# Introduction to MS Dynamics NAV 2018w1

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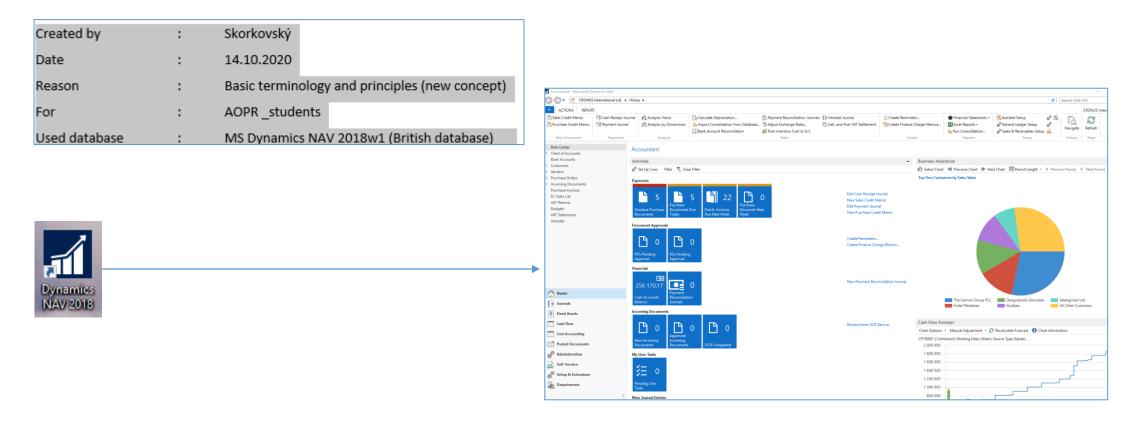
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## Introduction

- Relation to the file and the questions asked in this file
- Simple scenario of the first and second ERP Microsoft Dynamics NAV session I.



## Questions I

- 1. What we need every day when running the business?
- 2. What is data?
- 3. Data + Structure = Information
- 4. What is the data field?
- 5. What is a record?
- 6. What is the table?
- 7. How can we see data?
- 8. What is the form (window)?
- 9. What types of forms does ERP use?
- 10. What is ERP?
- 11. What is the working area?
- 12. What is the menu?
- 13. How to see only one record?
- 14. How to see a list of records?
- 15. What is the relation between fields (F4)?

## **Questions II**

16.	What is customer balance?
17.	What is the calculated field?
18.	What is the customer credit limit?
19.	Name are four main tables (Customer, Vendor, Item and G/L Account)
20.	Where can you find help to see a list of used function keys combinations to control ERP?
21.	Name essential economic documents used to control business!
22.	Quote, order, invoice, credit note, shipment list, delivery list, good receive note
23.	Explain the structure of these documents! (header and lines)
24.	Find Customer or Vendor
25.	Find Item card
26.	Find Chart of account
27.	Find help related to Customer (Vendor, Item) card

## Questions III

```
28. Find help to one chosen field (F1)
29. What is an entry (created transaction)?
30. To which objects belong entries?
31. How to display entries (Ctrl-F7)?
32: Name essential professions of ERP users
33. How to post a document (order, invoice, credit memo,..) (F9)
```

### What we need every day when running the business?

#### Perfect overview of processes

- Accounting
  - Reports (Profit and loss account, Balance sheet, Vat reports)
  - Budgets
  - Cash flow
  - Cost

#### Purchases

- Availability
- Delivery times
- Costs

#### Sales

- Availability
- Timing
- Unit prices, discounts,...
- Inventory and warehouse management
- Production

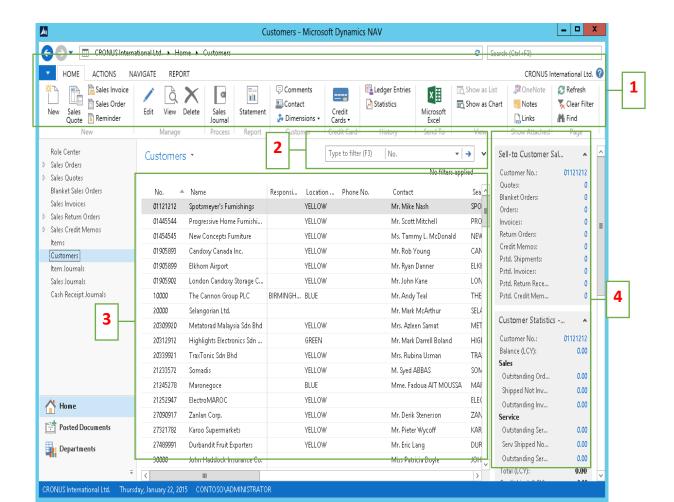
## What we need every day when running the business?

- Perfect overview of processes
- Inventory and warehouse management
  - Positions of stored items (location)
  - Transfers o items
  - Costs

#### Production

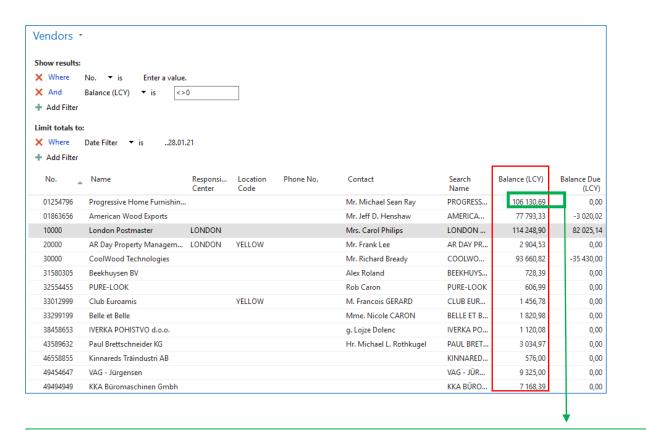
- Bill of material structure of the product
- Routings how the product is made, which machines they use, what the capacities of the machines are
- Production times

## The main screen of our ERP MS Dynamics system



- .. Ribbon
- 2. Filter pane
- 3. List
- 4. FactBox pane

#### What is data?

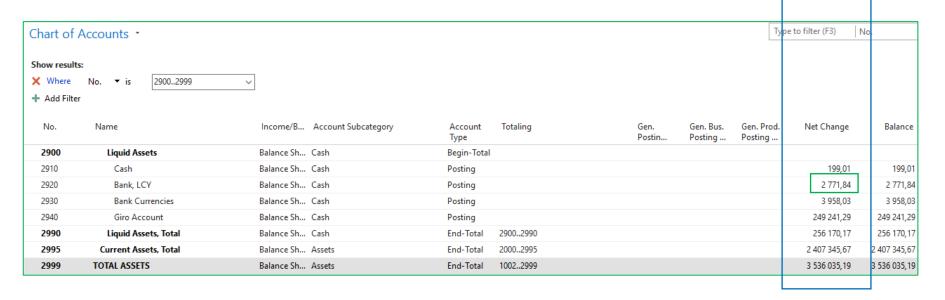


List of our vendors

Posting Date	Document Type	Document No.	External Document No.	Vendor No.	M to	Description	Cur Code	Pa Re	Original Amount	Amount	Amount (LCY)	Remaining Amount
31.12.2020	Invoice	2344	2344	01254796		Opening Entries, Vendors	USD		-163 573,93	-163 573,93	-106 130,69	-163 573,93

#### Information

• Information = Data + Structure of the data



DATA

Airrount

169,05
-218,75
-25,00
1111,00
-1111,00
-2846,54
2 846,54
3 03,22
2 543,32

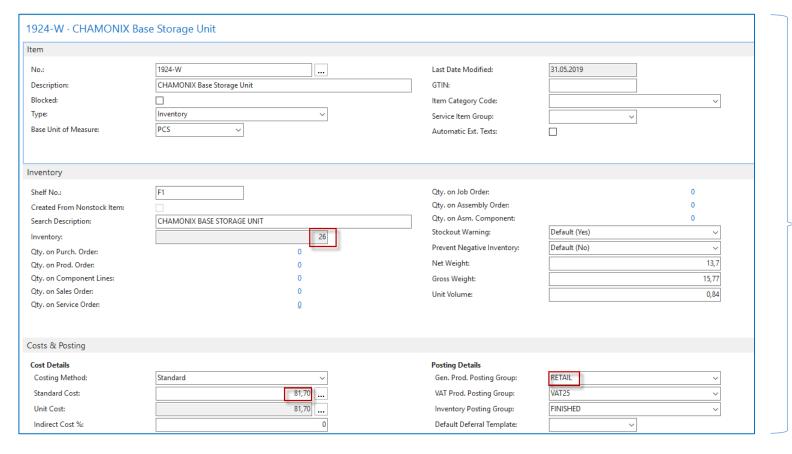
The balance is the sum of all sub-amounts in Customer ledger entries. This number is a so-called floating or calculated field, and this field is not stored in the database. Each time the window (s) is opened, it is always recalculated. Each entry(not only the customer but also supplier entries, item ledger entries, etc.) is associated with the posted document.

