MS Dynamics NAV Intro 1

Ing.J.Skorkovský,CSc.
Department of Corporate Economy
Faculty of Economics and Administration
MASARYK UNIVERSITY
Czech Republic

What is MS Dynamics NAV

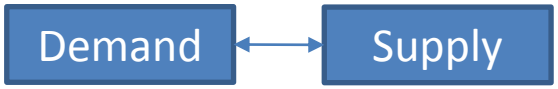
- If your business is growing and ready to take on more opportunities, Dynamics NAV can help. An easily adaptable enterprise resource planning (ERP) solution, it helps your business automate and connect your sales, purchasing, operations, accounting, and inventory management
- Microsoft Dynamics NAV enables every individual in your company to turn hunches (intuitions, feeling) 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.

First approach

- Theory of constraint mantra

  ## Make money now and in the future

So we need appropriate items (services), all kind of resources (assets), good marketing engine (CRM) to find a customer, create reasonable demand (ATP-CTP) having enough knowledge about stock (replenishment algorithms), production capacities and vendors (delivery procedures) and many, many more.



ATP=Available-To-Promise, CTP=Capable-To-Promise

Navigation (NAV)

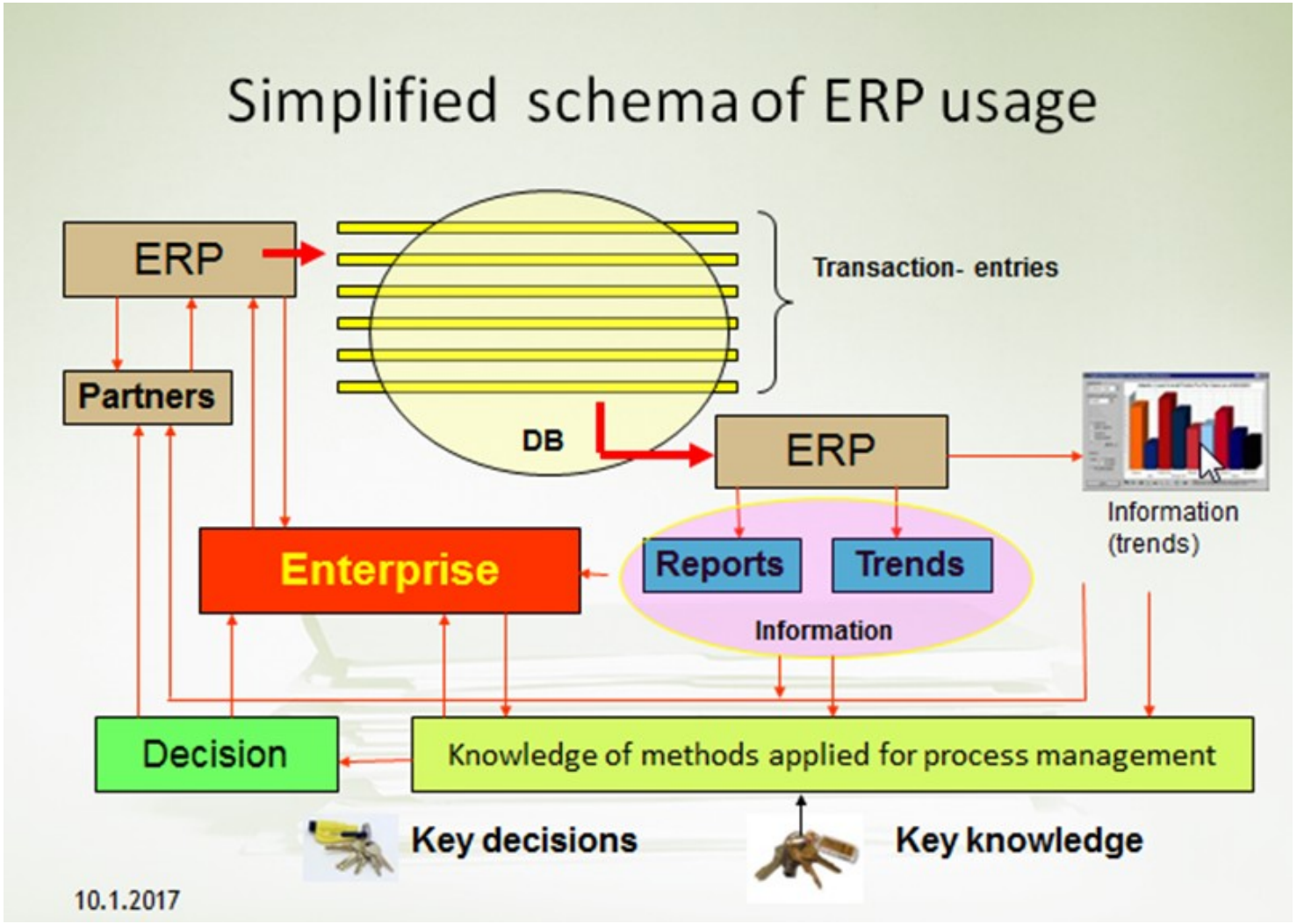
- To find the way in the see of big data and to get important information

Information = Data + Structure

Ranked according to Sales (LCY)

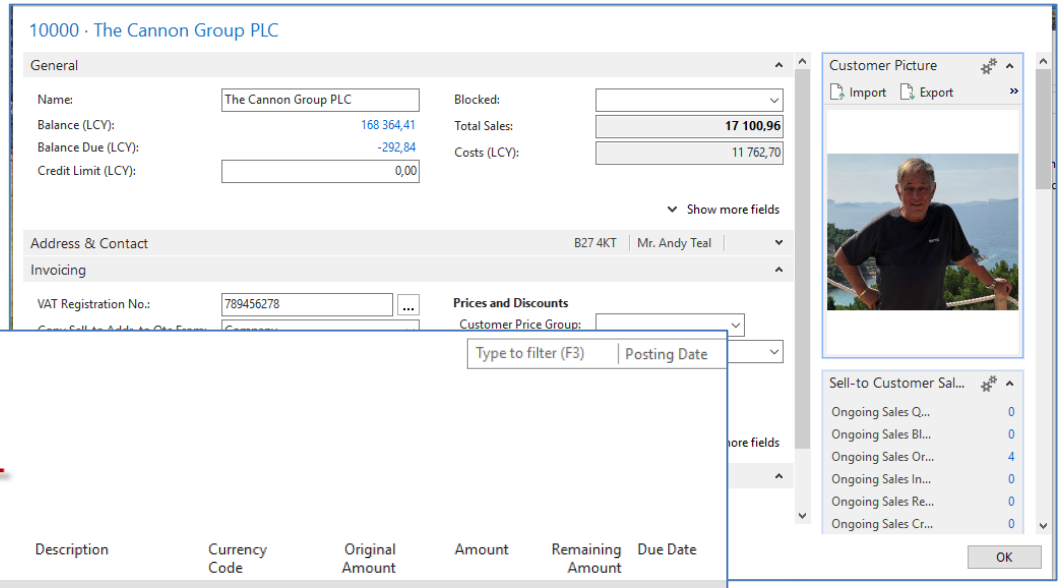
No.	Name	Sales (LCY)	Balance (LCY)
10000	The Cannon Group PLC	174 802,33	350 162,63
43687129	Designstudio Gmunden	14 498,04	14 498,04
49858585	Hotel Pferdesee	14 450,00	14 450,00
47563218	Klubben	11 772,20	11 772,20
20000	Selangorian Ltd.	6 510,64	96 049,99
30000	John Haddock Insurance Co.	6 396,73	349 932,69
49525252	Beef House	6 000,00	12 346,16
49633663	Autohaus Mielberg KG	4 331,40	8 188,80
32656565	Antarcticopy	2 582,81	2 582,81
35963852	Heimilisprydi	2 024,21	2 024,21
	Total	**243 368,36**	**862 007,53**
	Total Sales	250 016,99	1 090 897,43
	% of Total Sales	97,30	79,00

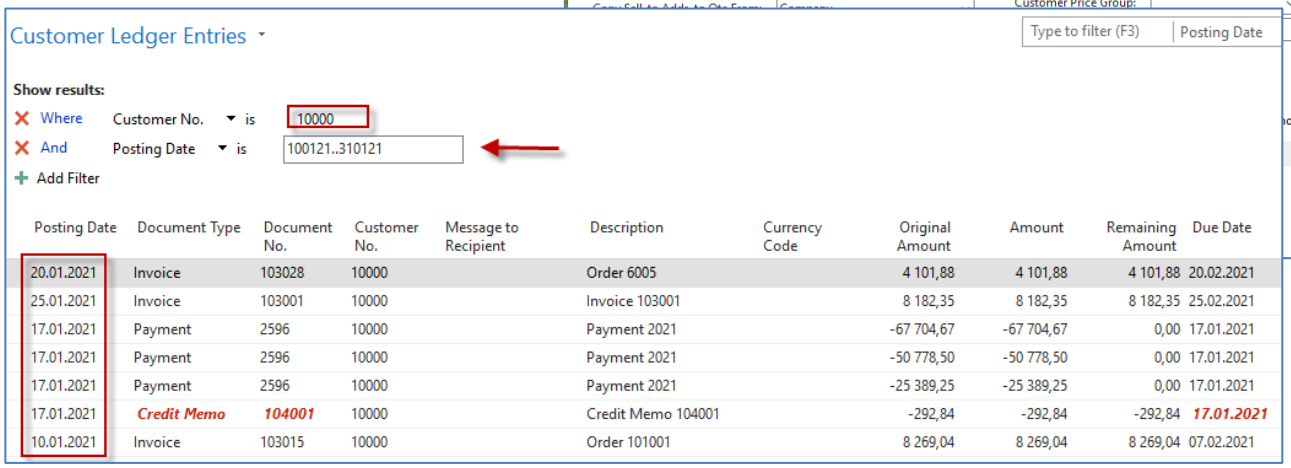
Feedback to control all processes



Explanation about symbols in previous slide

Transactions – in MS Dynamic NAV terminology=Entries
The entry represents all actions in ERP related
for instance to Customer (Item, General Ledger Account,..)





