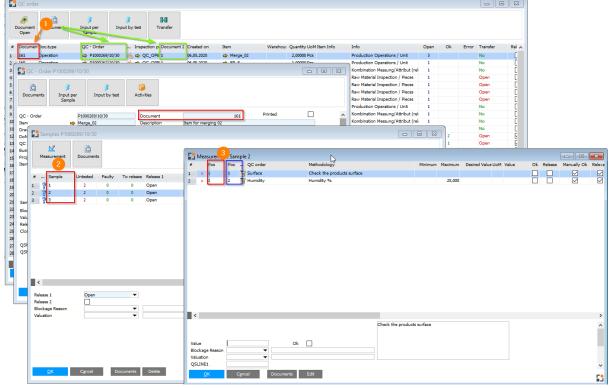
Recent innovations

New target type to import results of the quality control orders

For Import, the following information are needed:

1. Document number (red) or alternatively Qc-order + Document 2 (green)

2. Sample

3. Position Pos_ID (red) or Pos_text (blue)

Recent innovations
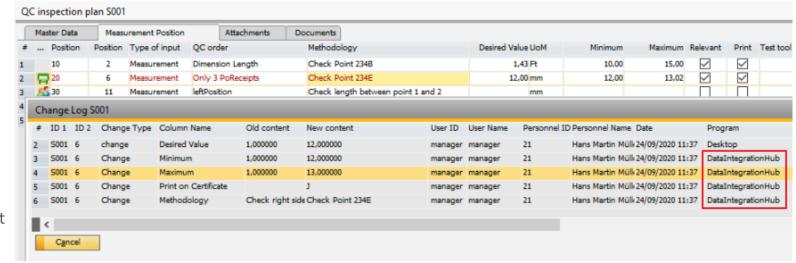
Change log improvements of imported data from DIH

Some objects were reviewed to store the Information imported through DIH in the Change log.

The following areas are already done:
- Resource, BEAS_APLATZ
- Operation Catalog, BEAS_AG
- Time receipts, BEAS_ARBZEIT
- Work orders, BEAS_FTHAUPT (only changes, not new entries)
- QC Inspection Plan, BEAS_QSARTIKELHAUPT
- QC Inspection Plan - Measurement positions – BEAS_QSARTIKEL
- Personnel / Employee, BEAS_PERS

Recent innovations | Planned innovations | Future direction

Recent innovations
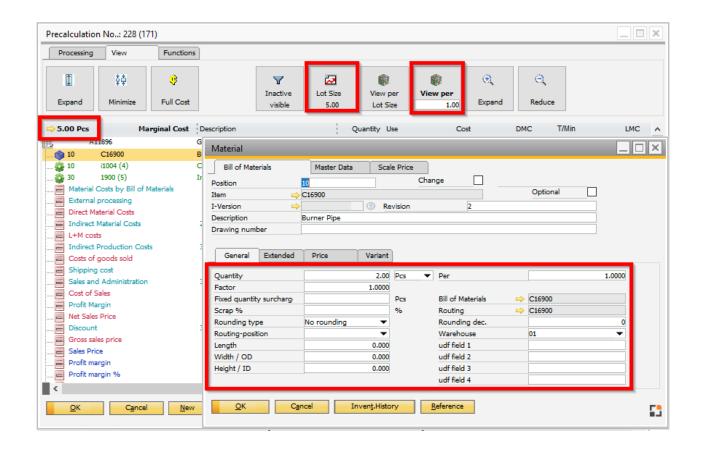
Pre-calculation considers the quantity based on BoM settings

Past: Beas displayed the value of the Material Quantity field multiplied with "View per".

All other fields were ignored.

New

It displays the calculated total quantity based on all calculation rules and view settings.

