ATP-CTP

Calculation of Order Promising Dates

MS Dynamics 365 Business Central

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ATP-CTP (CZ verze vysvětlení)

- V Dynamics 365 Business Central se používají dvě hlavní metody pro slibování termínů dodání: **ATP** (Available to Promise) a **CTP** (Capable-to- Promise).

1. **ATP** (Available-to-Promise): Tato metoda vypočítává dostupnost na základě aktuálních zásob a plánovaných příjmů. Pokud máte dostatek zásob na skladě nebo jsou na cestě, ATP vám poskytne datum, kdy můžete objednávku splnit[1].
2. **CTP** (Capable-to-Promise): Tato metoda jde o krok dále a zahrnuje nejen dostupné zásoby, ale také výrobní kapacity a dodací lhůty od dodavatelů. CTP vypočítává, kdy můžete objednávku splnit, i když musíte nejprve vyrobit nebo objednat potřebné zboží[1].

- Obě metody pomáhají zlepšit přesnost a spolehlivost vašich dodacích termínů, což vede k lepší spokojenosti zákazníků.

ATP-CTP (Eng version)

- In Dynamics 365 Business Central, there are two main methods for promising delivery dates: ATP (Available-to-Promise) and CTP (Capable-to-Promise).
- **ATP (Available-to-Promise):** This method calculates availability based on current inventory and projected revenue. If you have enough inventory in stock or on the way, ATP will give you a date when you can fulfill order 1.
- This method goes one step further and includes not only available inventory **CTP (Capable-to-Promise):** but also production capacity and lead times from suppliers. CTP calculates when you can fulfill the order, even if you have to produce or order the item first.
- **Both methods help improve the accuracy and reliability of your delivery times, leading to better customer satisfaction**.

Calculations ATP-CTP

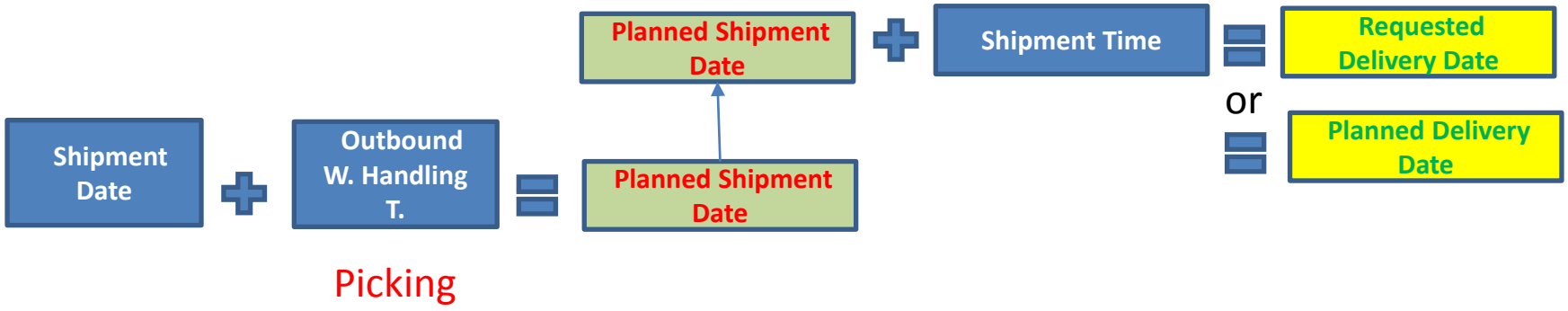
- **When Business Central calculates the customer's delivery date, it performs two tasks:**

- Calculates the **Earliest Delivery date** when the customer **has not requested** a specific **Delivery date.**

- Verifies if the **delivery date requested** by the customer or **promised** to the customer is realistic.

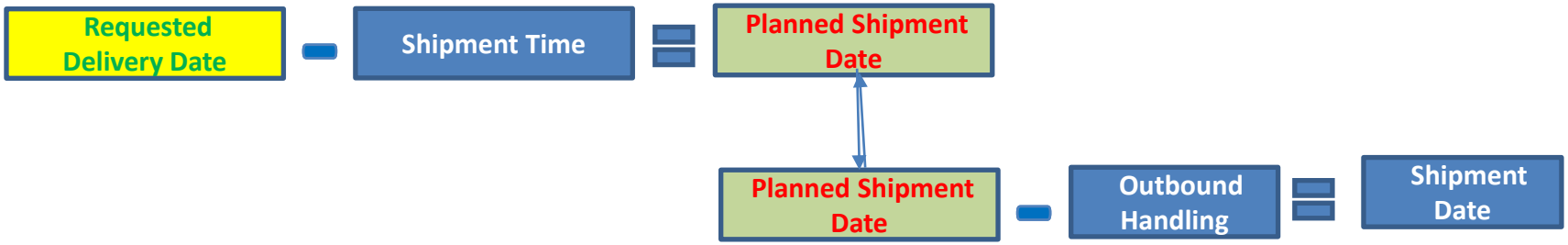
Introduction I.

- A company must be able to inform their customers of **Order Delivery dates**.
- The **Order Promising Lines** page enables you to do this directly from a sales order.
- Business Central calculates shipment (earlier) and delivery (later)dates based on an item's known and expected **availability dates**, which you can promise to customers.
- If you specify a **Requested delivery** date on a sales order line, then that date is used as the Starting point for the following calculations:
  1. **Requested Delivery Date –** Shipping Time = Planned Shipment Date
  2. **Planned Shipment Date** - Outbound Warehouse Handling Time = Shipment Date



Introduction II.

1. **Requested Delivery Date** – Shipping Time = Planned Shipment Date
2. **Planned Shipment Date** - Outbound Warehouse Handling Time = Shipment Date



Nebo to může být znázorněno takto

ATP-CTP

- **Available-to-Promise**
- **Capable-to-Promise**

- **ATP** – based on the **reservation functionality** of the system, which checks availabilities (**Calculation of Delivery date**)

- **CTP** – based on **WHAT-IF** scenarios. That is, calculating the earliest time when the requested item will be available. It calculates replenishment.

If there are no existing any **Item Ledger entries**, no incoming orders of the type Purchase, Transfer, Return or Production - then the system calculates the nearest date, creates order lines and **reserves** stock items.

ATP-CTP

- Select **Available-to-Promise** if you want to calculate the **Earliest date** that the item will be available with respect to inventory, scheduled receipts, and **Gross Requirements**.

- Select **Capable-to-Promise** if you know that the item is presently out of stock and you want to calculate the **earliest date** that the item can be available by issuing new replenishment requisitions.

- Before an item can be included in the **Order Promising calculation**, it must be marked as Critical.
- This setup ensures that non-critical items do not cause irrelevant order promising calculations.

Gross Requirements-explanation

- **Gross Requirements:**
- Gross requirements represent the total quantity of a product that is needed to satisfy the demand forecast. This includes both the demand from external customers and the demand generated by the production plan for other products within the organization.
- In simple terms, gross requirements are the total demand for a particular item before considering any existing inventory.

Gross Requirement=Hrubý požadavek

Net Requirements-explanation

- Net requirements, on the other hand, take into account the current inventory levels and the scheduled receipts (orders or production) that are already in the pipeline.
- Net requirements are calculated by subtracting the current on-hand inventory and scheduled receipts from the gross requirements. This calculation helps determine the actual quantity that needs to be produced or procured to meet the demand.

Net Requirement=Čistý požadavek

Important equation (relation between GR and NR)

Net **R**equirements = **G**ross **R**equirements - (On-Hand Inventory + Scheduled Receipts – Schedule Deliveries –Safety Stock)

ATP –CTP

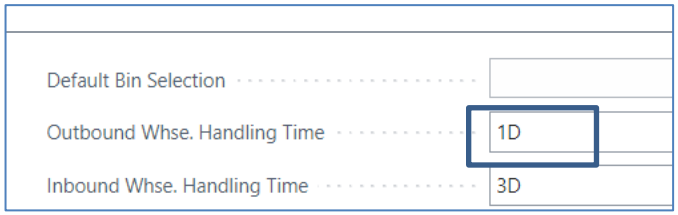
Blues Location

1D - OWHT

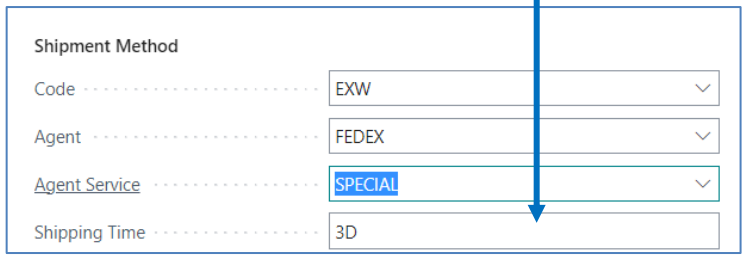
Shipment time

Customer

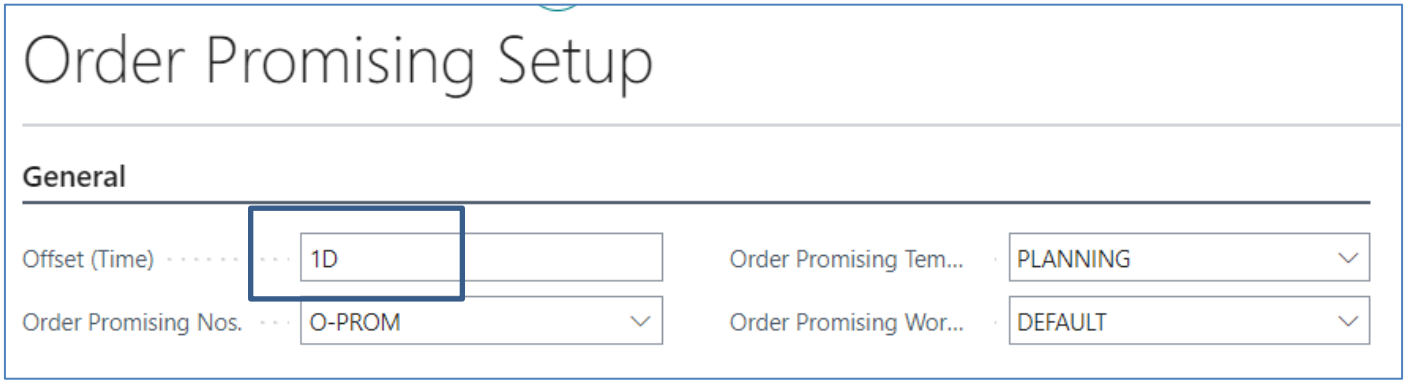
Blue Location card tab Warehouse



Customer Card



ATP –CTP – Order Promising Setup



The Offset Time Delay -> Compensation (Time) field contains the amount of time the program **must wait** before it can issue a new purchase order, production order or transfer order. It was already mentioned in the section describing reservations.

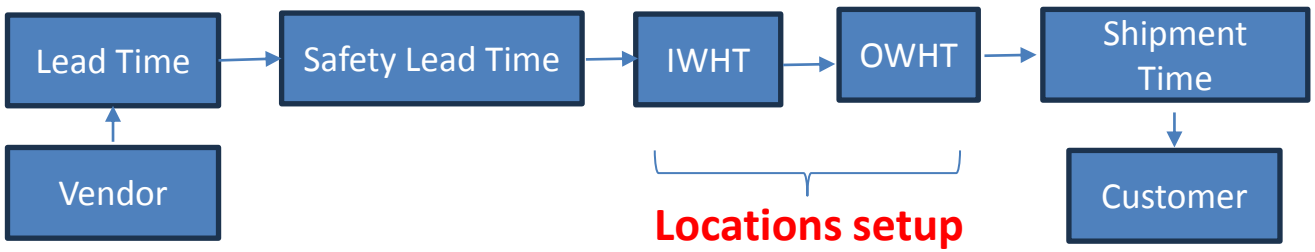
The period begins on the current date

Used Time units can be days, working days, weeks, months, quarters or years

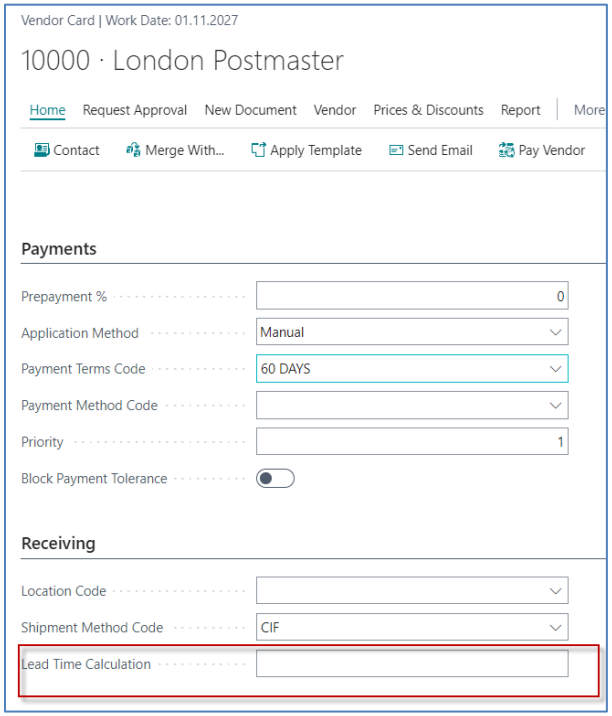
Parameters used for ATP-CTP calculations

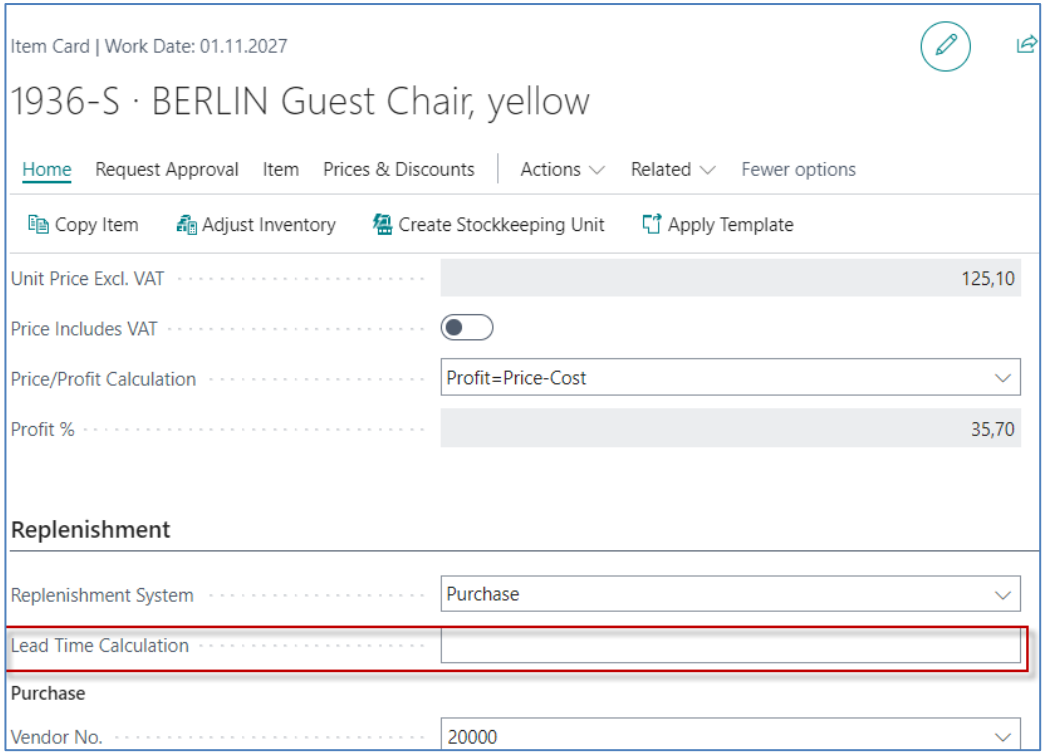
Times ATP-CTP	Numbre of days	Where it's set
OWHT	1D	Location Blue
IWHT	1D	Location Blue
Lead Time Calculation	4D	Item Card
Safety Lead Time	2D	Item Card
Shipping Time	3D	Customer Cards
Offset	1D	Order Promising Setup

OWHT=Outbound Warehouse Handling Time
IWHT=Inbound Warehouse Handling Time



Lead time calculations Setups





Lead time calculations-explanation-CZ version

V Business Central hodnota pole **Lead Time Calculation** na kartě dodavatele a na kartě zboží ovlivňuje, kdy je třeba objednat zboží, aby bylo doručeno včas.

1.Lead Time Calculation na kartě dodavatele: Tato hodnota určuje dobu, kterou dodavatel potřebuje k dodání zboží od okamžiku objednání. Pokud je tato hodnota nastavena, Business Central ji použije k výpočtu data objednávky na základě požadovaného data doručení[1].

2.Lead Time Calculation na kartě zboží: Tato hodnota určuje dobu, kterou potřebujete k přípravě zboží na skladě, včetně času na zpracování a manipulaci. Pokud je tato hodnota nastavena, Business Central ji použije k výpočtu data, kdy bude zboží dostupné k vyzvednutí[1].

