



# ItemPlanning

1 — Last update: 25 January 2024

NAVEKSA A/S

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# 1. Before you begin

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## Before you begin

You operate this manual by:

- Using the TOC – Table of content
- Expand / Collapse topics in table of content
- Using the Next / Previous at the end of each topic
- Using the subject direct links for further information
- When you hover over a picture and see the + sign or a hand, clicking will enlarge the picture
- Using the Print subject function
- Using the Print manual function
- Using the search bar
- Click on [NAVEKSA A/S](#) on the blue top line to switch to another manual
- Sending your feedback to NAVEKSA if you think something should be improved

Recommended background materials to explore:

- Microsoft Dynamics 365 Business Central manufacturing manuals available on Microsoft customer/partner source
- Scott Hamilton: Managing your supply chain using Dynamics NAV
- Peik Bech-Andersen: Manufacturing for Business Central

NAVEKSA solutions are all Microsoft certified applications (CfMD) working on top of Dynamic 365 Business Central Cloud and OnPremise versions.

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Throughout this document, the following abbreviations will be used.

BC = Dynamic 365 Business Central

BOM = Production Bill of Material

## Why ItemPlanning

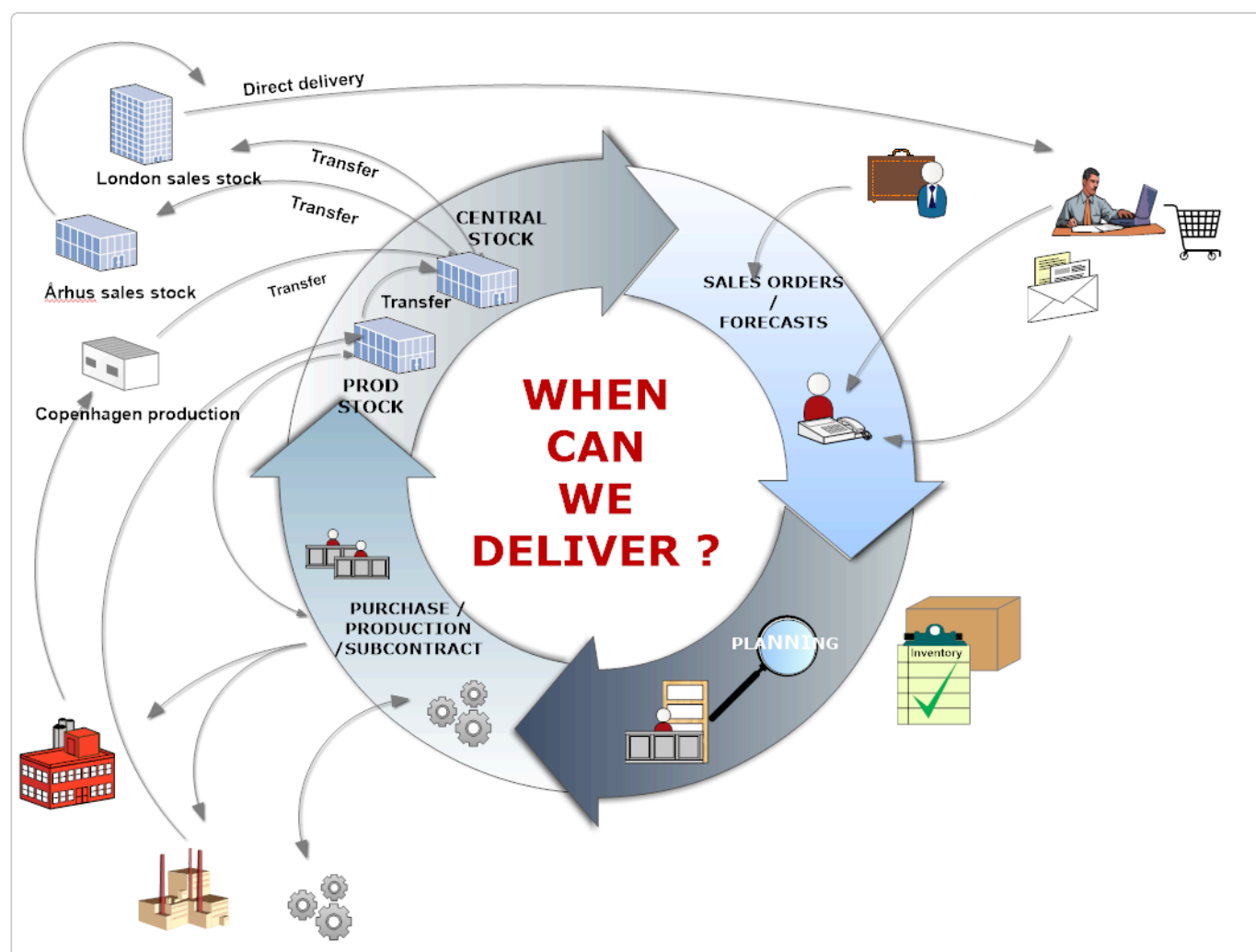
To be used at the single warehouse location or across multiple inventory locations.

)Designed for trading and manufacturing companies who want precise “here-and now” projected inventory availability balances across the supply chain.

Below you see an overview of the transaction flow and management operations which might be involved in controlling the supply chain.

The interesting questions the whole chain around is “When can we deliver and how many”

Click on the picture to enlarge





## Why

All over the company place many questions need answers every day on “When can we deliver?” and “What-if” when the unexpected happens.

These questions are what the ItemPlanning provide quick answers to in relation to:

- items
- Item bill of materials
- critical items, that is items out of stock or running out of stock
- sales orders
- sales orders – multi-select
- production orders
- production orders – multi-select
- assembly bill of materials.
- BC planning worksheet order recommandation validation.

In standard BC the sales person, the purchaser or the production planner often has to gather information from several screens manually, and then manually sort and arrange information, in order to get a true picture of the current and projected inventory situation at any given moment.

This can be cumbersome and time consuming if you, as e.g. the planner, have a constant need for quick and precise projected item availability answers.

## 1.2. A word of caution – Using BC flushing techniques

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### A word of caution – Using BC flushing techniques

ItemPlanning is constructed to run in a real time transaction mode.

If you use your BC with various forward/backflushing techniques, please be aware for incorrect ItemPlanning results.

In general flushing techniques are something which can be used if physical and system transactions are no longer than 1 day or 24 hours apart.

## 1.3. VIDEOS – Functional views – ItemPlanning

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### VIDEOS – Functional views – ItemPlanning

4 videoes with America, English, German and Danish speak and subtitles.



**Want to learn more about  
NAVEKSA ItemPlanning?**

 **US – version – 3:26 min**

**Built for Microsoft Dynamics 365 Business Central**



<https://player.vimeo.com/video/640266842>





## Want to learn more about NAVEKSA ItemPlanning?



UK – version – 3:26 min

**Built for Microsoft Dynamics 365 Business Central**



<https://player.vimeo.com/video/640266791>



## Möchten Sie mehr über NAVEKSA ItemPlanning?



DE – version – 3:26 min

**Für Microsoft Dynamics 365 Business Central entwickelt**



<https://player.vimeo.com/video/640266766>



# Vil du lære mere om NAVEKSA ItemPlanning?



DK – version – 3:26 min

Bygget til Microsoft Dynamics 365 Business Central



<https://player.vimeo.com/video/640266742>

## 2. How to operate Itemplanning

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### How to operate Itemplanning

ItemPlanning is a set of well-defined functions for the use of determining projected availability on items, bill of materials, assembly items and production orders.

Please note, that assembly items / assembly orders in ItemPlanning are handled together with manufacturing production items / orders.

Please read further topics to operate the ItemPlanning solution.

# 2.1. From a menu

## ItemPlanning – all options can be operated from the NAVEKSA menus

CRONUS Danmark A/S

Journals Worksheets Orders Product Design Capacities Setup

ItemPlanning - ItemItemPlanning - BOMItemPlanning - Critical ItemsItemPlanning - Sales OrderItemPlanning -... Multi-selectItemPlanning - Prod. OrderItemPlanning -... Multi-selectMore

Headline

Want to learn more about NAVEKSA ItemPlanning?

Actions

- + Item
- + Production Order
- + Production BOM
- + Routing
- + Purchase Order
- > Item Availability by Timeline
- > Order Planning
- > Item Tracing
- > ItemPlanning Log
- Reports

Activities

Planning - Operations

Design

My Purchase Orders

0

>

Prod. BOMs under Development

1

>

Routings under Development

0

>

Insights

## 2.2. Setting up ItemPlanning

---

### Setting up ItemPlanning

Please inform yourself about the ItemPlanning setup [ItemPlanning setup](#)

## 2.3. Create order proposal function

### Make orders function directly

The “Create order proposals” function applies to ItemPlanning – BOM, Sales orders and Production orders.

When you have a shortage situation on the screen you have the opportunity to make order proposals right away.

Creating orders respects all mandatory location/ item bin setup.

You just tickmark the lines you want to generate orders for and click the “Create order proposals” at the ribbon:

ITEMPLANNING - BOM | WORK DATE: 27-01-2022

ItemPlanning - BOM

Update ItemPlanning | **Create Order Proposals...** | Apply Template... | Requisition Worksheet | Planned Production Orders | Assembly Orders | Item Journal | Item Reclassification

**General**

No. .... LS-100

Description .... 100W OakwoodDeluxe-højttaler

Required Quantity .... 70

Required Date .... 11-06-2020

Starting Date Capacity calc. .... 11-06-2020

Select for Create Order (Proposal) .... ☐

Select all Lines for Create Order (Proposal) .... ☐ **Select all here.**

Available Date (mat.) .... 11-06-2020

Critical Item .... LSU-15

Available Date (cap.) .... 11-06-2020

Explode .... Single level BOM

Show component lines short on required date only ... ☐

Show component lines short only - all dates ... ☐

Show Repl.System .... All

Show Planning Worksheet data ... ☐

**Lines** | Line

Component / Operation	Description	Select	Vendor / Center	Level	Replenishment System	Explode BOM	Explode Route	BOM / Route Qty	Actual Stock	Calculated Free Stock
LSU-15	15" 100W basenhed i højttaler	<input type="checkbox"/>	01254796	1	Purchase	<input type="checkbox"/>	<input type="checkbox"/>	1	28	77
LSU-8	8"100W mellemtone i højttaler	<input type="checkbox"/>	01587796	1	Purchase	<input type="checkbox"/>	<input type="checkbox"/>	1	15	80
LSU-4	4" 100W diskant i højttaler	<input type="checkbox"/>		1	Purchase	<input type="checkbox"/>	<input type="checkbox"/>	1	100	30
FF-100	Frekvensfilter til LS-100	<input checked="" type="checkbox"/>	01254796	1	Purchase	<input type="checkbox"/>	<input type="checkbox"/>	1	42	-20
C-100	Kabler til LS-100	<input checked="" type="checkbox"/>	01587796	1	Purchase	<input type="checkbox"/>	<input type="checkbox"/>	1	33	-20
HS-100	Kabinet LS-100, Oakwood 120 l.	<input checked="" type="checkbox"/>	01863656	1	Purchase	<input type="checkbox"/>	<input type="checkbox"/>	1	56	-14
→ SPK-100	Pigge til LS-100	<input checked="" type="checkbox"/>	01587796	1	Purchase	<input type="checkbox"/>	<input type="checkbox"/>	4	78	-80

When you click on the “create order proposals” button, a new screen is displayed to select how you want orders created. This screen is similar to the standard BC “Carry out action messages” screen.

ITEMPLANNING - BOM | WORK DATE: 27-01-2022

ItemPlanning - BOM

Update ItemPlanning

Create Order Proposals...

Apply Template...

General

No. .... LS-100

Description ..... 100W OakwoodDeluxe-højttal

Required Quantity .....

Required Date ..... 11-06-2020

Starting Date Capacity calc. .... 11-06-2020

Select for Create Order (Proposal) ..... ☐

Select all Lines for Create Order (Proposal) ..... ☒

Available Date (mat.) ..... 11-06-2020

Lines

Line

Component / Operation	Description	Select	Vendor /
LSU-15	15" 100W basenhed i højttaler	<input type="checkbox"/>	0125479
LSU-8	8"100W mellemtone i højttaler	<input type="checkbox"/>	0158779
LSU-4	4" 100W diskant i højttaler	<input type="checkbox"/>	
FF-100	Frekvensfilter til LS-100	<input checked="" type="checkbox"/>	0125479
C-100	Kabler til LS-100	<input checked="" type="checkbox"/>	0158779
HS-100	Kabinet LS-100, Oakwood 120 l.	<input checked="" type="checkbox"/>	0186365
→ SPK-100	Pigge til LS-100	<input checked="" type="checkbox"/>	0158779

CREATE ORDER PROPOSALS

Saved Settings

Changes to the options and filters below will be saved only to: 'Last used options and filters'

Use default values from: ..... Last used options and filters

Options

Production Order ..... Planned

Assembly Order .....