Sum of partial posted amounts Calculated field

Information

2771,84

#### What is the data field?



One item card in our warehouse.

There are many data fields on the card.

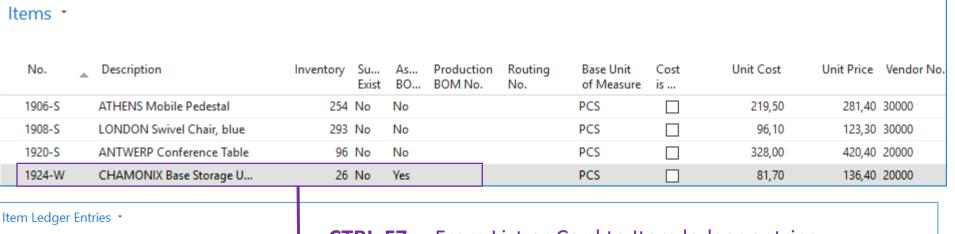
The card is divided into tabs.

You can see data fields that belong to every tab.

The grouping of the data fields relates to the logic of warehouse processes on each tab.

Different types of data in data fields, which are fields that are part of data tables. It can be, for example, numbers, selected options represented by text strings, Boolean variables, time, date, ...

#### What is the data record



4 data records (list of inventory items in the stock)

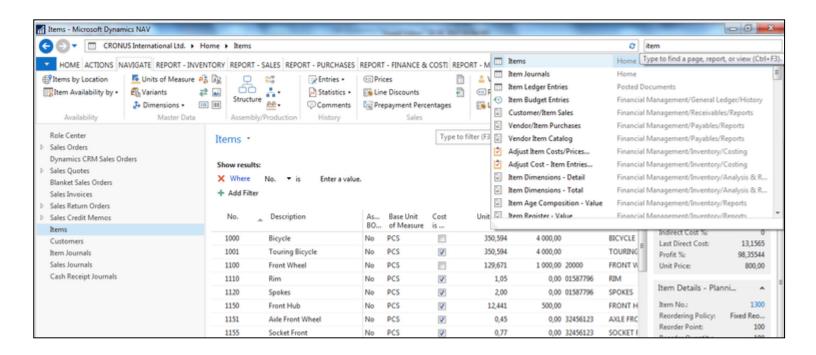
Show results:  X Where  Add Filter		CTRL-F7 From List or Card to Item ledger entries											
Posting Date	Entry Type	Document Type	Document No.	ltem No.	Des	Location Code	Quantity	Invoiced Quantity	Remaining Quantity	Sales Amount (Actual)	Cost Amount (Actual)	Cost Amount (Non-Invtbl.)	Open
20.01.2021	Purchase	Purchase Receipt	107023	1924-W		YELLOW	15	15	15	0,00	1 225,50	0,00	$\overline{\checkmark}$
20.01.2021	Purchase	Purchase Receipt	107023	1924-W		GREEN	5	5	5	0,00	408,50	0,00	$\checkmark$
31.12.2020	Positive Adjmt.		START	1924-W		GREEN	3	3	3	0,00	245,10	0,00	~
31.12.2020	Positive Adjmt.		START	1924-W		RED	2	2	2	0,00	163,40	0,00	$\checkmark$
31.12.2020	Positive Adjmt.		START	1924-W		BLUE	1	1	1	0,00	81,70	0,00	~

5 inventory transactions. Item ledger entries.

#### What is the table?

Items	*										
No.	Description	Inventory	Su Exist	As BO	Production BOM No.	Routing No.	Base Unit of Measure	Cost	Unit Cost	Unit Price Vendor No.	Search Description
1000	Bicycle	32	No	No	1000	1000	PCS		350,594	4 000,00	BICYCLE
1001	Touring Bicycle	0	No	No	1000	1000	PCS	~	350,594	4 000,00	TOURING
1100	Front Wheel	152	No	No	1100	1100	PCS		129,671	1 000,00 20000	FRONT W
1110	Rim	400	No	No			PCS	~	1,05	0,00 01587796	RIM
1120	Spokes	10 000	No	No			PCS	~	2,00	0,00 01587796	SPOKES
1150	Front Hub	100	No	No	1150	1150	PCS		12,441	500,00	FRONT HUB
1151	Axle Front Wheel	0	No	No			PCS		0,45	0,00 10000	AXLE FRO

## How to access data (use of searching window)?



Will be shown by tutor and examined on demo student databases by them (Find Vendor, Item, Customer, General Ledger Account, Profile and so on)

## How can we see data?

Customer number	Customer name	Balance	Payment condition	Currency
10000	SW Kings	20000	1M	USD
20000	China computers	432444	21D	USD
30000	Navertica	902	14D	CZK
40000	Berlin Experts	20002	1W	EUR

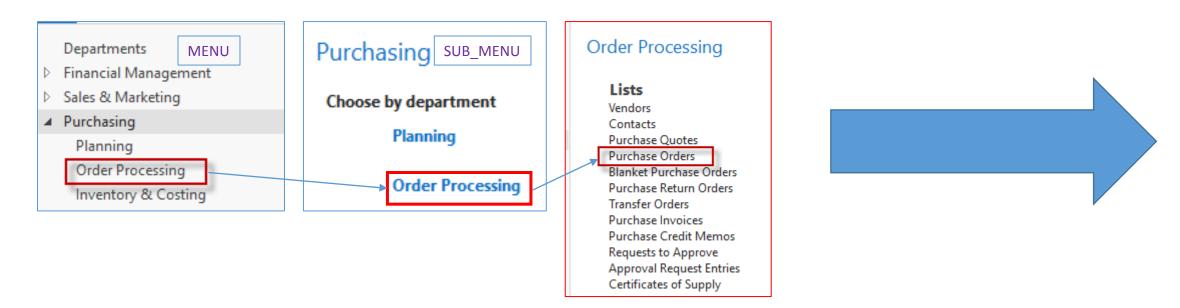
Data



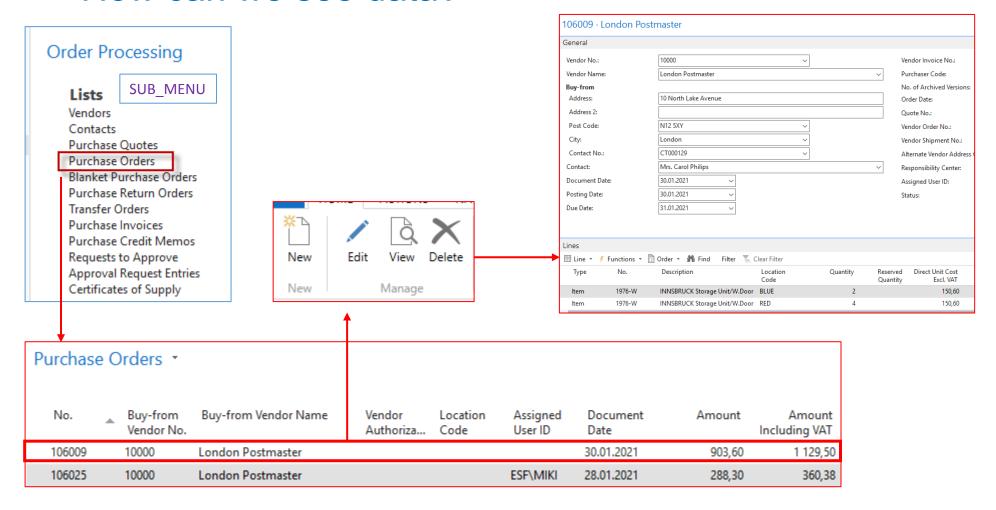
How to see data (Windows - forms)