Při zadávání objednávky Business Central kombinuje tyto hodnoty, aby vypočítal optimální datum objednávky a očekávané datum doručení. Pokud například zadáte požadované datum doručení, systém automaticky vypočítá datum objednávky odečtením celkové doby dodání (dodavatel + zboží) od požadovaného data[1].

Požadované datum doručení na kartě Dodavate ->Requested Delivery date
(nebude uvažováno v našem jednoduchém modelu)

Náš model bude brát do úvahy LS and SLT **POUZE** na kartě zboží (viz vyjádření na snímku 18)

Lead time calculations-explanation-ENG version

In Business Central, the value of the Lead Time Calculation field on the Supplier tab and the Item tab affects when you need to order goods to be delivered on time.

Lead Time Calculation on the Supplier card: This value determines the amount of time it takes the supplier to deliver the item from the time of ordering. If this value is set, Business Central uses it to calculate the order date based on the requested delivery date.

Lead Time Calculation on the Item Cards. If this value is set, Business Central will use it to calculate the date the item will be available for pick-up.

When you place an order, Business Central combines these values to calculate the optimal order date and expected delivery date. For example, if you enter a desired delivery date, the system automatically calculates the order date by subtracting the total delivery time (supplier + item) from the desired date.

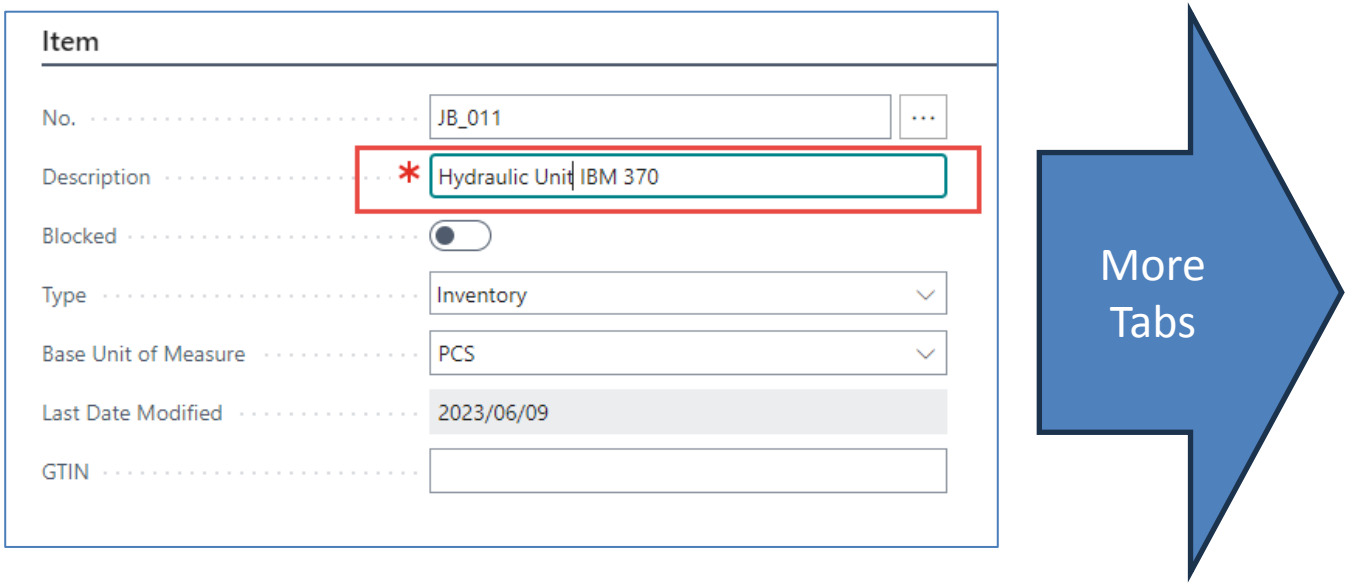
Statement

in our model we will use
only the Lead time calculation and the item card

Simple model (ATP Calculation) I.

First of all, it is also necessary to create a new item card with the parameters that will be part of the calculation, set the parameters of the model location and the customer to whom we will deliver our model item.

Working day will be set in this PWP presentation to 3.7.2023 (2023/07/03)
Due to the type of license in our BC instances allowing to work realistically only from 1.11. to 28.2. of that year, we set today our Working date to **3.11.2027** for real modeling of ATP-CTP.



Simple model (ATP Calculation) II.

Costs & Posting

Cost Details

Costing Method	FIFO
Standard Cost	0,00
Unit Cost	0,00
Indirect Cost %	0
Last Direct Cost	800,00
Net Invoiced Qty.	0
Cost is Adjusted	
Cost is Posted to G/L	
Purchase Prices & Discounts	Create New...

Replenishment

Replenishment System	Purchase
Lead Time Calculation	4D

Purchase

Vendor No.	10000
Vendor Item No.	
Purch. Unit of Measure	PCS
Purchasing Blocked	

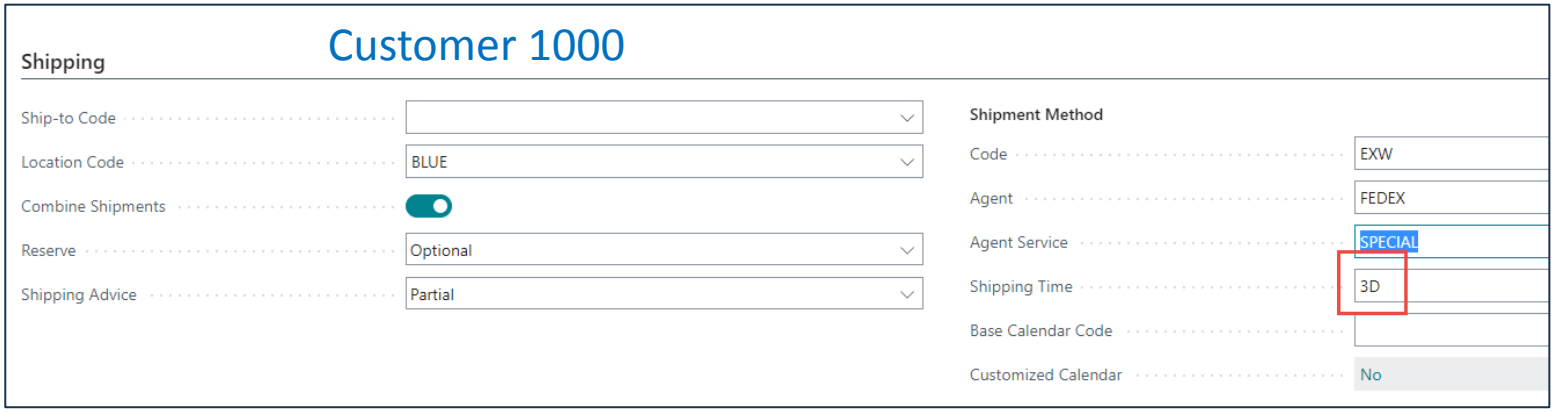
Planning

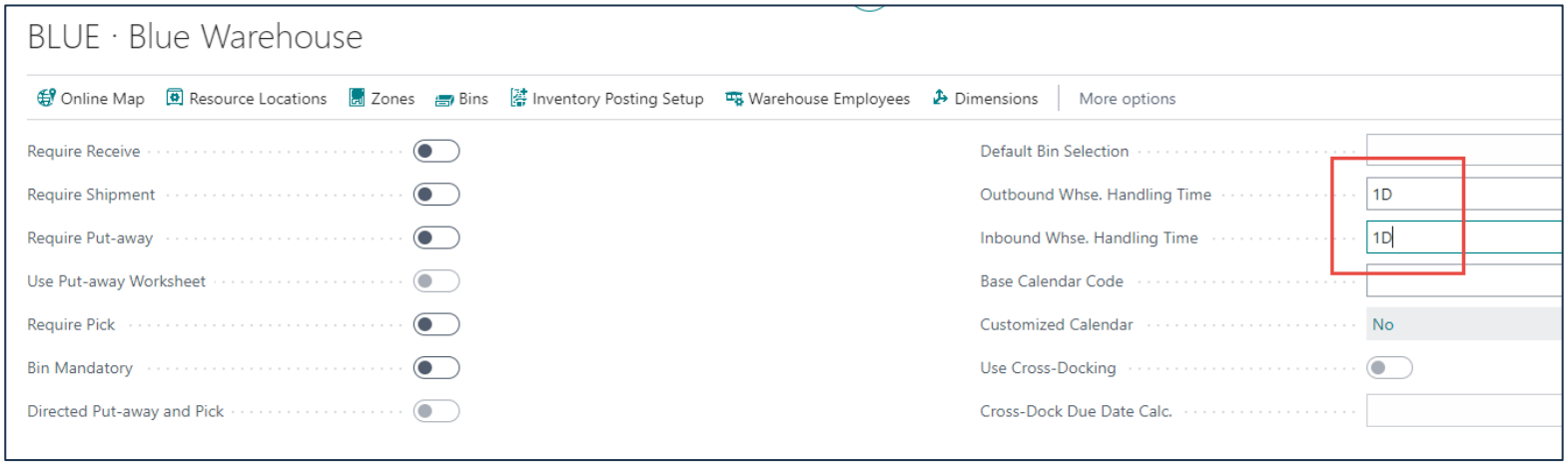
Reordering Policy	Lot-for-Lot
Reserve	Optional
Order Tracking Policy	None
Stockkeeping Unit Exists	No
Dampener Period	
Dampener Quantity	
Critical	
Safety Lead Time	2D
Safety Stock Quantity	

Lot-for-Lot Parameters

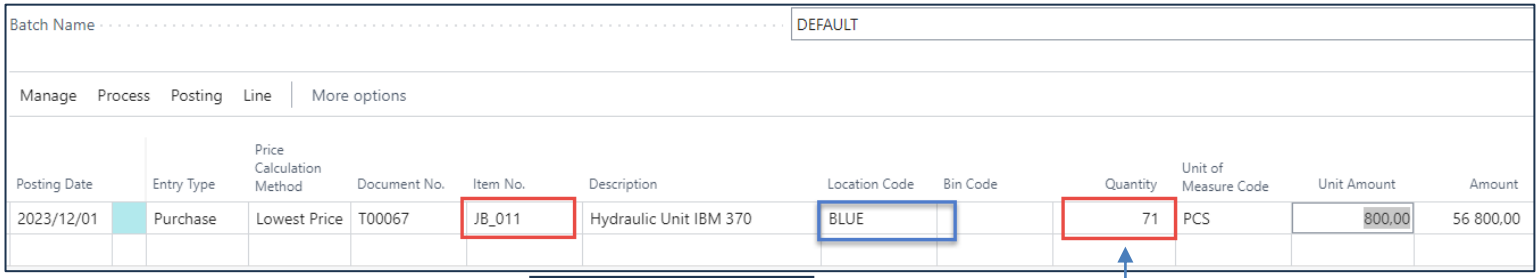
Include Inventory	
Lot Accumulation Period	1D
Rescheduling Period	

Simple model (ATP Calculation) III.





Purchase of item JB_011 by use of Item Journal



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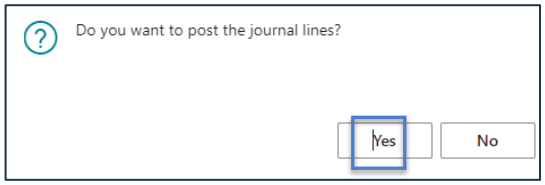
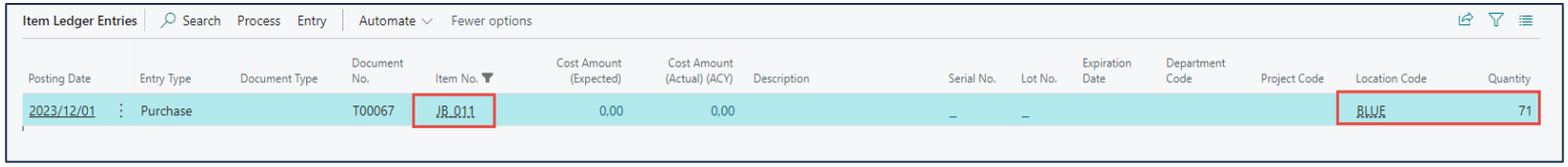


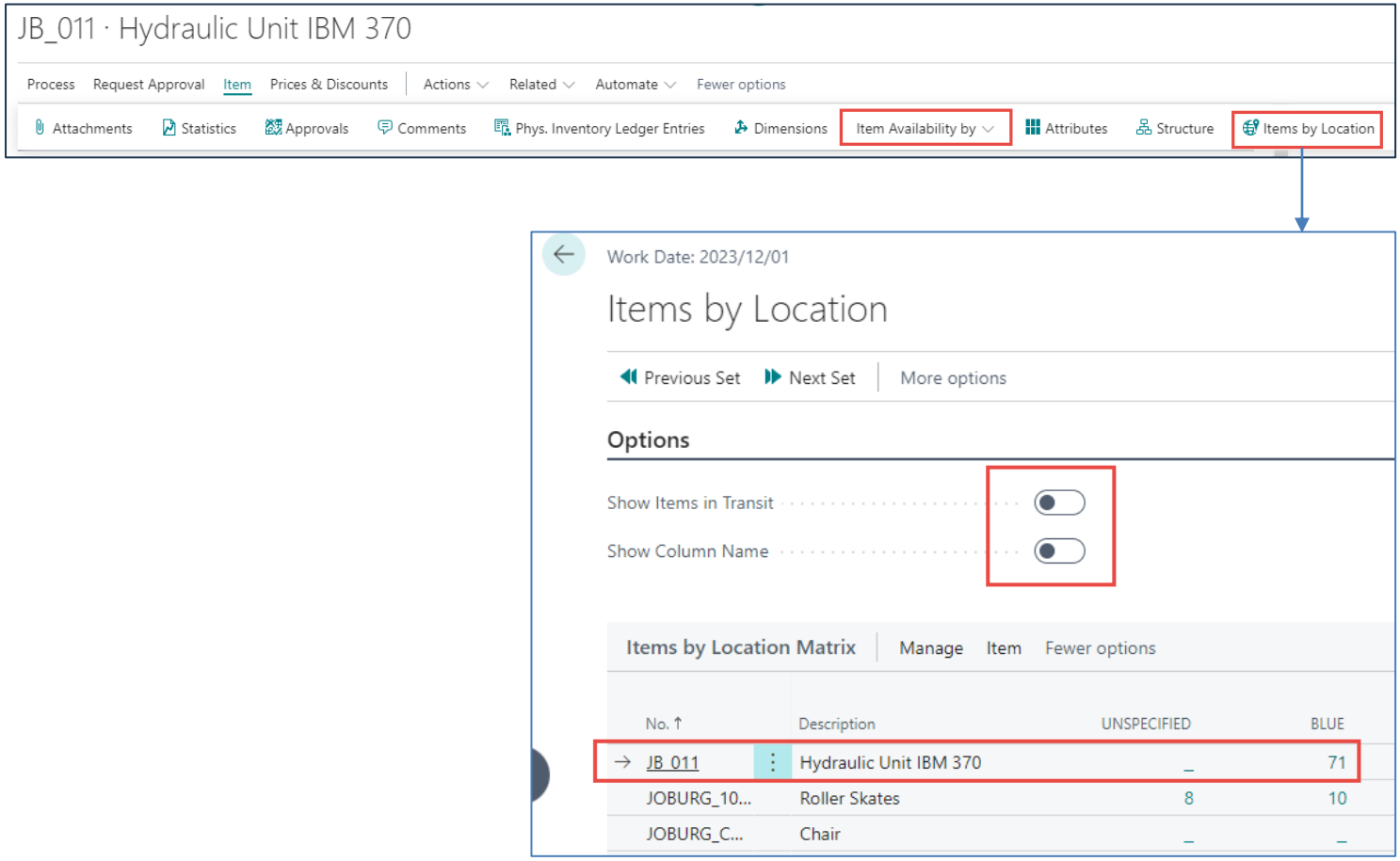
Important Quantity
(will be used later)