Purchase Order ..... Copy to Req. Wksh

REQ. WORKSHEET

Req. Wksh. Te... INDKØB

Req. Wksh. N... STANDARD

Transfer Order .....

REQ. WORKSHEET

Req. Wksh. Te...

Req. Wksh. N...

Combine Transfer Orders ..... ☐

Stop and Show First Error ..... ☒

Filter: Integer

+ Filter...

OK

Cancel

## 2.4. Include/exclude planning worksheet data

### Include/exclude planning worksheet data

You have the opportunity to see the shortage situation on an item including planning worksheet orders and requirements, or without. This applies to all ItemPlanning sub-modules.

The displays change automatically to reflect planning worksheet data included yes or no.

Please note, that if you choose to include planning data, ItemPlanning will automatically include all production orders with status Planned and Firm Planned as well.

This is a point to be aware of, if you have set up that ItemPlanning should show and handle only released production orders. The Include planning data functions will thereby overrule your normal setup.

Example with planning worksheet data included:

ITEMPLANNING - BOM | WORK DATE: 27-01-2022

ItemPlanning - BOM

Update ItemPlanning Create Order Proposals... Apply Template... Requisition Worksheet Planned Production Orders Assembly Orders Item Journal Item Reclassification Journal Item Tracing Statistics

**General**

No. .... LS-100 Critical Item .... LSU-15

Description .... 100W OakwoodDeluxe-højttaler Available Date (cap.) .... 15-06-2020

Required Quantity .... 1 Explode .... Single level BOM

Required Date .... 15-06-2020 Show component lines short on required date only ... ☐

Starting Date Capacity calc. .... 15-06-2020 Show component lines short only - all dates ... ☐

Select for Create Order (Proposal) .... ☐ Show Repl.System .... All

Select all Lines for Create Order (Proposal) .... ☐ Show Planning Worksheet data .... ☒ **Planning data included**

Available Date (mat.) .... 15-06-2020

**Lines**

Component / Operation	Description	Select	Vendor / Center	Level	Replenishment System	Explode BOM	Explode Route	BOM / Route Qty	Actual Stock	Calculated Free Stock	Calculated Total Stock	Avail.Order	Avail.Lead
LSU-15	15" 100W basenhed i højttaler	<input type="checkbox"/>	01254796	1	Purchase	<input type="checkbox"/>	<input type="checkbox"/>	1	28	-154	-191		15-06-2020
LSU-8	8" 100W mellemtone i højttaler	<input type="checkbox"/>	01587796	1	Purchase	<input type="checkbox"/>	<input type="checkbox"/>	1	15	-151	-188		15-06-2020
LSU-4	4" 100W diskant i højttaler	<input type="checkbox"/>		1	Purchase	<input type="checkbox"/>	<input type="checkbox"/>	1	100	-201	-238		15-06-2020
FF-100	Frekvensfilter til LS-100	<input type="checkbox"/>	01254796	1	Purchase	<input type="checkbox"/>	<input type="checkbox"/>	1	42	-251	-288		15-06-2020
C-100	Kabler til LS-100	<input type="checkbox"/>	01587796	1	Purchase	<input type="checkbox"/>	<input type="checkbox"/>	1	33	-251	-288		15-06-2020
HS-100	Kabinet LS-100, Oakwood 120 l.	<input type="checkbox"/>	01863656	1	Purchase	<input type="checkbox"/>	<input type="checkbox"/>	1	56	-245	-282		15-06-2020
→ SPK-100	Pigge til LS-100	<input type="checkbox"/>	01587796	1	Purchase	<input type="checkbox"/>	<input type="checkbox"/>	4	78	-1.004	-1.152		15-06-2020

Same example with planning worksheet data excluded:



ITEMPLANNING - BOM | WORK DATE: 27-01-2022

ItemPlanning - BOM

Update ItemPlanning Create Order Proposals... Apply Template... Requisition Worksheet Planned Production Orders Assembly Orders Item Journal Item Reclassification Journal Item Tracing Statistics ...

### General

No. .... LS-100

Description .... 100W OakwoodDeluxe-højttaler

Required Quantity .... 1

Required Date .... 15-06-2020

Starting Date Capacity calc. .... 15-06-2020

Select for Create Order (Proposal) .... ☒

Select all Lines for Create Order (Proposal) .... ☒

Available Date (mat.) .... 15-06-2020

Critical Item ....

Available Date (cap.) .... 15-06-2020

Explode .... Single level BOM

Show component lines short on required date only .... ☒

Show component lines short only - all dates .... ☒

Show Repl.System .... All

Show Planning Worksheet data .... ☒ Planning data excluded

### Lines

Component / Operation	Description	Select	Vendor / Center	Level	Replenishment System	Explode BOM	Explode Route	BOM / Route Qty	Actual Stock	Calculated Free Stock	Calculated Total Stock	Avail.Order	Avail.Lead
LSU-15	15" 100W basenhed i højttaler	<input type="checkbox"/>	01254796	1	Purchase	<input type="checkbox"/>	<input type="checkbox"/>	1	28	146	109	07-05-2020	
LSU-8	8"100W mellemtone i højttaler	<input type="checkbox"/>	01587796	1	Purchase	<input type="checkbox"/>	<input type="checkbox"/>	1	15	149	112	07-05-2020	
LSU-4	4" 100W diskant i højttaler	<input type="checkbox"/>		1	Purchase	<input type="checkbox"/>	<input type="checkbox"/>	1	100	99	62		
FF-100	Frekvensfilter til LS-100	<input type="checkbox"/>	01254796	1	Purchase	<input type="checkbox"/>	<input type="checkbox"/>	1	42	49	12	08-05-2020	
C-100	Kabler til LS-100	<input type="checkbox"/>	01587796	1	Purchase	<input type="checkbox"/>	<input type="checkbox"/>	1	33	49	12	08-05-2020	
HS-100	Kabinet LS-100, Oakwood 120 l.	<input type="checkbox"/>	01863656	1	Purchase	<input type="checkbox"/>	<input type="checkbox"/>	1	56	55	18		
→ SPK-100	Pigge til LS-100	<input type="checkbox"/>	01587796	1	Purchase	<input type="checkbox"/>	<input type="checkbox"/>	4	78	196	48	08-05-2020	

## 2.5. Gross/net calculations

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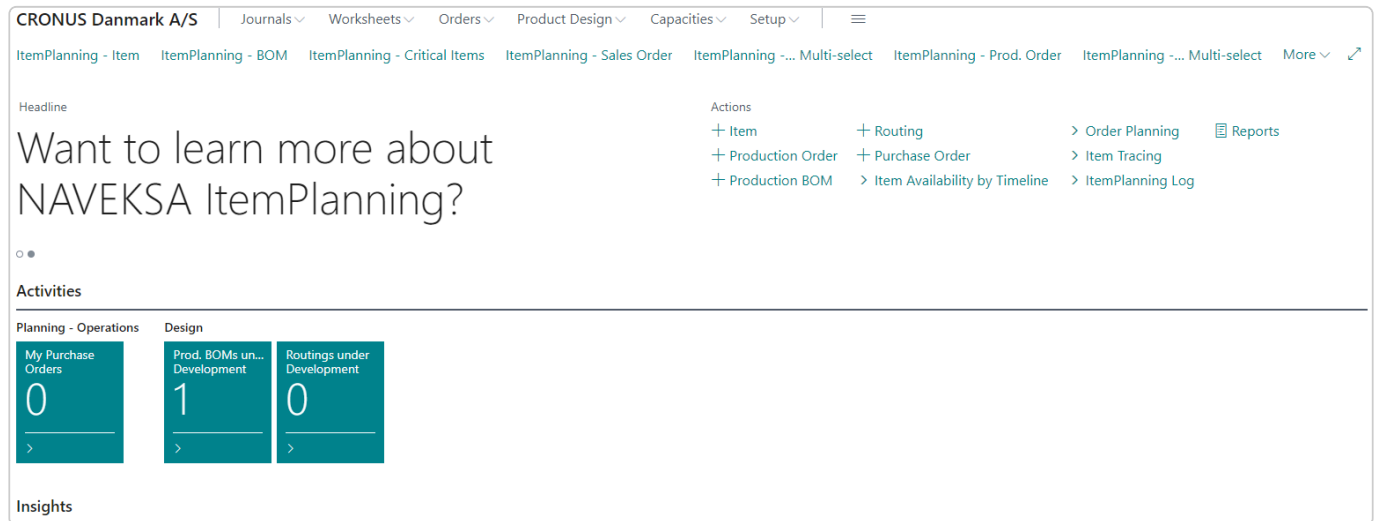
### Gross/net calculations

Please read about this important topic in the ItemPlanning setup manual:

[Gross/net calculations](#)

# 3. How to use ItemPlanning – ITEM

## How to use ItemPlanning ITEM



Pressing the menu item ItemPlanning – Item, will show you a list of items.

Choosing an item will show details for this item

You will be able to:

- To see a time-phased projected inventory balance for the availability of the item.
- Start simulating various scenarios – changing orders in date and quantity and see the effects.
- See various additional information using the tooltip menu.
- You have the option to “Limit totals to” using the standard BC function. Normally this will be used to limit totals (show data) to one or more specific locations.

# 3.1. How it works – Overview

## How it works – overview

ItemPlanning – Item is the tool to see the precise time-phased projected (expected) inventory of an item over time.

The calculations are based on all known and expected issues and receipts over time.

The user has more options to see the development in expected inventory based on the use of standard BC and the setup of the ItemPlanning – Item solution.

When the unexpected happens (eg. a purchase being 14 days late) simulation of dates and quantities can be performed to see sales delivery implications immediately.

ItemPlanning – Item is used in sales, purchase, production planning etc. Indeed all places where decisions about item availability takes place.

Click on the picture to enlarge

ITEMPLANNING - ITEM | WORK DATE: 27-01-2022

ItemPlanning - Item

New Process Actions Navigate Fewer options

**General**

No. 1000 Description 2

Description Cykel Show Planning Worksheet data

**Lines** | Line

Date	Type	Independent/Demand	Sales Order No.	Supply	Purchase Order No.	Production Order No.	Reservation Qty.	MRP Comp.Demand	MRP Planned Order	Inv.excl.FC	Inv.excl.FC & Reserv.	Simulate Qty.	Simulate Date	Item Relation	St
→	Inventory									32	32				1
29-01-2022	Firm Planned			16		1010005				48	48	16	29-01-2022		1
29-01-2022	Production			16		1011003				64	64	16	29-01-2022		2
29-01-2022	Production			10		1011004				74	74	10	29-01-2022		2
01-07-2022	Forecast									-226	-226	300	01-07-2022		2
01-08-2022	Forecast									-526	-526	300	01-08-2022		2
01-09-2022	Forecast									-622	-622	200	01-09-2022		2
13-09-2022	Sales	25	109001							-647	-647	25	13-09-2022		1
17-09-2022	Sales	27	109002							-674	-674	27	17-09-2022		
23-09-2022	Sales	20	109004							-694	-694	20	23-09-2022		
26-09-2022	Sales	16	109003							-710	-710	16	26-09-2022		-
28-09-2022	Sales	16	109005							-726	-726	16	28-09-2022		-1
01-10-2022	Forecast									-876	-876	150	01-10-2022		-1
01-11-2022	Forecast									-976	-976	100	01-11-2022		-1
01-12-2022	Forecast									-1.076	-1.076	100	01-12-2022		-1

## 3.2. Recommende column setting

---

### Recommende column setting

NAVEKSA recommends the following minimum selection of columns:and in the following order.

In addition to the below mentioned you have several columns available to suit the actual need.

Please investigate what is the right setting for you using the “Choose columns” function.

Date

Type

Independent demand – sales orders

Sales order number

Supply

Purchase order number

Production order number

Customer/vendor name

Reservation quantity

MRP component demand

MRP planned order

Projected inventory excl. forecast

Projected inventory excl. forecast excl. reservation

Simulate quantity

Simulate date

Item Relation

Stock value

## 3.3. Item Planning Item – fields and calculations – GENERAL

### Item Planning fields and calculations – Header

ItemPlanning – Item gives a precise time-phased overview of the projected item inventory availability situation. In other words to tell “When can we deliver and how many”

When the unexpected happens (e.g. a purchase order being delayed) it also offers the opportunity to simulate the impact of deviations to the planned.

ItemPlanning can be setup as a simple or complex solution depending on the requirements the company requires using it.

ItemPlanning – Item is also the solution to use when data are NOT all 100% accurate. Because of the intuitive display, the planner is able to see any inaccuracies right away.

The ItemPlanning solution produces a true time-phased projected item inventory availability using various precise calculation methods at your choice and needs:

The screenshot shows the 'ItemPlanning - Item' window. The header section includes fields for 'No.' (1000), 'Description' (Cykel), 'Description 2', and a toggle for 'Show Planning Worksheet data'. Below the header is a table with columns: Date, Type, Independent/Demand, Sales Order No., Supply, Purchase Order No., Production Order No., Reservation Qty., MRP Comp.Demand, MRP Planned Order, Inv.excl.FC, Inv.excl.FC & Reserv., Simulate Qty., Simulate Date, Item Relation, and St. The table contains three rows of data for the date 29-01-2022, showing inventory, firm planned, and production orders.