Posting Date	Document Type	Document No.	Customer No.	Message to Recipient	Description	Currency Code	Original Amount	Amount	Remaining Amount	Due Date
20.01.2021	Invoice	103028	10000		Order 6005		4 101,88	4 101,88	4 101,88	20.02.2021
25.01.2021	Invoice	103001	10000		Invoice 103001		8 182,35	8 182,35	8 182,35	25.02.2021
17.01.2021	Payment	2596	10000		Payment 2021		-67 704,67	-67 704,67	0,00	17.01.2021
17.01.2021	Payment	2596	10000		Payment 2021		-50 778,50	-50 778,50	0,00	17.01.2021
17.01.2021	Payment	2596	10000		Payment 2021		-25 389,25	-25 389,25	0,00	17.01.2021
17.01.2021	*Credit Memo*	*104001*	10000		Credit Memo 104001		-292,84	-292,84	-292,84	*17.01.2021*
10.01.2021	Invoice	103015	10000		Order 101001		8 269,04	8 269,04	8 269,04	07.02.2021

Explanation about symbols (objects) in the previous slide (Feedback to control all processes) - **Reports**

Report and source data = Entries (will be shown again in the simplified sales process)

Posting Date	Document Type	Document No.	Customer No.	Message to Recipient	Description	Currency Code	Original Amount	Amount	Remaining Amount	Due Date
20.01.2021	Invoice	103028	10000		Order 6005		4 101,88	4 101,88	4 101,88	20.02.2021
25.01.2021	Invoice	103001	10000		Invoice 103001		8 182,35	8 182,35	8 182,35	25.02.2021
17.01.2021	Payment	2596	10000		Payment 2021		-67 704,67	-67 704,67	0,00	17.01.2021
17.01.2021	Payment	2596	10000		Payment 2021		-50 778,50	-50 778,50	0,00	17.01.2021
17.01.2021	Payment	2596	10000		Payment 2021		-25 389,25	-25 389,25	0,00	17.01.2021
17.01.2021	Cre								92,84	*17.01.2021*
10.01.2021	Invo								69,04	07.02.2021

Customer - Balance to Date

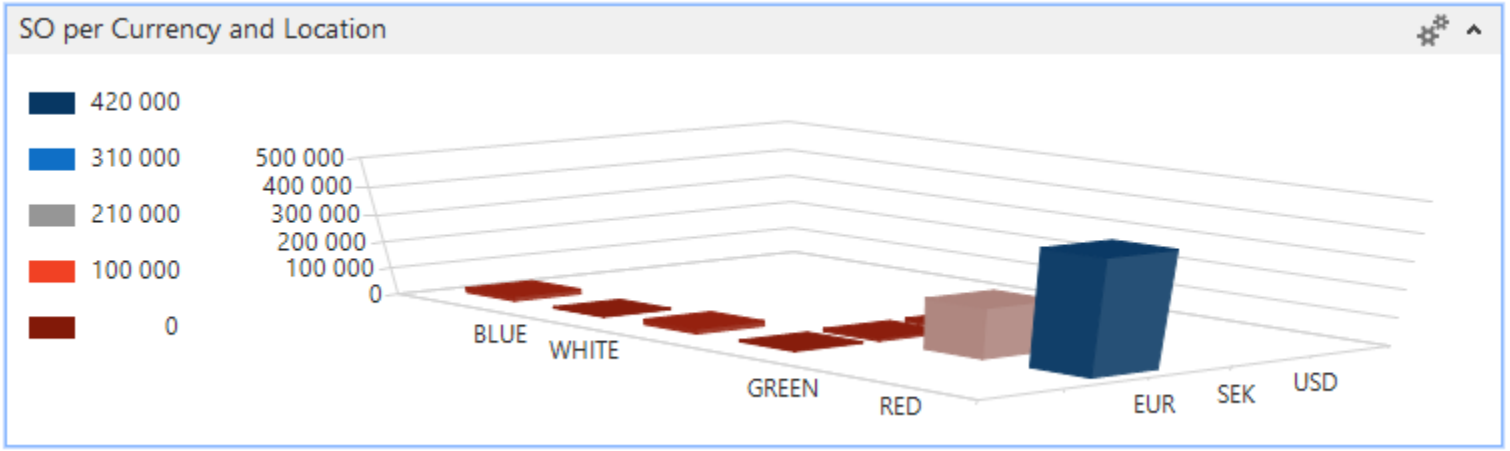
13. September 2019
Page 1
ESF\MIKI

CRONUS International Ltd.

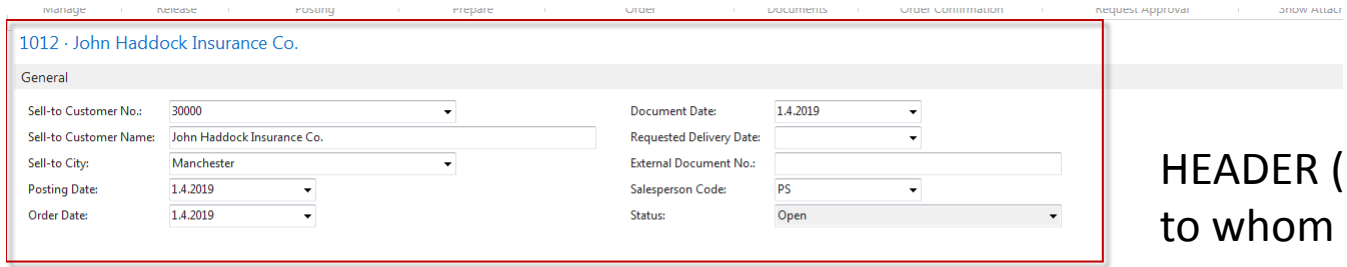
All amounts are in LCY.
Balance on 02.04.21
Customer: No.: 10000

Posting Date	Document Type	Document No.	Description	Amount	Entry No.
10000	**The Cannon Group PLC** Phone No.				
31.12.20	Invoice	00-11	Opening Entries, Customers	63 473,13	2435
31.12.20	Invoice	00-16	Opening Entries, Customers	33 852,35	2445
31.12.20	Invoice	00-9	Opening Entries, Customers	50 778,50	2463
10.01.21	Invoice	103015	Order 101001	8 269,04	2565
17.01.21	Credit Memo	104001	Credit Memo 104001	-292,84	2602
25.01.21	Invoice	103001	Invoice 103001	8 182,35	2731
20.01.21	Invoice	103028	Order 6005	4 101,88	2806
	The Cannon Group PLC			**168 364,41**	
Total				**168 364,41**	

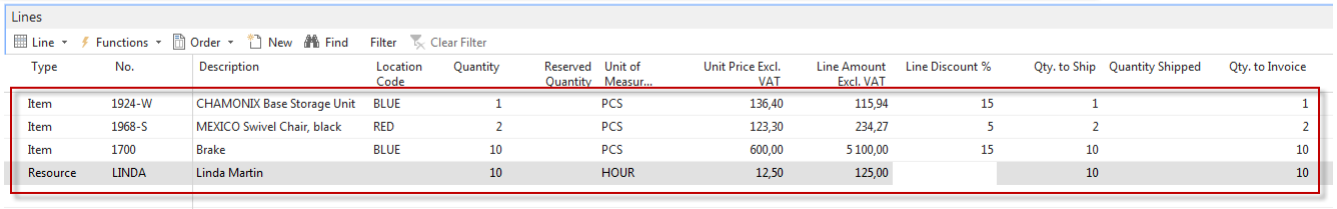
Explanation about symbols (objects) in the previous slide (Feedback to control all processes) – **Trends (graphics)**