Item ledger entry

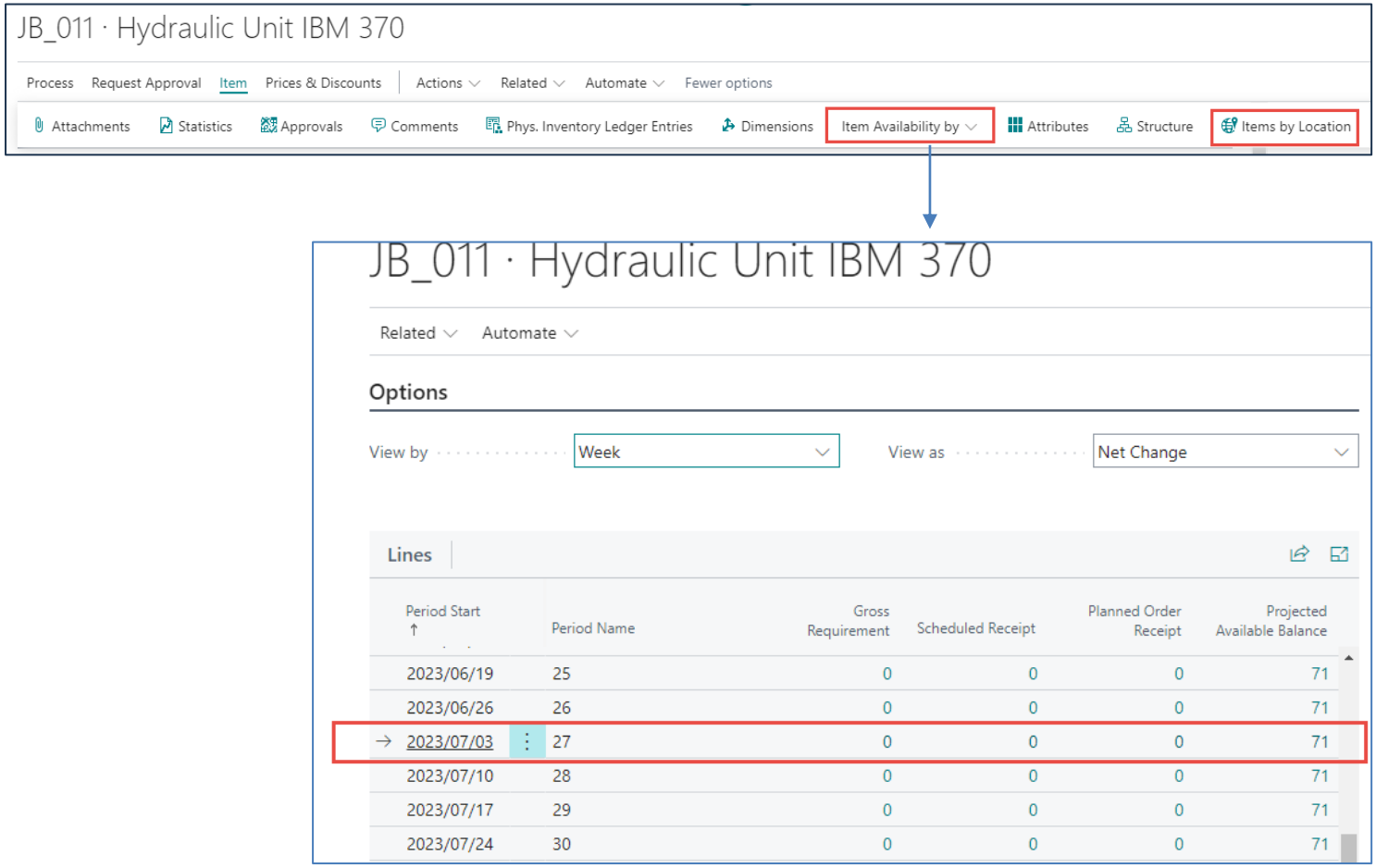


At this moment we have a total of 71 pieces of our items in stock in location Blue

Items by Locations & Availability



Items by Locations & Availability by period



Sales Order (our Customer must have set Shipping time to 3D)

Only Sales Order Line presented in this PWP presentation !

We have already purchased **71** items by use of Item Journal
and we require only **50** pcs – see a quantity field in Sales Order line.
Lead Time nor Safety Lead Time will be not used in this part of the model.

In this example, we do not consider manually entered **Requested Delivery Dates** (if visible) into the **Sales line** (each line may have a separate **Requested Delivery Date**).
If we enter this date in the sales order header, where the field also exists,
this value is automatically transferred to all lines. In our example we will not consider this.

1st part of the Sales Line

Lines | Manage | Line | Order | Service | Fewer options

Type	Catalog	No.	Drop Ship...	Item Reference No.	Assembly Order No.	Description	Special Order	Location Code	Requested Delivery Date	Promised Delivery Date	Line Discount Amount	Quantity
Item		JB_011				Hydraulic Unit IBM 370		BLUE			0,00	50

See comment

2nd part of the Sales Line

Item Charge Qty. to Handle	Qty. Assigned	Planned Delivery Date	Planned Shipment Date	Shipment Date	Department Code	Project Code	Customergro... Code	Area Code
0	_	2023/07/07	2023/07/04	2023/07/03	SALES		MEDIUM	30

3D=Shipping time

1D=OWHT

Sales Order (our Customer must have set **Shipping time to 3D**)

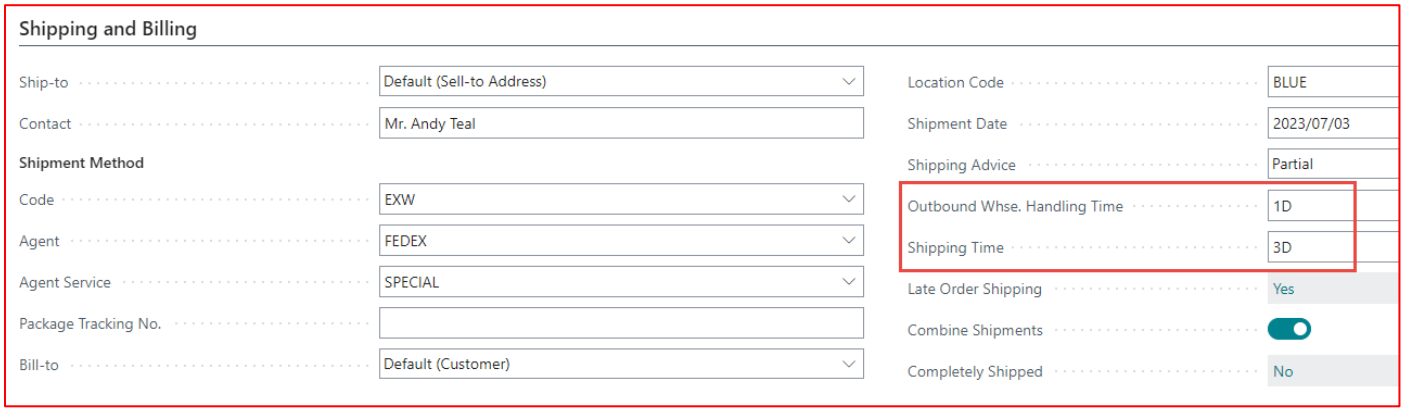
2nd part of the Sales Line

Item Charge Qty. to Handle	Qty. Assigned	Planned Delivery Date	Planned Shipment Date	Shipment Date	Department Code	Project Code	Customergro... Code	Area Code
0	_	2023/07/07	2023/07/04	2023/07/03	SALES		MEDIUM	30

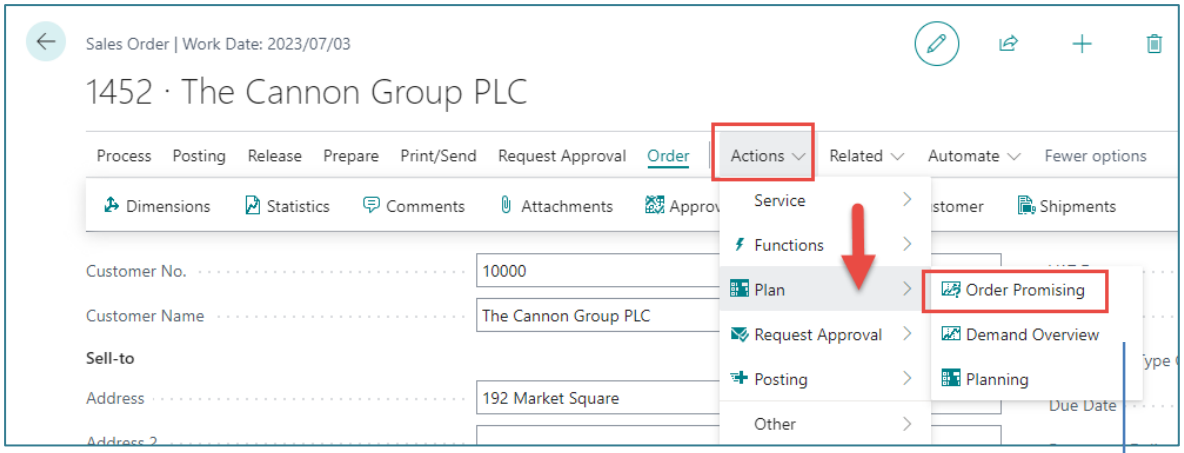
3D=Shipping time

1D=OWHT

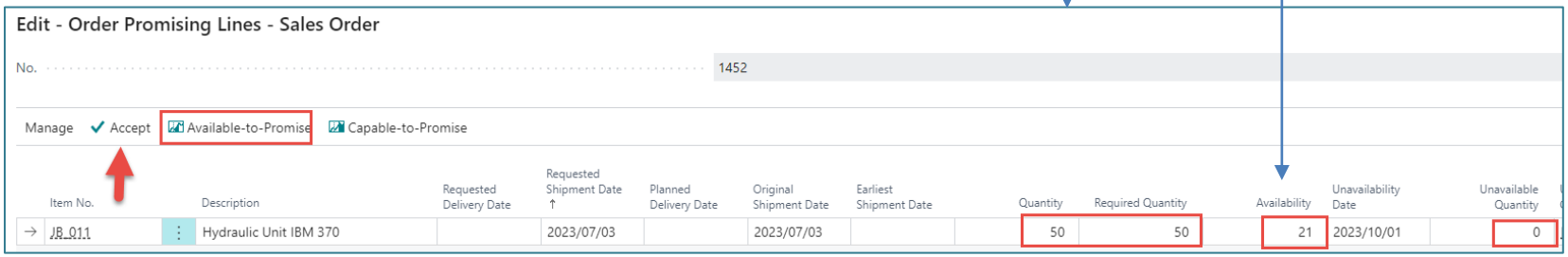
Explanation of dates



Sales Order : Order Promising function



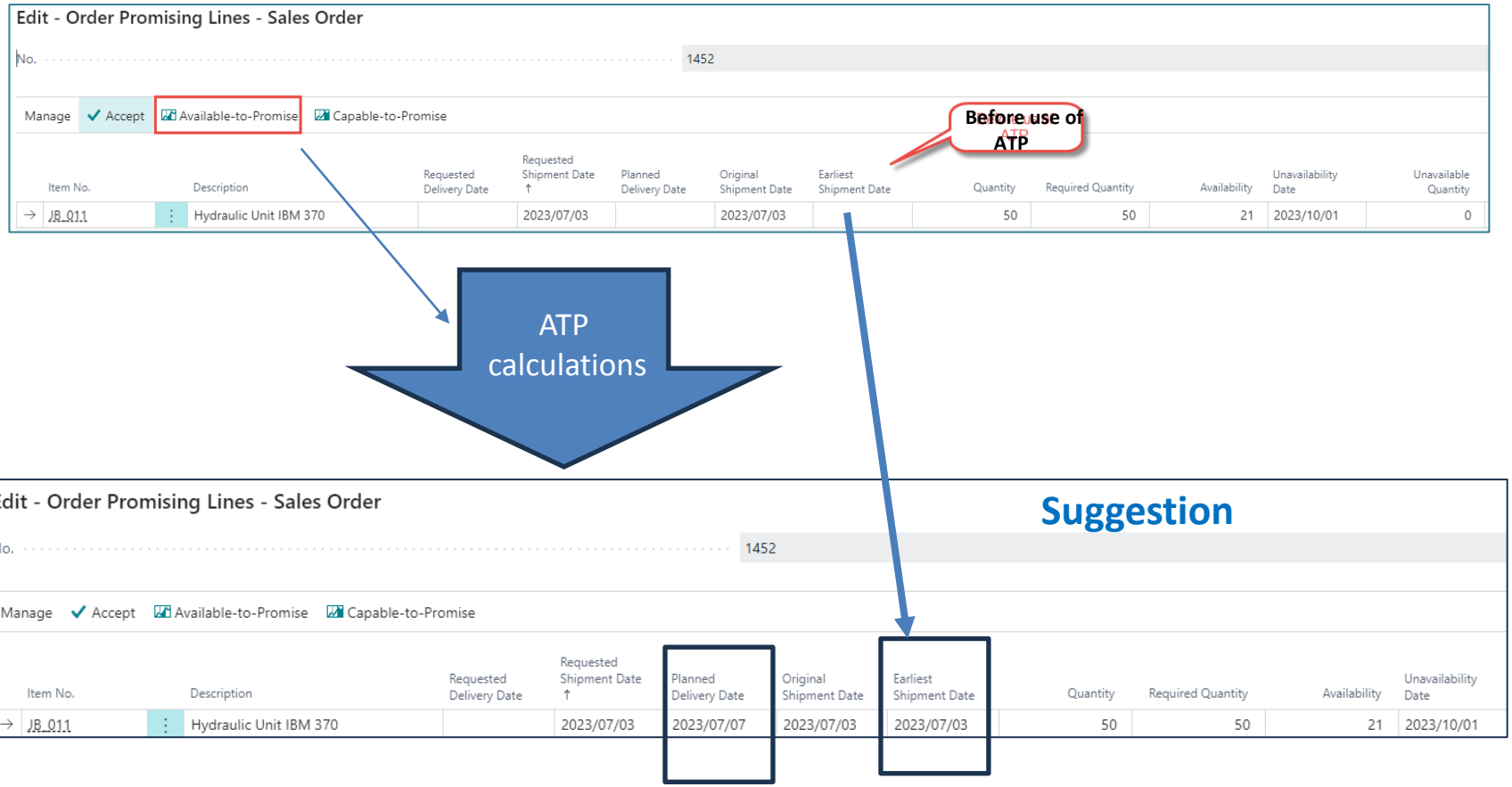
What's left in stock (71-50=21)



Before ATP activation and ATP proposal approval

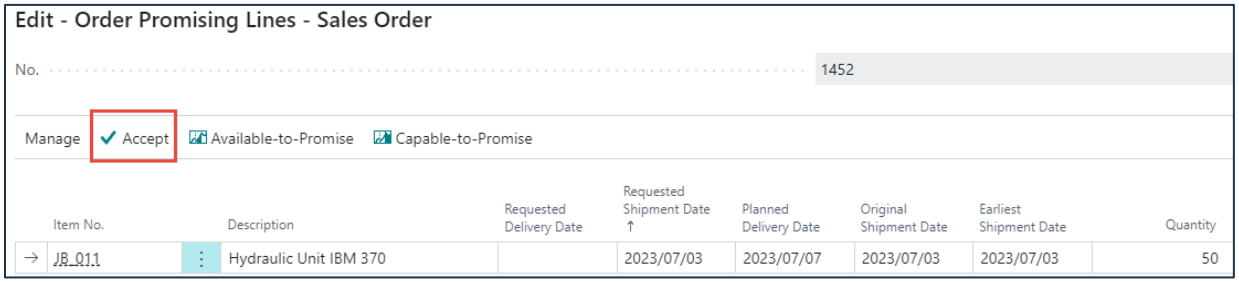
See next slide

ATP Calculation



ATP Calculation

After accepting the calculation, it was not reflected in the sales line.

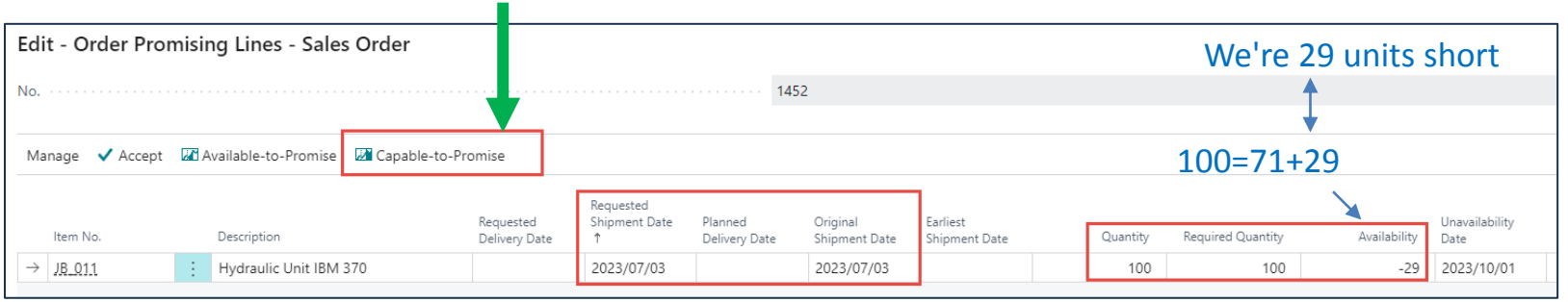


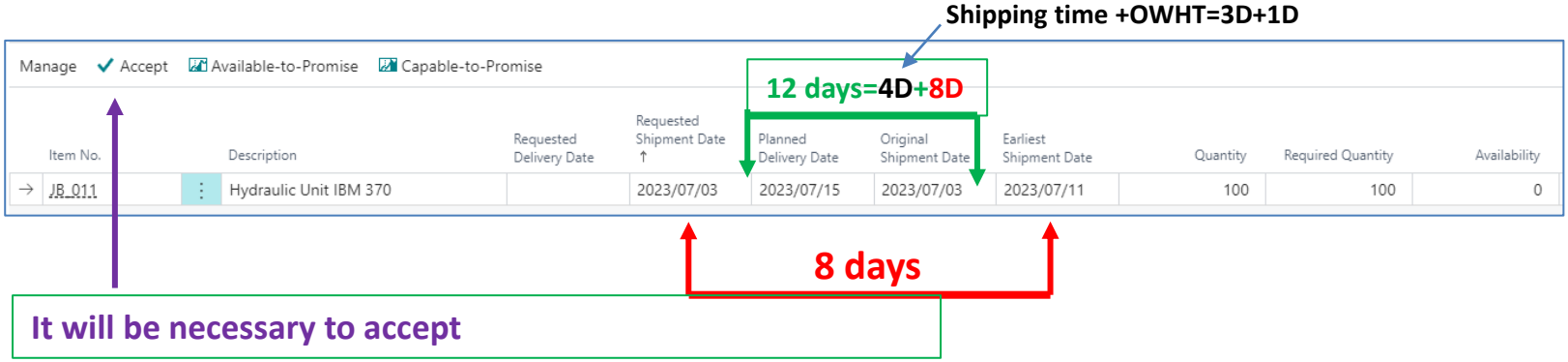
Manual modification of the required quantity in the sales order line 50->100

Reason for change Quantity per 100 pcs-> Purchase and related parameters such as Lead Time Calculation (in our Setup =4D) and IWHT (1D)

CTP Caluclation

We use CTP because ATP has already been used and more, we need to plan the replenishment of the stock with 29 pcs





Purchase process (after the CTP calculation)

July 3 -> July 11 = 8D = 4D (Lead Time) + 2D (Safety Lead Time)+ 1D (IWHT at Location Blue) + 1D Offset)

Specifies the period of time to wait before issuing a new purchase order, production order, or transfer order.