#### How can we see data?

- From the different window structures accessed by use of menu of Hot keys combination
  - Card
  - List (many cards)
  - Matrix
  - Form and Sub-form (Documents header and lines)



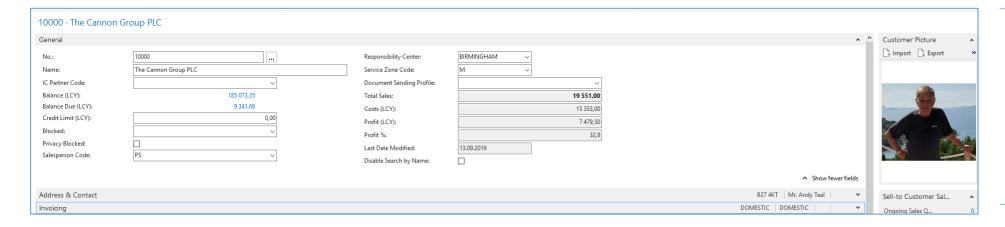
#### How can we see data?



#### What is the form?

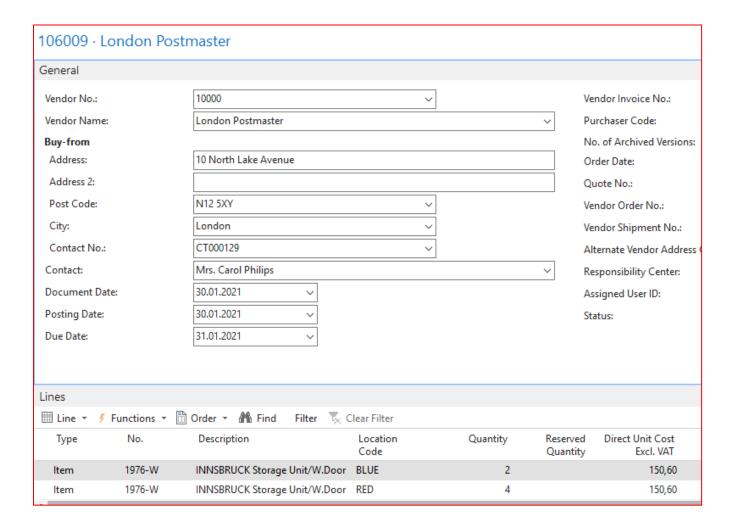
No.	_	Name	Responsi Center	Location Code	Phone No.	Contact	Balance (LCY)	Balance Due (LCY)	Sales (LCY)
01445544		Progressive Home Furnishin		YELLOW		Mr. Scott Mitchell	1 499,03	0,00	1 499,03
01454545		New Concepts Furniture		YELLOW		Ms. Tammy L. McDonald	222 241,32	0,00	0,00
10000		The Cannon Group PLC	BIRMINGH	BLUE		Mr. Andy Teal	185 073,35	9 341,68	30 540,10

LIST



**CARD** 

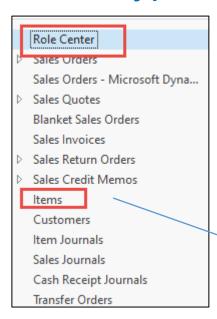
#### What is the form related to documents?



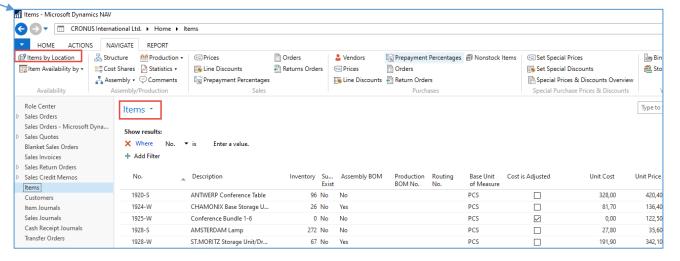
#### **HEADER**

**LINES** 

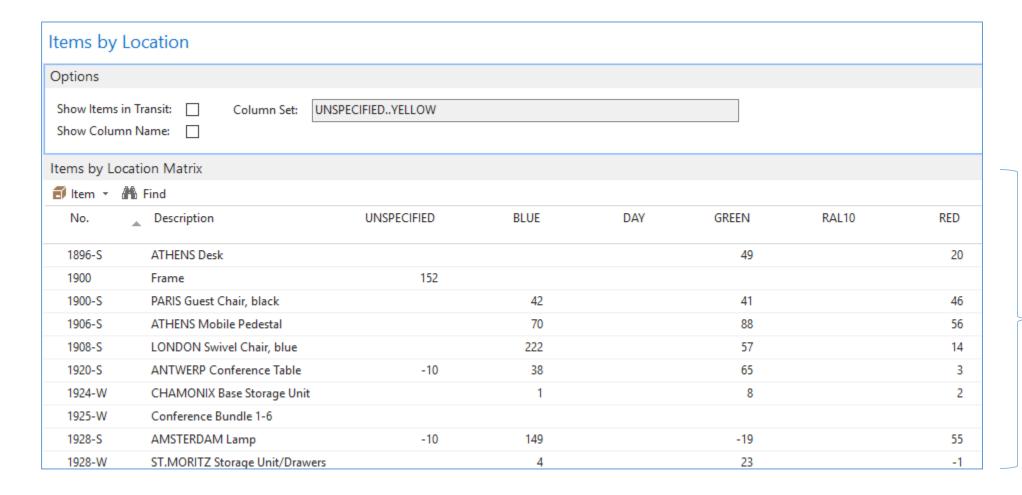
#### Matrix type form



#### Double click



## What is the form (matrix type form)?



#### **MATRIX**

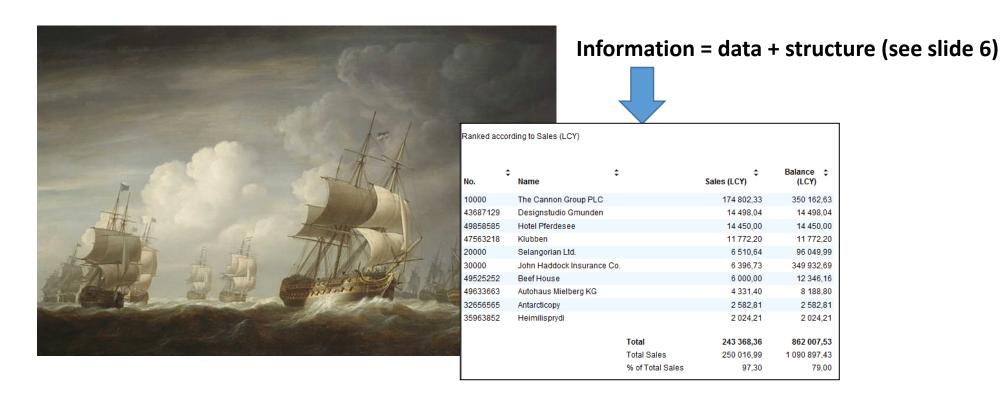
## What is MS Dynamics NAV (home study)?