Sales Order

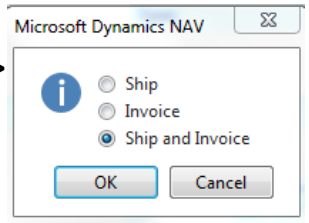


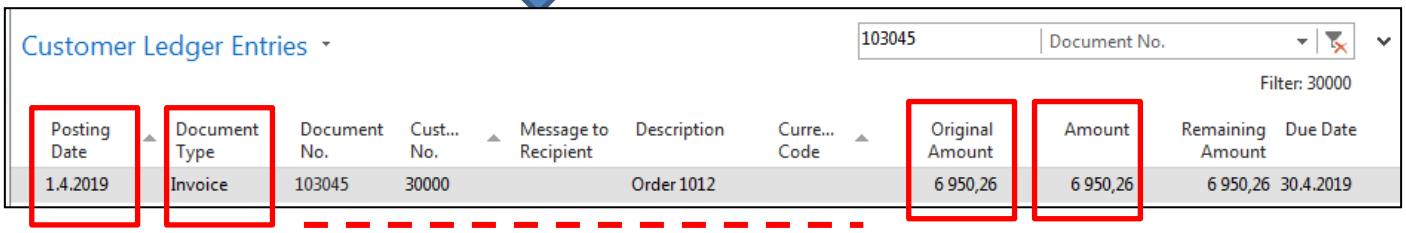
HEADER (Business parter)
to whom is will be sold



Lines (what is sold)

Post ->



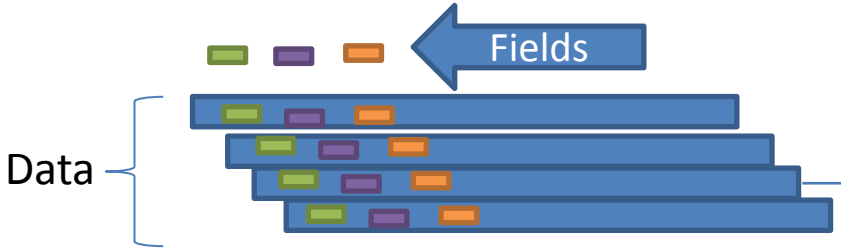


Fields (different types of data)

The most important data types

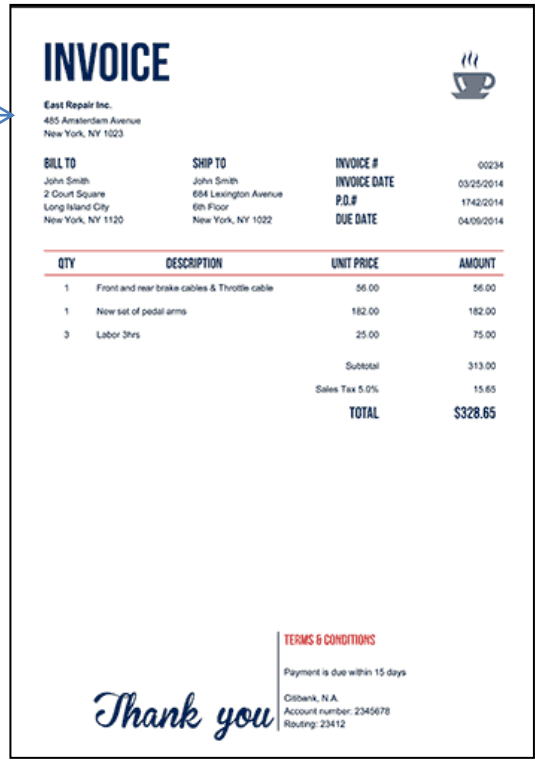
- Description (text) -> The Chair
- Number (decimal or integer) – >3,23
- Alphanumeric code -> A123D)
- Date -> 18.9.2019=180919
- Boolean ->yes or no = checked or not checked
- Period type = data formula= 1 week=1W, 3 Days=3D,…)
- Time – >8:00

Transaction=Entry (Terminology)



Navigate

Original document



Transactions= Entries

Transaction=Entries
which has been created by ERP
when the Sales Order hase been posted

Customer Ledger Entries (transactions)

103045 | Document No.

Filter: 30000

Posting Date	Document Type	Document No.	Cust... No.	Message to Recipient	Description	Curre... Code	Original Amount	Amount	Remaining Amount	Due Date
1.4.2019	Invoice	103045	30000		Order 1012		6 950,26	6 950,26	6 950,26	30.4.2019

INTRO 1

- Explain the concept of ERP and Microsoft Dynamics NAV 2016w1 or **NAV 2018w1**
- ERP = Enterprise Resource Planning System
- **Resources** = financial resources, machines, people, items,…….
- **Data** = transactions having origin in :
  - Posted documents (invoices, credit notes, deliveries, stock movement..)
  - Hence the type of these transactions-> entries
    - Customer
    - Vendor
    - Item (Inventory)
    - General Ledger (Accounts)

Linked to : Simple scenario of the first and second ERP Microsoft Dynamics NAV session I.

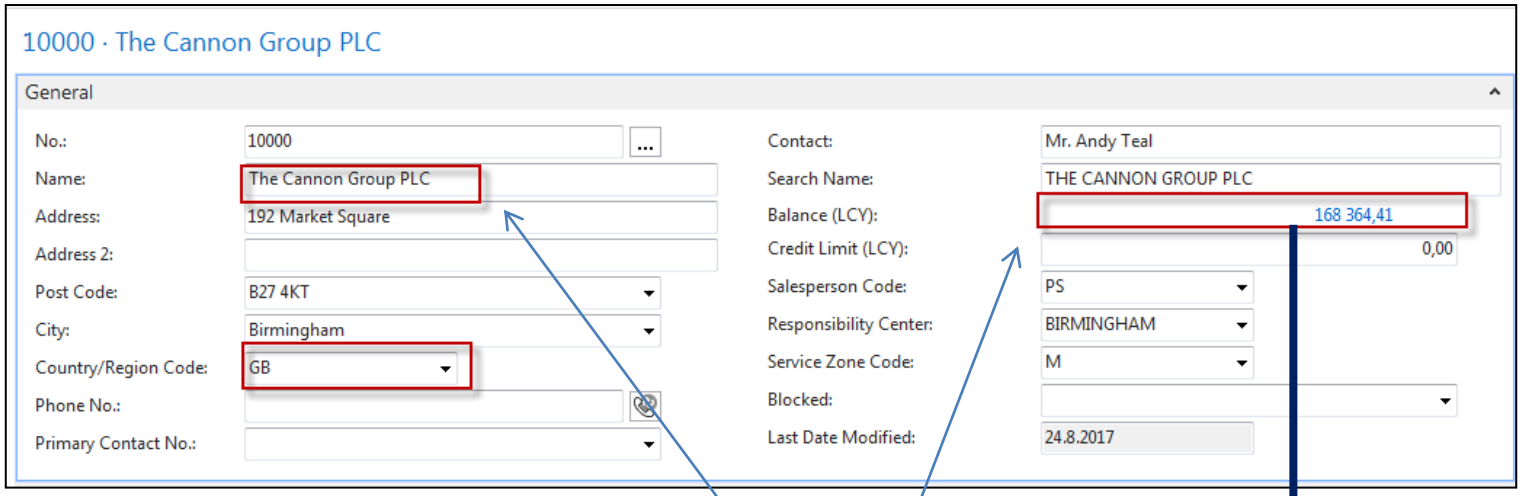
INTRO 2

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 (Window)

INTRO 3 – Customer card –part of it



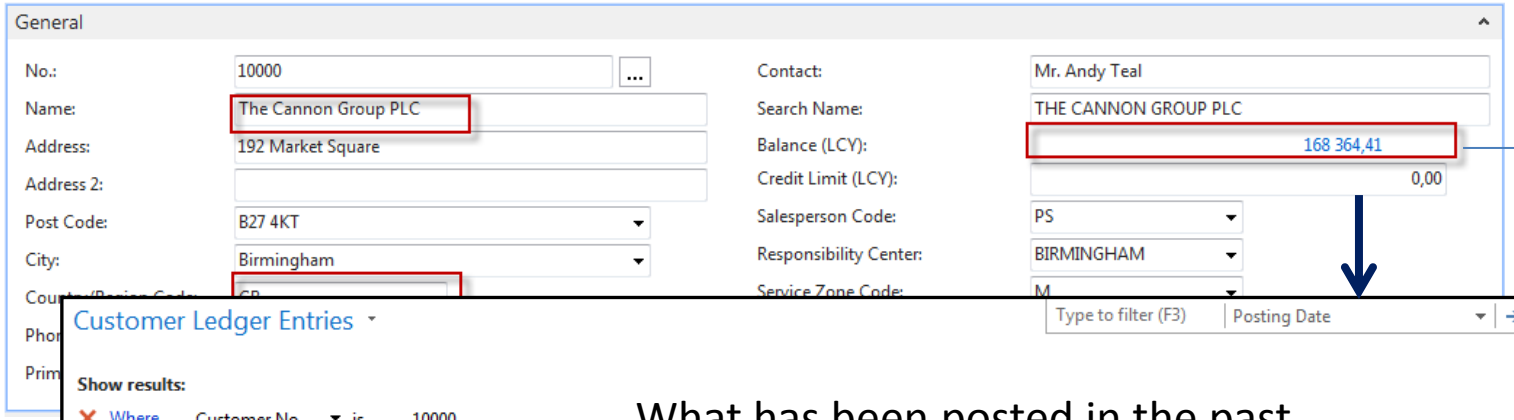
Fields

Data + Structure = Information →

Important information having origin in transactions-entries

INTRO 4 – Customer entries

10000 · The Cannon Group PLC (Customer card)



Customer Ledger Entries

Show results:

Where Customer No. is 10000

Add Filter

What has been posted in the past

Posti... Date	Document Type	Document No.	Cust... No.	Message to Recipient	Description	C... C...	Original Amount	Amount	Remaining Amount	Due Date	Pmt. Discou...	Pmt Tole
31.12.2018	*Invoice*	*00-1*	10000		Opening Entries, Custo...		25 389,25	25 389,25	0,00	*1.1.2019*	8.1.2019	8.1.2
31.12.2018	Invoice	00-11	10000		Opening Entries, Custo...		63 473,13	63 473,13	63 473,13	31.1.2019	8.1.2019	8.1.2
31.12.2018	Invoice	00-16	10000		Opening Entries, Custo...		33 852,35	33 852,35	33 852,35	31.1.2019	8.1.2019	8.1.2
31.12.2018	*Invoice*	*00-3*	10000		Opening Entries, Custo...		50 778,50	50 778,50	0,00	*3.1.2019*	8.1.2019	8.1.2
31.12.2018	*Invoice*	*00-6*	10000		Opening Entries, Custo...		67 704,67	67 704,67	0,00	*7.1.2019*	8.1.2019	8.1.2
31.12.2018	Invoice	00-9	10000		Opening Entries, Custo...		50 778,50	50 778,50	50 778,50	31.1.2019	8.1.2019	8.1.2
6.1.2019	Invoice	103015	10000		Order 101001		8 269,04	8 269,04	8 269,04	3.2.2019	11.1.2019	11.1.
13.1.2019	***Credit Me...***	***104001***	10000		Credit Memo 104001		-292,84	-292,84	-292,84	***13.1.2019***		
13.1.2019	Payment	2596	10000		Payment 2019		-25 389,25	-25 389,25	0,00	13.1.2019		
13.1.2019	Payment	2596	10000		Payment 2019		-50 778,50	-50 778,50	0,00	13.1.2019		
13.1.2019	Payment	2596	10000		Payment 2019		-67 704,67	-67 704,67	0,00	13.1.2019		
16.1.2019	Invoice	103028	10000		Order 6005		4 101,88	4 101,88	4 101,88	16.2.2019	24.1.2019	24.1.
21.1.2019	Invoice	103001	10000		Invoice 103001		8 182,35	8 182,35	8 182,35	21.2.2019	29.1.2019	29.1.

168364,41=25389,25+63473,13+…….+8182,35

Flow field (calculated field) – the main principle

Amount =1

Amount =2

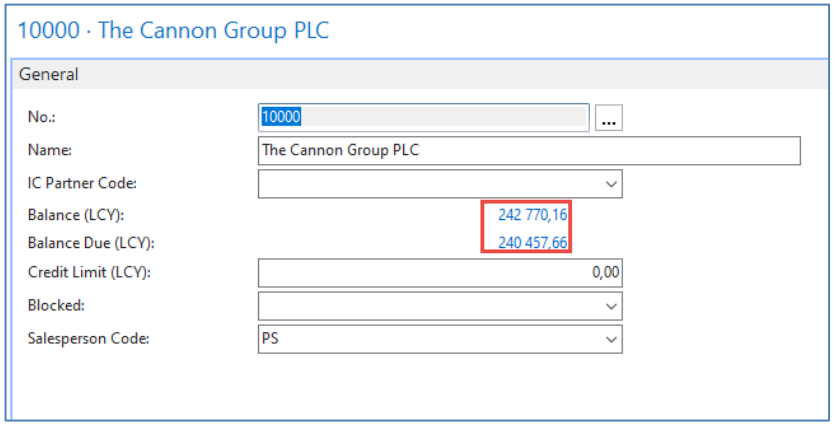
Amount =3

Amount =-4

Customer entries

Balance = 2 = (1+2+3-4)

Customer card



INTRO 5 – Customer document- Navigation

Customer Ledger Entries

Show results:

Where Customer No. is 10000

Add Filter

Posti... Date	Document Type	Document No.	Cust... No.	Message to Recipient	D
31.12.2018	*Invoice*	*00-1*	10000		Op
31.12.2018	Invoice	00-11	10000		Op
31.12.2018	Invoice	00-16	10000		Op
31.12.2018	*Invoice*	*00-3*	10000		Op
31.12.2018	*Invoice*	*00-6*	10000		Op
31.12.2018	Invoice	00-9	10000		Op
6.1.2019	Invoice	103015	10000		Or
13.1.2019	***Credit Me...***	***104001***	10000		Cr
13.1.2019	Payment	2596	10000		Pa
13.1.2019	Payment	2596	10000		Pa
13.1.2019	Payment	2596	10000		Pa
16.1.2019	Invoice	103028	10000		Or
21.1.2019	Invoice	103001	10000		In

From entry to document (**Cause->Effect**)

Sales - Invoice

Page 1 of 1

The Cannon Group PLC
Mr. Andy Teal
192 Market Square
Birmingham, B27 4KT
Great Britain

CRONUS, Birmingham RC.
Aaron Nicholls
Main Street 14
Birmingham, B27 4KT
Great Britain

Bill-to Customer No. 10000
VAT Registration No. 789456278

Invoice No. 103028
Order No. 6005
Posting Date 16. January 2019
Due Date 16. February 2019
Document Date 16. January 2019
Payment Terms 1 Month/2% 8 days
Shipment Method Ex Warehouse
Prices Including VAT No

Phone No. +44-161 818192
E-Mail
Home Page
VAT Reg. No. GB777777777
Giro No. 888-9999
Bank World Wide Bank
Account No. 99-99-888
Salesperson Peter Saddow

No.	Description	Posted Shipment Date	Quantity	Unit of Measure	Unit Price	Discount %	VAT Identifier	Amount
1964-W	INNSBRUCK Storage Unit/G.Door	16.01.19	10	Piece	292,00		VAT25	2 920,00
70011	Glass Door	16.01.19	5	Piece	72,30		VAT25	361,50

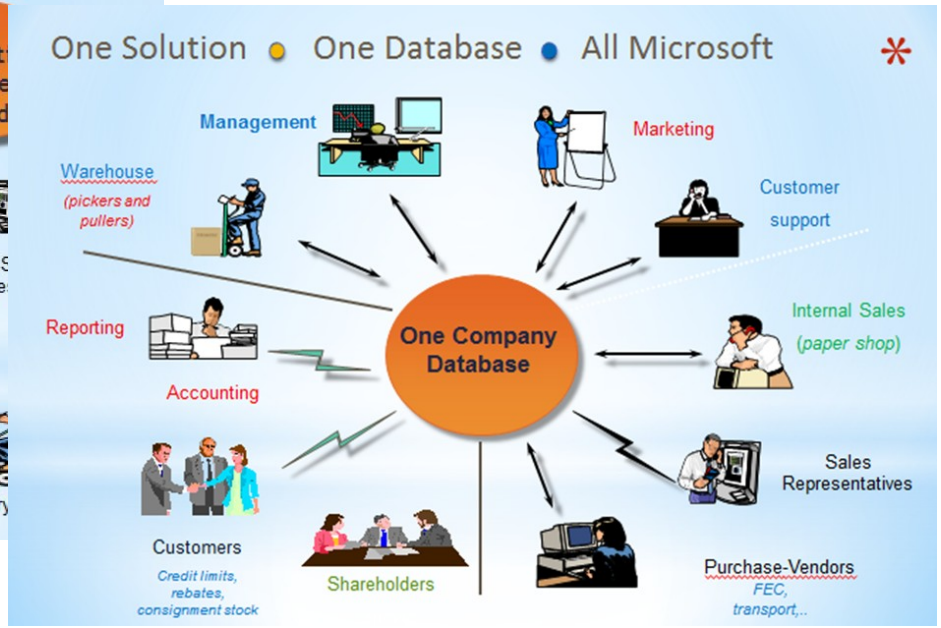
Total GBP Excl. VAT	**3 281,50**
25% VAT	820,38
Total GBP Incl. VAT	**4 101,88**