Part of Sales Line : CTP calculation Accepted calculation

Qty. to Invoice	Quantity Invoiced	Qty. to Assign	Item Charge Qty. to Handle	Qty. Assigned	Planned Delivery Date	Planned Shipment Date	Shipment Date
100		0	0	_	2023/07/15	2023/07/12	2023/07/11

Sales process

15.7.-11.7. = **4D** = **3D** (Shipment Time)+ 1D (OWHT from Location Blue)

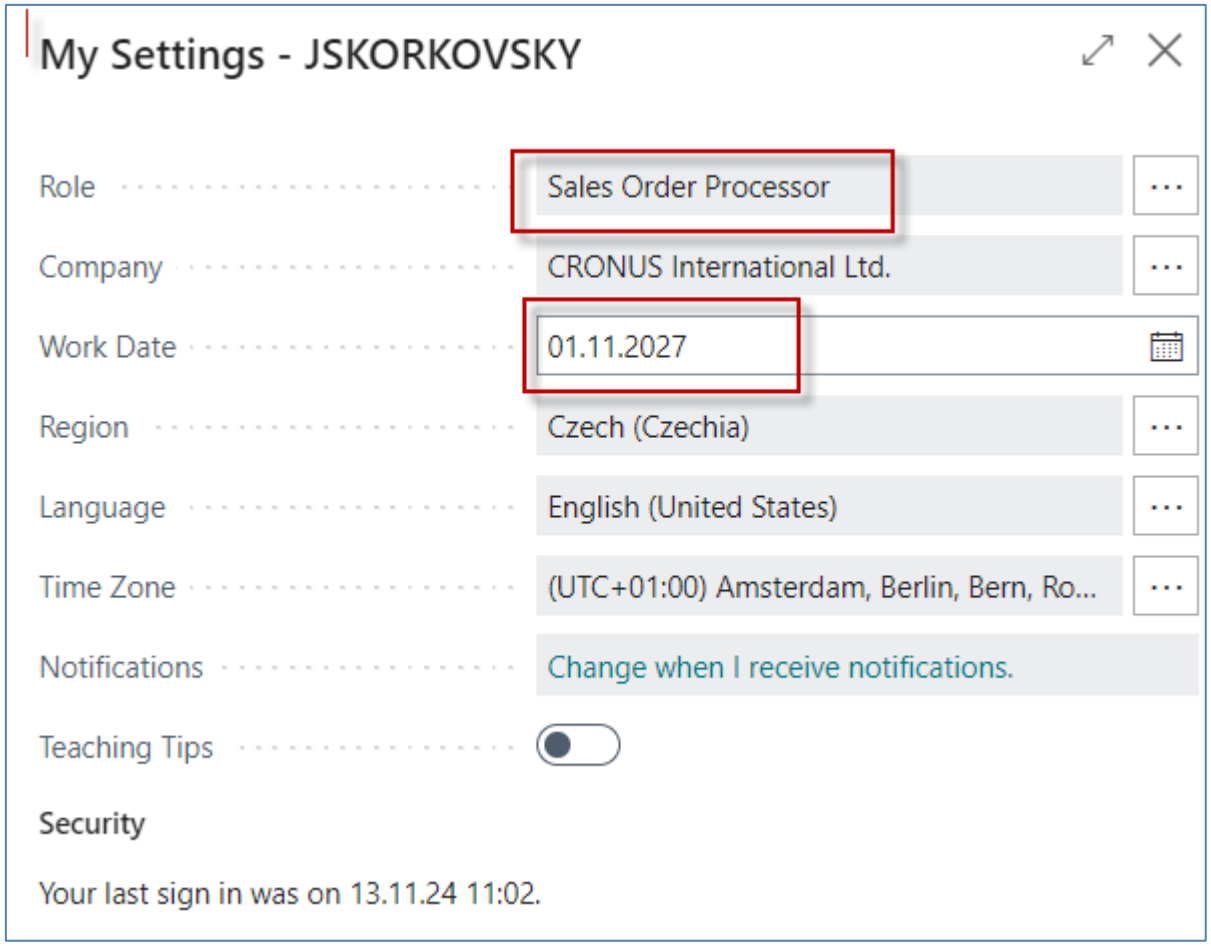
New example
In classes

A realistic model in classroom teaching

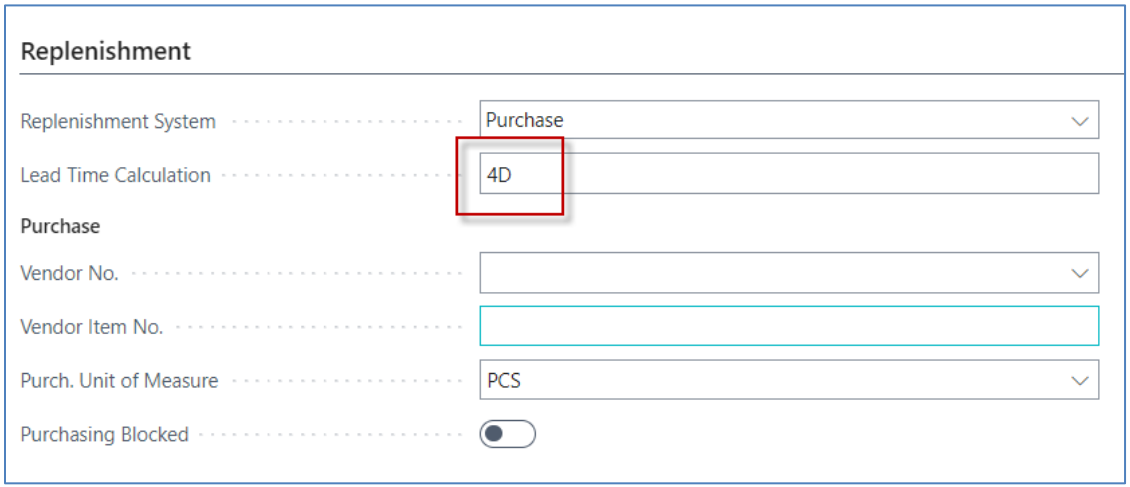
Zdroj	Specifikace	Hodnota	
Lokace Blue	IWHT	1D	
Lokace Blue	OWHT	1D	
Item Card	Lead Time	4D	
Item Card	Safety Lead Time	2D	
Customer	Shipping Time	3D	
OP Setup	Offset time	1D	

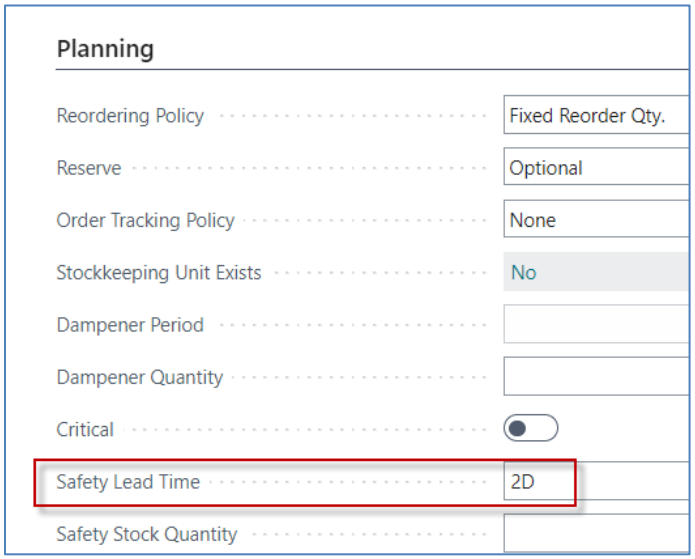
CTP do finálního výpočtu zahrnuje soboty a neděle!

User role settings



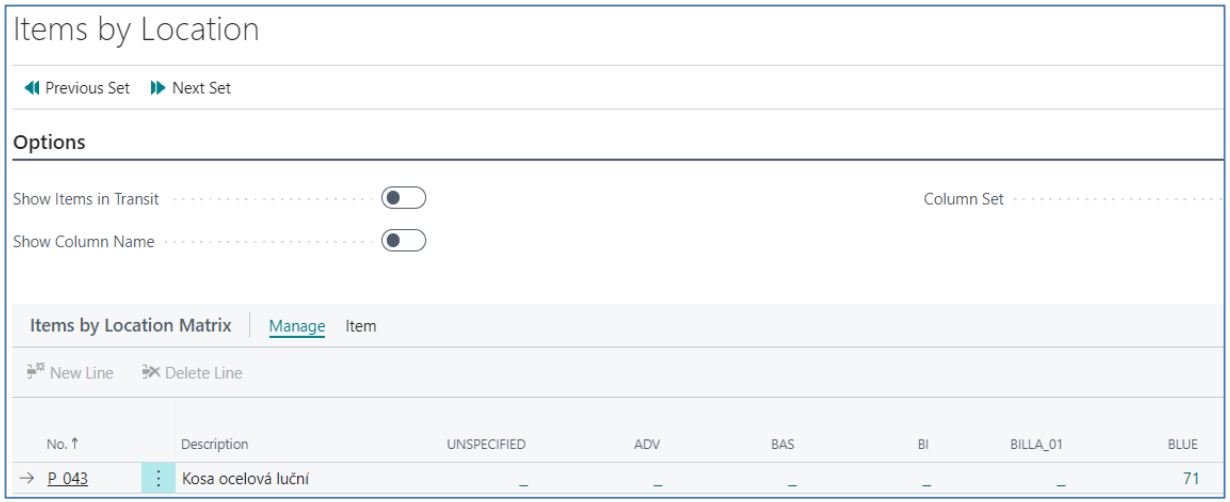
Setup LT and SLT



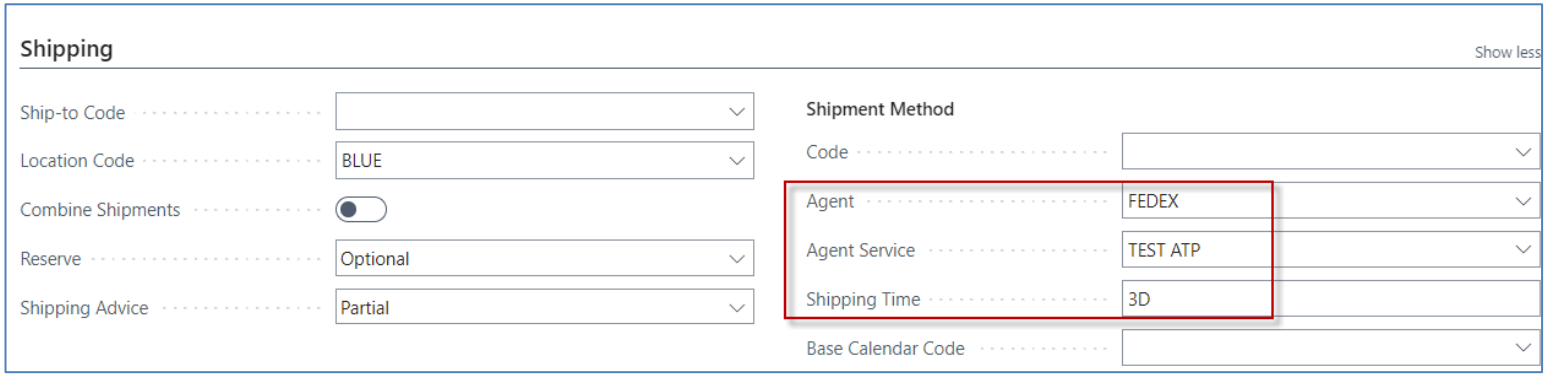


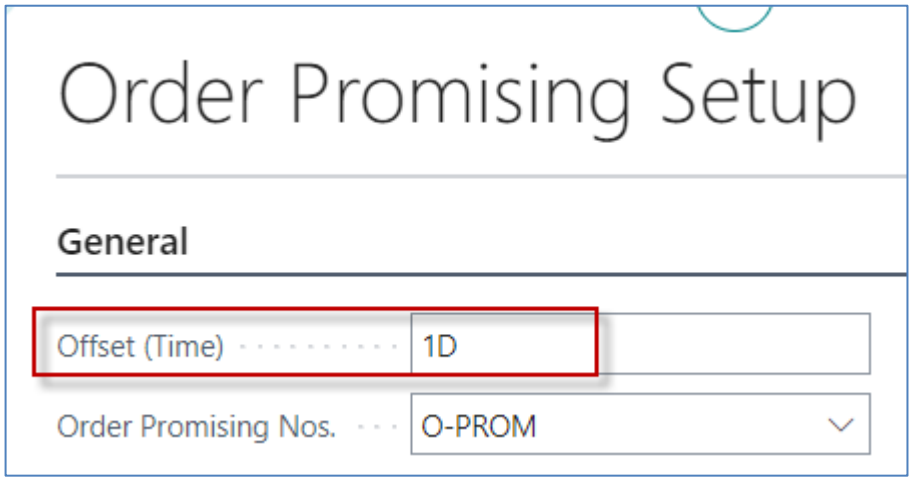
Purchase item „kosa ocelová luční“

We used Item journal ->71 pcs to location BLUE

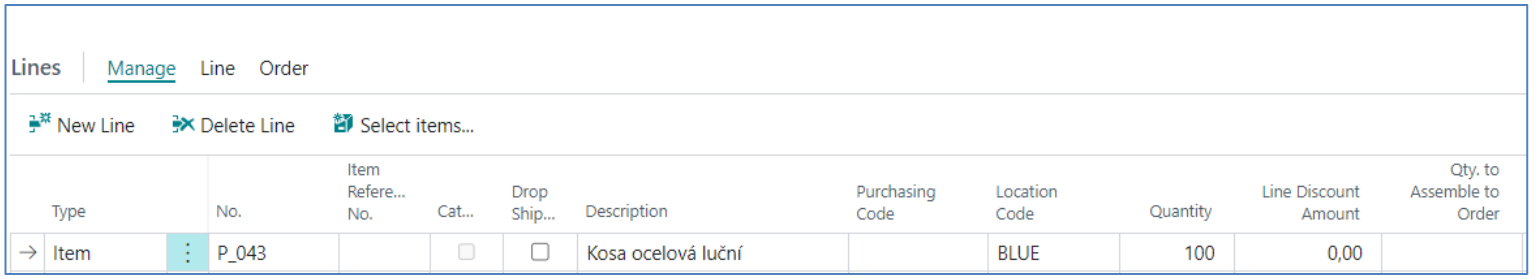


Setup Shipping time (new customer) and Order Promising Setup





Sales order (line only)

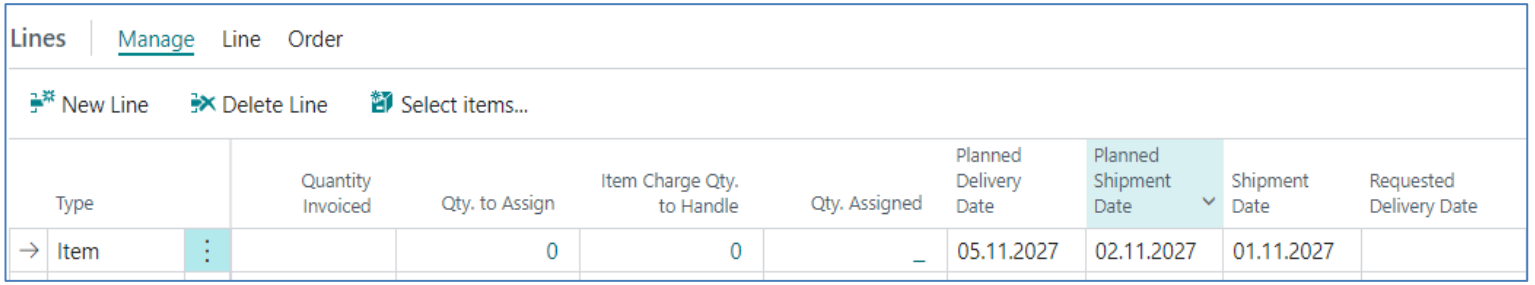


Lines | Manage Line Order

New Line | Delete Line | Select items...