Recent innovations > Planned innovations > Future direction

Recent innovations

Support to UDFs setting in list form
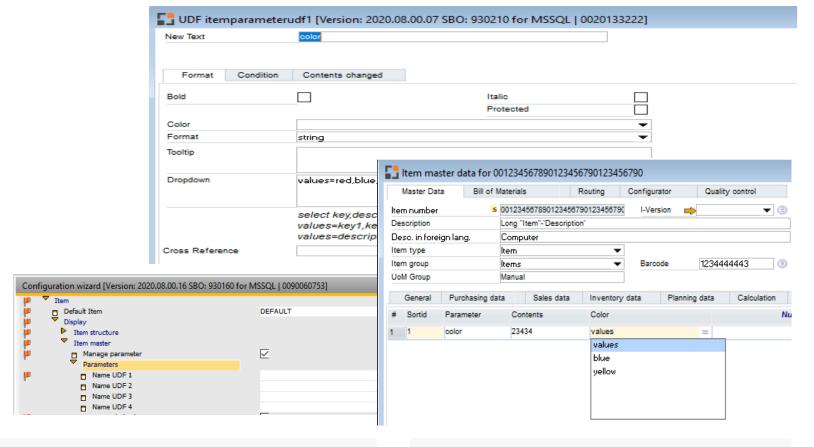
Past:

Beas checked UDF extended settings only in the Edit window, but not in Lists, for example in item parameters.

New:

Now the system supports the following properties with higher priority than in window settings:

Bold, Italic, Format, ToolTip, Drodown and Cross reference in all windows which support window settings.

Recent innovations | Planned innovations | Future direction

BEAS MANUFACTURING

Planned innovations

User Experience improvements

As Beas is a product that offers comprehensive functionalities which are not meant to complicate customers' solutions, the focus of 2021 is to improve user experience by keeping the complexity in the software and not in its use. We will review the most used functions to streamline making them easier to understand and faster to use. The initial effort will be focused on reviewing the reporting of the time, material consumption, BoM management and the APS.

WMS integration

More and better information will be available for the user about the communication between the two products. For this, we will improve the process of Picking to production, showing more information of the requests to WMS and their status, extending the functionality to make partial requests and allowing Production receipt without logistic unit, to be defined in WMS later.

Core functions improvement

In addition to the focus on UX, the basic functions of Beas will also be enhanced, updating it to today's needs, industrial requirements or new regulations. The rounding system will be reviewed.

BIUP Integration

Taking advantage of the B1UP, we will work together to offer the most common usability extensions or reports as out-of-the box solutions.

SAP Business One Integration

Improving SAP compatibility by interacting with more SAP functions. We will focus on reducing the incompatibility of the approval process, at least allowing it for sales and purchase documents, even if the restriction to stock movements documents is maintained. The support of non-inventory items (Reservation system, Issues, Post-calculation) will be reviewed.

More Industry 4,0 Support

Integrating examples; Beas has several features to synchronize data or connect with other systems, from DIH tools or a complete collection of entities that facilitate communication to validation with main processes. We will improve the use of these tools to accelerate the automation of workflows by facilitating the most common automations directly in the program.

Recent innovations 〉 **Planned innovations** 〉 **Future direction**

Planned innovations

Feature Request

Best and most requested relevant features submitted in the community: boyum-solutions.com/community

Thank you for contributing to the product with your suggestions or voting for the feature requests you most liked. Your proposals are taken into consideration.

The most voted ones and those that can benefit all Beas's customers have been selected to adjust to the general 2021 goal of product improvement.

Note: Consider that the suggested idea can be modified either by technical limitations or by adjustments of the functionality considering all industries covered by Beas.

- Adding validation in the time receipt to check the issued material quantity before closing an operation.
- Item Versions in the MRP Calculation
- Making it easier to monitor which materials have not been issued completely before reporting material consumption
- Including an option in the time receipt to allow users to pause/break the clock and continue later
- Terminal (Good Receipt PO) - Adding multiple batches of an item in a single document GRPO.

- Inventory transfer requests for external production provision parts
- Transfer an item structure from a pre-calculation of the sales proposal/order as permanent BoM and Routing
- Supporting SAP bin locations with the Web Picking list SAP app.

| Recent innovations | | Planned innovations | | Future direction |

BEAS MANUFACTURING

Future direction

WMS Integration

Continuing the improvements of the integration with WMS, extending the possibility of accessing the information handled by WMS, improving the interaction with batches, series and synchronizing the reservation systems of both products.

Quality control

Creation of QC orders/returns/rework work orders from complaints.

Improving QC usability to finding a data entry faster for QC orders.

Industry 4.0 support

A Beas predictor to help the user Identify patterns and insights, giving opportunity to optimize operations quickly and efficiently by knowing what needs attention.

Discovering applications of Internet of Things that can be included in Beas Manufacturing to optimize the operations, more options of the manufacturing tracking

and improve the efficiency of the supply chain process.