- If your business is growing and ready to take on more opportunities, MS Dynamics NAV can help. An easily adaptable enterprise resource planning (ERP) solution, it helps your business automate and connect your sales, purchasing, operations, accounting, and inventory management
- Microsoft Dynamics NAV enables every individual in your company to turn hunches (intuitions, feelings) into genuine insight, and insight into decisions. With access to real-time data and a wide range of analytical and reporting tools—including graphical displays, online analytical processing (OLAP) cubes, and Web-based delivery options—people can make informed, confident decisions that help drive business success.



#### Navigation (NAV) - tool

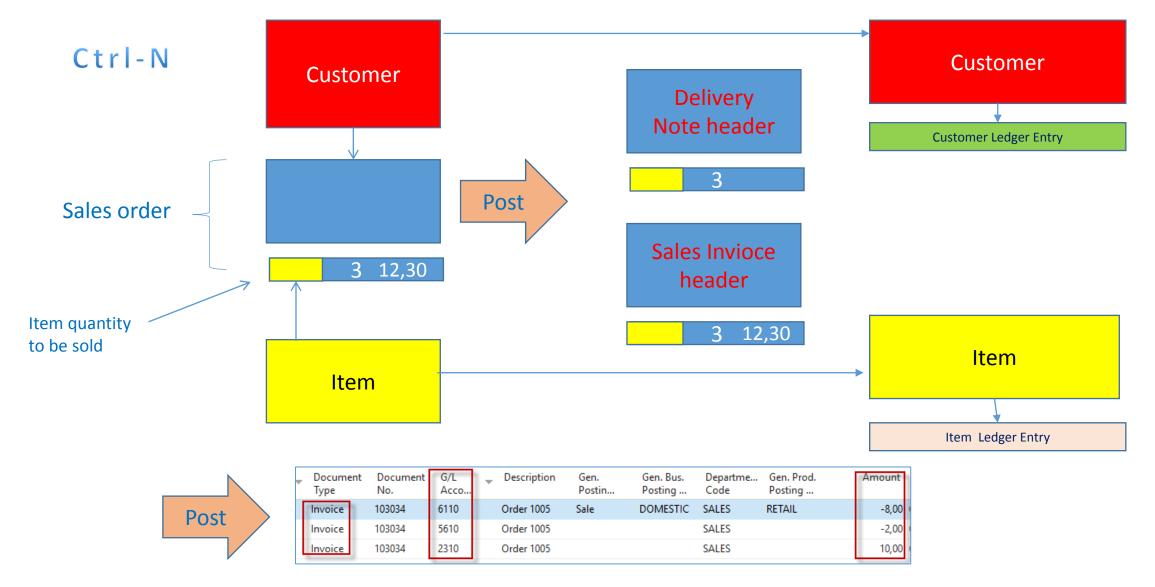
To find the way in the see of big data and to get important information



## Navigation- explanation (home study)

- The navigation tool traces the cause-effect relations.
- Let's have a look at the posting of a sales order. It represents, in our example, the cause.
- This action's consequences are two created documents, such as a delivery note and a sales invoice.
- Furthermore, the system creates a Customer ledger entry for the customer and an item ledger entry for the item sold. Eventually, system creates other records in the General ledger area on predefined accounts. It will all take place in the background.

## Posting of Sales Order - process diagram

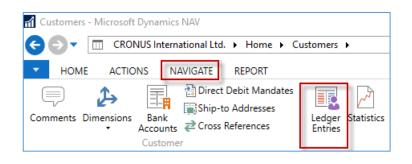


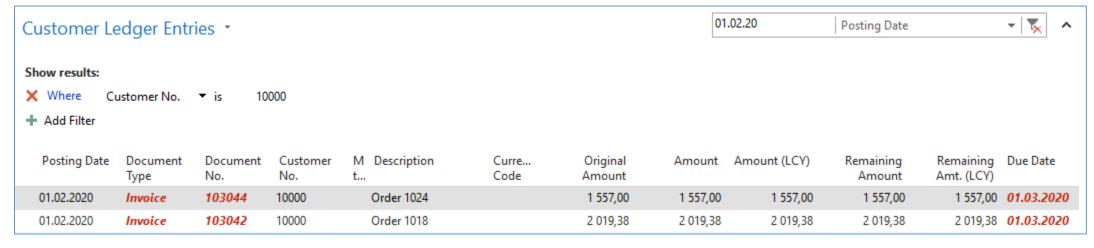
#### What is an entry (created transaction)

- The entry represents created transaction
- You create for example a document called Sales Order
- When you have completed all the lines and entered all the information on the sales order, you can post it. Posting creates a shipment and an invoice.
- When a sales order is posted, the customer's account, the general ledger, and the item ledger entries are updated.
- For each sales order, a sales entry is created in the G/L Entry table. An entry is also created in the
  customer's account in the Customer Ledger Entry table and a general ledger entry is created in the
  relevant receivables account. Besides, posting the order may result in a VAT entry and a general ledger
  entry for the discount amount.

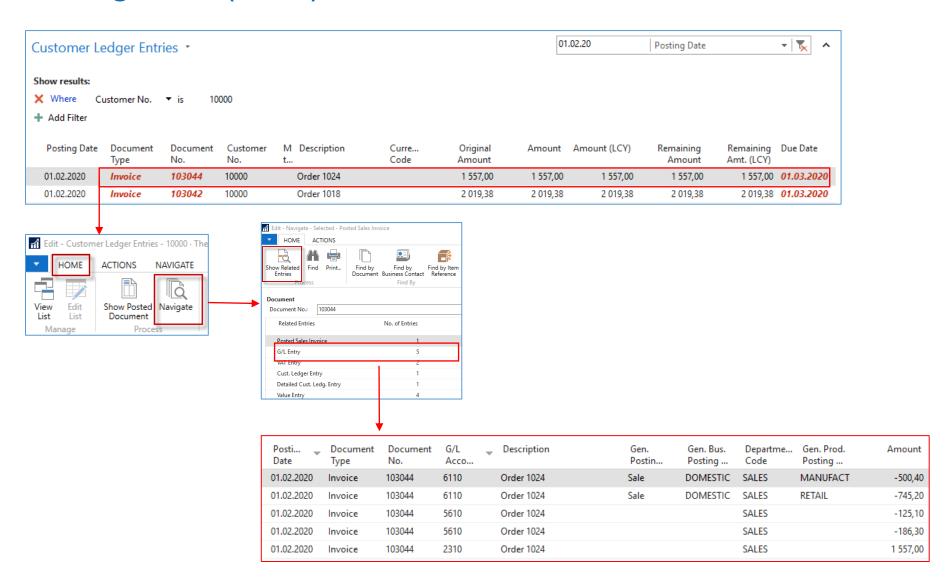
## Navigation (NAV)



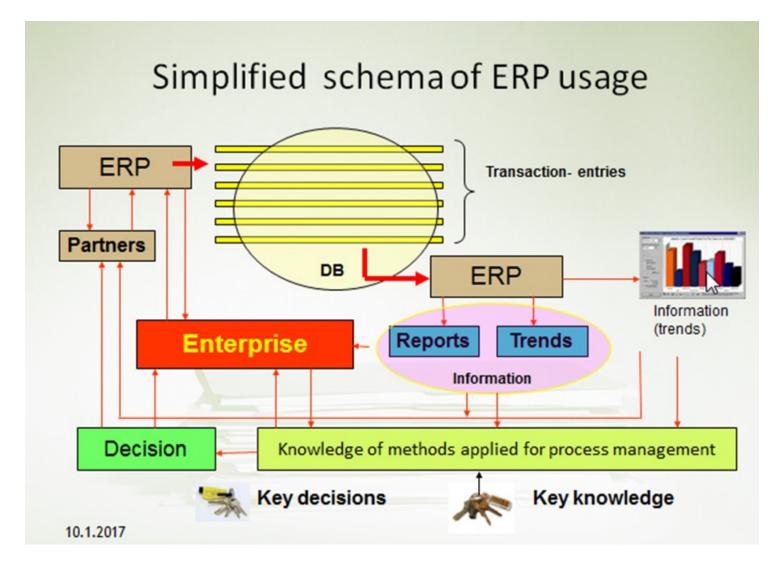




#### Navigation (NAV)



### Feedback to control all processes



### What is ERP = Enterprise Resource Planning System?

Microsoft Dynamics NAV 2018 is an ERP system. But why is it an ERP system? What are the main features of an ERP system, and how do we recognize these in Microsoft Dynamics NAV?