Type	No.	Item Refere... No.	Cat...	Drop Ship...	Description	Purchasing Code	Location Code	Quantity	Line Discount Amount	Qty. to Assemble to Order
Item	P_043				Kosa ocelová luční		BLUE	100	0,00	

1st part



Lines | Manage Line Order

New Line | Delete Line | Select items...

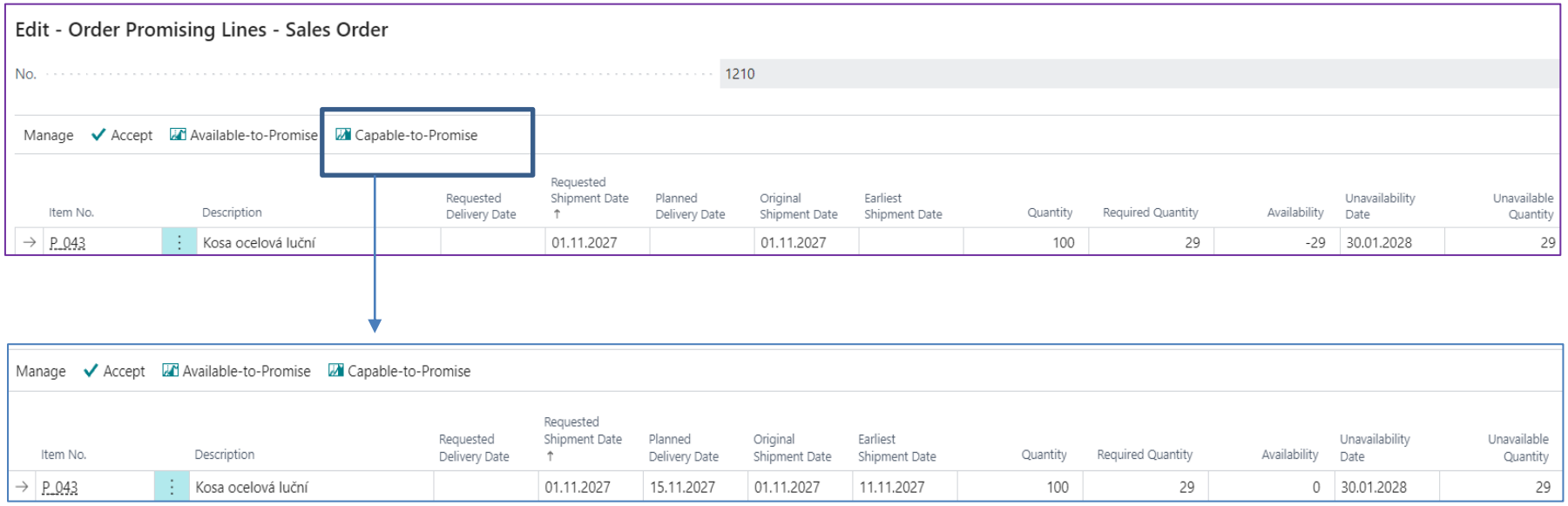
Type	Quantity Invoiced	Qty. to Assign	Item Charge Qty. to Handle	Qty. Assigned	Planned Delivery Date	Planned Shipment Date	Shipment Date	Requested Delivery Date
Item		0	0	_	05.11.2027	02.11.2027	01.11.2027	

2nd part

1 day=OWHT

3 days-ST

Action- Plan-Order Promising-CTP

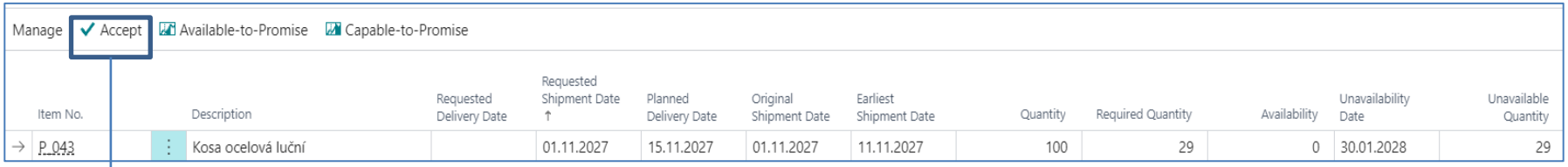


15.11. <-> 11.11 -> 4 Days = Shipping Time +OWHT=3D+1D

11.11.<-> 1.11.-> 10 Days = LT+SLT+IWHT+Offset+2 days (Suterday- Sunday)=

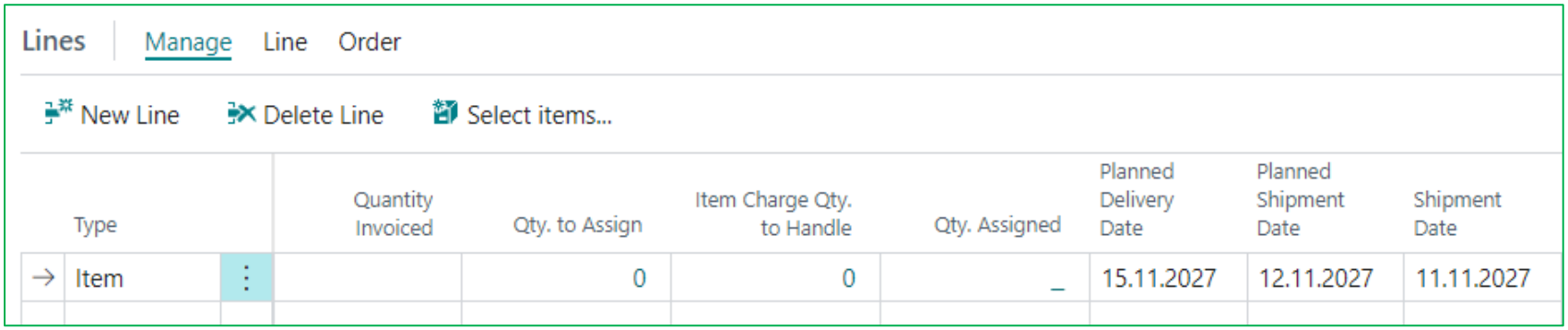
= 4D +2D +1D+1D+2D (weekend)

Action- Plan-Order Promising-CTP



Item No.	Description	Requested Delivery Date	Requested Shipment Date ↑	Planned Delivery Date	Original Shipment Date	Earliest Shipment Date	Quantity	Required Quantity	Availability	Unavailability Date	Unavailable Quantity
P_043	Kosa ocelová luční		01.11.2027	15.11.2027	01.11.2027	11.11.2027	100	29	0	30.01.2028	29

Sales line 2nd part

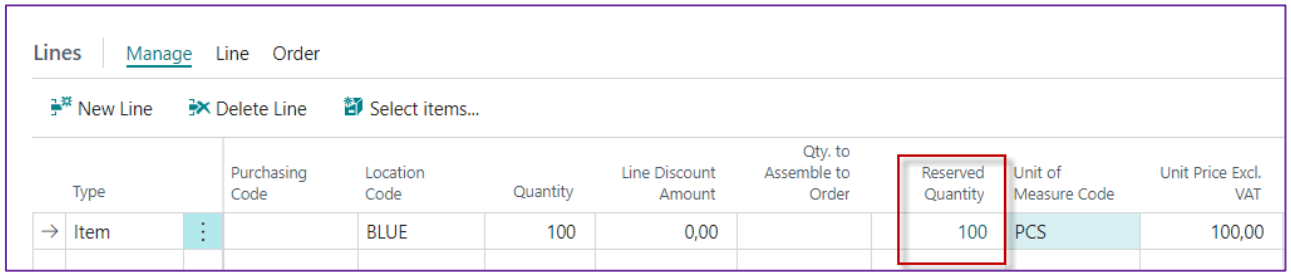


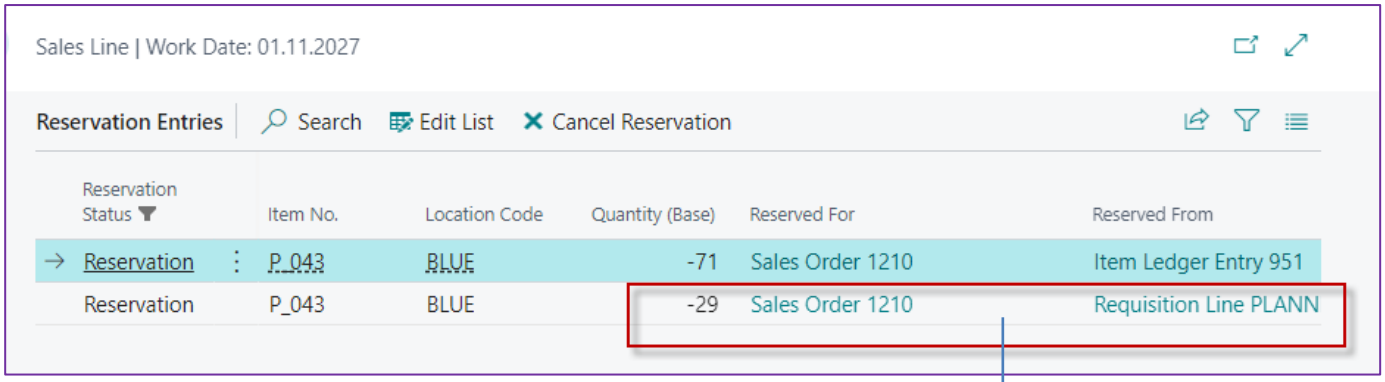
Type	Quantity Invoiced	Qty. to Assign	Item Charge Qty. to Handle	Qty. Assigned	Planned Delivery Date	Planned Shipment Date	Shipment Date
Item		0	0	_	15.11.2027	12.11.2027	11.11.2027

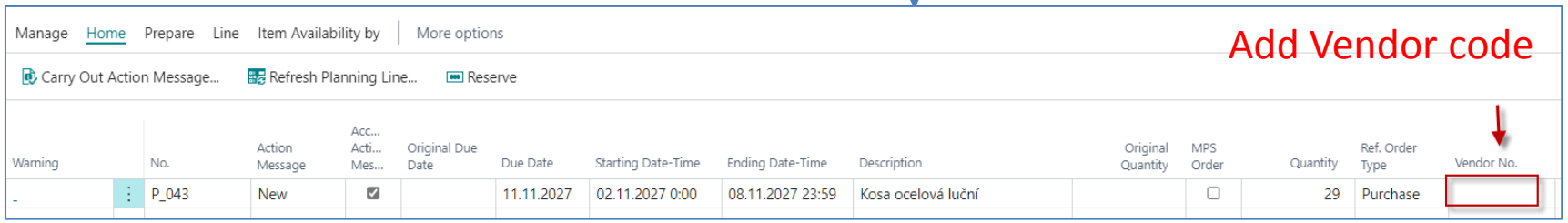
1 day=OWHT

3 days-ST

Reservation







Purchase order line

Lines | Manage | Line | Functions | Order

New Line | Delete Line | Select items...

Type	No.	Item Reference No.	Description	Location Code	Bin Code	Drop Ship...	Quantity	Reserved Quantity	Unit of Measure Code	Direct Unit Cost Excl. VAT	Unit Cost (LCY)	Line Amount Excl. VAT
Item	P_043		Kosa ocelová luční	BLUE			29	29	PCS	7,00	7,00	203,00

F9

Item P_043 Kosa ocelová luční | Work Date: 01.11.2027

Item Ledger Entries | Search | Find entries... | Entry | Order Tracking | Application Worksheet

Posting Date	Entry Type	Document Type	Document No.	Lot No.	Expiration Date	Item No.	Cost Amount (Expected)	Description	Departme... Code	Location Code	Quantity	Invoiced Quantity	Remaining Quantity
01.11.2027	Purchase	Purchase Receipt	107152	_		P_043	0,00			BLUE	29	29	29
01.11.2027	Transfer	Transfer Receipt	109019	_		P_043	0,00			BLUE	71	71	71
01.11.2027	Transfer	Transfer Receipt	109019	_		P_043	0,00			OUT. LOG.	-71	-71	0
01.11.2027	Transfer	Transfer Shipment	108022	_		P_043	0,00			OUT. LOG.	71	71	0
01.11.2027	Transfer	Transfer Shipment	108022	_		P_043	0,00			BAS	-71	-71	0
01.11.2027	Purchase		T00061	_		P_043	0,00			BAS	71	71	0

It was originally bought in the wrong location and corrected by transfer

Další varianta pro stejné parametry

(pouze WD=2.12.2027 místo 1.11.2027)

Manage | Accept | Available-to-Promise | Capable-to-Promise

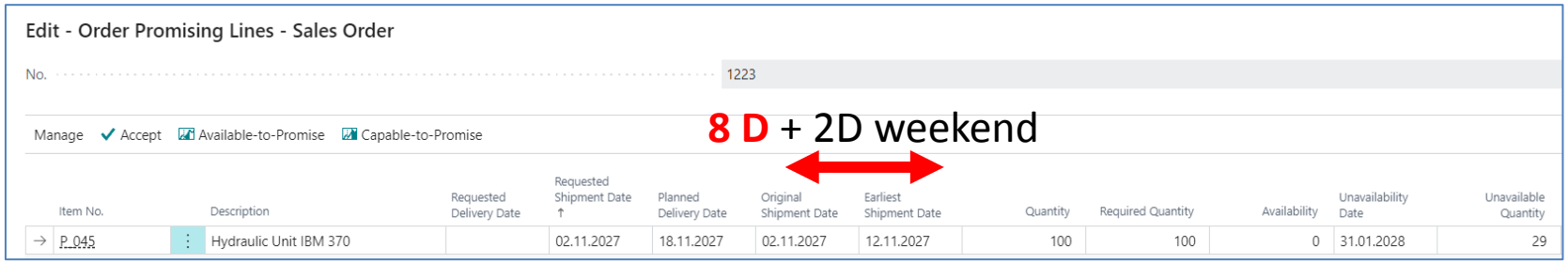
Item No.	Description	Requested Delivery Date	Requested Shipment Date ↑	Planned Delivery Date	Original Shipment Date	Earliest Shipment Date
T_0004	IBM 370 Hydraulic Unit		02.12.2027	18.12.2027	02.12.2027	14.12.2027

				Time Type	Date type	
02.12.2027	Čtvrtek		1	Lead Time	Original Shipment time	
03.12.2027	Pátek		1	Lead Time		
04.12.2027	Sobota					
05.12.2027	Neděle					
06.12.2027	Pondělí		1	Lead Time		
07.12.2027	Úterý		1	Lead Time		
08.12.2027	Středa		1	Safety Lead Time		
09.12.2027	Čtvrtek		1	Safety Lead Time		
10.12.2027	Pátek		1	Offset		
11.12.2027	Sobota					
12.12.2027	Neděle					
13.12.2027	Pondělí		1	IWHT		
14.12.2027	Úterý				Earliest shipment date	
15.12.2027	Středa	1				
16.12.2027	Čtvrtek	1				
17.12.2027	Pátek	1				
18.12.2027	Sobota	1			Planned Delivery Date	
		4	8			
LT	4				Shipment time	3
SLT	2				OWHT	1
Offset	1					
IWHT	1					
	8					4

8 D + 2D weekend

4D

Varianta příkladu z výuky 20241125



Edit - Order Promising Lines - Sales Order

No. 1223

Manage | Accept | Available-to-Promise | Capable-to-Promise

8 D + 2D weekend

Item No.	Description	Requested Delivery Date	Requested Shipment Date ↑	Planned Delivery Date	Original Shipment Date	Earliest Shipment Date	Quantity	Required Quantity	Availability	Unavailability Date	Unavailable Quantity
P_045	Hydraulic Unit IBM 370		02.11.2027	18.11.2027	02.11.2027	12.11.2027	100	100	0	31.01.2028	29

4D + 2D weekend

				Time type	Date type
02.11.2027	Úterý		1	Lead Time	Original Shipment time
03.11.2027	Středa		1	Lead Time	
04.11.2027	Čtvrtek		1	Lead Time	
05.11.2027	Pátek		1	Lead Time	
06.11.2027	Sobota				
07.11.2027	Neděle				
08.11.2027	Pondělí		1	Safety Lead Time	
09.11.2027	Úterý		1	Safety Lead Time	
10.11.2027	Středa		1	Offset	
11.11.2027	Čtvrtek		1	IWHT	
12.11.2027	Pátek				Earliest shipment date
13.11.2027	Sobota				
14.11.2027	Neděle				
15.11.2027	Pondělí	1		Shippment Time	
16.11.2027	Úterý	1		Shippment Time	
17.11.2027	Středa	1		Shippment Time	
18.11.2027	Čtvrtek	1		OWHT	Planned Delivery Date
		4	8		

LT	4			Shipment time	3
SLT	2			OWHT	1
Offset	1				
IWHT	1				
	8				4

End of Basic section

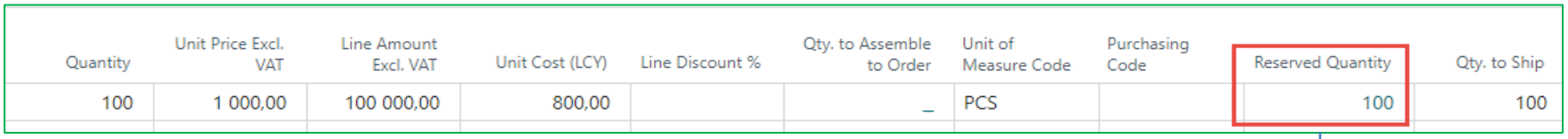
Advanced area of ATP-CTP

Navazuje na původní příklad !!