Boyum product portfolio integration

Discovering extended functionalities and B1UP Beas usability extension. Offering out-of-the-box solution by considering the latest functionality available in B1IP Provide the first Boyum cloud integration, starting with Boyum build app, allowing a bidirectional communication where Users can build Items structures using Boyum Cloud and synchronize with the Beas item master data by experiencing a hybrid environment.

Deployment tools

Discovering tools to help in deployment tasks, and a redesign of the configuration wizard to simplify the company settings.

SAP Business One integration

Reviewing SAP Business One Human Resource and Beas Master Data.

Industry solutions

BOM Potency balance (Purity of API)

Contents label report considers a standard format.

Potency by Batch. Batch report by potency information.

Work order quantity adjustment considers batch potency.

Reference designator component.

Item version authorization or approval procedures.

| Recent innovations | > | Planned innovations | > | Future direction |

PRODUCT ROADMAP

2021 | 1st half year

PRODUMEX
WMS

Product summary

Produmex WMS is an SAP Business One industry solution for regulated industries such as Food and Beverage and Life Sciences designed to not only manage inbound and outbound logistics functions, and internal warehouse processes, but offering industry focused functionality supporting distributors and manufacturers to meet customer, industry and regulatory demands.

More than just a warehouse management system, Produmex WMS can be configured to operate on the shop floor managing production and packaging operations via touch screens and offers silo/tank management.

PRODUCT VISION OF PRODUMEX WMS

Provide small-medium businesses a **smooth** and **flexible logistics** operation that **integrates** into the supply chain.

Produmex WMS 2021 1HY

Quality

For 2021 first half our focus remains as it was in 2020, quality. Deliver a better product, with fewer problems, and shortening our response time to partners and customers on emerging issues. We have shown a high-quality standard on all our 2020 releases, we want to maintain that level, and if possible, improve it, proving the trust our partners and customers put on us is well deserved.

Empowering

This will be our main theme for 2021 Q1 & Q2.

Power without control is useless. Features without flexibility are academic. We want to put the control of WMS power in the hands of our partners and customers. We want WMS features to be molded by our partners to fit their customers perfectly.

To achieve that, several frameworks will be created in WMS, allowing non-technical customization of WMS.

PRODUMEX WMS

Recent innovations

SAP B1 10 Certification

Produmex WMS is now certified in both SQL and HANA on SAP B1 version 10.

Batches & FEFO prioritize picking locations over bulk

Our picklist proposals, when using FEFO, now have the option to prioritize batches already in picking locations, over batches in bulk locations. When using that option, it is essential to have a correct replenish strategy in place in the warehouse.

Cycle Count Controller

You can now tell WMS to use the SAP B1 default settings when processing Cycle Counts, instead of a mandatory price list.

Box Pick & Pack (all variations)

The new SSCC print even now allows reports to have full access to SSCC data (e.g. customer order number).

Master SSCC and child SSCC

On the Mobile Client master SSCC screen, items stored on different child SSCCs are listed on separate lines. On the first line, the master SSCC was displayed, but on the other lines, the child SSCCs were displayed. We now always show the child SSCC.

PDMX Sales Delivery Tools

We have greatly improved the performance of this tool, including the ability to run parallelly in separated machines, allowing it to overcome the single thread restriction of DI-API.

Performance

General performance improvements, with special attention to packing stations and HANA installations.

| Recent innovations | Planned innovations | Future direction |

PRODUMEX
WMS

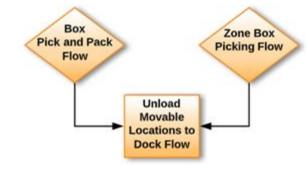# Recent innovations

Zone Box Pick and Pack

By using our new flows, which are decoupled from other controllers (e.g. picklist controller), our customers have gained much-wanted flexibility. For example, being able to have the same Box Picking flow customized for two different scenarios or pickers seniority.
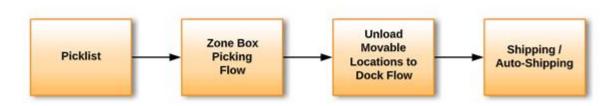
We added Zone Picking to the new Box Pick & Pack flow, giving it tremendous flexibility. It supports a wave picking being done in parallel zones by multiple pickers, or one picker doing multiple zones in sequence, and even, multiple pickers picking the same order and sharing a moveable location (for urgent/express orders for example).