Let's have a look at the overview slide. So one of the challenges that some companies might have to address is one **of island systems**.

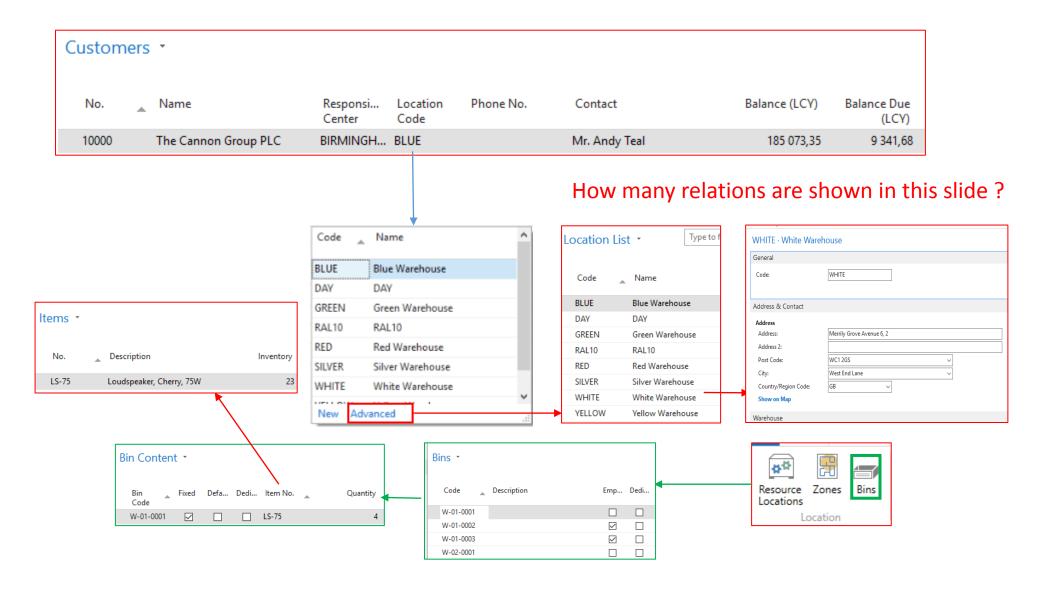




### What is ERP (home study)?

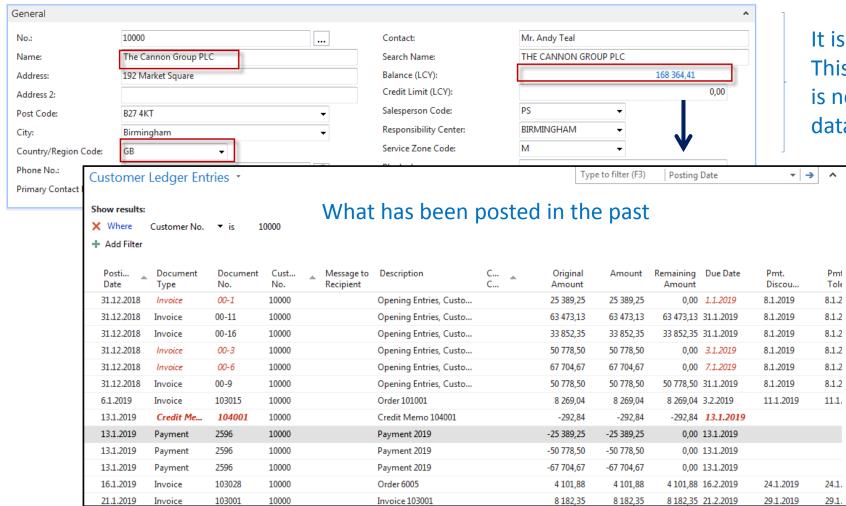
• So everyone working with the system, for example, the bookkeeper in financial management, the sales representative in sales and marketing, the warehouse worker in the warehouse management, the HR manager in human resources and so on, so they all work with the system in their specific application department but with a **shared database**. And that's very, very important. **That's one of the main features of an ERP system** which stands as Enterprise Resource Planning System

#### What is the relation between fields (key F4 or mouse click)?



#### What is the Customer (Vendor) balance?

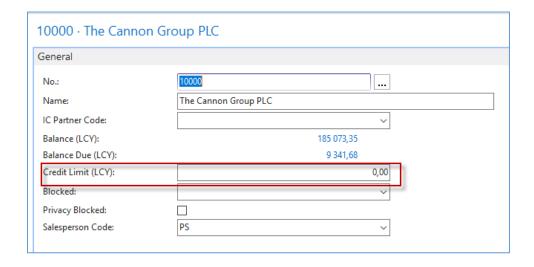
10000 · The Cannon Group PLC

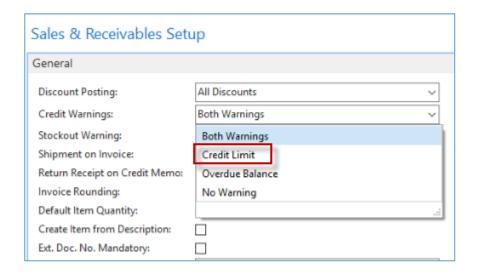


It is Calculated field.
This figure (amount) is not stored in database!

## What is the meaning of Customer credit limit (one of many examples)?

If the amount on already invoiced and not yet paid invoices exceeds this credit limit, the user will receive a message that the limit has been exceeded, and no other invoices are issued.





#### Name essential economic documents used to control enterprise

- Quotes
- Sales and Purchase Orders
- Invoices
- Delivery lists
- Credit memos
- Transfer orders
- Production orders