Je už provedena v modelu, takže není potřeba dále probírat

1. Reservation -> RQWS -> Purchase (to replenish)
2. Requested Delivery Date Options

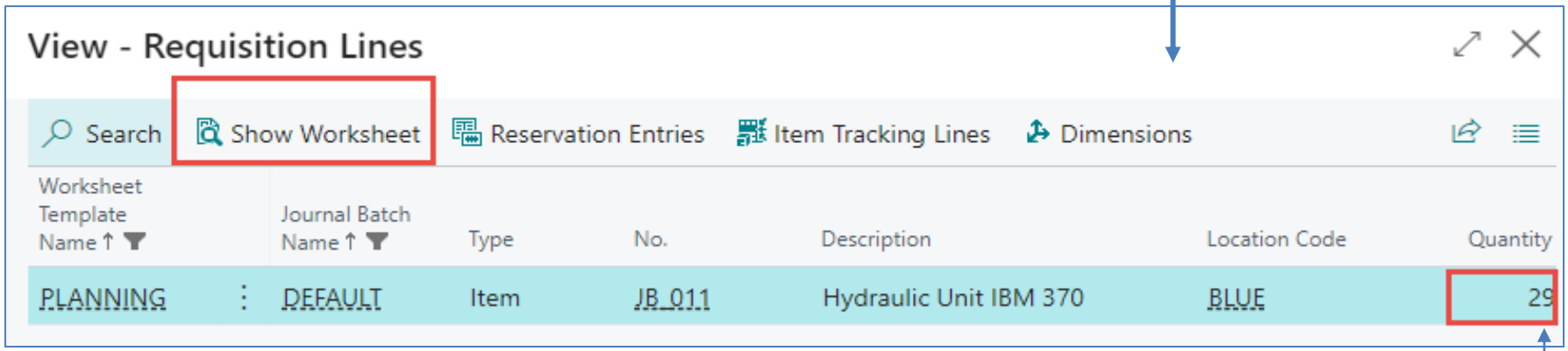
Reservations I.



Quantity	Unit Price Excl. VAT	Line Amount Excl. VAT	Unit Cost (LCY)	Line Discount %	Qty. to Assemble to Order	Unit of Measure Code	Purchasing Code	Reserved Quantity	Qty. to Ship
100	1 000,00	100 000,00	800,00		_	PCS		100	100

Reservation Entries | Search | Edit List | Cancel Reservation | More options

Reservation Status	Item No.	Location Code	Quantity (Base)	Reserved For	Reserved From
Reservation	JB_011	BLUE	-29	Sales Order 1452	Requisition Line PLANN
Reservation	JB_011	BLUE	-71	Sales Order 1452	Item Ledger Entry 1440



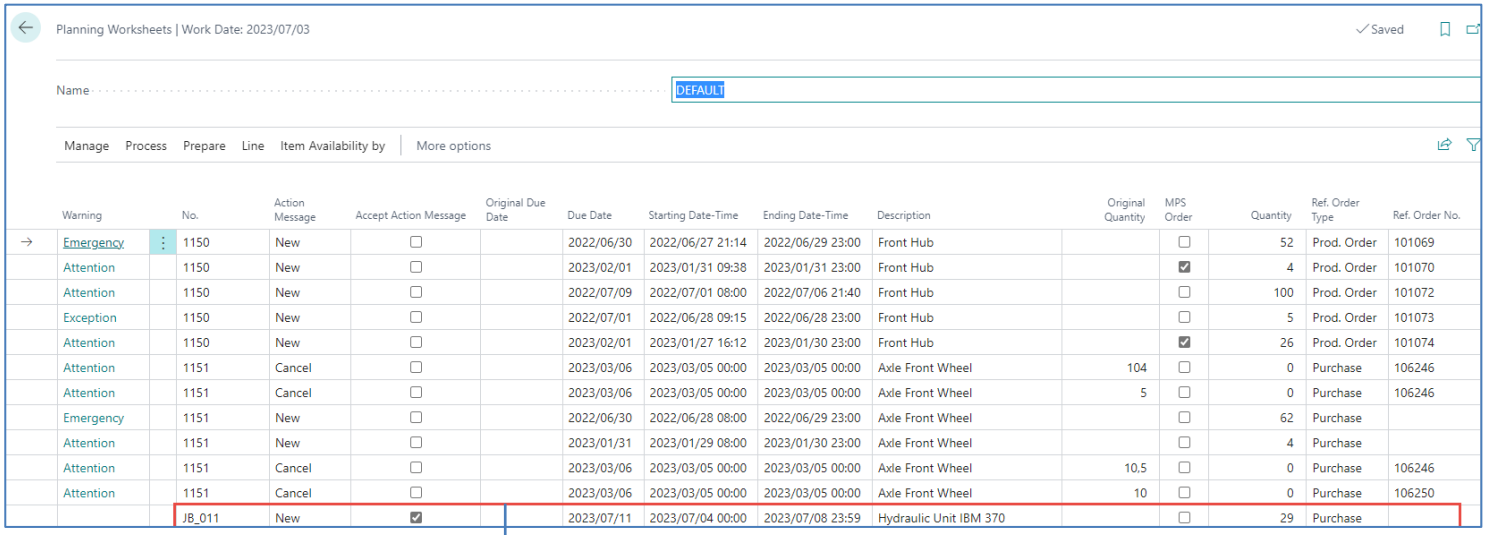
View - Requisition Lines

Search | Show Worksheet | Reservation Entries | Item Tracking Lines | Dimensions

Worksheet Template Name	Journal Batch Name	Type	No.	Description	Location Code	Quantity
PLANNING	DEFAULT	Item	JB_011	Hydraulic Unit IBM 370	BLUE	29

Proposed refill

Reservations II.



Warning	No.	Action Message	Accept Action Message	Original Due Date	Due Date	Starting Date-Time	Ending Date-Time	Description	Original Quantity	MPS Order	Quantity	Ref. Order Type	Ref. Order No.
Emergency	1150	New	☐		2022/06/30	2022/06/27 21:14	2022/06/29 23:00	Front Hub		☐	52	Prod. Order	101069
Attention	1150	New	☐		2023/02/01	2023/01/31 09:38	2023/01/31 23:00	Front Hub		☑	4	Prod. Order	101070
Attention	1150	New	☐		2022/07/09	2022/07/01 08:00	2022/07/06 21:40	Front Hub		☐	100	Prod. Order	101072
Exception	1150	New	☐		2022/07/01	2022/06/28 09:15	2022/06/28 23:00	Front Hub		☐	5	Prod. Order	101073
Attention	1150	New	☐		2023/02/01	2023/01/27 16:12	2023/01/30 23:00	Front Hub		☑	26	Prod. Order	101074
Attention	1151	Cancel	☐		2023/03/06	2023/03/05 00:00	2023/03/05 00:00	Axle Front Wheel	104	☐	0	Purchase	106246
Attention	1151	Cancel	☐		2023/03/06	2023/03/05 00:00	2023/03/05 00:00	Axle Front Wheel	5	☐	0	Purchase	106246
Emergency	1151	New	☐		2022/06/30	2022/06/28 08:00	2022/06/29 23:00	Axle Front Wheel		☐	62	Purchase	
Attention	1151	New	☐		2023/01/31	2023/01/29 08:00	2023/01/30 23:00	Axle Front Wheel		☐	4	Purchase	
Attention	1151	Cancel	☐		2023/03/06	2023/03/05 00:00	2023/03/05 00:00	Axle Front Wheel	10.5	☐	0	Purchase	106246
Attention	1151	Cancel	☐		2023/03/06	2023/03/05 00:00	2023/03/05 00:00	Axle Front Wheel	10	☐	0	Purchase	106250
	JB_011	New	☑		2023/07/11	2023/07/04 00:00	2023/07/08 23:59	Hydraulic Unit IBM 370		☐	29	Purchase	

Carry out action message

Purchase Order

Purchase Order line

1st part Purchase line

Type	Drop Ship...	Item Reference No.	Description	Location Code	Bin Code	Quantity	Reserved Quantity	Unit of Measure Code
Item	☐		Hydraulic Unit IBM 370	BLUE		29	29	PCS

2nd part Purchase line

Qty. to Invoice	Quantity Invoiced	Qty. to Assign	Item Charge Qty. to Handle	Qty. Assigned	Promised Receipt Date	Planned Receipt Date	Expected Receipt Date
29		0	0	_		2023/07/08	2023/07/11

3 days

Sales line

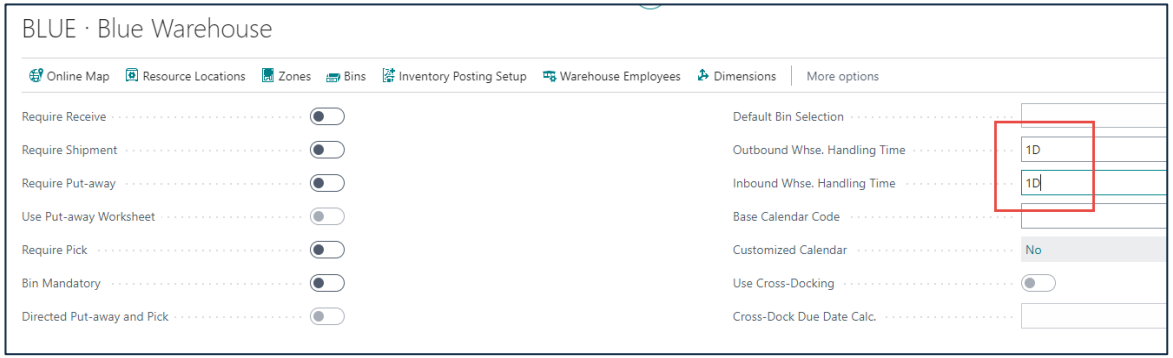
Qty. to Invoice	Quantity Invoiced	Qty. to Assign	Item Charge Qty. to Handle	Qty. Assigned	Planned Delivery Date	Planned Shipment Date	Shipment Date
100		0	0	_	2023/07/15	2023/07/12	2023/07/11

See 3 days calculation

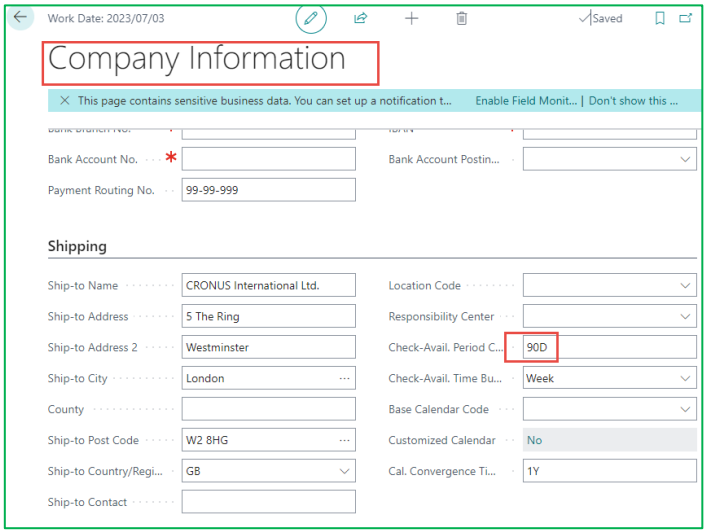
Calculation purchase

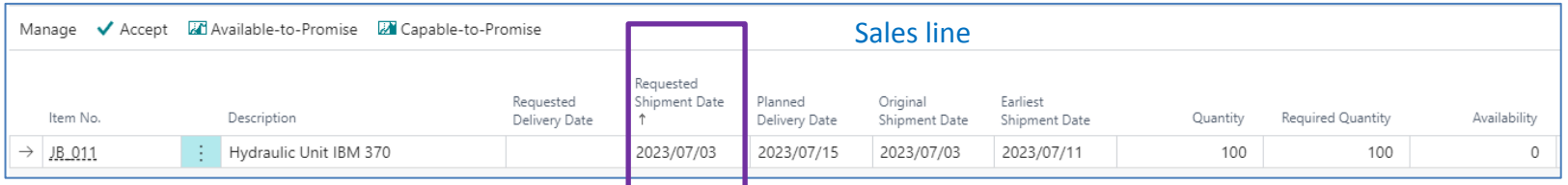
Planned Receipt date + Inbound warehouse handling time + Safety Lead time = Expected receipt date

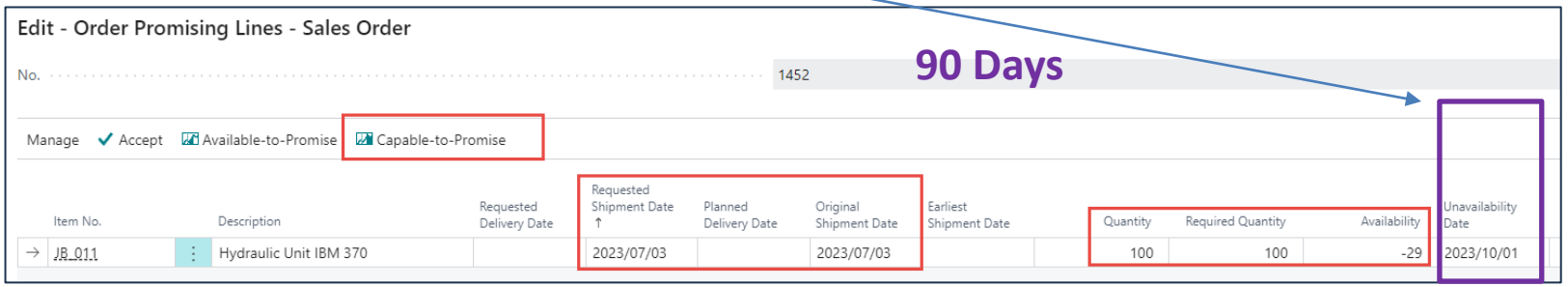
7.8. +2D (Safety Lead Time) +1D (IWHT)= 11.8



Unavailability date







Reqested Delivery date options

Requested Delivery date not specified

- Shipment date + outbound whse. handling time = Planned shipment date
- Planned shipment date + Shipping time = Planned delivery date

Planned Delivery Date =Shipping Time + OWHT + Shipment date

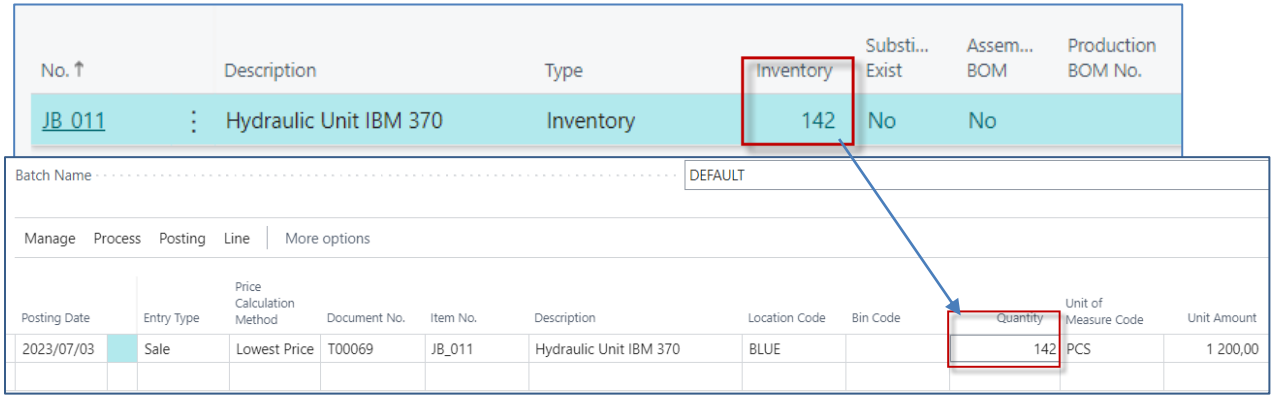
Requested Delivery date specified

- Requested delivery date - Shipping Time = Planned shipment date
- Planned shipment date - outbound whse. handling time = Shipment date