VAT Amount Specification

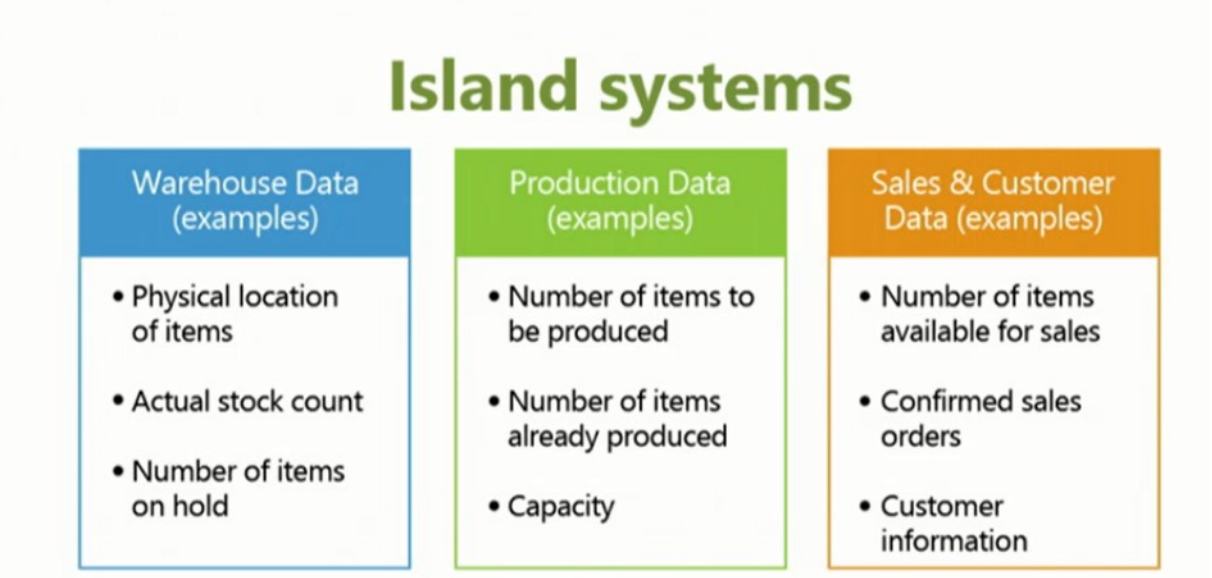
VAT Identifier	VAT %	Line Amount	Invoice Discount Base Amount	Invoice Discount Amount	VAT Base	VAT Amount
VAT25	25	3 281,50	3 281,50	0,00	3 281,50	820,38
Total		**3 281,50**	**3 281,50**	**0,00**	**3 281,50**	**820,38**

INTRO 6 – What is ERP 1

So our Microsoft Dynamics NAV is an ERP system. But why is it an ERP system? What are the main features of an ERP systém, 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**.



INTRO 7 – What is ERP 2



INTRO 8 – What is ERP 3

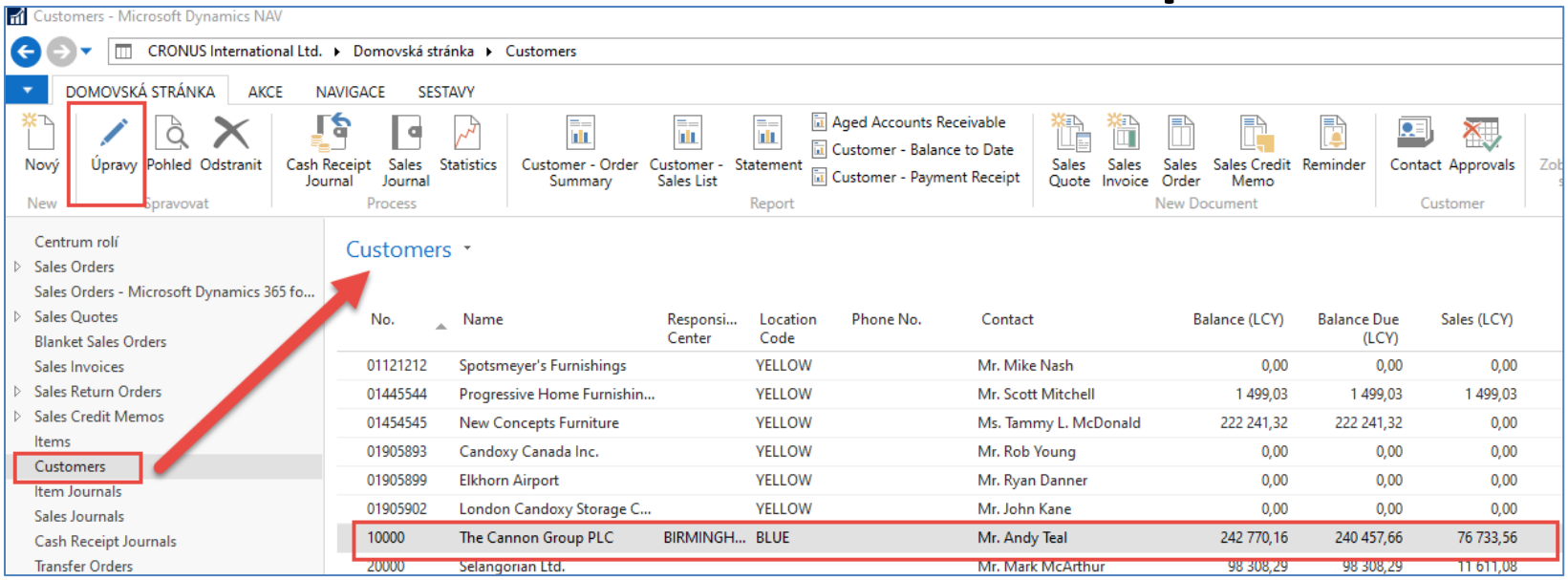
So everyone working with the system, for example, the bookkeeper in financial management, the sales representative in sales and marketing, the warehouse worker in the warehouse management, the HR manager in human resources and so on, so they all work with the system in their specific application department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

INTRO 9 – Basics of working space

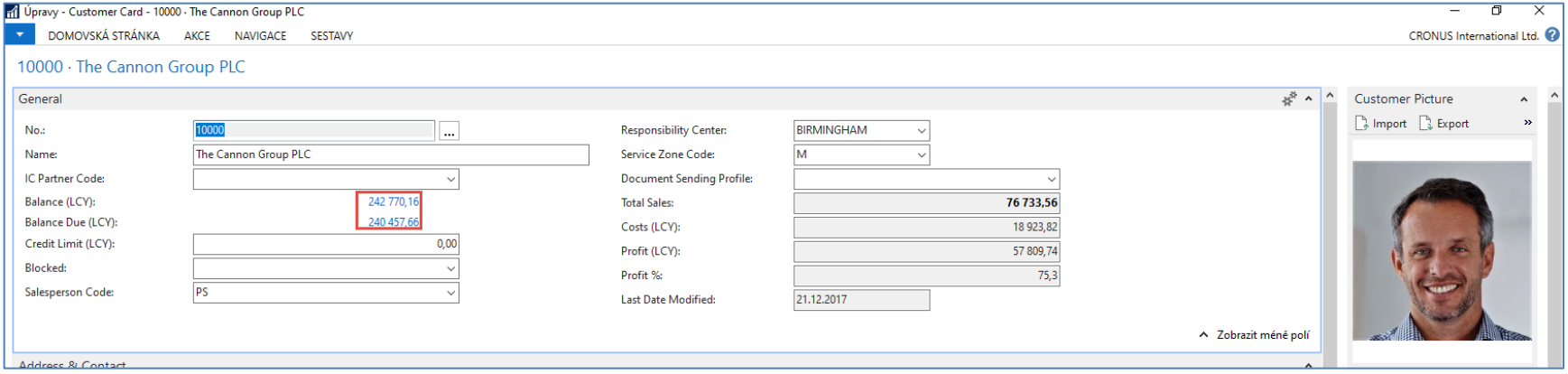
- Card (one record)
- List (many records)
- Role Center
- Card part (tab)
- List part
- Document
- Worksheet (to enter data)
- Confirmation dialog
-
- Navigate page (wizard)
- Standard dialog