Date	Type	Independent/Demand	Sales Order No.	Supply	Purchase Order No.	Production Order No.	Reservation Qty.	MRP Comp.Demand	MRP Planned Order	Inv.excl.FC	Inv.excl.FC & Reserv.	Simulate Qty.	Simulate Date	Item Relation	St
29-01-2022	Inventory	–	–	–	–	–	–	–	–	32	32	–	–	–	–
29-01-2022	Firm Planned	–	–	16	–	1010005	–	–	–	48	48	16	29-01-2022	1	
29-01-2022	Production	–	–	16	–	1011003	–	–	–	64	64	16	29-01-2022	2	
29-01-2022	Production	–	–	10	–	1011004	–	–	–	74	74	10	29-01-2022	2	

The header contains the

- Item Number,
- Item description,
- Item description 2 and
- Show Planning worksheet data

Show planning worksheet data is pre-filled with the setup parameter. You can set and remove this tickmark to see data with or without planning sheet data involved.

- You can delimit you inquiry to see **one or more locations** using the standard BC apply filter function.
- Your initial location inquiry is determined in the ItemPlanning setup.



To see more locations at the same time (here both the blue and yellow location) use a

filter definition like:

ITEMPLANNING - ITEM | WORK DATE: 27-01-2022

ItemPlanning - Item

New Process Actions Navigate Fewer options

General

No.1000

Description 2

DescriptionCykel

Show Planning Worksheet data

Lines

Line

Date	Type	Location Code	Independent/Demand	Sales Order No.	Supply	Purchase Order No.	Production Order No.	Reservation Qty.	MRP Comp.Demand	MRP Planned Order	Invexcl.FC	Invexcl.FC & Reserv.	Simulate Qty.	Simulate Date
→	Inventory	Filter...		—	—	—	—				32	32		
29-01-2022	Firm Planned	Clear Filter		—	16	—	1010005				48	48	16	29-01-2022
29-01-2022	Production	What's this?		—	16	—	1011003				64	64	16	29-01-2022
29-01-2022	Production			—	10	—	1011004				74	74	10	29-01-2022

## 3.4. Itemplanning ITEM – fields and calculations – LINES

---

### Itemplanning – ITEM – fields and calculations

ItemPlanning – Item gives a precise time-phased overview of the projected item inventory availability situation. In other words to tell “When can we deliver and how many”

When the unexpected happens (e.g. a purchase order being delayed) it also offers the opportunity to simulate the impact of deviations to the planned.

ItemPlanning can be setup as a simple or complex solution depending on the requirements the company requires using it.

ItemPlanning – Item is also the solution to use when data are NOT all 100% accurate. Because of the intuitive display, the planner is able to see any inaccuracies right away.

The ItemPlanning solution produces a true time-phased projected item inventory availability using various precise calculation methods at your choice and needs:

**The heart of the solution** is to use 1 or more of 4 projected availability columns:

- **Projected inventory** – To be used by the company using sales forecasts and do not use “hard” reservations in availability calculations.
- **Projected inventory exclusive reservations** – To be used by the company using forecasts and want to keep out any “hard” reservations quantities in availability calculations.
- **Projected inventory exclusive forecasts and reservations** – To be used by the company not using forecasts and want to keep out “hard” reservations in availability calculations.
- **Projected inventory exclusive forecasts** – To be used by the company not using forecasts and “hard” reservations in availability calculations.

Here is an example with 2 projected availability columns selected.

One column with forecast involved and one column without.

Now looking at the 2 columns you have the following information available to make decisions:

The first column is a picture of sales not selling all of their own forecast, and inventory will be built up. The other column is a representation of sales selling all of their own forecast.

The truth is that the right answer probably will be in-between the 2 columns.

This is what we call proper decision support. .



## ItemPlanning - Item

## General

No.: 1000

Description: Bicycle

## Lines

Line ▾  Find

Date	Type	Projected Inventory	Projected Inventory excl. Forecast and Reservations
	Inventory	510	390
17-01-2018	Sales	508	388
25-01-2018	Sales	458	338
23-02-2018	Sales	330	210
<b>01-07-2018</b>	Forecast	330	210
<b>18-07-2018</b>	Planned	620	500
<b>18-07-2018</b>	Sales	120	0
<b>01-08-2018</b>	Planned	420	300
<b>01-08-2018</b>	Forecast	420	0
<b>01-09-2018</b>	Forecast	420	0
<b>15-09-2018</b>	Sales	300	0
<b>21-09-2018</b>	Planned	320	20
<b>21-09-2018</b>	Sales	300	0
<b>24-09-2018</b>	Planned	850	550
<b>24-09-2018</b>	Sales	300	0
<b>01-10-2018</b>	Planned	450	150
<b>01-10-2018</b>	Forecast	450	0
<b>10-10-2018</b>	Planned	550	100
<b>01-11-2018</b>	Forecast	550	0
<b>21-11-2018</b>	Planned	650	100
<b>01-12-2018</b>	Forecast	650	0
<b>26-12-2018</b>	Planned	750	100

## 3.4.1. ItemPlanning item fields explanation

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### How it works Overview

#### Date

**All BC transactions types are sorted and shown in ascending date order. And if same date receipts are shown before issues.**

Dates in normal means dates within the lead time for the item.

Dates in bold means dates beyond the lead time for the item.

Picking up a date goes like this:

If a Sales Order the date is found obeying the following rules

- If filled in on the sales order line, use Planned delivery date.
- Otherwise, use Planned shipment date, if filled in.
- Otherwise, if filled in, use Shipment date.
- Otherwise, if filled in, use Confirmed delivery date.
- Otherwise, use Requested delivery data.

If a Purchase Order the date is found obeying the following rules

- If filled in, use Requested receipt date.
- Otherwise, if filled in, use Promised receipt date.
- Otherwise, if filled in, use Planned receipt date.
- Otherwise, use Order Date.

For production orders, the Due date is used.

For Planning worksheet planned orders the Expected delivery date for both purchase and production order proposals is used.

For component requirements, the Start Date (the date when the requirement and utilization date of the component / raw material) is used.

#### Start Date

The start date is only relevant for:

Planned planning worksheet purchasing, production order recommendations and released production orders.

Depending on, if forward or backwards planning is used, the start date or delivery date is calculated based on the lead time.

**Type**

Type describes all the possible transaction types which can take place in standard BC. I.e. positive transactions which increases the inventory balance, and negative transactions which reduces the inventory balance. The source may be:

- Planning worksheet lines – planned order, firm planned order
- Forecast
- Sales
- Released Production Order
- Purchase
- Component Released to production order
- Released production order
- Component for released production order
- Inventory transfer
- Return shipment
- Return receipt
- Assembly order
- Assembly component
- Job Please observe that only job planning lines with usage link is displayed.
- Purchase blanket order
- Sales blanket order
- Returns purchase/sales
- etc.

**Action Message**

Action Message describes PLANNING SHEET action proposals on the line:

- New
- Change qty
- Rescheduling
- Reschedule & correct quantity
- Cancel

**Location Code**

There is a look-up on the locations available.

The Location Code field refers to the value found on the specific transaction line.

Please note, that on transfer orders Location Code is referring to 'From Location Code' where 'To location code' is shown in a dedicated field.

**Production Forecast**

The forecast for a sales item or a component (spare part, etc.) is entered into the Production Forecast module. Forecasts are included only as of the current month.

This month is determined by the system's working date.

The production forecasts that are used in the PLANNING SHEET run, are defined and selected at the beginning of the PLANNING SHEET run.

**Independent / dependent Requirements**

Independent/dependent demand covers two types of requirements.

Forecasts and sales orders are independent requirements (independent because they both are external related), while the component requirements (component allocations) of the released production orders are dependent requirements.

**Max. demand – Greater Forecast / Sales orders**

MS always compares forecasts with the actual customer orders within a forecast period, before outputting the greater demand to the planning engine.

A forecast period is the time interval between two forecasts.

This interval (-or distance between forecasts) is something you decide when establishing production forecasts in BC.

Microsoft philosophy is that the greatest demand of forecast or customer orders within a forecast period is the independent product demand that needs to be accommodated (or planned for).

Depending on the highest figure of the forecast period, forecast or actual customer orders, this quantity will be used as an independent product demand input in the PLANNING SHEET system's master plan. – Taken into consideration that the depreciation of the forecast is reduced by the sales order quantity delivered in this period.

**Sales during Forecast Period**

Executed sales (Shipped quantity) within corresponding forecast period are displayed in this column.

This shipped sale is reducing the period forecast and as such included in the calculation of Greater demand within the forecast period.

**Sales Order Number**

There is look-up on the sales order field to see details and/or in order to change or maintain this order.

**Service Order No**

There is look-up on the service order field to see details and/or do maintenance on this order.

**Purchase Order Number**

There is look-up on the purchase order field to see details and/or do maintenance on this order.

**Production order Number**

There is look-up on the production order field to see details and/or do maintenance on this order.

**Transfer order No**

There is look-up on the transfer order field to see details and/or to maintain this order.

**Blanket Order Number**

There is look-up on the purchase or sales order field to see details and/or do maintenance on this order.

**Assembly Order Number**

There is look-up on the assembly order order field to see details and/or in order to change or maintain this order.

**Return receipt order number**

There is look-up on the return receipt order field to see details and/or in order to change or maintain this order.

**Return shipment Order Number**

There is look-up on the return shipment order field to see details and/or in order to change or maintain this order.

**Supply**

Quantity expected to be received on the Date.

**Customer/Vendor Name**

Name of Customer/ Vendor.

**PLANNING SHEET planned Orders**

Planning sheet planned orders show the quantity the planning sheet suggestions to be released, modified or deleted.

The proposal may be planning worksheet order, a firm planned order, a planned order or a purchase requisition.

Note that the planning sheet proposals (Action Message) types 'Change quantity', 'Reschedule', 'Reschedule and change quantity' and 'Cancel', AND if the planning sheet suggests a greater or smaller quantity than the quantity on already released orders, AND if order dates should be expedited / deferred, the separate plus or minus planned orders are used, which compensates for the quantity and / or date changes.

The above is closely connected with the functionality 'Planning Flexibility', which can be used on firm planned and released orders.

Refer to the Microsoft Manufacturing manuals for a description of this functionality.

**Planning Sheet Comp. Demand**

PLANNING SHEET component demands shows the PLANNING SHEET generated planned component requirements. The quantity can come from a planning worksheet; firm planned orders or planned orders.

**Inv.excl.FC / Projected Inventory without Forecast**

Projected inventory is a time-phased balance of expected inventory if everything goes as planned.

This column shows a stock profile, assuming that remaining forecast (residual forecast) is not sold in the forecast periods.

**Inv.incl.FC / Projected Inventory with Forecast**

Projected inventory is a time-phased balance of expected inventory if all goes as planned.

This column shows a stock profile, assuming that any remaining residual forecast (residual forecast) will be sold in the forecast period.

**Inv.excl.Res / Projected inventory exclusive Reservations**

Forecast Reduced projected inventory minus Reservations.

**Inv.incl.Res / Projected inventory including Reservations**

Expected forecast reduced Stock exclusive reservations.

**Simulate Date**

Enter or pick up a new delivery date.

After having changed the delivery date remember to “scroll” over the transactions, so the new date can be positioned and the simulated figures can be updated.

**Simulate Quantity**

As a planner you might want you to see the effect of increasing/decreasing order quantities and dates.

By changing the numbers up and down and changing the dates for planned receipts and issues (sales orders, purchase orders, planned orders etc.), the system will immediatly calculate a new projected inventory.

After having changed the delivery date remember to “scroll” over the transactions, so the new date can be positioned and the simulated figures can be updated.

**Original Quantity**

Original Quantity

**Original Date**

Date of the original quantity

**Reservation Quantity**

Quantity reserved (hard reservations – not allocations) for purchase, transfer- or productions orders.

**Quantity per**

Quantity per unit.