This flow makes it possible to select specific zones in the warehouse while performing the picking process directly into boxes on a cart. As a part of our new flow's framework, this flow has its own controller and

is therefore decoupled from other controllers, meaning that options set on the picklist controller, proposal generator, etc., have no influence over this flow. This provides enormous flexibility.

The system tracks the movable location and the SSCCs on it during the picking process. In this way, a movable location can be used to pick a full wave in a sequence of zones, either by the same picker, or even passing the movable location to another picker. Alternatively, a full wave can be picked in parallel with multiple pickers working on different zones. Finally, when working with Zones, multiple pickers can share a single moveable location to speed up the picking process.

The process always requires the use of a movable location. When the picking process is completed for the wave, the Unload Movable Locations to Dock Flow can be started on the Mobile Client to unload the movable locations to the dock.
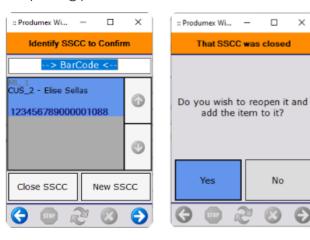

Recent innovations > Planned innovations > Future direction
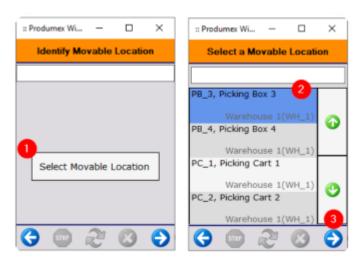
Recent innovations

Box Pick and Pack Flow – new feature

The Box Pick and Pack Flow now make it possible to scan both open and closed logistic units. In the case of closed logistic units, the flow supports them if they have not been unloaded yet. In this case, the system asks if you wish to reopen the SSCC. This is a very efficient way to use and manage several boxes in the same picking process.

In addition, if you have already identified a movable location, the system automatically uses this movable location when picking the second item. If the picking process must be continued on a different movable location, another movable location can be selected with the Other Tasks function. With the new product version, the system identifies the use of multiple movable locations. If you use more than one movable location and start the picking process again, the system asks you on which movable location you wish to continue the picking.

PRODUMEX
WMS

Recent innovations
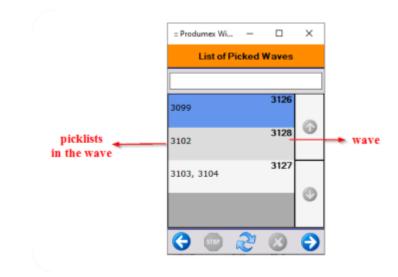
Unload Movable Locations to Dock Flow

Beside fully picked waves, now the Unload Movable Locations to Dock Flow makes it possible to perform the picking process with partially picked waves as well, as long the status of the picklist is Picked, and the logistic unit is closed.

Note that it is not possible to unload a partially picked picklist. That is intentional, as otherwise, it would cause chaos as an operator could try to unload SSCCs that are still being used in the picking process.

Recent innovations   **Planned innovations**   **Future direction**

Recent innovations
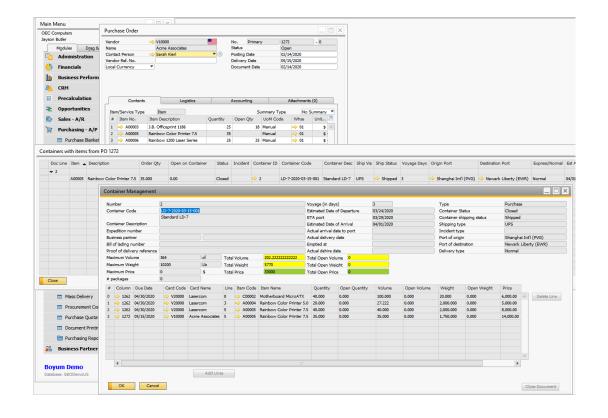
Support for B1UP

This WMS I snow integrated with B1UP, allowing partners and customer to open any WMS window or form that currently exists in the main Produmex SAP menu and take full advantage of "golden arrows".

The latest B1UP releases include navigation from B1 Dashboard (https://help.boyum-it.com/B1UP/defining-dashboard-navigation.html) and navigation from SQL Reports (https://help.boyum-it.com/B1UP/sqlreportfunction.html), this is in addition to the deeplinking from Macro Commands.