#### Sales

#### **Order Processing**

#### Lists

Customers

Contacts

Sales Quotes

Sales Orders

Blanket Sales Orders

Sales Return Orders

Sales Invoices

Sales Credit Memos

Requests to Approve

Approval Request Entries

Certificates of Supply

#### **Purchase**

#### Order Processing

#### Lists

Vendors

Contacts

Purchase Ouotes

Purchase Orders

Blanket Purchase Orders

Purchase Return Orders

Transfer Orders

Purchase Invoices

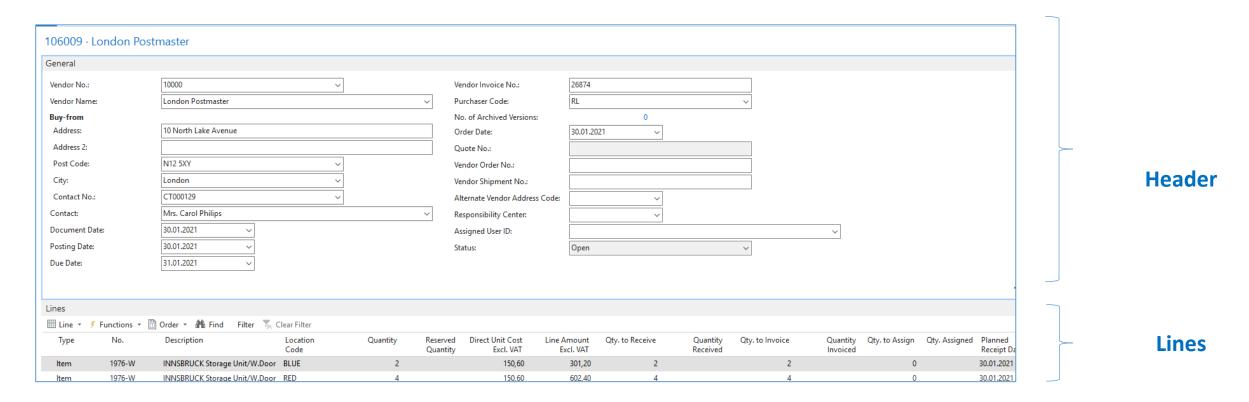
Purchase Credit Memos

Requests to Approve

Approval Request Entries

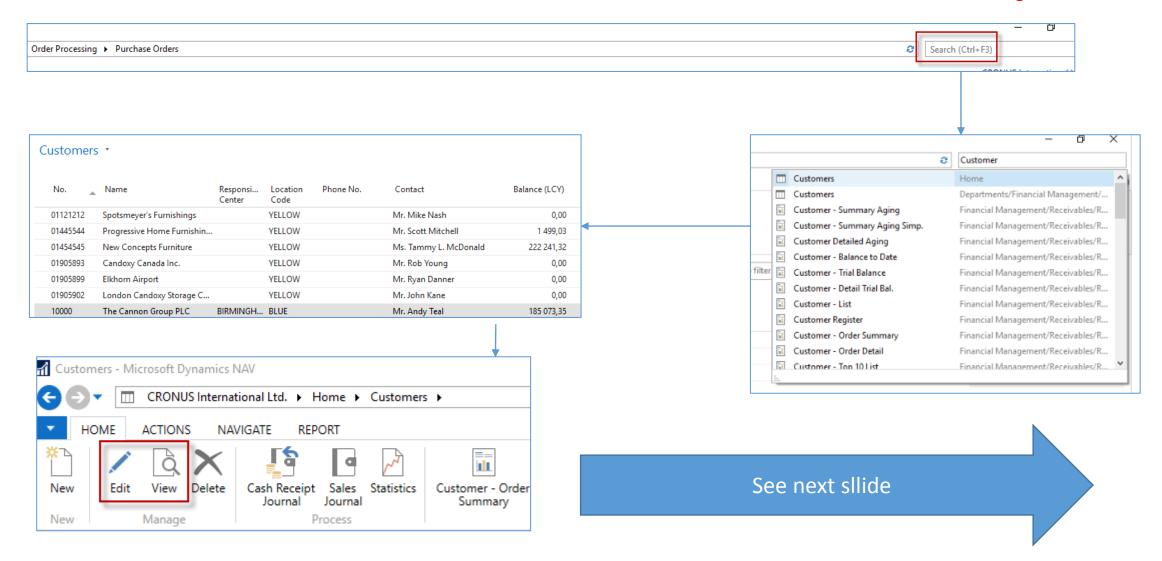
Certificates of Supply

#### Explain the structure of standard documents generated in ERP

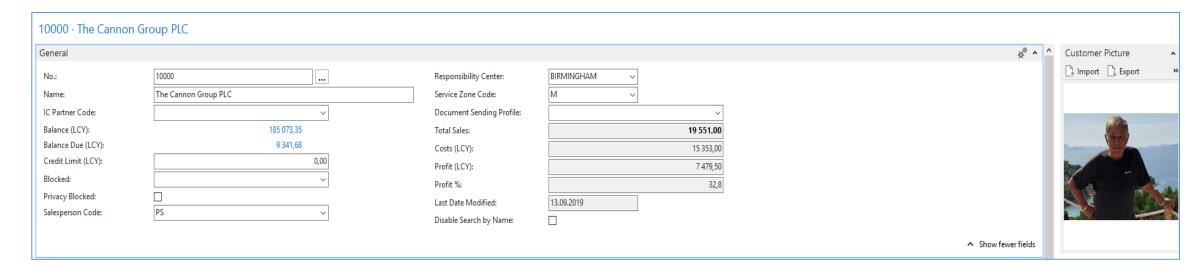


#### Find Customer or Vendor or Item card (any card)

#### Use of the searching window

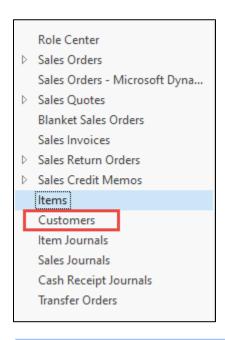


#### **Customer Card**



Each card has a number of tabs, where there are different fields according to their similar meaning.

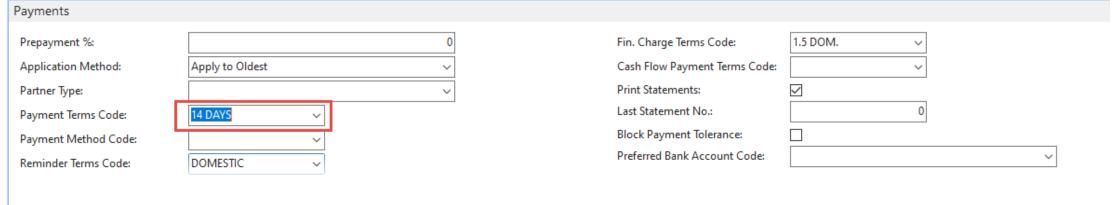
#### Customer Card – another important tab



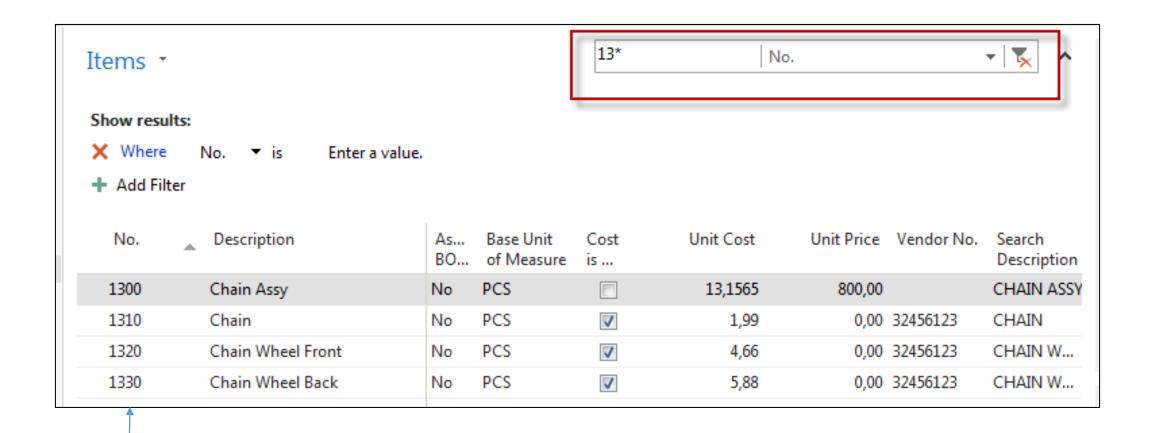


For example, if we post a sales order where it will be on March 10, 2020, a sales invoice will be entered, the due date of which will be according to Payment Term code = **14D** is 24.3.2020.

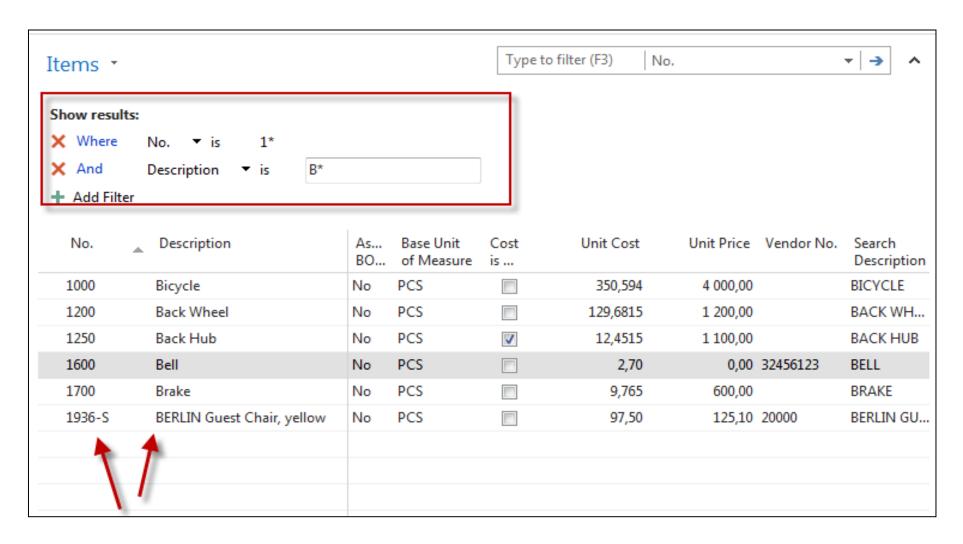
Code 14D means fourteen days in the MS Dynamics NAV syntax, as in another example 1M = one month and so on.