**Item Relation**

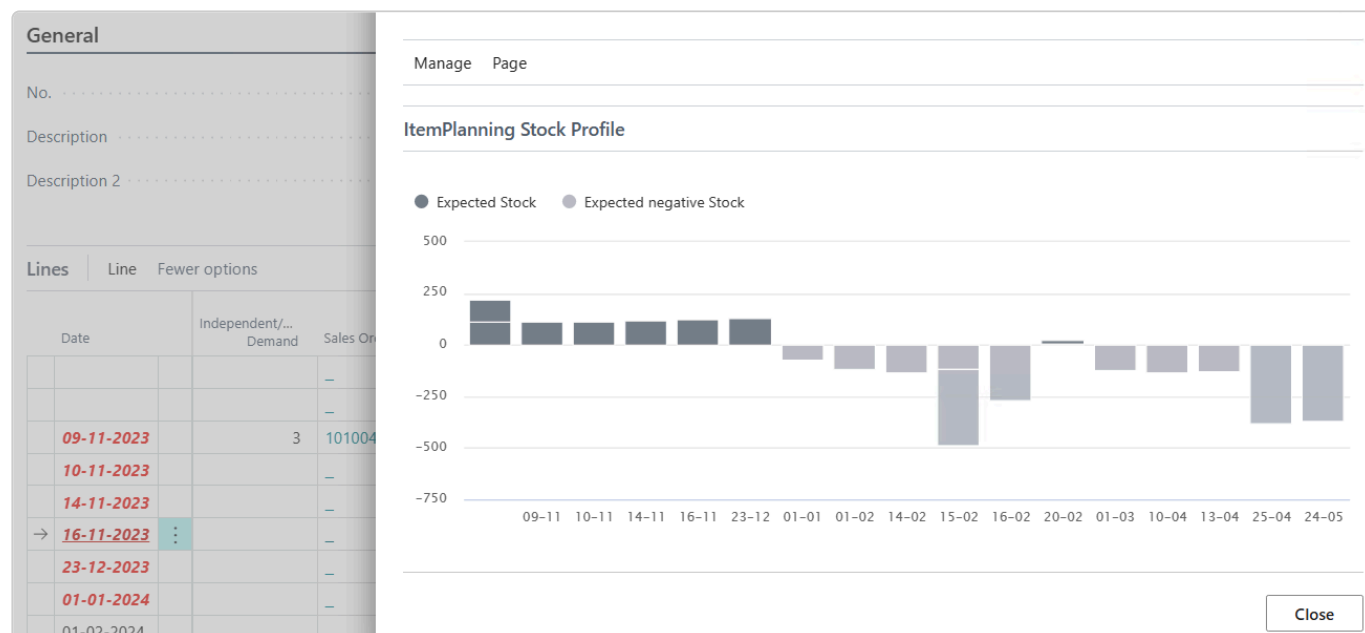
The item relation indicates that the product requirement has been kind of “inherited”.

There is a look-up function showing this item relation on the item card.

**Graphical representation of projected inventory**

Click on a figure/number in the column Projected inventory without forecast to see a graphical representation of the projected inventory availability

Example:



## Inventory value

The projected inventory expressed in monetary values based on your unit cost price settings

## Variant code

Actual variant for an item that has different variations of the original item.

Example:

Create a new item and have that item have variants that are going to be different colors; that is the colors we're selling are red, green and blue = Variant.

## **4. How to use ItemPlanning – Critical items**



# 4.1. How it works – Overview

---

## How it works – Overview

### How to use ItemPlanning – Critical Items

The ItemPlanning – Critical Items function has been made with the purpose of an easy way to validate any actual or expected future item shortages and pin-point the Items to be evaluated.

How it works:

In principle the function runs the ItemPlanning – Item calculations for each item. Items can be filtered when requesting the calculation.


## Calculate critical Items

↗ ✕

Use default values from ..... Last used options and filters ▼

### Options

Show Planning Worksheet data ..... ☐

Calculate until ..... 25-01-2024 

Parameter for item selection ..... Safety Stock ▼

### Filter: Item

✕ No. .... ▼

✕ Inventory Posting Group ..... ▼

✕ Gen. Prod. Posting Group ..... ▼

✕ Replenishment System ..... ▼

+ Filter...

Filter totals by:

+ Filter...

Schedule...

OK

Cancel

First you can choose whether you want calculations to include Planning Worksheet data (just like ItemPlanning Item).

Then you must specify a date horizon for the calculation. This date is considered as the ending date for the calculation, that is any later transactions are not taken into consideration.

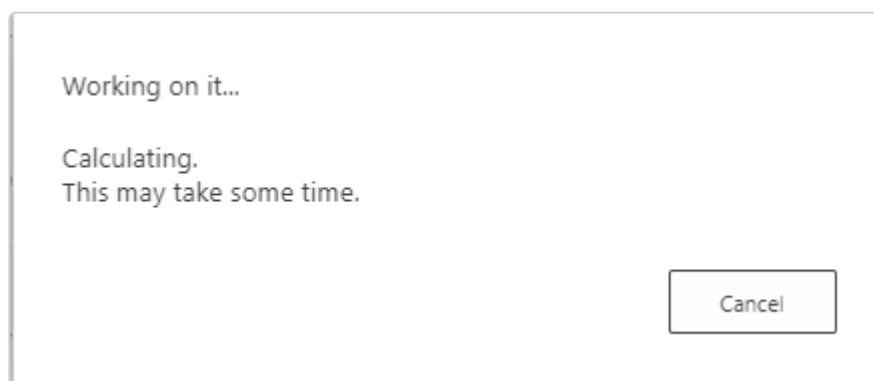
You will get warnings for items with supply problems before this date. Any problems on later dates are ignored.

NAVEKSA recommend that you set this data horizon to reflect your normal planning horizon.

Finally you must specify what Item/stock parameter the calculation shall use when deciding if there is a supply problem on an Item.

- 'Neg. stock' means that any Items that goes below 0 sometime within the time horizon will be selected.
- 'Reorder Point' means that any Items that goes below the Items Reorder Point sometime within the time horizon will be selected.
- 'Safety Stock' means that any Items that goes below the Items Safety Stock sometime within the time horizon will be selected.

As the calculation process may take some time dependent of the actual quantity of data, you will be presented the following notice:



Each item, that is found to have expected stock below value of the selected parameter within the selected time horizon (filtered by the "Calculate until" parameter) will be shown on a list, where you can work with more details, item by item.

No. ↑	Description	Substit... Exist	Assem... BOM	Production BOM No.	Routing No.	Base Unit of Measure	Cost is Adj...	Unit Cost	Unit Price	Vendor No.	Search Description	Starting Inventory	Calculated Inventory - End Date	Calculated Inventory - Lowest	Calculated Inventory - Highest
12345	Fabricated item	No	No	12345	12345	PCS	<input checked="" type="checkbox"/>	0.00	0.00		FABRICATE...	0	-1	-1	0
1928-S	AMSTERDAM Lampe	No	No			STK	<input checked="" type="checkbox"/>	238.00	305.00	10000	AMSTERDA...	8	-17	-17	8
1953-W	Gæstesektion 1	No	Yes			STK	<input checked="" type="checkbox"/>	0.00	699.00		GÆSTESEKT...	-49	-49	-49	0
1969-W	Konferencepakke 1	No	Yes			STK	<input checked="" type="checkbox"/>	0.00	1.899.00		KONFEREN...	-7	-7	-7	0
1996-S	ATLANTA Whiteboard, basis	No	No			STK	<input checked="" type="checkbox"/>	6.055.00	7.763.00	30000	ATLANTA ...	10	-9	-11	10
2345	Fabricated item	No	No	2345	2345	PCS	<input checked="" type="checkbox"/>	0.00	0.00		FABRICATE...	0	3	-1	3
23456	Fabricated item	No	No	23456		PCS	<input checked="" type="checkbox"/>	0.00	0.00		FABRICATE...	0	-4	-4	0
3456	Fabricated item	No	No	3456	3456	PCS	<input checked="" type="checkbox"/>	0.00	0.00		FABRICATE...	0	-5	-5	0
3468-1	Gekaufte Komponente	No	No			STK	<input checked="" type="checkbox"/>	0.00	0.00		GEKAUFTE ...	0	-25	-25	0
4567	Fabricated item	No	No	4567		PCS	<input checked="" type="checkbox"/>	0.00	0.00		FABRICATE...	0	-1	-1	0
5678	Fabricated item	No	No	5678	5678	PCS	<input checked="" type="checkbox"/>	0.00	0.00		FABRICATE...	0	-3	-3	0
56789	Fabricated item	No	No	56789		PCS	<input checked="" type="checkbox"/>	0.00	0.00		FABRICATE...	44	-24	-24	41
6789	Purchased component	No	No			PCS	<input checked="" type="checkbox"/>	0.00	0.00		PURCHASE...	0	-1	-1	0
BARC15	Cylinder barrel	No	No	BARC15		PCS	<input checked="" type="checkbox"/>	0.00	0.00		CYLINDER ...	0	-7	-7	0
COMP123	compo descrp	No	No	COMP123		PCS	<input checked="" type="checkbox"/>	0.00	0.00		COMPO DE...	0	-2	-2	0
FABRIC1	Fabricated item	No	No	FABRIC1	FABRIC1	PCS	<input checked="" type="checkbox"/>	2.50	0.00		FABRICATE...	26	-84	-84	67
HALB1	Produzierter Artikel	No	No			STK	<input checked="" type="checkbox"/>	0.00	0.00		PRODUZIER...	0	-25	-25	0

The list shows you some basic data from the item card and the calculated values of

- Starting inventory
- Calculated Inventory at End Date (Ending Inventory)
- Calculated Inventory – Lowest (within the period)

- Calculated Inventory – Highest (within the period)

These values can help you select the most critical items to handle first and can be interpreted as follows:

A negative starting inventory indicates of course, that you have some data update problems in your system.

A negative ending inventory indicates, that during the period your outgoing orders and transactions requires a higher quantity of the item than you have in stock added incoming orders and transactions.

A non-negative ending inventory will always appear together with a negative value of Lowest inventory. This means that you have a problem within the period which technically is solved at the end of the period. Typically you will have some timing problem. Incoming orders are late when compared to outgoing orders, and therefore not available at the right point in time.

Highest inventory is just for information purposes. This value has no influence when considering if an item is critical in respect to ItemPlanning.

To move on, you can select items one at a time and then select Manage, Edit/View to open the ItemPlanning – Item function which will then shows you all details about why the system expects a shortage situation for this Item.

## 5. How to use ItemPlanning – BOM

### NAVEKSA ItemPlanning – BOM

#### Projected Item BOM – Bill of Material Inventory Availability

The ITEMPLANNING – BOM application makes it possible, from one screen, to get an accurate picture of the projected available inventory situation of all components in a single or multi-level BOM – Bill of material.

\*To make a decision on assembly order component shortage, you select an assembly item from the list or from a Itemplanning Item line

You will now see:

- How many items you have in stock
- How many you have on order.
- How many items you can build right now.
- See component shortages and earliest delivery dates for the same components at the required date.
- Earliest date for delivery for the quantity in question regarding components.
- Earliest date for delivery for the quantity in question regarding capacity load.
- See various additional information using the tooltip menu.
- You have the option to “Limit totals to” using the standard BC function. Normally this will be used to limit totals (show data) to one or more specific locations.

# 5.1. How it works – Overview

## How it works – overview

ItemPlanning – BOM (Production bill of materials) is the tool to see the shortage impact on end-items and fabricated parts components and raw materials for a required quantity demand on a specific date.

A variety of item status information and bill of material/routing explosions can be made by the user with the purpose of seeing the exact and just absolutely necessary information.

When shortages are identified the user can create order proposals directly from this solution.

ItemPlanning – BOM is used by production planners when working with the planning of bill of material items.

Click on the picture to enlarge

ItemPlanning - BOM

Update ItemPlanning
Create Order Proposals...
Requisition Worksheet
Planned Production Orders
Firm Planned Production Orders
Assembly Orders
Statistics
Related

General

No.
HC147

Description
Hydraulic cylinder series 100

Active Version

Required Quantity
1

Required Date
24-01-2024

Starting Date Capacity calc.

Inventory on Location
111

Calculate for qty.
0

Qty. in Prod.order
23

Qty. to build
2

Select for Create Order (Proposal)

Select all Lines for Create Order (Proposal)

Available Date (mat.)

Critical Item

Available Date (cap.)

Explode
Single level BOM

Show component lines short on required d...

Show component lines short only - all dates



Show Repl.System
All

Show Planning Worksheet data

Exclude Purchase

Exclude Production orders

Use Capacity Constraint

Lines																Line	Fewer options			
Component / Operation		Description	Select	Vendor / Center	Level	Replenishme... System	Expl... BOM	Expl... Route	BOM / Route Qty	Actual Stock	Starting Date	Ending Date	Required Date Free stock	All Dates Total Stock	Avail.Order	Avail.Lead				
	BARC43	Cylinder barrel	<input type="checkbox"/>	40000	1	Prod.Order	<input type="checkbox"/>	<input type="checkbox"/>	1	181	18-02-2024	18-02-2024	1.258	1.148						
→	HEAD64	Cylinder head	<input type="checkbox"/>	50000	1	Prod.Order	<input type="checkbox"/>	<input type="checkbox"/>	1	41	26-02-2024	04-03-2024	-153	-178						
	P12358	Piston series 100	<input type="checkbox"/>	50000	1	Prod.Order	<input type="checkbox"/>	<input type="checkbox"/>	1	2	19-02-2024	19-02-2024	50	125						
	PS107	Sealing	<input type="checkbox"/>	-	1	Purchase	<input type="checkbox"/>	<input type="checkbox"/>	2	4	18-02-2024	18-02-2024	44	209						



If you want a graphical presentation of the capacity calculation performed by ItemPlanning, you can select the Line menu Item "Show Capacity Load".