Will be shown by tutor and examined on demo student databases by them

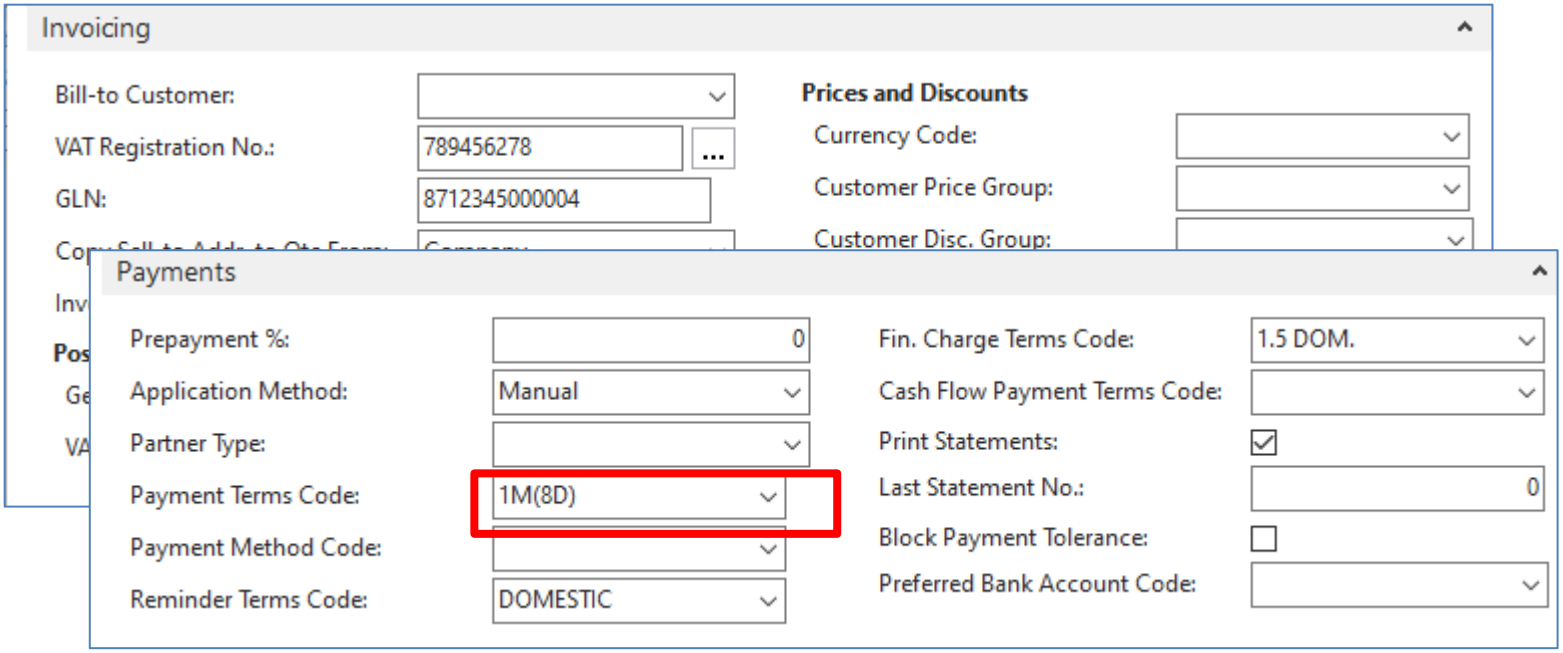
Card and list examples



Click on Edit (in our example Úpravy) to get chosen Customer Cardk



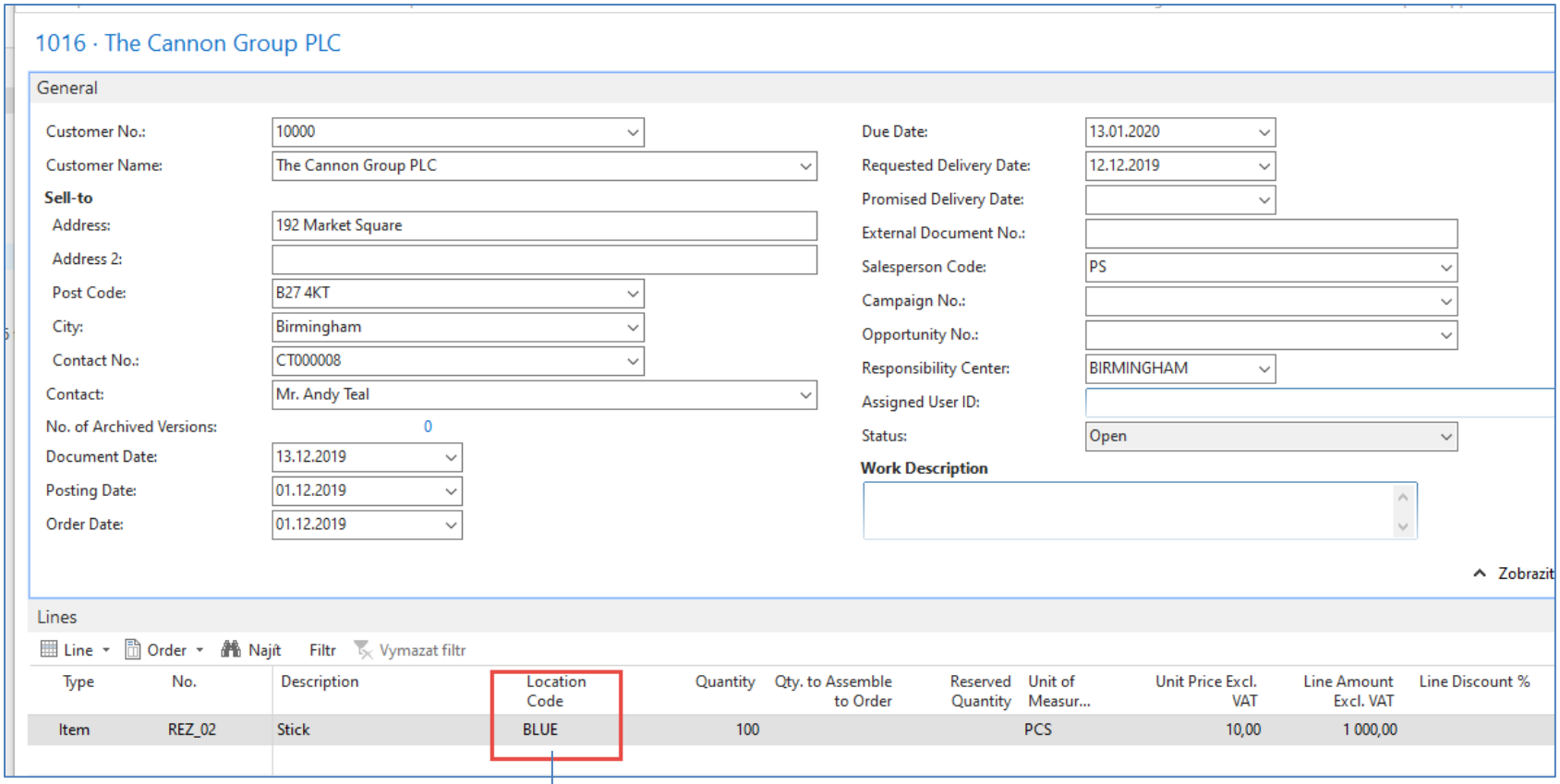
Every card has several Tabs

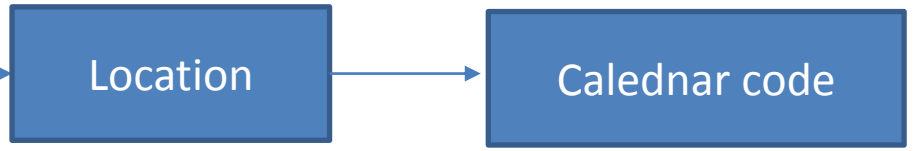


The reason : to see as much as possible fields .

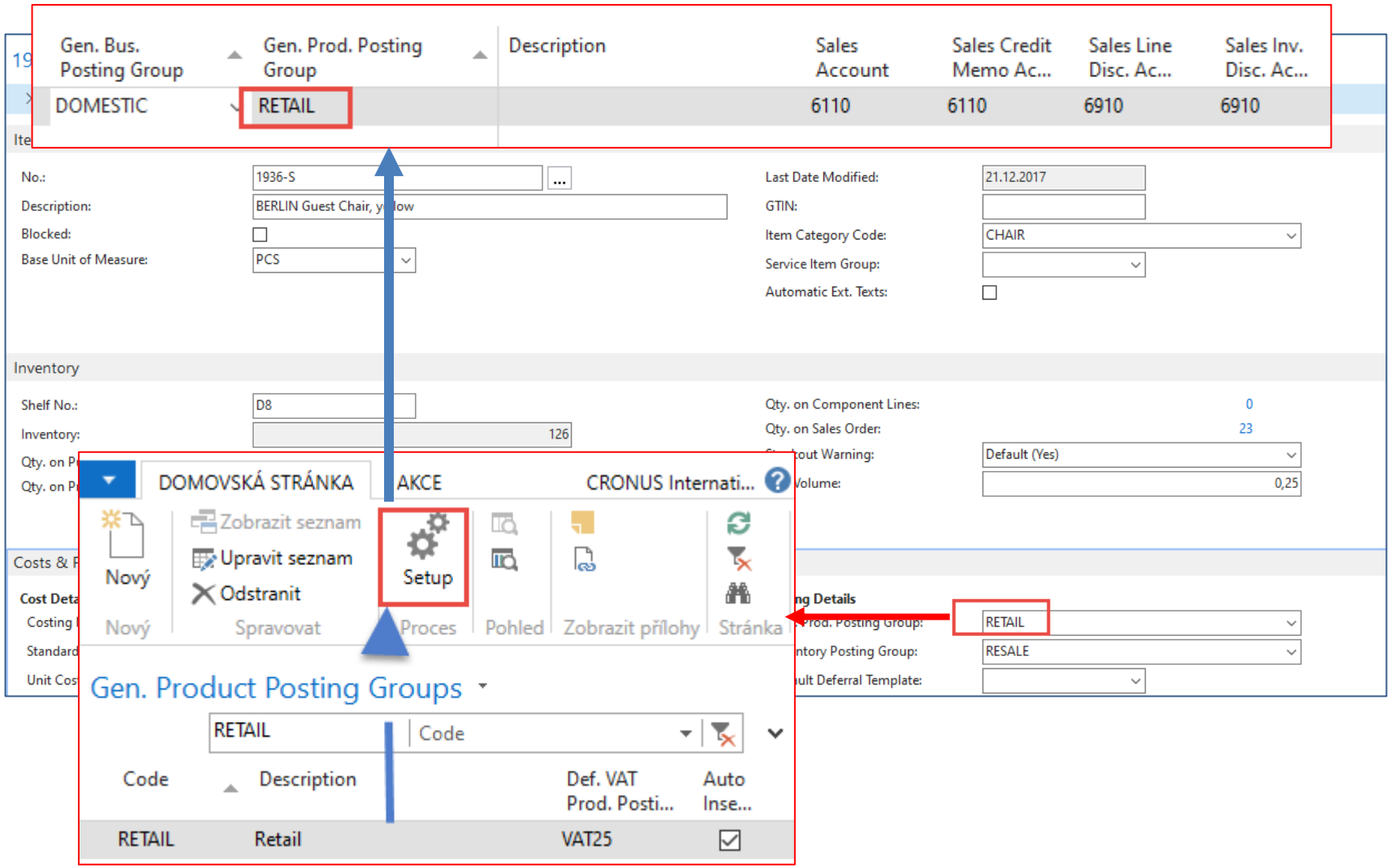
Every tab contains fields, which serve to control subfunctions such a payment, shipment, and so on.