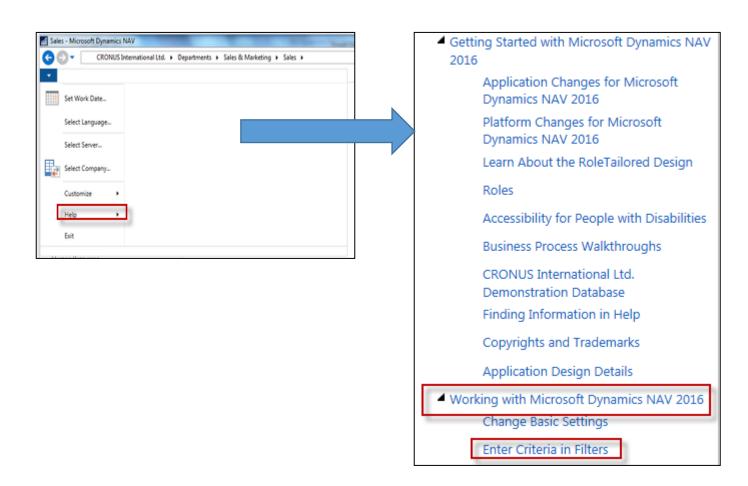
# Filters – how to display only chosen part of the data (simple filter)



# Filters – how to display only chosen part of the data (multiple filter)



### Example of using help \_filter criteria



## Example of using help \_filter criteria

Sample Expression	Records Displayed				
11002100	Numbers 1100 through 2100				
2500	Up to and including 2500				
12 31 00	Dates up to and including 12 31 00				
P8	Information for accounting period 8 and thereafter				
23	From the beginning date until 23-current month-current year 23:59:59				
23	From 23-current month-current year 0:00:00 until the end of time				
2223	From 22-current month-current year 0:00:00 until 23-current month-current year 23:59:59				

#### (|) Either/or

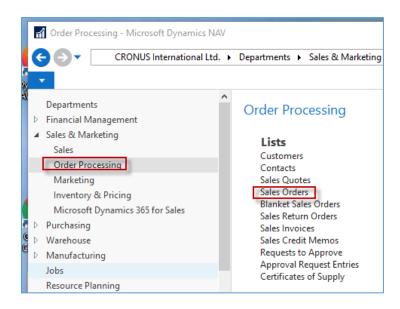
Sample Expression	Records Displayed		
1200 1300	Numbers with 1200 or 1300		

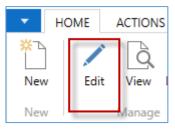
#### (<>) Not equal to

Sample Expression	Records Displayed				
<>0	All numbers except 0				
	The SQL Server Option allows you to combine this symbol with a wild card expression. For example, <>A* meaning not equal to any text that starts with A.				

Only part of it! Will be presented by the tutor and experienced by students.

# Sales Order (SO)

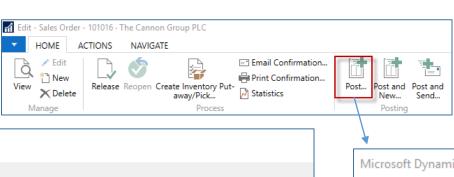


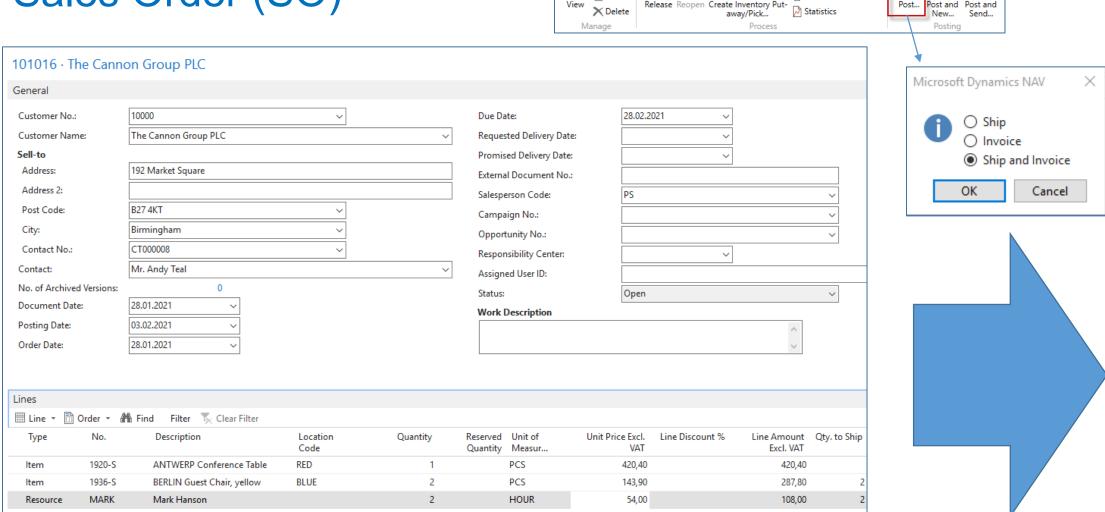


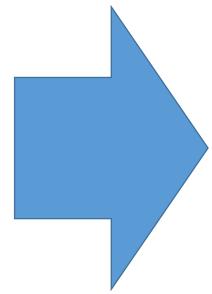
You can edit one SO chosen from the list of already created documents



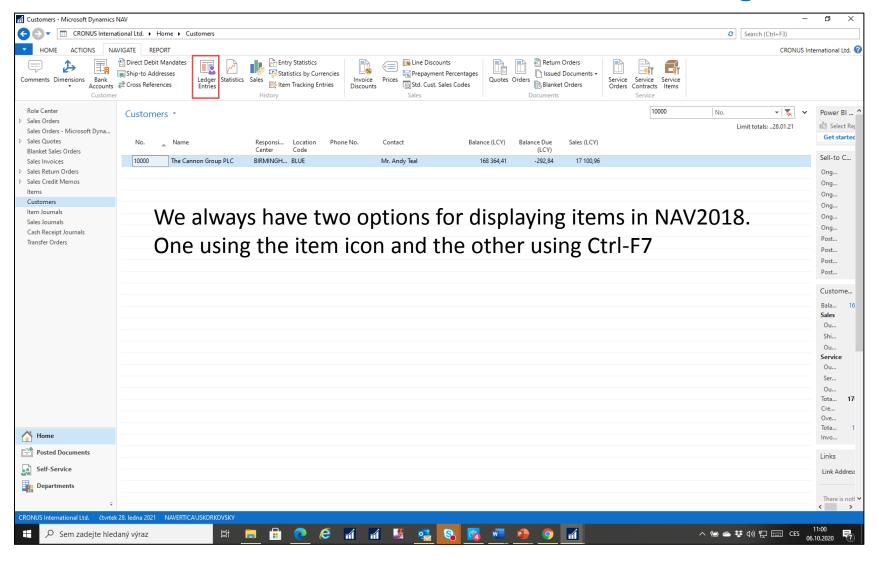
## Sales Order (SO)