The screenshot shows a software interface for 'ItemPlanning - Item'. At the top, there are two tabs: 'Lines' and 'Line', with 'Line' being the active tab. Below the tabs, there is a header bar with a grid icon, the text 'ItemPlanning - Item', and a button labeled 'Show Capacity Load' with a circular arrow icon. Below this header is a table with four columns: 'Component / Operation', 'Description', 'Select', and 'Vendor / Center'. The table is currently empty.

General functionality can easiest be explained by considering a request from a customer as in the following:

- A customer can ask for a specific quantity of an Item at a specific date.
- You enter the Required Quantity and the Required date, and ItemPlannning will now calculate your options.
- As a result of the calculations, ItemPlanning will show you an Available Date (cap.) which is the first date where you can deliver the required quantity, given all other parameters and data.

How does it work.

ItemPlanning calculates buttom-up, that is items on the lowest levels are considered first.

Are they on stock in sufficient quantity ? If not when can they be in stock given existing purchase orders and Lead times for new orders placed today.

ItemPlanning will require everything in stock before you can start a production. The last date, when all purchased items are in stock is the date shown as Available Date (mat.).

Based on that date, ItemPlanning will then calculate the operation proces, buttom-up. Lower-level semi-finished products first and final product last.

For each operation line, a starting date and time will be set according to component availability and ending of previous operation on same or lower levels.

Then based on the capacity calenders for each resource, an ending date and time is calculated and transferred to the next operation as the starting point.

Generally speaking, ItemPlanning is calculating in the same manner as BC when you run a Release Production order with starting date Today.

However, as BC calculation normally is done backwards based on a Due Date and ItemPlanning is always calculating forwards, there will logically be differences between the results from BC and ItemPlanning.

## 5.2. Recommende column setting

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### Recommende column setting – BOM

NAVEKSA recommends the following minimum selection of columns:and in the foloowing order:

In addition to the below mentioned you have several columns available to suit the actual need.

Please investigate what is the right setting for you using the “Choose columns” function.

- Component/operation
- Description
- Vendor/Center
- Level
- Replenishment system
- Explode BOM
- Explode routing
- BOM/Routing quantity
- Actual stock
- Calculated free stock
- Calculated total stock
- Select for order creation
- Earliest available (order)
- Earliest available (lead time)



## 5.3. ItemPlanning BOM – fields and calculations – GENERAL

### ItemPlanning BOM – fields and calculations – General

ItemPlanning - BOM

Update ItemPlanning
Create Order Proposals...
Requisition Worksheet
Planned Production Orders
Firm Planned Production Orders
Assembly Orders
Statistics
Related

General

No.	HC147	Available Date (mat.)	
Description	Hydraulic cylinder series 100	Critical Item	
Active Version		Available Date (cap.)	
Required Quantity	1	Explode	Single level BOM
Required Date	24-01-2024	Show component lines short on required d...	<input type="radio"/>
Starting Date Capacity calc.		Show component lines short only - all dates	<input type="radio"/>
Inventory on Location	111	Show Repl.System	All
Calculate for qty.	0	Show Planning Worksheet data	<input type="radio"/>
Qty. in Prod.order	23	Exclude Purchase	<input type="radio"/>
Qty. to build	2	Exclude Production orders	<input type="radio"/>
Select for Create Order (Proposal)	<input type="radio"/>	Use Capacity Constraint	<input checked="" type="checkbox"/>
Select all Lines for Create Order (Proposal)	<input type="radio"/>		

**No, Description, Description 2, Active version** is automatically filled from the item list selection or transferred.

**Required quantity and Required date** are fields you manage to see the component availability situation for a certain quantity and date.

**Starting Date Capacity calc.** is set by the system based on the calculation of “Available Date (mat.)”, but can be modified by the user.

**Inventory on location, Quantity in production orders** are calculated fields with current info on balances for the location in question.

**Calculate for qty.** is a calculated field which takes current stock into consideration if you are using the Net Calculation setup.

**Qty to build** is a calculated field which tells you how many products you can make right now for this item. That is without running short of any components.

**Select for Create Order (proposal) and Select all Lines for Create Order (proposal)** relates to the Header-Item / Line Items respectively.

Based on your input critical items are identified concerning the expected material and capacity situation.

**Available Date (mat.)** identifies the earliest date available for the most critical component (there might

be other components not that critical) producing the wanted quantity/date.  
That is the component which will be last available.

**Available Date (capacity)** identifies the earliest non-forced possible delivery date if you start as of the “Starting Date Capacity calc.”.

**Explode** gives you the option to work with the bill of material in more ways:

Critical Item .....	
Available Date (cap.) .....	15-06-2020
Explode .....	Single level BOM
Show component lines short on required date only .....	Single level BOM
Show component lines short only - all dates .....	Single level BOM + Main routing
Show Repl.System .....	Single level BOM + all routings
Show Planning Worksheet data .....	Multi-level BOM
	Multi-level BOM + Main routing
	Multi-level BOM + All routings

Tick marking the field **Show component lines short on required date** lets you see only the short items for the locations selected items, and taken the Explode option into consideration and relative to the Required date.

Tick marking the field **Show component lines short only – all dates** lets you see the short items across all defined locations, and taken the Explode option into considerations with no date limitations.

**Show Repl. system** gives you the option of showing all items, just manufactured items, purchased items, assembled items.

Critical Item .....	
Available Date (cap.) .....	15-06-2020
Explode .....	Single level BOM
Show component lines short on required date only .....	<input type="checkbox"/>
Show component lines short only - all dates .....	<input type="checkbox"/>
Show Repl.System .....	All
Show Planning Worksheet data .....	All
	Purchase only
	Prod. Order only
	Assembly only

**Show Planning Worksheet data** will if selected take Planning Line date, Planned prod.orders and Firm

Planned prod.orders into account when calculating expected stock.

**Exclude Purchase** will if selected remove all open purchase transactions to give you an indication of the stock situation if no Purchases are delivered on time.

**Exclude Production orders** will if selected remove all open production order transactions to give you an indication of the stock situation if no Production is carried through on time.

**Use Capacity Constraint** will if selected calculate routings based on remaining capacity for resources ( WorkCenters and MachineCenters ) which has been defined as a Capacity Constrained Resource (standard BC functionality)

## 5.4. ItemPlanning BOM – fields and calculations – LINES

---

### ItemPlanning BOM – fields and calculations

Click on Level on this page to read about the first field, or expand the table of content to the left to read about all possible fields and column definitions

## 5.4.1. ItemPlanning BOM fields explanation

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### How it works Overview

#### Component / operation

Component Item Number or operation number

#### Component type

Component type can be an Item or a Production BOM itself.

Read the Microsoft documentation for explanation of the component type = Production BOM.

#### Description

Item description for the component

Vendor/ Center. Supplier/vendor number as indicated on the item card or storage of goods (per location).

#### Select

Field for marking lines for the Create Order (proposal) function.

#### Vendor / center

Related primary vendor or work center / Machine Center.

#### Level

The relative BOM level code in the BOM “tree” structure.

#### Replenishment system

If the item has been purchased, the reordering system is indicated as “Purchase” on the item card. If the item has been manufactured, the reordering system has been indicated as “Manufacturing order” on the item card.

In case the item is transferred from another stock, the reordering system is “Transfer”.

#### Explode BOM

By clicking this box for a production item, the BOM will explode to the next level. It can be done until there are no more levels.

The idea is that you treat one level at a time. If the solution to the problem is relatively early in course, you do not have to break down the BOM further.

#### Explode route

By clicking this box for a production item, the Route will explode.

#### BOM / Route quantity

Component quantity for the component

#### BOM demand

The calculated component demand in total

#### Component quantity

The component quantity in total.

**Variant code**

This is the standard BC component variant code if it exists.

**Substitution exists**

If the item card indicated a replacement for the component, select it here.

**Fixed minutes**

A field containing the fixed minutes for a specific routing operation.

**Variable minutes**

A field for the use of the variable minutes for a specific routing operation.

**Starting Date**

A calculated field for the use of determining expected starting date for an operation.

**Starting time**

A calculated field for the use of determining expected starting time for an operation.

**Ending date**

A calculated field for the use of determining expected delivery date for an operation.

**Ending Time**

A calculated field for the use of determining expected delivery time for an operation.

**Actual stock**

Current physical inventory of the item on the physical location inventory.

**Required Date free stock**

Calculation of free stock includes all quantity transactions up to and including the requirement date if it is entered or transferred from a planned order.

Note that the different quantities appear only if the delivery date is before or equal to the requirement date.

The calculation is made, possibly per a chosen location, in the following way:

“Current stock” plus “Quantities of all expected receipts” minus quantities of all expected issues minus BOM quantity requirements “

**All Dates Total stock**

The calculation of total stock, all quantities are included, regardless of scheduled consumption/delivery date.

The calculation is made, possibly per chosen location, in the following way:

Current stock” plus “Quantities of all expected receipts” minus quantities of all expected issues minus BOM quantity requirements”

**Quantity on purchase order**

Quantity in purchase orders specifies the quantity which is open on purchase orders and will be received before the “Requirement date “ if entered.

Appears only if prior to or equal to “Required date” in the header.

**Quantity in return receipt**

Quantity in Return receipt specifies the quantity which is open and will be returned before the "Requirement date", if entered.

Appears only if prior to or equal to "Required date" in the header.

**Quantity in return shipment**

Quantity in Return Shipment specifies the quantity which is open and will be returned before the "Requirement date", if entered.

Appears only if prior to or equal to "Required date" in the header.

**Quantity on sales order**

Quantity on Sales order specifies the quantity which is open and will be delivered before the "Requirement date", if entered.

Appears only if prior to or equal to "Required date" in the header.

**Quantity in service order**

Quantity in Service orders specifies the quantity which is open and will be delivered before the "Requirement date", if entered.

Appears only if prior to or equal to "Required date" in the header.

**Quantity in transfer from**

Quantity on Transfer order from' indicates the quantity that is in the transfer order from the location up to and including the "Requirement date", if entered.

Appears only if prior to or equal to "Required date" in the header.

**Quantity in transfer to**

Quantity on transfer order specifies the quantity which is open and will be received before the "Requirement date", if entered.

Appears only if prior to or equal to "Required date" in the header.

**Quantity in job**

Job quantity is included in the calculations if the item carry a usage link in the job planning line.

**Quantity on production order**

Quantity on production order specifies the quantity which is open and will be received before the "requirement date " if entered.

Appears only if prior to or equal to "Required date" in the header.

**Quantity on assembly component**

Quantity on Assembly component specifies the quantity which is open and will be delivered before the "Requirement date", if entered.

Appears only if prior to or equal to "Required date" in the header.

**Quantity on Assembly order**

Quantity on Assembly orders specifies the quantity which is open and will be delivered before the "Requirement date", if entered.

Appears only if prior to or equal to "Required date" in the header.

**Earliest available (Order)** (Avail.Order)

A calculated field for the use of determining expected starting date. This field indicates, that you have an existing order, that is sufficient to cover the need.

**Earliest available (lead time)** (Avail.Lead)

This field indicates the earliest delivery time for quantity needed, based on the absence of open orders and therefore this item requirements to be reordered.



## 6. How to use ItemPlanning – Production order

### How to use ItemPlanning PRODUCTION

ItemPlanning – Production order function has been made with the purpose of an easy way to validate any component shortages on a released, planned or firm planned production order.

The shortage situation is analysed based on the component requirement date for the all component lines.

ItemPlan. - Item   ItemPlan. - BOM   ItemPlan. - Sales Order   ItemPlan. - Sales Order Multi   ItemPlan. - Prod. Order   ItemPlan. - Prod. Order Multi   ItemPlan. - Assembly

Insights

Activities  
PLANNING - OPERATIONS

MY PURCHASE ORDERS  
0  
>

DESIGN

PROD. BOMS U... DEVELOPMENT  
0  
>

ROUTINGS UN... DEVELOPMENT  
0  
>

My Items ▾

Item No. ↑	Description
1000	Cykel
1001	Turcykel
1100	Forhjul

Back to top

\*To make a decision on production order component shortage, you select a production order line from the production order list and you will see the following

- Component shortages
- Earliest delivery dates for components

## ItemPlanning - Prod.order

Show Prod.Order Create Order Proposals... Requisition Worksheet Planned Production Orders Actions Fewer options

## General

Prod. Order No. ....	1011003	Item Description .....	Cykel
Line No. ....	10000	Quantity .....	16
Location Code .....		Finished Quantity .....	0
Description .....	Cykel	DATES	
Description 2 .....		Starting Date .....	26-01-2022
Item No. ....	1000	Due Date .....	29-01-2022

## Lines | Line

Component / Operation	Select	Vendor / Center	Routing Status	Location Code	BinCode	Reordering Policy	Level	Replenish... System	BOM / Route Qty	Remaining Quantity	Actual Stock	Calculated Free Stock	Calculated Total Stock	Avail.Order	Avail.Lead
	<input type="checkbox"/>	110	Planned				0	Route	1	0	0	0	0		
	<input type="checkbox"/>	120	In Progress				0	Route	1	0	0	0	0		
	<input type="checkbox"/>	130	Planned				0	Route	1	0	0	0	0		
	<input type="checkbox"/>	110	Planned				0	Route	1	0	0	0	0		
1100	<input type="checkbox"/>	20000					1	Prod.Order	1	0	152	152	137		
1200	<input type="checkbox"/>						1	Prod.Order	1	0	152	152	137		
1300	<input type="checkbox"/>						1	Prod.Order	1	0	152	152	142		
1400	<input type="checkbox"/>	32456123					1	Purchase	1	0	152	152	142		
1450	<input type="checkbox"/>	32456123					1	Purchase	1	0	152	152	142		
1500	<input type="checkbox"/>	45774477					1	Purchase	1	0	152	152	142		
1600	<input type="checkbox"/>	32456123					1	Purchase	1	0	152	152	142		

# 6.1. How it works – Overview

## How it works – overview

ItemPlanning – Production order is the tool to see the order progress and status and component/raw materials shortage situation on planned, firm planned or released production orders.