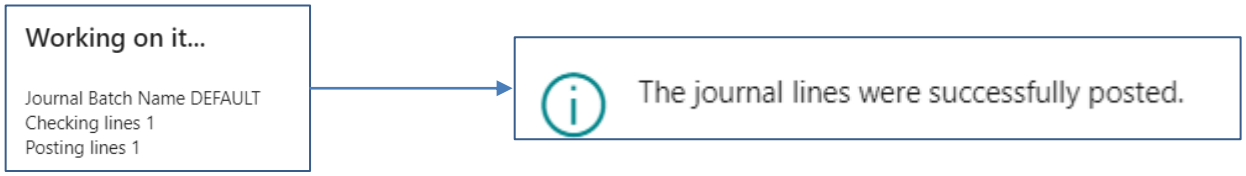
Requested Delivery Date =Shipping Time + OWHT + Shipment date

Requested Delivery Date & ATP-CTP

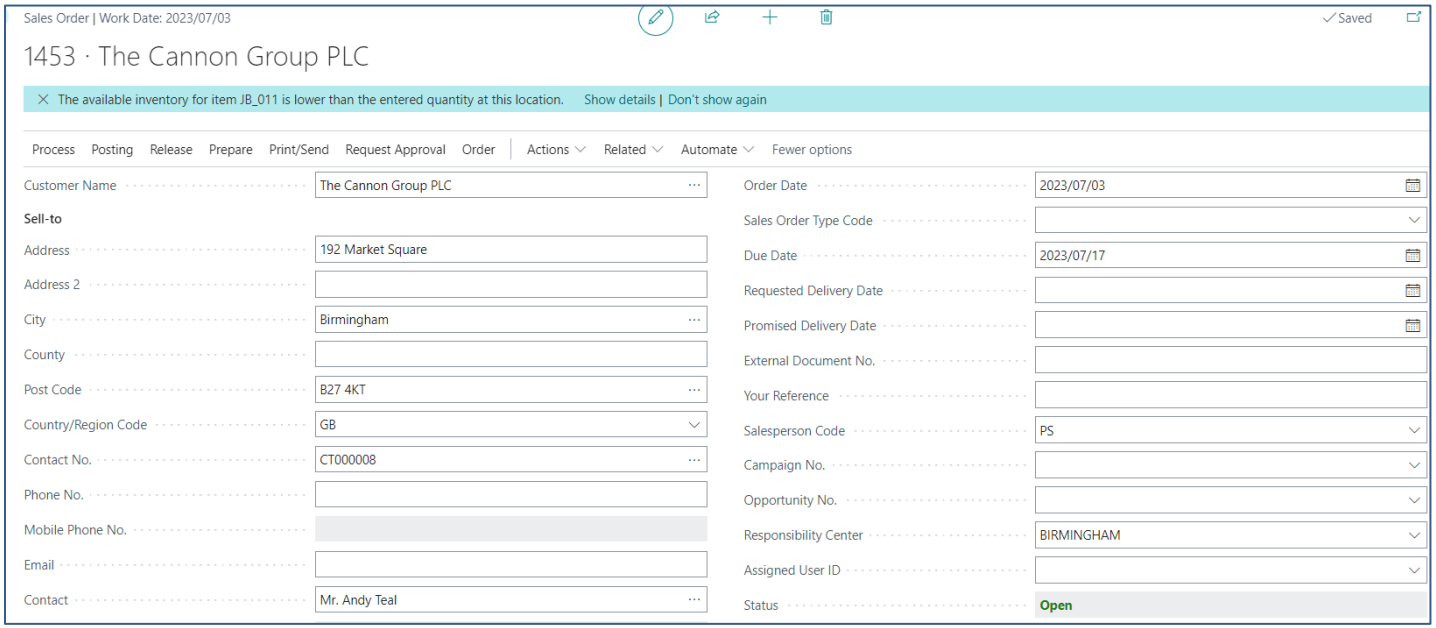
Working day will be set to 3.7.2023 (2023/07/03)
We will sell all item JB_011 in order to get Inventory=0



F9



Sales order 1



1st part of the Sales Line

Type	Drop Ship...	Item Reference No.	Assembly Order No.	Description	Special Order	Location Code	Requested Delivery Date	Promised Delivery Date	Line Discount Amount	Quantity	Unit Price Excl. VAT	Line Amount Excl. VAT
Item	☐			Hydraulic Unit IBM 370	☐	BLUE	2023/07/18		0,00	11	1 200,00	13 200,00

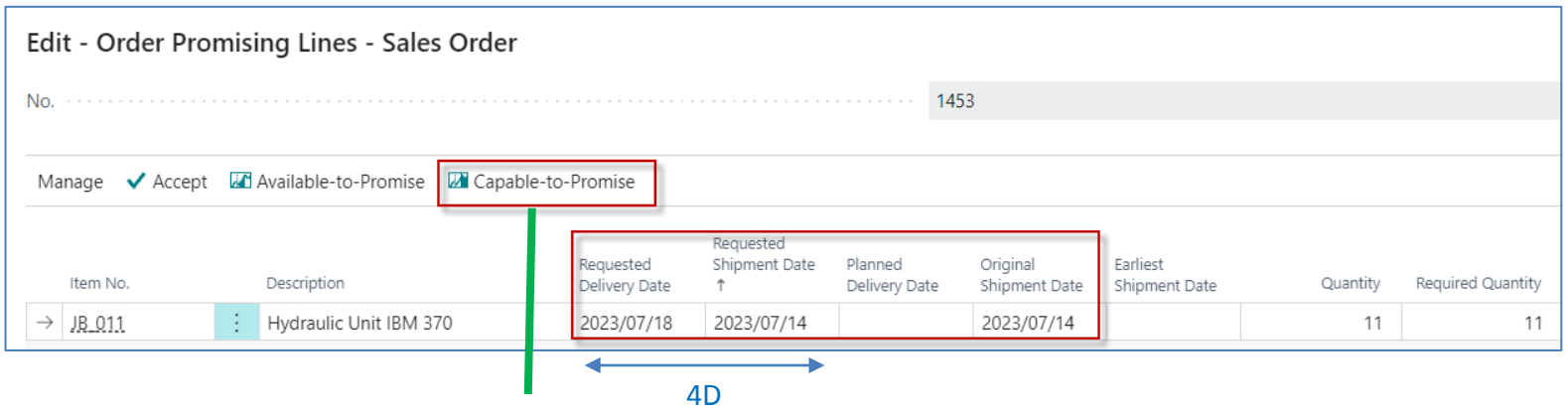
2nd part of the Sales Line

Qty. to Invoice	Quantity Invoiced	Qty. to Assign	Item Charge Qty. to Handle	Qty. Assigned	Planned Delivery Date	Planned Shipment Date	Shipment Date
11		0	0	_	2023/07/18	2023/07/15	2023/07/14

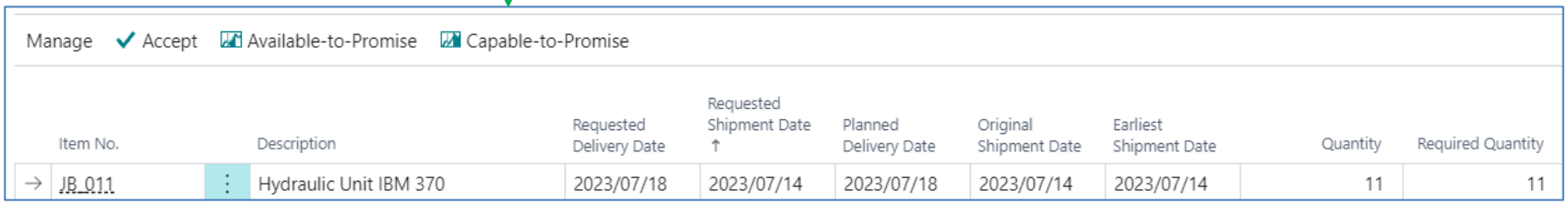
Shipment time

OWHT

Sales order 2 (Action -> Plan -> Order Promising)



4D = 3D (Shipment Time)+ 1D (OWHT from Location Blue)



Reserved quantity

Part of the Sales Line

Line Discount Amount	Quantity	Unit Price Excl. VAT	Line Amount Excl. VAT	Unit Cost (LCY)	Line Discount %	Qty. to Assemble to Order	Unit of Measure Code	Purchasing Code	Reserved Quantity	Qty. to Ship
0,00	11	1 200,00	13 200,00	800,00		_	PCS		11	11

Sales Line | Work Date: 2023/07/03

Reservation Entries | Search | Edit List | Cancel Reservation | More options

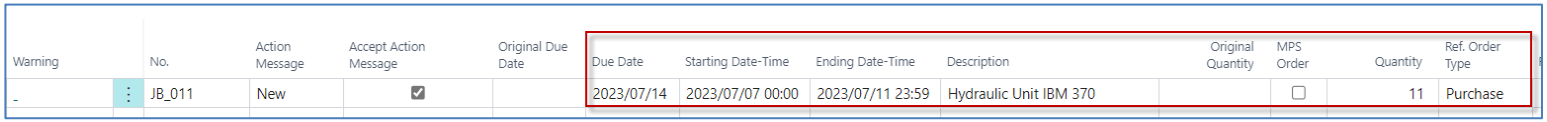
Reservation Status	Item No.	Location Code	Quantity (Base)	Reserved For	Reserved From
Reservation	JB_011	BLUE	-11	Sales Order 1453	Requisition Line PLANN

View - Requisition Lines

Search | Show Worksheet | Reservation Entries | Item Tracking Lines | Dimensions

Worksheet Template Name	Journal Batch Name	Type	No.	Description	Location Code	Quantity
PLANNING	DEFAULT	Item	JB_011	Hydraulic Unit IBM 370	BLUE	11

Requsition Worksheet



Warning	No.	Action Message	Accept Action Message	Original Due Date	Due Date	Starting Date-Time	Ending Date-Time	Description	Original Quantity	MPS Order	Quantity	Ref. Order Type
_	JB_011	New	☑		2023/07/14	2023/07/07 00:00	2023/07/11 23:59	Hydraulic Unit IBM 370		☐	11	Purchase

Carry out action message

Purchase Order

Purchase process (after the CTP calculation)

July 7 -> July 14 = 7D = 4D (Lead Time) + 2D (Safety Lead Time)+ 1D (IWHT at Location Blue)

- order date + lead time calculation = planned receipt date
- planned receipt date + inbound whse. handling time + safety lead time = expected receipt date

3D

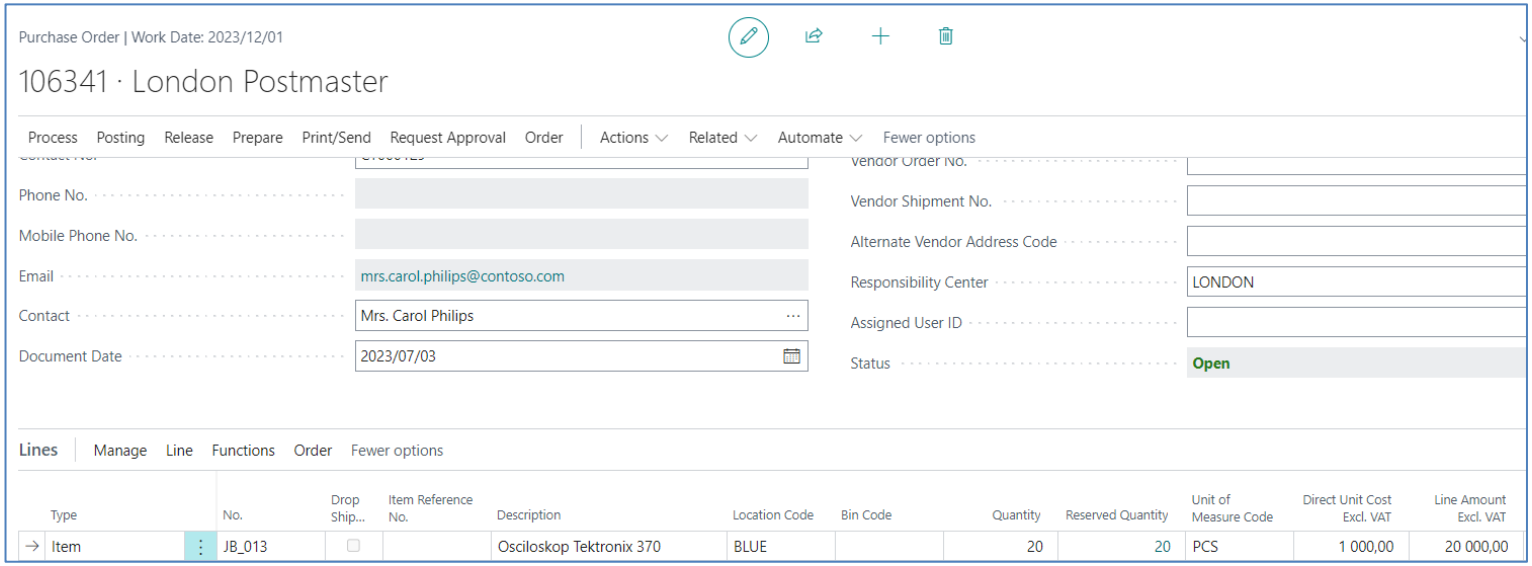
Lines | Manage | More options | Purchase line

Type	Quantity Received	Qty. to Invoice	Quantity Invoiced	Qty. to Assign	Item Charge Qty. to Handle	Qty. Assigned	Promised Receipt Date	Planned Receipt Date	Expected Receipt Date
Item		11		0	0	_		2023/07/11	2023/07/14

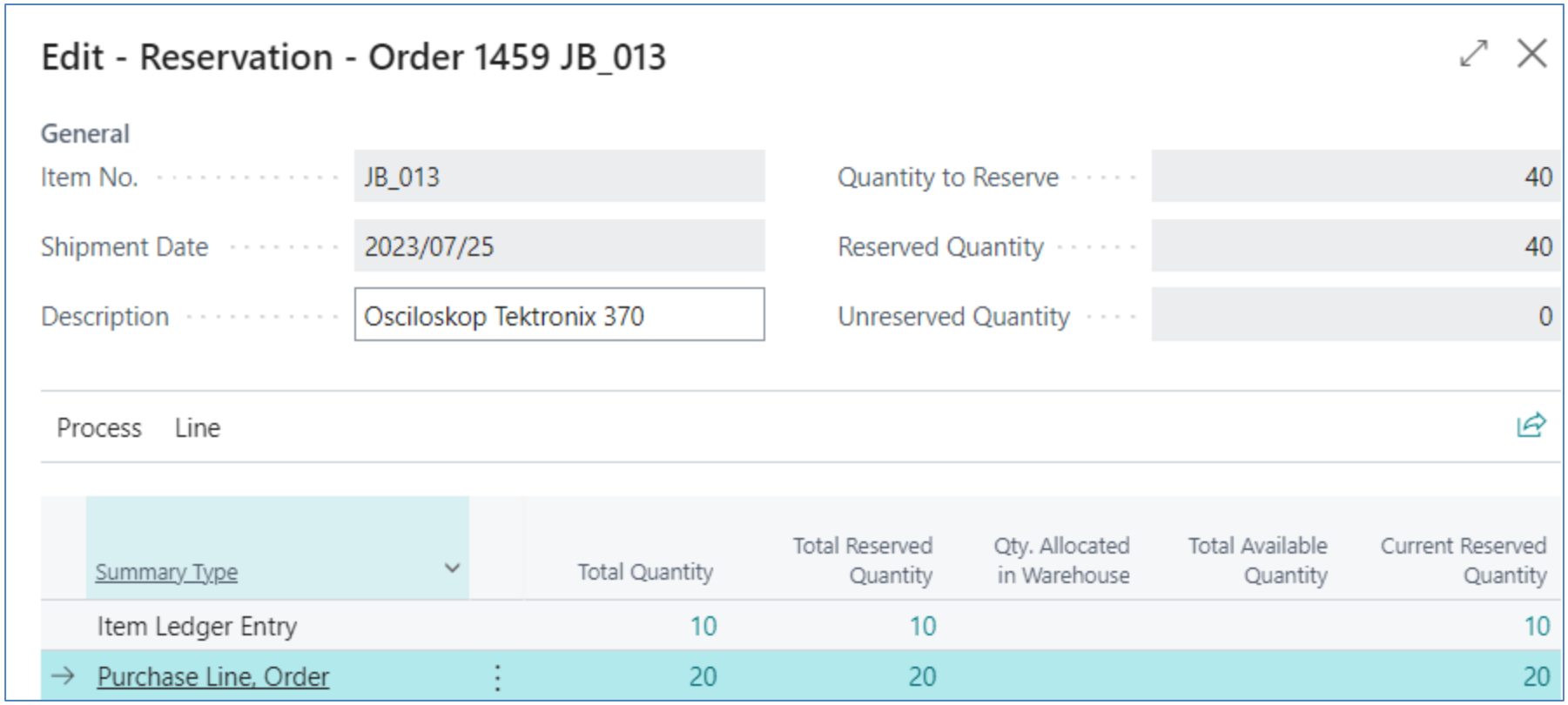
Combination of CTP and reservations

1. Create a new item with the same parameters as the stock items already used (LT=4D, SLT=2D,...) – Date 03.07.2023
2. Purchase 10 pieces of this item using Item Journal
2. Moving the working date into the future - 17.7.2023
3. Creating a Purchase order (20 Ks) with the understanding that this document will not be charged and will serve as an additional source for booking in addition to the stock
3.a ->Working date to 31.7.2023
4. Sales order for 40 pcs of this item
5. Reservation with actual Item ledger entries (stock) lines 3 pcs and 7 pcs
6. Reservation with actual Purchaser Order lines 11 pcs and 9 pcs
6. CTP and accept calculations
7. See field reservation
8. See Purchase order dates
9. See Sales Order dates