Recent innovations > Planned innovations > Future direction

PRODUMEX
WMS

Recent innovations
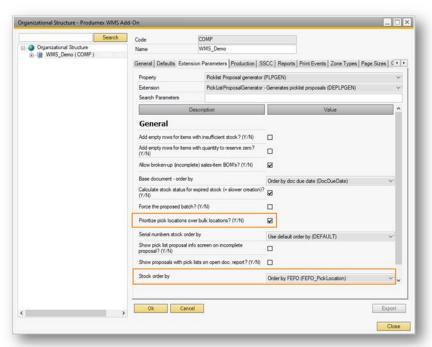
Picklist Proposal Generator

With the new product version, Produmex WMS adds the Prioritize pick locations over bulk locations setting to the Picklist Proposal Generator. The new setting works together with the already existing Stock order by setting as follows.

If the setting is enabled and the Stock order by setting is set to Order by FEFO (FEFO_PickLocation), Produmex WMS chooses batches first from pick locations, even if the item has batches in bulk locations that would expire first. Produmex WMS selects batches from bulk locations only if there are no available batches in the pick locations.

If the Stock order by setting is set to an option different from Order by FEFO (FEFO_PickLocation), the Prioritize pick locations over bulk locations setting is not applicable.

Recent innovations   **Planned innovations**   **Future direction**

PRODUMEX
WMS

Recent innovations

Text filter on list screens

Produmex WMS now has a text filter on the screens that show a list, be it a batch select list, or selecting a reason.

This feature is in line with our ease-of-use approach for Produmex WMS and minimizing operations on the device. By having a filter field, operators can scan barcodes instead of typing for any selection screen.
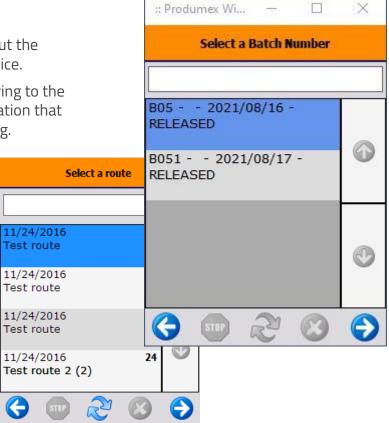
GS1 reading for filter screens

To further help minimizing interactions with the device, we have added to some screens, such as the batch selection screen, the capability of reading and parsing GS1 codes.

In this way, instead of typing a batch number, operators can scan the GS1 barcode of the batch, and WMS will extract the batch number and filter the list,

moving straight to the next screen. All without the need of the operator to type/click on the device.

This approach, of reading a barcode and moving to the next screen, applies to all screens in the situation that only one item remains in the list after filtering.

Recent innovations ⟩ **Planned innovations** ⟩ **Future direction**

PRODUMEX WMS

Planned innovations
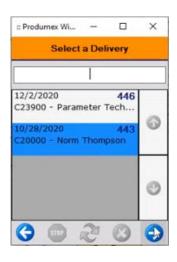
ProcessWeaver integration

Produmex WMS, using its EDI Module, will support shipping integration with the ProcessWeaver.

This will be a new module, with a very easy configuration, intended to be up and running in a matter of minutes.

Customers that use both WMS and ProcessWeaver will be able to take advantage of this integration for the creation and printing of shipping labels.

During the normal WMS shipping flow, or manually, WMS will collect the necessary information about the shipment, send it to ProcessWeaver, and then receive and print the shipping label.

| Recent innovations | Planned innovations | Future direction |

Planned innovations

WMS UI Framework

This will be the first framework of our Empowering theme, and it will apply to the mobile client.

The focus of this framework is to allow a flow (the main business logic) further flexibility on the decision nodes of that flow and control of the interaction users have with our software (and the device). This framework is not intended to customize the current business logic of Produmex WMS flows.

These settings can be customized at the flow/user level, allowing for different configuration of a screen depending on the flow and/or operator.

A simple example would be to customize showing Pick and pack Remarks for 3 seconds for senior pickers but requiring the junior pickers to press OK in the device.