All shortages are time-phased according to the production order component/raw material lines required dates (remaining quantity to be issued)

The solution is used by production planners to get the fast production order shortage overview.

Click on the picture to enlarge

ItemPlanning - Prod.order

Show Prod.Order
Create Order Proposals...
Requisition Worksheet
Planned Production Orders
Actions
Fewer options

General

Prod. Order No. .... 101003

Item Description ..... 100W OakwoodDeluxe-højttaler

Line No. .... 10000

Quantity ..... 10

Location Code .....

Finished Quantity ..... 0

Description ..... 100W OakwoodDeluxe-højttaler

DATES

Description 2 .....

Starting Date ..... 31-12-2020

Item No. .... LS-100

Due Date ..... 01-01-2021

Lines

Line

Component / Operation	Description	Select	Vendor / Center	Routing Status	Location Code	BinCode	Reordering Policy	Level	Replenish... System	BOM / Route Qty	Remaining Quantity	Actual Stock	Calculated Free Stock	Calculated Total Stock	AvailOrder
→ LSU-15	15" 100W basenhet i højttaler	<input type="checkbox"/>	01254796					1	Purchase	1	10	28	110	110	07-05-2020
LSU-8	8"100W mellemtone i højttaler	<input type="checkbox"/>	01587796					1	Purchase	1	10	15	113	113	07-05-2020
LSU-4	4" 100W diskant i højttaler	<input type="checkbox"/>						1	Purchase	1	10	100	63	63	
FF-100	Frekvensfilter til LS-100	<input type="checkbox"/>	01254796					1	Purchase	1	10	42	13	13	08-05-2020
C-100	Kabler til LS-100	<input type="checkbox"/>	01587796					1	Purchase	1	10	33	13	13	08-05-2020
HS-100	Kabinet LS-100, Oakwood 120 l.	<input type="checkbox"/>	01863656					1	Purchase	1	10	56	19	19	
SPK-100	Pigge til LS-100	<input type="checkbox"/>	01587796					1	Purchase	4	40	78	52	52	08-05-2020

## 6.2. Recommended column setting

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### Recommended column setting – Production order

NAVEKSA recommends the following minimum selection of columns:and in the following order.

In addition to the below mentioned you have several columns available to suit the actual need.

Please investigate what is the right setting for you using the “Choose columns” function.

Component/operation

Description

Select for order creation

Vendor/Center

Level

Replenishment system

Explode BOM

Explode routing

BOM/Routing quantity

Actual stock

Calculated free stock

Calculated total stock

Earliest available (order)

Earliest available (lead time)

## 6.3. ItemPlanning PRODUCTION – GENERAL and LINES fields and calculations

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### ItemPlanning PRODUCTION – fields and calculations

The fields definitions are the same as for the ItemPlanning BOM.

[Click here to go there](#)

# 7. How to use ItemPlanning – Production order multi-select

## How to use ItemPlanning – Production order multi-select

ItemPlanning – Production order multi-select function has been made with the purpose of an easy way to validate any component shortages across all or a subset of released, planned or firm planned production orders.

The shortage situation is analysed based on the component requirement date for the all component lines on all selected production orders and types.

- Component shortages
- Earliest delivery dates for components

Example: You select all production orders with a start date until 23/01/2019 and press the Component analysis button to see the total shortage situation for components and raw materials.

ItemPlanning - Prod.order

Show Prod.Order
Create Order Proposals...
Requisition Worksheet
Planned Production Orders
Actions
Fewer options

General

Prod. Order No. ....

101001

Line No. ....

10000

Location Code .....

Description .....

100W OakwoodDeluxe-højttaler

Description 2 .....

Item No. ....

LS-100

Item Description .....

100W OakwoodDeluxe-højttaler

Quantity .....

15

Finished Quantity .....

0

DATES

Starting Date .....

31-12-2020

Due Date .....

01-01-2021

Lines

Line

Component / Operation	Description	Select	Vendor / Center	Routing Status	Location Code	BinCode	Reordering Policy	Level	Replenish.. System	BOM / Route Qty	Remaining Quantity	Actual Stock	Calculated Free Stock	Calculated Total Stock	Avail.Order
LSU-15	15" 100W basenhed i højttaler	<input type="checkbox"/>	01254796					1	Purchase	1	15	28	110	110	07-05-2020
LSU-8	8"100W mellemtone i højttaler	<input type="checkbox"/>	01587796					1	Purchase	1	15	15	113	113	07-05-2020
LSU-4	4" 100W diskant i højttaler	<input type="checkbox"/>						1	Purchase	1	15	100	63	63	
FF-100	Frekvensfilter til LS-100	<input type="checkbox"/>	01254796					1	Purchase	1	15	42	13	13	08-05-2020
C-100	Kabler til LS-100	<input type="checkbox"/>	01587796					1	Purchase	1	15	33	13	13	08-05-2020
HS-100	Kabinet LS-100, Oakwood 120 l.	<input type="checkbox"/>	01863656					1	Purchase	1	15	56	19	19	
→ SPK-100	Pigge til LS-100	<input type="checkbox"/>	01587796					1	Purchase	4	60	78	52	52	08-05-2020

# 7.1. How it works – Overview

## How it works – overview

ItemPlanning – Production order multi-select is the powerful tool to see the shortage situation on more planned, firm planned or released production orders.

The inquiry can be limited to a set of production orders by filtering the order list screen.

All shortages are time-phased according to the production order component/raw material lines required dates (remaining quantity to be issued)

All component lines with same component number are accumulated quantity wise before any shortage calculations are made. Component requirement can be dissolved pressing a function button – Show orders.

The solution is used by production planners to get the fast production order shortage overview:

At first you filter your inquiry:

Item. No. I-TECH-16 as an example shown

CRONUS Danmark A/S   Journals ▾ Worksheets ▾ Orders ▾ Product Design ▾ Capacities ▾ Setup ▾   ≡										
ItemPlanning - Prod. Order Multi-select: Custom filtered ▾   🔍 Search New ▾ Page ▾ Related ▾ Fewer options										
<b>Views</b> <a href="#">*All</a> Filter list by: <a href="#">+ Filter...</a> Filter totals by... <a href="#">Reset filters</a>	Status ↑	Prod. Order No.	Line No. ↑	Item No.	Description	Location Code	Quantity	Finished Quantity	Remaining Quantity	Due Date
	Released	100003	10000	FABRIC1	Fabricated item		12	0	12	13-04-201
	Released	100033	10000	FX-69	NAV demo item		2	4	0	25-10-201
	Released	100034	10000	FX-52 S/L ITEM	S/L fx item		2	2	0	13-02-201
	Released	100035	10000	FX-52 STRICT	100% traceability		2	2	0	13-02-201
	Released	100037	10000	FX-52 S/L ITEM	S/L fx item		3	3	0	22-02-201
	Released	100040	10000	FX-52	NAV demo item		7	7	0	01-03-201
	Released	100041	10000	FX-52 S/L ITEM	S/L fx item		3	3	0	14-02-201
	Released	100046	10000	FX-52	NAV demo item		5	11	0	26-02-201
	Released	100047	10000	FX-80	NAV Fertig Artikel		2	2	0	15-02-201
	Released	100048	10000	NAVEKSA 0311	Naveksa 0311		200	200	0	14-03-201
	Released	100052	10000	TV84486-8	Mounting frame		2	0	2	12-03-201
	Released	100061	10000	TV84486-11	Mounting frame		50	50	0	12-03-201
	Released	100062	10000	TV84486-12	Mounting frame		10	0	10	12-03-201
	Released	100070	10000	TESTING-BACK	Testing backfluysh/RTG links		3	3	0	20-05-201
	Released	100076	10000	OMR160-151...	Hydr. motor		1	0	1	21-05-201
	Released	100077	10000	I-TECH-16	NAV demo item		2	0	2	11-12-201



Please note that each order-line in the Overview has a field (Component Shortage) which indicates, whether there is one or more components used on this production line that will be short within the expected date of usage. If you want to see only production order lines with potential shortages, you can do so by selecting the menu function “Show only shortage”.

ItemPlanning - Prod. Order Multi-select: All Search Analyze Related Automate

Status Item No. Description Location Code

Component analysis

Line

Show only Shortage

To run the shortage analysis you now click the Component analysis button:

CRONUS Danmark A/S | Journals Worksheets Orders Product Design Capacities Setup

ItemPlanning - Prod. Order Multi-select: Custom filtered Search New Page Related Fewer options

Component analysis

Status	Prod. Order No.	Line No.	Item No.	Description	Location Code	Quantity	Finished Quantity	Remaining Quantity	Due Date	Starting Date	Ending Date	Production BOM No.
Released	100077	10000	I-TECH-16	NAV demo item		2	0	2	11-12-2019	09-12-2019	10-12-2019	I-TECH-16
Released	100080	10000	I-TECH-16	NAV demo item		2	6	0	07-11-2019	05-11-2019	06-11-2019	I-TECH-16
Released	100082	10000	I-TECH-16	NAV demo item		2	4	0	30-09-2019	26-09-2019	27-09-2019	I-TECH-16
Released	100092	10000	I-TECH-16	NAV demo item		5	10	0	18-02-2020	13-02-2020	17-02-2020	I-TECH-16
Released	100093	10000	I-TECH-16	NAV demo item		10	8	2	04-02-2020	27-01-2020	03-02-2020	I-TECH-16
Released	100106	10000	I-TECH-16	NAV demo item		5	15	0	22-04-2020	17-04-2020	21-04-2020	I-TECH-16
Released	100107	10000	I-TECH-16	NAV demo item		7	0	7	12-05-2020	06-05-2020	11-05-2020	I-TECH-16
Released	100109	10000	I-TECH-16	NAV demo item		4	0	4	15-06-2020	10-06-2020	12-06-2020	I-TECH-16
Released	100111	10000	I-TECH-16	NAV demo item		4	4	0	27-05-2020	22-05-2020	26-05-2020	I-TECH-16
Released	100112	10000	I-TECH-16	NAV demo item		2	2	0	28-05-2020	26-05-2020	27-05-2020	I-TECH-16
Released	100122	10000	I-TECH-16	NAV demo item		1	0	1	21-06-2020	19-06-2020	19-06-2020	I-TECH-16
Released	100123	10000	I-TECH-16	NAV demo item		3	3	0	28-06-2020	25-06-2020	26-06-2020	I-TECH-16
Released	100124	10000	I-TECH-16	NAV demo item		2	0	2	26-08-2020	02-07-2020	25-08-2020	I-TECH-16
Released	100125	10000	I-TECH-16	NAV demo item		2	2	0	12-06-2020	10-06-2020	11-06-2020	I-TECH-16
Released	100136	10000	I-TECH-16	NAV demo item		92	0	92	06-10-2020	30-07-2020	05-10-2020	I-TECH-16
Released	100138	10000	I-TECH-16	NAV demo item		2	0	2	25-07-2020	23-07-2020	24-07-2020	I-TECH-16
Released	100140	10000	I-TECH-16	NAV demo item		3	0	3	08-09-2020	04-09-2020	07-09-2020	I-TECH-16

The analysis screen is now presented:

ItemPlanning - Prod.order

Create Order Proposals... Requisition Worksheet Planned Production Orders | More options

**General**

Prod.order filters Item No.: I-TECH-16 Show Planning Worksheet data

Show Repl.System All Exclude Purchase

Show only neg. free Stock Exclude Production orders

**Lines** | Line

Component	Description	Select	Vendor	Location Code	Bin Code	Reordering Policy	Level	Replenish... System	Remaining Quantity	Actual Stock	Required Date Free stock	Avail.Order	Avail.Lead
F23-X11	Fabricated item	<input type="checkbox"/>					1	Purchase	157	538	336		
MV25-H	Fabricated item	<input type="checkbox"/>					1	Prod.Order	157	643	441		
MV31-3	Fabricated item	<input type="checkbox"/>					1	Prod.Order	157	288	86		
RV20	Purchased component	<input type="checkbox"/>					1	Purchase	320	267	-143		10-03-2021
→ MV26-E	subassembly	<input type="checkbox"/>	40000				1	Purchase	160	88	-117		09-04-2021

On this screen you will see your filtering

You can choose only to see components short (Show only negative stock)

You can choose to omit planning sheet quantities

You can choose to omit scheduled purchase and/or production receipts



You can choose to create orders directly for the short components.