Relations between tables



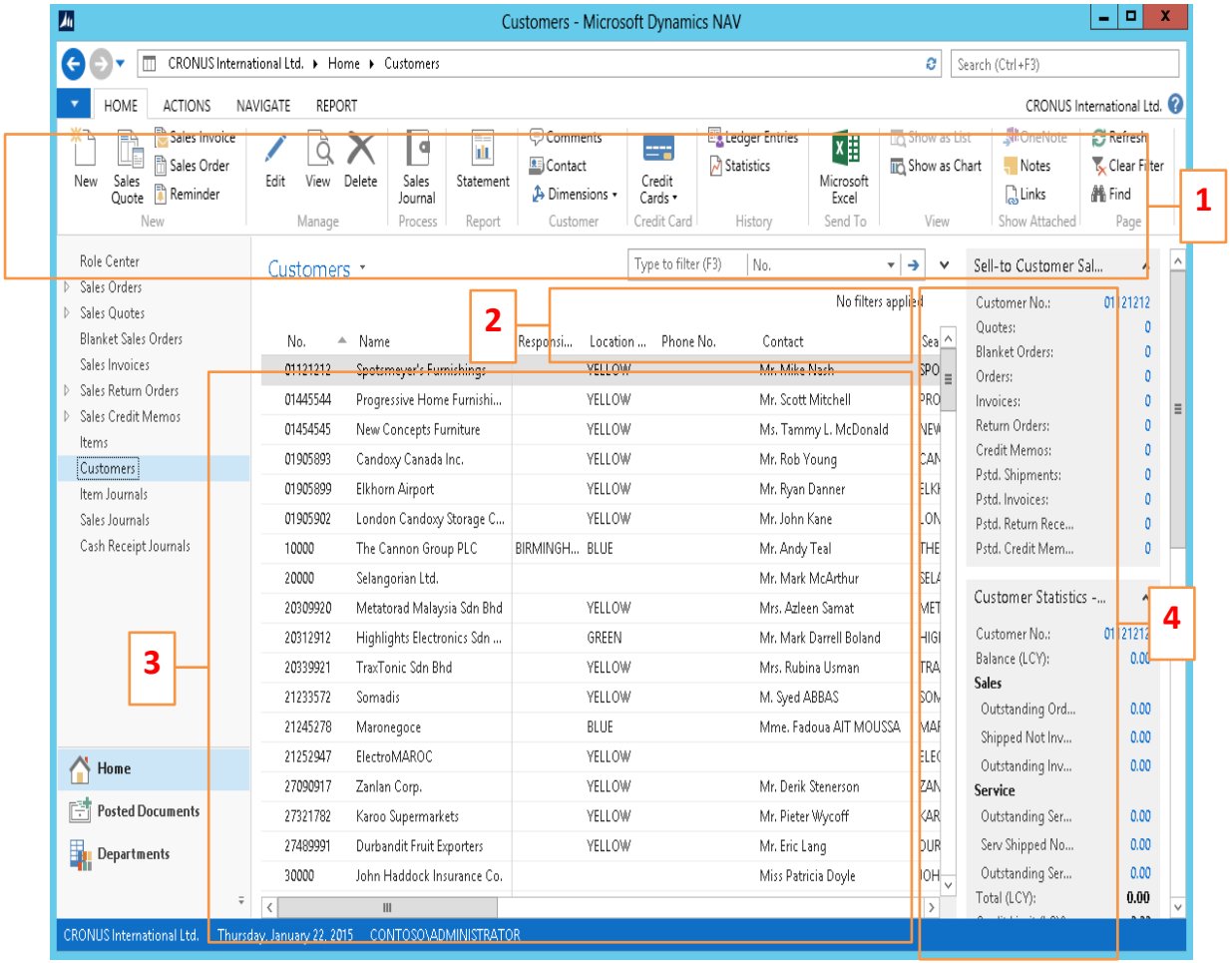


Relations between tables



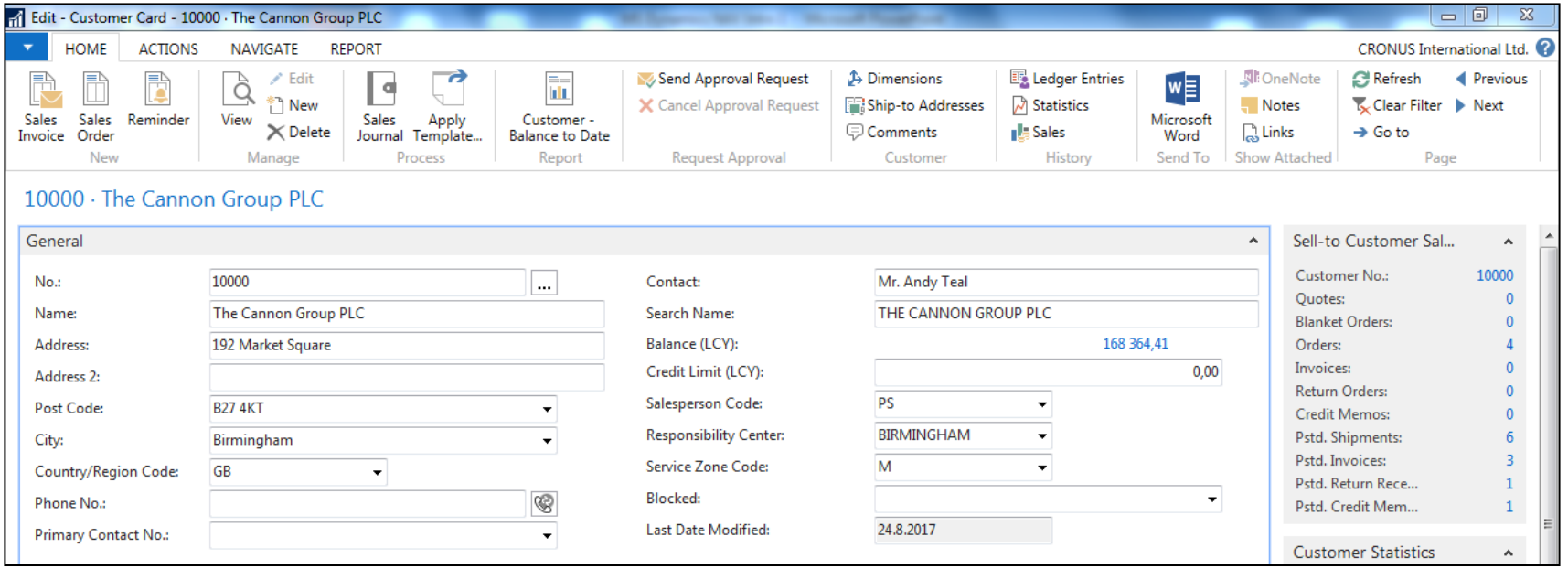
Pages

List Page Windows Client

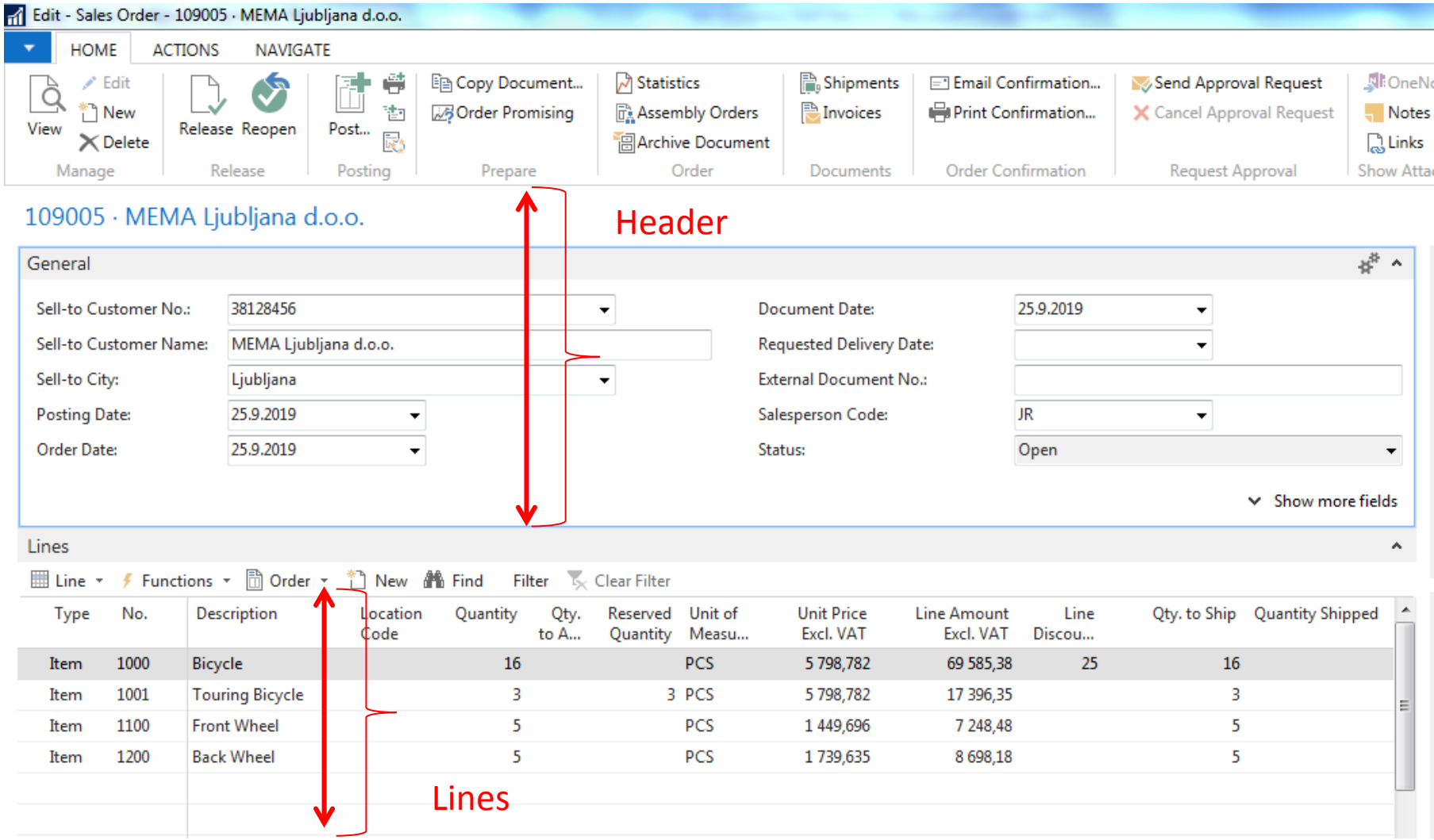


1. Ribbon
2. Filter pane
3. List
4. FactBox pane

Card page – first tab only



Document page



Matrix window (form)

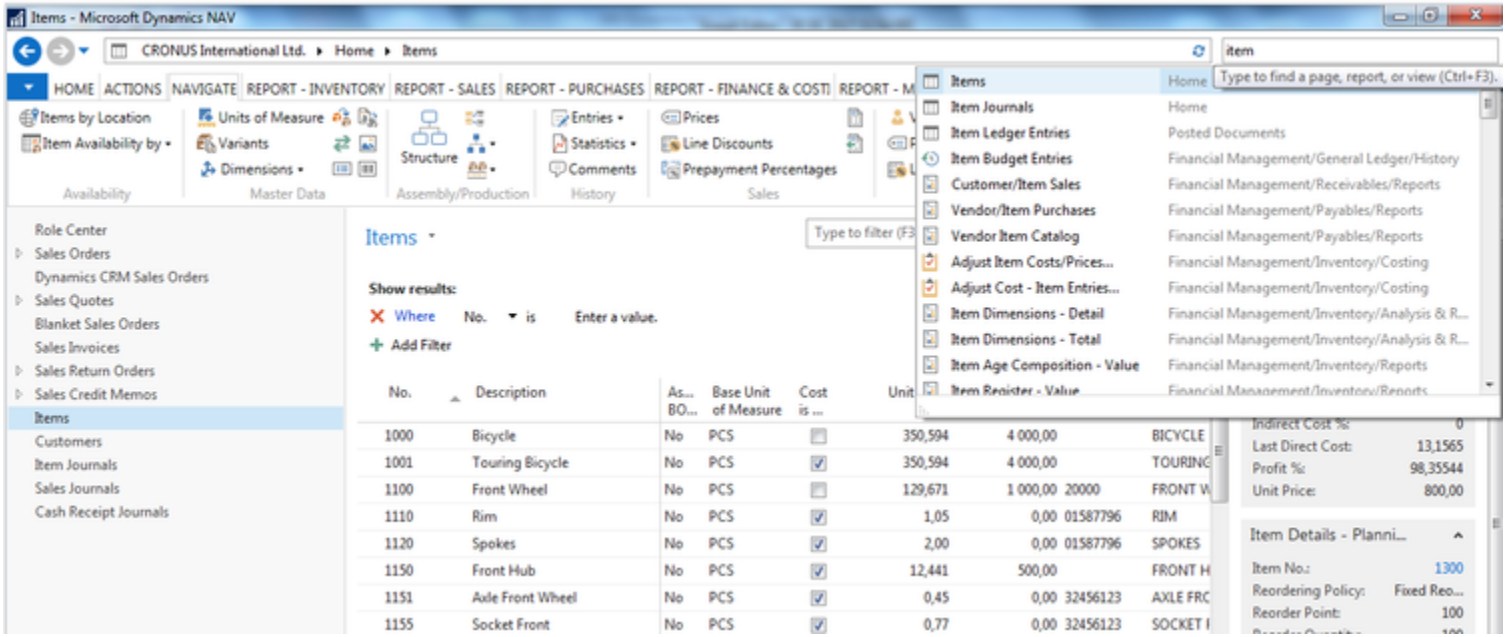
Items by Location Matrix

Stock locations

No.	Description	BLUE	GREEN	RED
1960-S	ROME Guest Chair, green	153		24