The type of operation will depend on the type of screen.
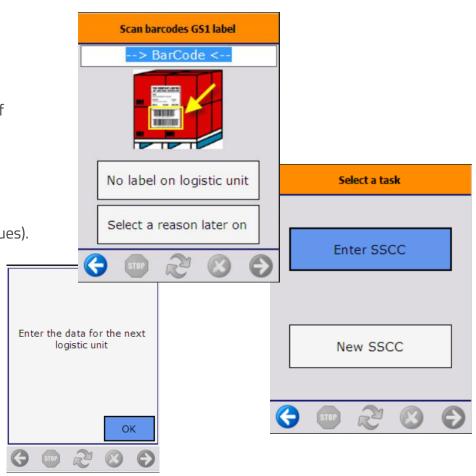
For Information type screens:
- Ability to hide a screen.
- Timer to show the window before clicking OK/closing window.
- What information to show (e.g. database values).

For Choice type screens:
- Skip it and always select the same choice.
- Timer to select a default option.

For all screens:
- Change the font size.

Planned innovations

WMS Put Away Recommendations Framework

This new framework aims at replacing our current location suggestions feature of WMS. Its goal is to allow full flexibility during the Put Away flow, to optimize where items should be stored.

Produmex WMS will ship with a default algorithm, that partners and customers can change to fit their procedures better. This default algorithm will be delivered in the form of a stored procedure that can be changed without further need for development from Boyum.

To accomplish this, WMS Bins will be extended with a set of attributes, and the same will be done with Logistic Units. The logic will be like the Item Attributes that already exist in WMS.

During the Put Away flow, WMS will use this algorithm to obtain a list of candidate locations to show operators.

A very simple example will be to use the weight of Logistic Units received at the dock to define what racks (bins) they should be stored.

Since it is expected that the above example will be a common one, this framework will also include a move restriction check.

During any move operation done using the Mobile Client, WMS will use a second similar algorithm to evaluate if the move is allowed (e.g. to avoid storing a logistic unit that would exceed the rack weight capacity)

For the initial release, the current location suggestions will remain active in WMS. However, it is expected that during 2021 it will be discontinued.

Recent innovations > **Planned innovations** > **Future direction**

PRODUMEX
WMS

Planned innovations

WMS Modular Framework

While the previous UI framework focused on adjusting the user interface, this framework focus on controlling the business logic.

Our current flows will be broken into business steps. These steps can then be arranged, removed, or added as needed, for the flow of a certain operation.

Partners will be able to use these steps, to create new flows, or adjust existing ones. This work will not require technical skills, just an understanding of WMS and logistics processes, and can be done entirely by partners and customer, without a need for development from Boyum-IT.

Produmex WMS will ship with an initial set of steps and will continue to expand this library.

PRODUMEX
WMS

Planned innovations

Configuration UI for new flows

Produmex WMS new flows have broken away from the logic of a single controller for all related flows. Instead, the *Box Pick & Pack*, *Zone Box Pick & Pack*, and *Unload Movable Location* can be duplicated any number of times, and each clone can have a very different configuration.

Currently, to change that configuration requires editing the settings in the database. We will be delivering a new user interface to allow those changes and configuration without the need to access the database directly.

Recent innovations > **Planned innovations** > Future direction

PRODUMEX
WMS

Planned innovations

Beas Manufacturing integration

We will continue to add more features to our integration to provide a smoother experience when using both products.

Recent innovations Planned innovations Future direction

Future direction

New Features

Multitenancy support for Produmex WMS.

New Technologies

Integration with Boyum Cloud and support for hybrid environments.

Product Roadmap

2021 | 1st half year

PRODUMEX SCAN

Product summary

Produmex Scan is an easy-to-implement barcode scanning solution for Windows CE/Android/Mobile devices which executes and automates SAP Business One Warehouse related inventory transactions and business flows in real-time.

With rapid deployment, ease of use, and powerful customizations, it allows business to start scanning in two hours from start of the installation process, providing an accelerated return on investment.

boyum it

Standalone high-performance automation of SAP Business One **inventory transactions** in real-time using mobile devices

PRODUMEX
SCAN

Recent innovations

Support for MS SQL 2019

Produmex Scan now supports MS SQL Server 2019

**Support for GS1 Application Identifier 91 - 99
(Company Internal 1 - 9)**

We have added support for new GS1 AIs

| Recent innovations | Planned innovations | Future direction |

PRODUMEX
SCAN

Planned innovations

SAP Business One

Update to include more SAP Business One documents
and processes.

Recent innovations		Planned innovations		Future direction

PRODUMEX
SCAN

Future direction

Support for multitenancy environment

Support for multitenancy in private clouds.