If you want to see which orders are included in the calculations on a single component line, you can do so from the Line menu item, Show Orders

## ItemPlanning - Component Analysis

# ItemPlanning - Prod.order

Create Order Proposals... Requisition Worksheet Planned Production

## General

Prod.order filters ..... Starting Date: ..25-01-24

Show Repl.System ..... All

Show only neg. free Stock ..... ☒

Lines | Line Fewer options

ItemPlanning - Item Show Orders

## 7.2. Recommended column setting

---

### Recommended column setting

NAVEKSA recommends the following minimum selection of columns:and in the following order:

In addition to the below mentioned you have several columns available to suit the actual need.

Please investigate what is the right setting for you using the “Choose columns” function.

Component/operation

Description

Select for order creation

Vendor/Center

Level

Replenishment system

Explode BOM

Explode routing

BOM/Routing quantity

Actual stock

Calculated free stock

Calculated total stock

Earliest available (order)

Earliest available (lead time)

## **7.3. ItemPlanning – Production Multi select – GENERAL and LINES fields and calculations**

### **ItemPlanning – Production Multi select – GENERAL and LINES fields and calculations**

The fields definitions are the same as for the ItemPlanning BOM.

[Click here to go there](#)

## **8. How to use Itemplanning – Sales order**

# 8.1. How it works – Overview

## How it works – Overview

The ItemPlanning – Sales order function has been made with the purpose of an easy way to validate if there are any shortage problems on individual sales orders.

How it works:

You will be shown a list of open sales orders and can select an individual order to analyze.

ItemPlanning - Sales order

Show Sales Order Create Order Proposals... Requisition Worksheet Planned Production Orders More options

**General**

Document Type ..... Order

No. .... 101002

Sell-to Customer No. .... 10000

Sell-to Customer Name ..... Kontorcentralen A/S

Dates

Requested Delivery Date ..... 02-05-2018

Promised Delivery Date .....

**Lines** | Line

Item	Description	Select	Location Code	Replenishment System	Shipment Date	Remaining Quantity	Actual Stock	Required Date Free stock	All Dates Total Stock	AvailOrder	AvailLead
1968-S	MEXICO Drejestol, sort	<input type="checkbox"/>		Purchase	01-05-2018	10	10	0	0		
1928-S	AMSTERDAM Lampe	<input type="checkbox"/>		Purchase	01-05-2018	7	8	-17	-17		02-03-2021
→ 1928-S	AMSTERDAM Lampe	<input type="checkbox"/>		Purchase	01-05-2018	18	8	-17	-17		02-03-2021

If there are any shortages on the items in the sales order, they are shown in red in the columns Required date Free Stock and All Dates Total Stock.

Required date Free Stock is calculated based on the Shipment Date of the order line.

All Dates Total Stock is calculated taking into account all planned transactions registered on the system for this Item.

You are also shown quantity from the order and actual stock of the items.

If you have a shortage you will be notified a possible available date either from existing incoming orders or based on Lead time for the item.

By using the menu options, you can open the full sales order, you can create new incoming orders by marking the desired lines in the Select column, and from the Line menu you can access the ItemPlanning – Item function for investigating the items availability situation in more detail.

## 9. How to use ItemPlanning – Sales order Multi-select

---

## 9.1. How it works – Overview

### How it works – Overview

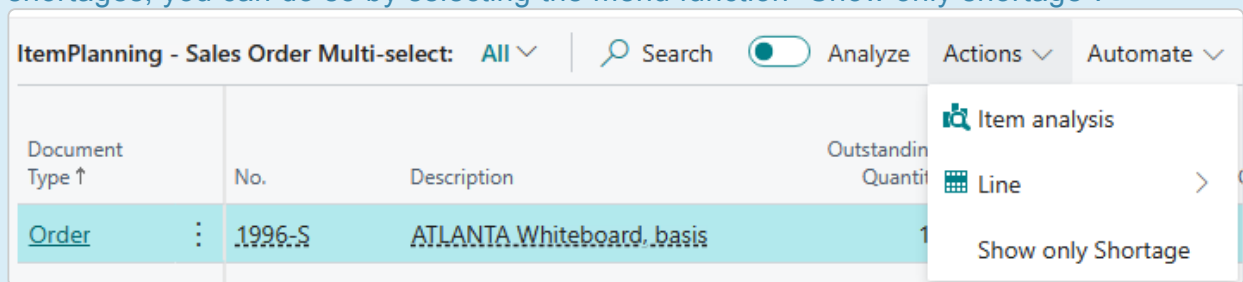
The ItemPlanning – Sales order Multi-select function has been made with the purpose of an easy way to validate if there are any shortage problems across more sales orders.

This could be a way to analyze the shortage situation for eg. all sales orders with Shipment Date within the next week or two.

How it works:

You will be shown a list of open sales order lines and can set whatever filters you want to identify the set of order lines to analyze. Eg. filters on Item no., Customer no., Shipment Date or a combination of these or more fields.

✿ Please note that each order-line in the Overview has a field (Item Shortage) which indicates, whether there is one or more items on this sales order line that will be short within the expected delivery date. If you want to see only sales order lines with potential shortages, you can do so by selecting the menu function “Show only shortage”.



When you have done the filterings and you have a list of orders lines you want to analyze, select the menu item Actions, Item analysis.

The function will show 1 line for each item found in the selected orders and add up the quantity if the item exists on more sales lines within the filters.

The Shipment Date shown will be the first (earliest) Shipment Date from the order lines for the item.

Edit - ItemPlanning - Sales Analysis - ItemPlanning - Sales Order

Create Order Proposals...

Requisition Worksheet

Planned Production Orders

Page

Actions

Fewer options

General

Sales Order filters

Show Repl.System

Show only neg. free Stock

Show Planning Worksheet data

Exclude Purchase

Exclude Production orders




Lines

Manage

Item	Description	Select	Vendor	Location Code	Replenishment System	Shipment Date	Remaining Quantity	Actual Stock	Required Date Free stock	All Dates Total Stock	Avail Order	Avail Lead
1920-S	ANTWERPEN Konferencebord	<input type="checkbox"/>	20000		Purchase	22-04-2018	8	10	2	2		
1928-S	AMSTERDAM Lampe	<input type="checkbox"/>	10000		Purchase	01-05-2018	25	8	-17	-17		22-02-2021
1968-S	MEXICO Drejestol, sort	<input type="checkbox"/>	30000		Purchase	01-05-2018	10	10	0	0		
1996-S	ATLANTA Whiteboard, basis	<input type="checkbox"/>	30000		Purchase	02-04-2018	21	10	-9	-9		22-02-2021
2000-S	SYDNEY Swivel Chair, green	<input type="checkbox"/>	30000		Purchase	13-05-2018	3	38	35	35		
FX-52	NAV demo item	<input type="checkbox"/>			Prod.Order	20-11-2018	25	55	126	126		
→ EX-52 S/L IT...	S/L fx item	<input type="checkbox"/>			Prod.Order	17-01-2020	2	10	8	8		
I-TECH-16	NAV demo item	<input type="checkbox"/>			Prod.Order	28-03-2019	130	66	183	183		
V-1012-S	Water solution type S	<input type="checkbox"/>			Prod.Order	11-03-2020	23	27	71	71		

You can use the Select column and the function Create order proposals, like other places in ItemPlanning, and you can from Lines, Manage make more detailed analysis by access to ItemPlanning – Item and ItemPlanning – BOM. Finally you can use the Show orders function to give you orderline details when the quantity shown is a sum added from more sales order lines.

## ItemPlanning - Sales Analysis - ItemPlanning - Sales

 Create Order Proposals... Requisition Worksheet Planned Production Orders

### General

Sales Order filters .....

Shipment Date: ..25-01-24




Show Repl.System .....

All

Show only neg. free Stock .....

☐

Lines | Manage

 ItemPlanning - Item ItemPlanning - BOM Show Orders



# 10. How to Use ItemPlanning for Assembly Products

## How to Use ItemPlanning for Assembly Products

Assembly products are handled using the same functions as Manufacturing production orders.

You should therefore access the basic ItemPlanning – BOM function, when working with and analysing Assembly products.

ItemPlanning – BOM will as for production Items give you an easy way to validate any assembly component shortages for a quantity and specific date for the assembled item.

To make a decision on assembly order component shortage, you select an assembly item from the list.

You will now see:

- How many assembly items you have in stock
- How many assemblies you have on order.
- How many assembly items you can build right now.
- See component shortages and earliest delivery dates for the same components at the required date.
- Earliest date for delivery for the quantity in question
- See various additional information using the tooltip menu.
- You have the option to “Limit totals to” using the standard BC function. Normally this will be used to limit totals (show data) to one or more specific locations.



Please observe that no planning worksheet data are used in the calculations. As assembly orders normally per definition are something which is carried out in the stockroom, logically no planning worksheet data should be involved.

# 10.1. How it works – Overview

## How it works – overview

ItemPlanning – BOM is the tool to see the shortage impact on assembly components, when you have a quantity demand on a specific date.

A variety of item status information and selections can be made by the user with the purpose of just seeing the exact and just absolutely necessary information.

The solution is used by sales and stock people working with assembled items.

Click on the picture to enlarge

ItemPlanning - BOM

Update ItemPlanning

Create Order Proposals...

Requisition Worksheet

Planned Production Orders

Firm Planned Production Orders

Assembly Orders

More options

General

Show less

No.

1925-W

Available Date (mat.)

24-01-2024

Description

Konferencebundt 1-6

Critical Item

1968-S

Active Version

Available Date (cap.)

Required Quantity

1

Explode

Single level BOM

Required Date

24-01-2024

Show component lines short on req...

Starting Date Capacity calc.

24-01-2024

Show component lines short only - ...

Inventory on Location

0

Show Repl.System

All

Calculate for qty.

1

Show Planning Worksheet data

Qty. in Prod.order

0

Exclude Purchase

Qty. to build

1

Exclude Production orders

Select for Create Order (Proposal)

Use Capacity Constraint

Select all Lines for Create Order (Pro...

Lines

Line

ItemPlanning - Item

Show Capacity Load

## 10.2. Recommended column setting

---

### Recommended column settings – Assembly

NAVEKSA recommends the following minimum selection of columns:and in the following order.

In addition to the below mentioned you have several columns available to suit the actual need.

Please investigate what is the right setting for you using the “Choose columns” function.

Component/operation

Description

Select for order creation

Vendor/Center

Level

Replenishment system

Explode BOM

Explode routing

BOM/Routing quantity

Actual stock

Calculated free stock

Calculated total stock

Earliest available (order)

Earliest available (lead time)

## 10.3. ItemPlanning ASSEMBLY – GENERAL and LINES fields and calculations

---

### ItemPlanning ASSEMBLY – fields and calculations

The fields definitions are the same as for the ItemPlanning BOM.

[“Click here to go to the General definitions” “](#)


[“Click here to go to the Lines definitions” “](#)

# 11. How to use ItemPlanning with BC Planning Worksheet

## Using ItemPlanning with BC Planning Worksheet


This ItemPlanning with BC Planning Sheet function has been made with the purpose of an easy way to validate the correctness and quality of BC Planning sheet order proposals and exception messages. You access the function from the main menu, ItemPlanning Planning Worksheet.


ItemPlanning Planning Worksheet has the same functionality as the BC standard Planning Worksheet with one additional menu function added. Access from a line to the ItemPlanning Item function.


 ItemPlanning Plan. Worksheet

Name .....

Manage

 ItemPlanning - Item

 Get Action Messages...

 Calculate Regenerative Plan...

# 11.1. How it works – Overview

---

## How it works – Overview

When you work with the standard BC planning sheet and order recommendations, it can be difficult to decide if a recommendation is valid in terms of quantity or date or both.

The ItemPlanning – Planning sheet runs in the same way as the BC planning worksheet, and helps the planner making the right decisions and/or the appropriate corrections before carry out action messages.

The solution is used by production and purchase planners to have a clear view on projected inventory development before carrying out planning worksheet recommendations.

## 12. How to use the ItemPlanning tooltip “Line” menues

### Using the “Line” tooltip\*\*

Using this tooltip menu provides access to further functions for the marked row in the different ItemPlanning display.

Various options are available at ItemPlanning – Item, BOM, Production order and Assembly.