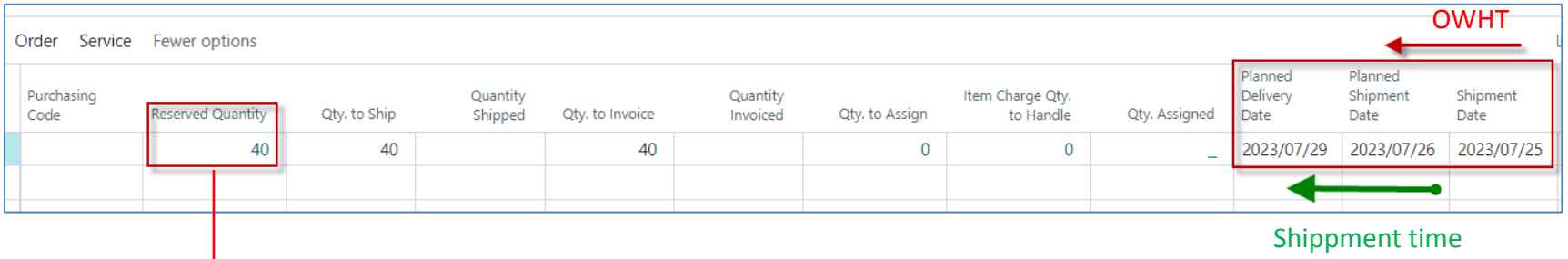
Purchase order



Sales order and reservation



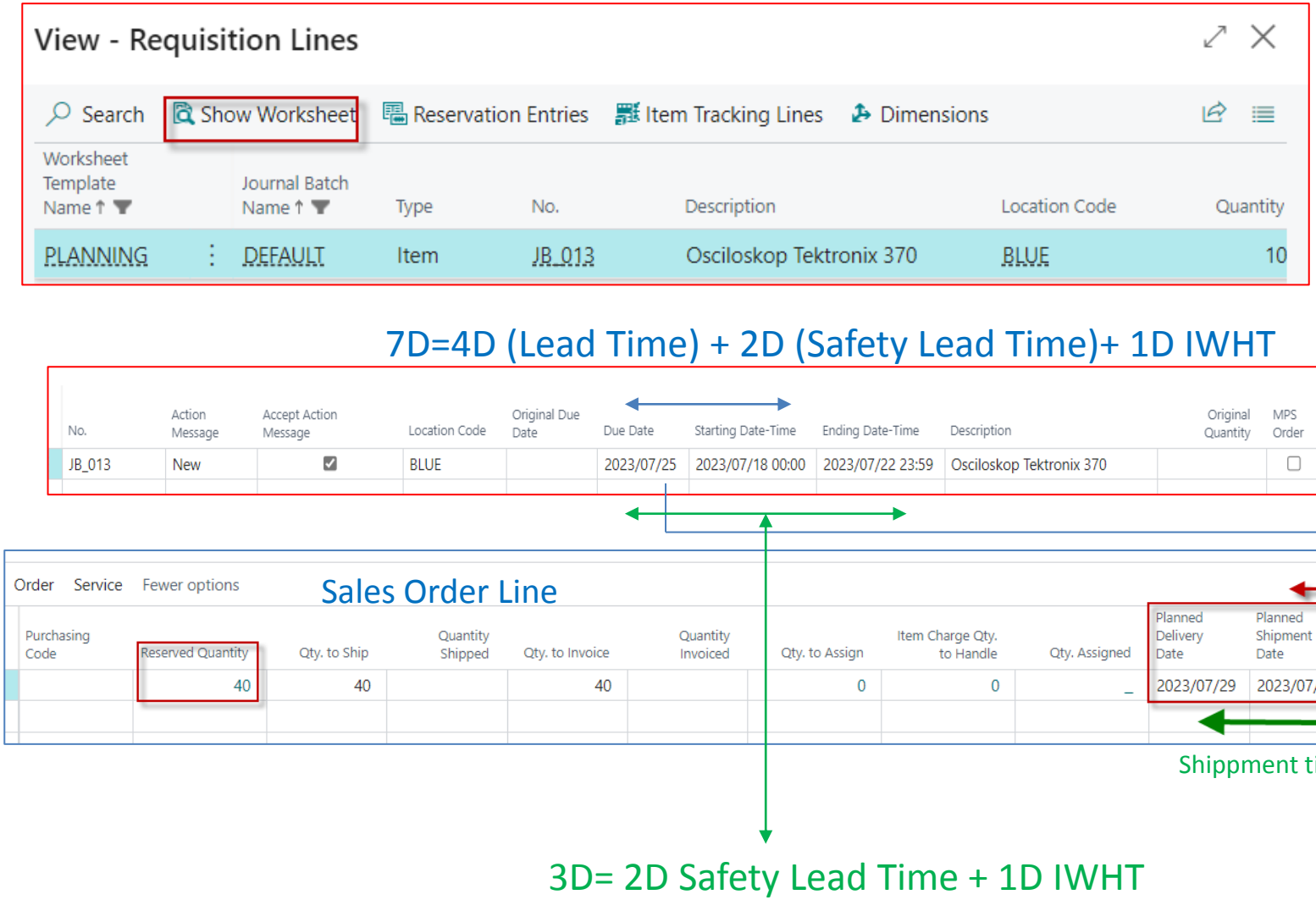
Sales Order line – important part for the model



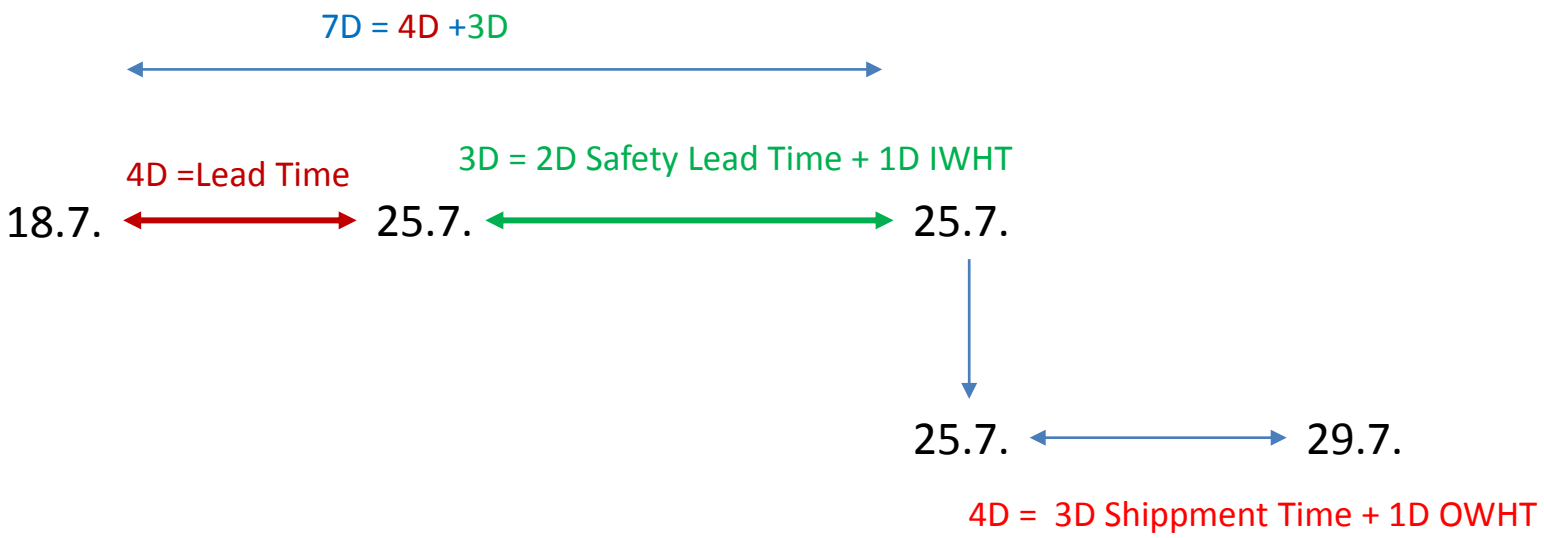
Reservation Entries | Search | Edit List | Cancel Reservation | Automate | Fewer options

Reservation Status	Item No.	Location Code	Quantity (Base)	Reserved For	Reserved From
Reservation	JB_013	BLUE	-11	Sales Order 1459	Purchase Order 106341
Reservation	JB_013	BLUE	-3	Sales Order 1459	Item Ledger Entry 1447
Reservation	JB_013	BLUE	-10	Sales Order 1459	Requisition Line PLANN
Reservation	JB_013	BLUE	-7	Sales Order 1459	Item Ledger Entry 1447
Reservation	JB_013	BLUE	-9	Sales Order 1459	Purchase Order 106341

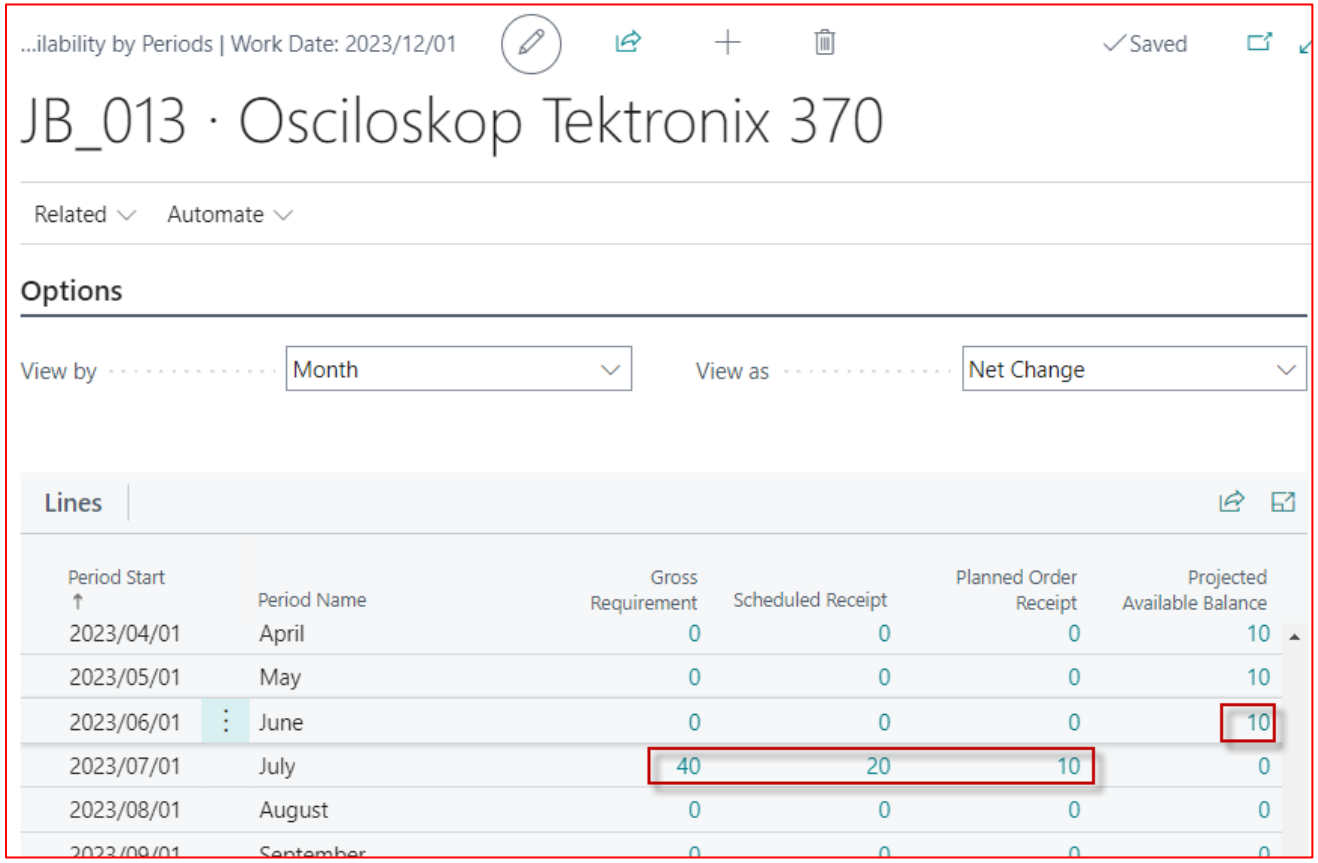
Requisition worksheet



A Different Perspective on the Planned delivery date calculation



Availability by period



Planning by use of Requision worksheet

Completing the relationships between Order Date, Planned Receipt Date and Expected Receipt Date. ATP-CTP is not used in this model

Part of Sales Order line (Item has the same parameters already used)

Planned Delivery Date	Planned Shipment Date	Shipment Date	Department Code
2023/12/05	2023/12/02	2023/12/01	SALES

Part of RQWS line (Item has the same parameters already used as well as Vendor)

Description	Location Code	Order Date	Original Quantity	Planning Flexibility	Supply From	Quantity	Unit of Measure Code	Direct Unit Cost	Original Due Date	Due Date
Mechnical broom with remote ...	BLUE	2023/11/24		Unlimited	10000	10	PCS	100,00		2023/12/01

Carry out

LT=4D

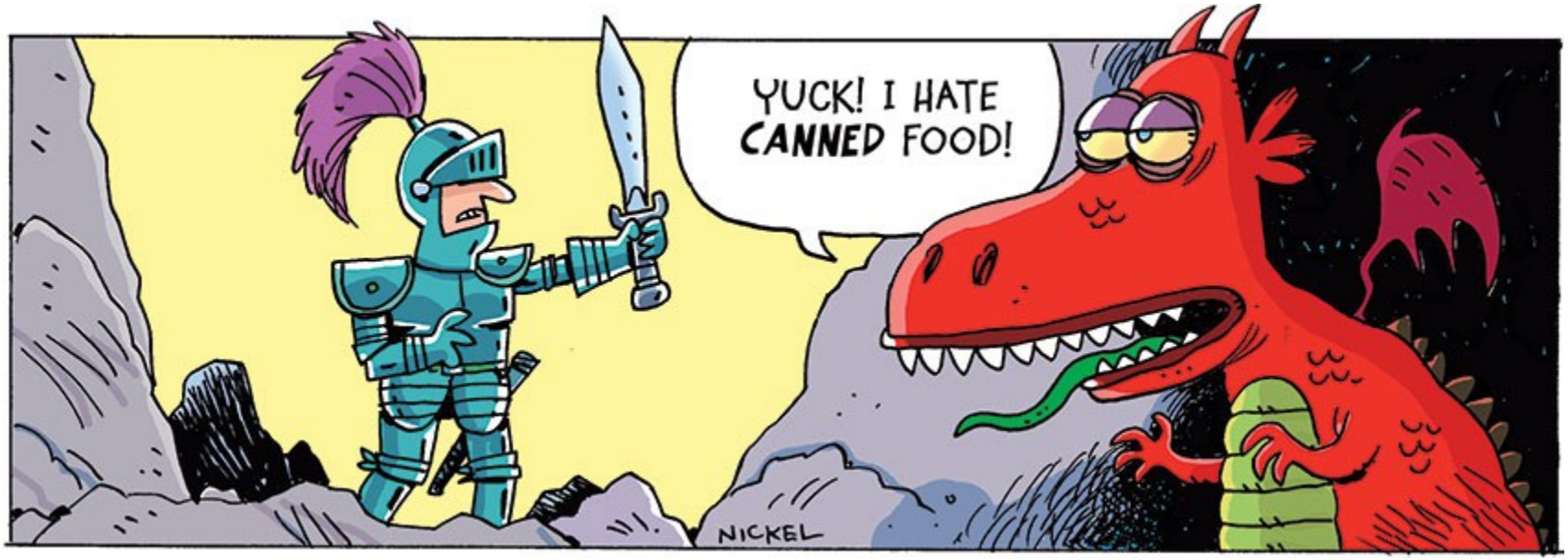
Part of Purchase Order created from RQWS line

Qty. to Invoice	Quantity Invoiced	Qty. to Assign	Item Charge Qty. to Handle	Qty. Assigned	Promised Receipt Date	Planned Receipt Date	Expected Receipt Date
10		0	0			2023/11/28	2023/12/01

SLT+IWHT =3D

Order Date + Lead Time =Planned Receipt Date = 4D

Planned Receipt Date + Safety Lead Time +IWHT= Expected Receipt Date


YUCK! I HATE CANNED FOOD!
NICKEL