Beas Manufacturing integration

Ability to pick for production for Beas production
orders and positions.

Boyum Cloud Integration

Ability to pick for production for Boyum Cloud orders.

Product Roadmap

___

2021 | 1st half year

boyumcloud

Product Roadmap

2021 | 1st half year

boyumcloud

Product summary

Boyum cloud is a cloud-native product suite of meaningful enterprise solutions that enriches the functionality of SAP Business One with standardized best practice workflows for small and medium-sized manufacturing companies. Offering role-based modules with a focus on the needs of each user, Boyum Cloud is financially flexible and quick to set up.

PRODUCT VISION OF BOYUM CLOUD

Meaningful and **delightful** supply chain management suite that **integrates** and **optimizes** supply and demand management within and across small-medium businesses

PERSONAS

Product Manager

Production Manager

Shop Floor Operator

Quality Manager

Inspection Operator

Role based

With solutions tailored to specific business roles, employees only use what they need

Every manufacturing business, its departments and employees is unique, facing different tasks and challenges.

By understanding each different role and their problems and needs, and adapting the interface to suit them, users can work in a way that fits their needs

Boyum Cloud delivers modern applications, providing a more fluid and more enjoyable user experience.

Focus – Consequent extension – Taking products to the next level

INSPECT
Quality inspection management

BUILD
Product management

PRODUCE
Production order processing

- Release of Inspect

- Improve the functional scope of Build and Produce

- Get products that supports more JOBS TO BE DONE

- Make the products indispensable helpers in daily work

PRODUCE
Production order processing

Recent innovations

Production Manager

Release Boyum Cloud Produce - Manager

Boyum Cloud Produce helps you to manage production orders by planning, approving and tracking production steps in real-time.

Produce supports the collaboration of your production management and processing department, providing a clear overview of approved work stages, and enabling both the execution of time and material transactions and the reporting of finished products.

Main jobs
- Manage and release production orders
- prioritize production orders as rough planning
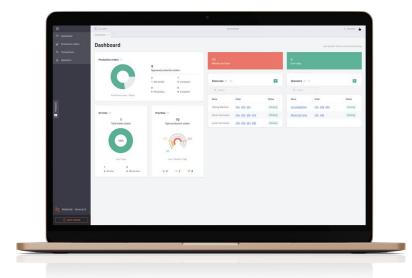- Monitor production orders and track progress in real time

Gains
- Smart production order list
- Automatic prioritization of production orders for rough planning
- Easy real-time access to the progress of individual operation steps
- Production order status overview

Recent innovations   **Planned innovations**   **Future direction**

PRODUCE
Production order processing

Recent innovations

Produce Manager - Prioritize, release and monitor
production orders and track progress in real-time

Production Manager

- Manage production orders and receive information on material availability

- Simple selection of the next production order and release stock of work for shop floor employees

- Easy real-time access to the progress of individual operation steps

- Production order status overview

- History on collected production data

| Recent innovations | | Planned innovations | | Future direction |

INSPECT
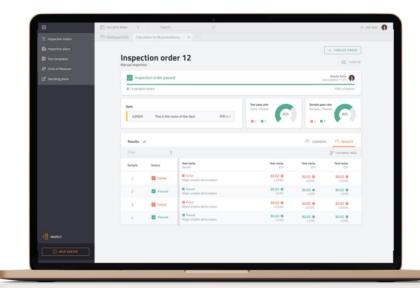Quality inspection management

Planned innovations

Focus Q1
Release of Inspect application which helps companies to control the quality of materials, products and processes.

JOB-TO-BE-DONE:
Monitor and inspect the quality of raw materials and own production parts. Perform in-process quality inspections.

Customer value
Improve product quality, reduce downtimes and returns caused by defective materials or production parts through straightforward quality inspections. A must-have for regulated industries.

Key features

- Inspection order approval and status tracking

- Progress of execution tests and samples

- Easy and smart collection of quality data

- Quality status – real-time pass rate based on planned approval target

- Analyzing of quality data per test and sample

- Consideration of defect types in the analysis of quality data

PRODUCE
Production order processing

Planned innovations

Focus Q2
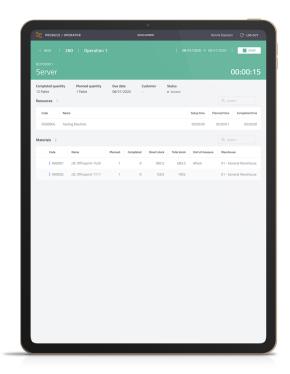Add flexibility in managing the shop floor processes handled by Produce Operator

JOB-TO-BE-DONE:
Materials need to be picked and booked from the warehouse at different stages; before, during and after production. Materials can be wasted or found defective during production, and these need to be immediately booked in the system so new materials can be picked.