- ItemPlanning – BOM (Production bill of material)
- Refresh Planning line
- Order tracking
- Show sales orders

### ItemPlanning - Item

New Apply Template... Requisition Worksheet Item Journal Item Reclassification Journal

#### General

No. ....	HC147
Description .....	Hydraulic cylinder series 100
Description 2 .....	

Lines | Line Fewer options

ItemPlanning - BOM Refresh Planning Line Order Tracking Show Sales Orders

# 12.1. ItemPlanning BOM

## ItemPlanning – BOM

If the item in question is a composite manufactured item, you have direct access to the ItemPlanning BOM solution.

The ItemPlanning – BOM solution is used to find out when we can deliver a composite product.

Quantity and dates are transferred from the ItemPlanning – Item screen, if Type is Planned. (Planning worksheet order proposal)

[Read more about ItemPlanning -BOM](#)

ItemPlanning - BOM

Update ItemPlanning
Create Order Proposals...
Apply Template...
Requisition Worksheet
Planned Production Orders
Assembly Orders
Item Journal
Item Reclassification Journal
Item Tracing
Statistics

General

No. .... LS-100
Description .... 100W OakwoodDeluxe-højttaler
Required Quantity .... 55
Required Date .... 15-06-2020
Starting Date Capacity calc. .... 15-06-2020
Select for Create Order (Proposal) ....
Select all Lines for Create Order (Proposal) ....
Available Date (mat.) .... 15-06-2020

Critical Item .... LSU-15
Available Date (cap.) .... 15-06-2020
Explode .... Single level BOM
Show component lines short on required date only ...
Show component lines short only - all dates ...
Show Repl.System .... All
Show Planning Worksheet data ...

Lines

Line

Component / Operation	Description	Select	Vendor / Center	Level	Replenishment System	Explode BOM	Explode Route	BOM / Route Qty	Actual Stock	Calculated Free Stock	Calculated Total Stock	Avail.Order	Avail Lead
LSU-15	15" 100W basenhed i højttaler	<input type="checkbox"/>	01254796	1	Purchase	<input type="checkbox"/>	<input type="checkbox"/>	1	28	92	55	07-05-2020	
LSU-8	8" 100W mellemtone i højttaler	<input type="checkbox"/>	01587796	1	Purchase	<input type="checkbox"/>	<input type="checkbox"/>	1	15	95	58	07-05-2020	
LSU-4	4" 100W diskant i højttaler	<input type="checkbox"/>		1	Purchase	<input type="checkbox"/>	<input type="checkbox"/>	1	100	45	8		
FF-100	Frekvensfilter til LS-100	<input type="checkbox"/>	01254796	1	Purchase	<input type="checkbox"/>	<input type="checkbox"/>	1	42	-5	-42		15-06-2020
C-100	Kabler til LS-100	<input type="checkbox"/>	01587796	1	Purchase	<input type="checkbox"/>	<input type="checkbox"/>	1	33	-5	-42		15-06-2020
HS-100	Kabinet LS-100. Oakwood 120 l.	<input type="checkbox"/>	01863656	1	Purchase	<input type="checkbox"/>	<input type="checkbox"/>	1	56	1	-36		15-06-2020
→ SPK-100	Pigge til LS-100	<input type="checkbox"/>	01587796	1	Purchase	<input type="checkbox"/>	<input type="checkbox"/>	4	78	-20	-168		15-06-2020

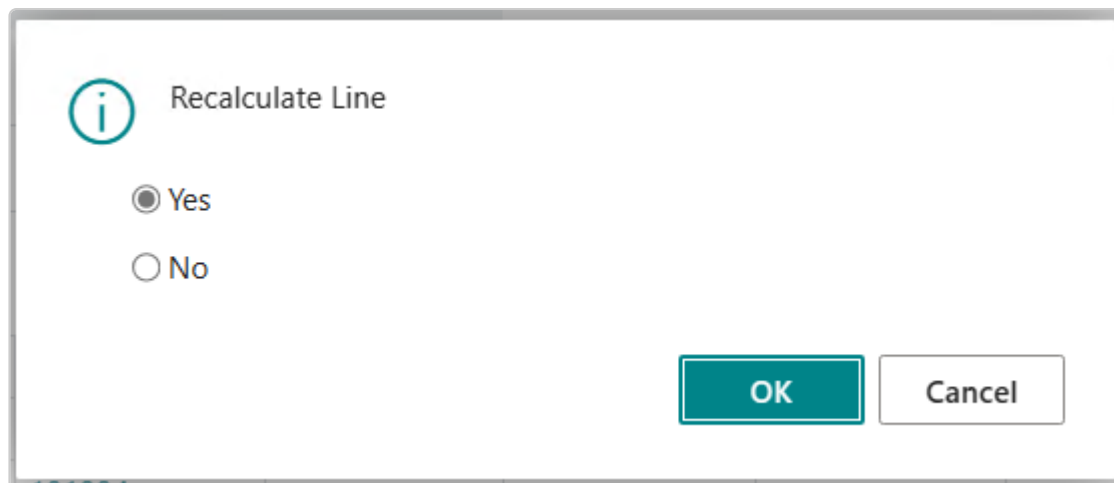


## 12.2. Refresh Planning line

### Refresh Planning line

If you at the ITEMPLANNING ITEM card perform a simulation on a planning sheet proposal, using the **Refresh Planning line function** the quantity and due date field in the planning sheet will be updated to reflect your changes.

Also you will be prompted for the **opportunity to perform a new planning run** based on this item changes only, or a full run on all levels downwards for this item.



A dialog box titled "Recalculate Line" with an information icon (i) in a teal circle. It contains two radio buttons: "Yes" (selected) and "No". At the bottom right are two buttons: "OK" (teal) and "Cancel" (white with a teal border).

# 12.3. Order tracking

## Order tracking

The order tracking function is an overview of the demand which has generated a requirement. This is the standard function adopted from BC.

Order Tracking - PLANLÆG STANDARD HC147

General

Item No. .... HC147

Quantity ..... 315

Starting Date ..... 01-02-2024

Untracked Quantity ..... 50

Ending Date ..... 01-02-2024

Manage

Show

Untracked Qty.

Name	Supplied by	Starting Date	Ending Date	Quantity	Item No
→ Job S00010	⋮ CURRENT LINE	01-02-2024	01-02-2024	15	HC147
Sales Order 101004	CURRENT LINE	01-02-2024	01-02-2024	250	HC147

## 12.4. Show sales orders – Where used

### Show sales orders

At the ItemPlanning ITEM card screen you have opportunity to investigate impact on sales orders which might be influenced by an unsatisfying supply situation.

Example:

You might have a screw which is used in many products. Technically it could be used as a low level code 8 component in various products.

If you encounter a shortage situation with this screw, you can immediately see the impact on end-item sales orders; f.ex. bicycles. These will be marked with a Warning.

The logic is not to decide which sales orders can be delivered or not.

The screen just shows potential problems by issuing warnings in delivering one or more sales orders.

It is then up to the planner to make the most appropriate decisions on which orders should be delivered.

ItemPlanning Sales Orders

Search

Related

Warning	Sell-to Customer No.	Document No.	No. ↑	Location Code ↑	Shipment Date ↑	Orig.date	Description
	40000	101004	HC147		09-11-2023	09-11-2023	Hydraulic cylinder s
Warning	40000	101004	HC147		15-02-2024	15-02-2024	Hydraulic cylinder s
	10000	101001	HC147		10-04-2024	10-04-2024	Hydraulic cylinder s
	30000	101003	HC147		25-04-2024	25-04-2024	Hydraulic cylinder s

## 13. Additional

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# 13.1. BC 365 Item Availability by Event versus NAVEKSA ItemPlanning

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## BC Item Availability by Event versus NAVEKSA ItemPlanning

Sometimes we hear, mostly from BC consultants, that they are of the opinion that the BC Item Availability by Event produces what is needed.


NAVEKSA has made a thorough investigation on the **usability, data content and correctness** of results the standard BC Item Availability by Event tool gives you, and compared it with our ItemPlanning solution.

We have made the comparison against the standard BC Item Availability by Event, as this by far is the best (perhaps the only) standard BC tool when working with item availability.

We have found that this Event view fails/are weak in more functional ways, but also lacks usability and intuitiveness for the general user.

In all fairness we must also say that it can produce the right figures, limitations taken into consideration. See below.

Anyway to find of this academic creation, are not a job for ordinary users, who are – just users.

 **Disclaimer. NAVEKSA takes the full responsibility of our views and comments.**

We have made a scenario:

You have a customer inquiring on the earliest delivery date to ship 250 pieces.

- Using BC Item availability by event says *part* delivery (110 pcs available) is possible on February 1st, 2018
- Using NAVEKSA ItemPlanning says *full* delivery is possible (260 pcs available) on February 1st, 2018

The natural answer is using NAVEKSA ItemPlanning, as it in an intuitive way offers *the precise and correct answer on item availability*, and this whatever the date is along the timeline.

We will not dwell on the reason for this deviation as it becomes too technical at this place. **Just note that our ItemPlanning produces the correct numbers**

The above scenario is a simple one.

It just consist of an open sales order, a purchase order, a safety stock quantity, a firm reservation against stock, a production order, and an inventory on-hand stock balance.

## Scenario screen dump using Item Availability by Event:

Edit - Item Availability by Event - 70062 tp\_item

HOME ACTIONS NAVIGATE

Expand All Collapse All Recalculate Show Document Refresh Find

Manage Process Page

**Options**

Item No.: 70062 View by: Day

Variant Filter: Forecast Name: 2018

Location Filter: Include Planning Suggestions: ☒ Include Blanket Sales Orders: ☒

Period	Source	Period Start	Description	Type	Projected Inventory	Suggested Projected Inventory	Document No.
<b>Inventory</b>					60	60	
Inventory at SKU					60	60	
<b>29-01-18</b>		<b>29-01-2018</b>	<b>Monday</b>		60	110	
29-01-18	Purchase New	29-01-2018	tp_item	Plan	60	110	
<b>01-02-18</b>		<b>01-02-2018</b>	<b>Thursday</b>		60	110	
01-02-18	Purchase New	01-02-2018	tp_item	Plan	60	560	
01-02-18	Forecast Sales	01-02-2018	2018 Prognose	Forecast	60	110	2018
<b>21-02-18</b>		<b>21-02-2018</b>	<b>Wednesday</b>		-40	10	
21-02-18	Component Releas...	21-02-2018	TP event 1	Component	-40	10	101118
<b>23-02-18</b>		<b>23-02-2018</b>	<b>Friday</b>		-40	10	
23-02-18	Sales Order	23-02-2018	Elkhorn Airport	Sale	-40	10	1004
<b>29-03-18</b>		<b>29-03-2018</b>	<b>Thursday</b>		110	160	
29-03-18	Purchase Order	29-03-2018	Schmeichel Møbler ...	Purchase	110	160	104001

## Scenario screen dump using NAVEKSA ItemPlanning:

Limit totals to:

+ Add Filter

General

No.: 70062 Description 2:

Description: tp\_item Show Planning Worksheet data: ☒

Lines

Line Find

Date	Type	Production Forecast	Independent/D... Demand	Customer/Vendor Name	Projected Inventory excl. Reservations	Projected Inventory excl. Forecast and Reservations	Projected Inventory excl. Forecast	Sales Order No.
	Inventory	0			60	60	110	
29-01-2018	Planned	0			110	110	160	
31-01-2018	Purchase	0		Schmeichel Møbler A/S	260	260	310	
01-02-2018	Planned	0			710	710	760	
01-02-2018	Forecast	500			710	260	310	
21-02-2018	Comp. (Pro...	0	100		610	160	210	
23-02-2018	Sales	0	50	Elkhorn Airport	610	160	160	1004

Here is a list of some weak spots found using standard BC Item Availability by Event.

- Deleted production forecasts are still shown, but fortunately not used in the planning calculations.

- Do you know exactly what column to be used to find the the best answer? – Projected inventory, Suggested Projected inventory or Remaining base ? And understand the underlying logic?
- No starting dates are shown for orders – released and planned. This date information may be important in certain contexts.
- There are no places where you can see the gross demand figures, i.e. that greater demand figure per forecast period, which drives the planning engine order proposal generation. This figure is an essential one in tracking demand sources.
- Uses purchase order expected receipt date, despite the promised date is filled.
- A term “Plan reverted” in the column Source is used. More correct this should be “Dependent requirement” according to APICS definitions.
- Forecast period figures are not reduced with actual sales orders in the “Forecasted projected inventory” column. This is what we call the greater demand of forecast and sales orders within a forecast period.)
- Risk of overplanning (-producing/buying) when customers are buying less than forecasted. This situation is not reflected in the projected stock.
- The user must every time remember to setup the screen properly when started. In addition, the user must watch out for proper use of the expand/collapse functions.
- Usability seems illogical by showing more data as negative quantities.

So, there are several reasons why we have developed the ItemPlanning solution which, in addition to produce accurate availability, offers several additional functions – **simulation, tracking, sales order where used, bill of material availability etc.**