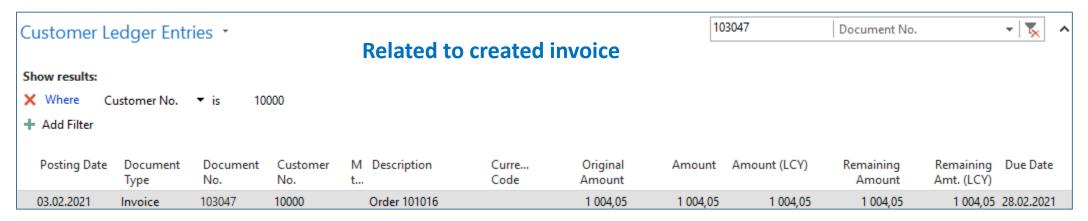




## How to access created Customer Ledger Entries

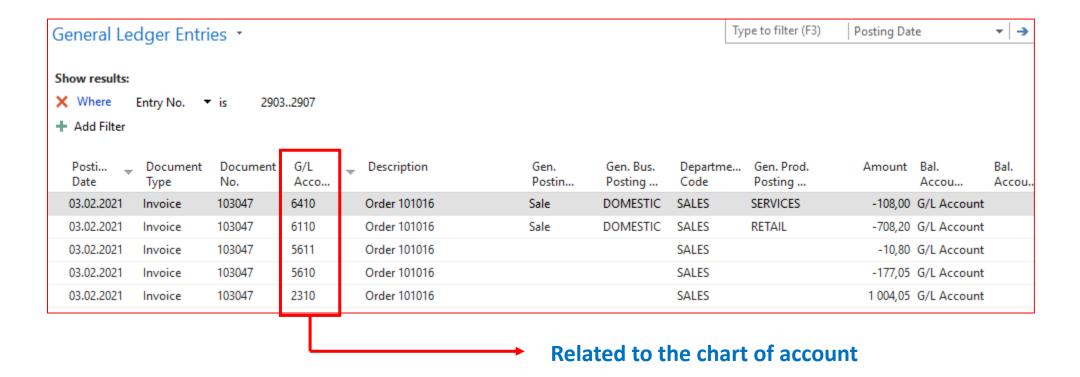


# Created entries (Customer Ledger Entry and Item Ledger Entry)





## Created General Ledger Entries



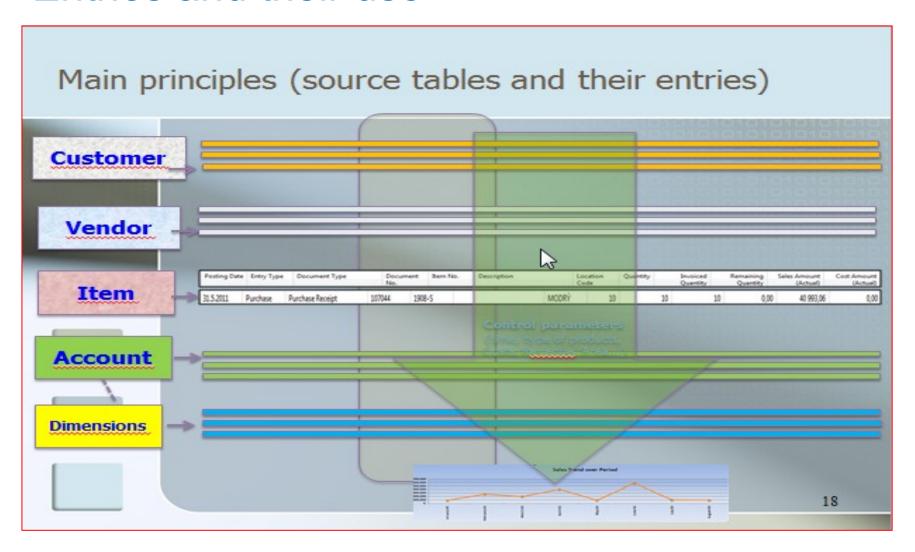
These General Ledger Entries serve as source data used by the MS Dynamics NAV 201 8 system. System uses this data to create all key reports used in the management of the company. It can be, for example, a **profit and loss account**, **balance sheet**, or **cash flow reports** 

### Chart of account

The chart of accounts shows the ledger accounts that store your financial data. Microsoft Dynamics NAV includes a standard chart of accounts that is ready to support your business. However, you can change the default accounts, and you can add new accounts.

Chart of	Accounts •									Type to	filter (F3)
Show result	ts:										
× Where	No. ▼ is Enter a value.										
+ Add Filte											
Addition											
Limit totals											
+ Add Filte	er										
No.	Name	Income/Balance	Account Subcategory	Account Type	Totaling	Gen. Postin	Gen. Bus. Posting	Gen. Prod. Posting	Net Change	Balance	Cost Typ No.
6291	Job Sales Adjmt., Raw Mat.	Income Statement	Income, Product Sales	Posting							6291
6295	<b>Total Sales of Raw Materials</b>	Income Statement	Income, Product Sales	End-Total	62056295				-5 859 916,25	-5 859 916,25	
6405	Sales of Resources	Income Statement	Income	Begin-Total							
6410	Sales, Resources - Dom.	Income Statement	Income, Services	Posting		Sale	DOMESTIC	SERVICES	-19 926,00	-19 926,00	6410
6420	Sales, Resources - EU	Income Statement	Income, Services	Posting		Sale	EU	SERVICES			6420
6430	Sales, Resources - Export	Income Statement	Income, Services	Posting		Sale	EXPORT	SERVICES			6430
6490	Job Sales Applied, Resources	Income Statement	Income, Services	Posting							6490
6491	Job Sales Adjmt., Resources	Income Statement	Income, Services	Posting							6491
6495	Total Sales of Resources	Income Statement	Income, Services	End-Total	64056495				-19 926,00	-19 926,00	
6605	Sales of Jobs	Income Statement	Income, Services	Begin-Total							
6610	Sales, Other Job Expenses	Income Statement	Income, Services	Posting		Sale	DOMESTIC	MISC			6610
6620	Job Sales	Income Statement	Income, Services	Posting							6620
6695	Total Sales of Jobs	Income Statement	Income, Services	End-Total	66056695						
6710	Consulting Fees - Dom.	Income Statement	Income, Services	Posting		Sale	DOMESTIC	SERVICES	-236 192,91	-236 192,91	6710
6720	Project management	Income Statement	Income	Posting		Sale	DOMESTIC	MISC	-2 800,00	-2 800,00	
6810	Fees and Charges Rec Dom.	Income Statement	Income, Services	Posting		Sale	DOMESTIC	MISC	-961,03	-961,03	6810
6910	Discount Granted	Income Statement	Sales Discounts	Posting					39 967,85	39 967,85	6910
6950	Sales of Service Contracts	Income Statement	Income, Services	Begin-Total							
6955	Service Contract Sale	Income Statement	Income, Services	Posting		Sale	DOMESTIC	SERVICES			
6959	Total Sale of Serv. Contracts	Income Statement	Income	End-Total	69506959						
6995	Total Revenue	Income Statement	Income	End-Total	61006995				-7 083 502,71	-7 083 502,71	

#### Entries and their use



# One of many reports generated from entries

14 4 1	of 1	M 🛞 🖟	■ □ □ ▼ 100%	Find   Next	
	ner - Balan ernational Ltd.	19. September 20. Page ESF\M			
All amounts Balance on Customer: N	31.12.18 lo.: 10000				
Posting Date	Document Type	Document No.	Description	Amount	Entry No.
10000	The Cannon G	roup PLC			
31.12.18 13.01.19	Invoice Payment	00-1 2596	Opening Entries, Customers Application	25 389,25 -25 389,25	2444
				0,00	
31.12.18	Invoice	00-11	Opening Entries, Customers	63 473,13	2448
31.12.18 31.12.18 13.01.19	Invoice Invoice Payment	00-16 00-3 2596	Opening Entries, Customers Opening Entries, Customers Application	33 852,35 50 778,50 -50 778,50	2458 2464
	·		•	0.00	
31.12.18 13.01.19	Invoice Payment	00-6 2596	Opening Entries, Customers Application	67 704,67 -67 704,67	2470
				0,00	
31.12.18	Invoice	00-9	Opening Entries, Customers	50 778,50	2476
	The Cannon G	roup PLC		291 976,40	
Total				291 976,40	

# Thank you for your attention and patience