Customer value
Enables closer collaboration between production and logistics teams. Reduces the chance of mistakes; such as materials being booked twice, or the wrong batch number being used.

Creates a more adaptable workflow that can be adjusted as material provision processes in logistics change. The flexibility enables the adaptation of a best-practice workflow when product or organizational structures change, and thus is prepared for the company's growth.

Key features

- Choose if any or all materials should be booked before, during or after production

- Scrap individual materials as problems are found during production

- Improve the booking workflow to skip steps if no actions are required by the user; for example, all materials are already booked or are backflushed.

| Recent innovations | | Planned innovations | | Future direction |

BUILD
Product management

Planned innovations

Focus Q2
Improve collaboration tools in Build; helping teams create a clear overview of their work, take ownership of their tasks and report on time spent.

JOB-TO-BE-DONE:
Within product development or engineering teams, many companies follow a strict process. Tasks for each product request are often either consistent or common; and can be performed by a range of employees, with different specialties. As the responsible employee, I need to be informed of and understand my tasks; provide an estimate their effort, and report on their progress and time spent.

Customer value
This product increment will help support collaboration and transparency within the team. Standardized tasks ensure a consistent process can be followed, and tools for estimating effort helps teams make better use of their capacity. Completed tasks can be used for determining and analyzing product development or project costs; ensuring they are profitable.

Key features

- Use standardized tasks or task lists to quickly build a clear overview of the intention of each product request

- Assign tasks to individual employees, see who is working on what and help employees have clear overview of their work

- Mark the completion of tasks and register an estimation of time spent

- Dashboard for the product manager to monitor development activities

| Recent innovations | Planned innovations | Future direction |

PRODUCE
Production order processing

Future direction

Focus
Add tools to Produce to help production companies to use rough, agile planning methods, and support multiple production lines running simultaneously.

JOB-TO-BE-DONE:
Allocation of production orders for production areas, prioritization and sequence planning for the shop floor per production area

Customer value
Improved overview of relevant production orders in individual production areas. Improves cooperation in production teams. The user interface supports an agile planning approach and enables easy control of the different production areas.

"I need a. solution to plan and execute production orders, and track progress in real-time"

John, Production Manager

Recent innovations	Planned innovations	Future direction

PRODUCE
Production order processing

Future direction

Focus
Integration Produmex WMS bin locations in Produce

JOB-TO-BE-DONE:
Display material availability and processing material issue for production orders from WMS bin locations

Customer value
Customers using Produce have the flexibility to use both WMS or SAP bin locations through the integration. Subsequent implementation of Produmex WMS does not affect the Produce shop floor application.

Customers using Produmex WMS can extend their logistic solution with a shop floor application for production execution.

"I need a. solution to plan and execute production orders, and track progress in real-time"

John, Production Manager

Recent innovations	>	Planned innovations	>	Future direction

BUILD
Product management

Future direction

Focus
Move Build closer to a lightweight PLM solution, giving tools to manage more of the product development process - particularly within engineer to order businesses.

JOB-TO-BE-DONE:
Use versions to document product changes and control production processes.

Customer value
Helps product development to differentiate product changes to a specific product. Improves the documentation of product changes. Increases and ensures product quality and supports traceability.

"I need a solution to manage requirements and specifications for new products and keep track of relevant development tasks."

Michele, Product Manager

PRODUCE
Production order processing

Future direction

Focus
Add tools to Produce Manager to help production companies to measure costs of production cycles, allowing them to make more accurate pricing decisions.

JOB-TO-BE-DONE:
Trace and analyze actual time and material costs of production orders.

Customer value
Reduce manufacturing costs by fine-tune planning times and optimize manufacturing resource usage. Improve decision-making by analyzing manufacturing times, costs, and their composition.

"I need a. solution to plan and execute production orders, and track progress in real-time"

John, Production Manager

| Recent innovations | > | Planned innovations | > | Future direction |