1964-S	TOKYO Guest Chair, blue	59	60	29
1964-W	INNSBRUCK Storage Unit/G....	21	27	-2
1968-S	MEXICO Swivel Chair, black	236	14	15
1968-W	GRENOBLE Whiteboard, red		4	4
1972-S	MUNICH Swivel Chair, yellow	37	-1	-4
1972-W	SAPPORO Whiteboard, black	4	2	5
1976-W	INNSBRUCK Storage Unit/W...	3	-2	-106,4752
1980-S	MOSCOW Swivel Chair, red	65	14	21
1984-W	SARAJEVO Whiteboard, blue	3	3	4

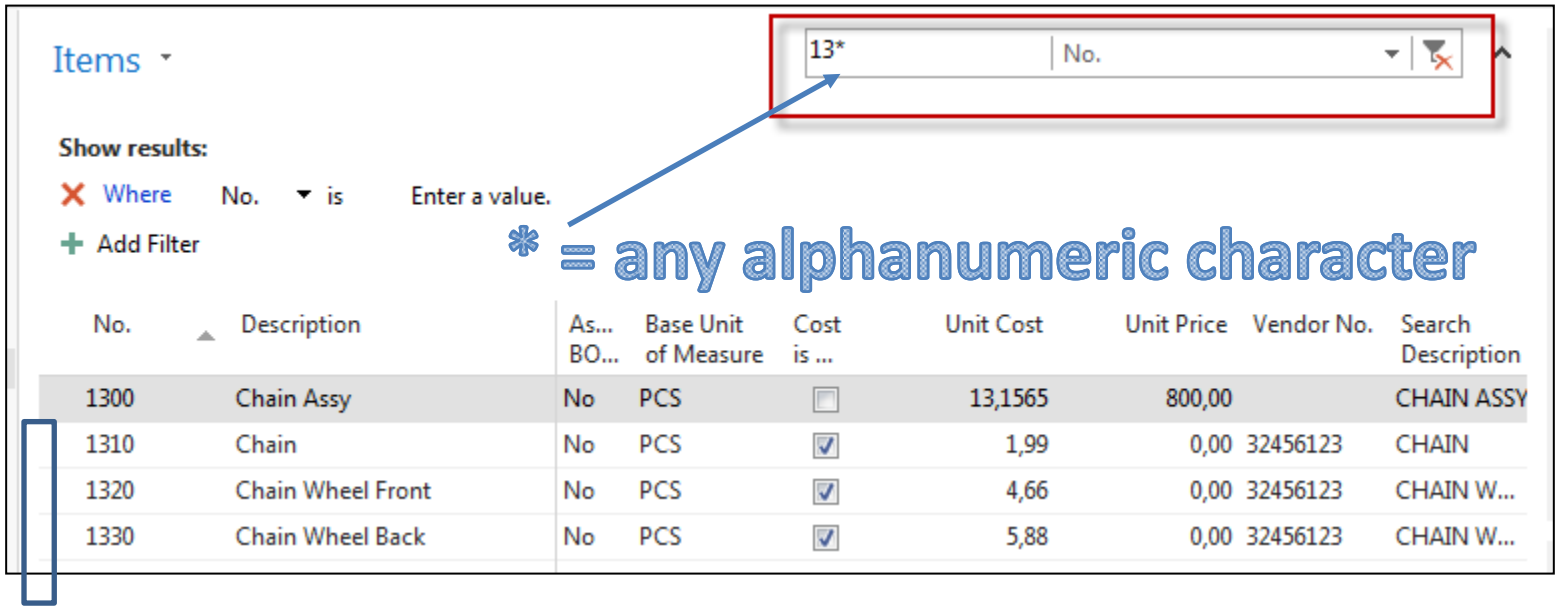
INTRO 10 – Searching window

(„NAV Google search engine“)

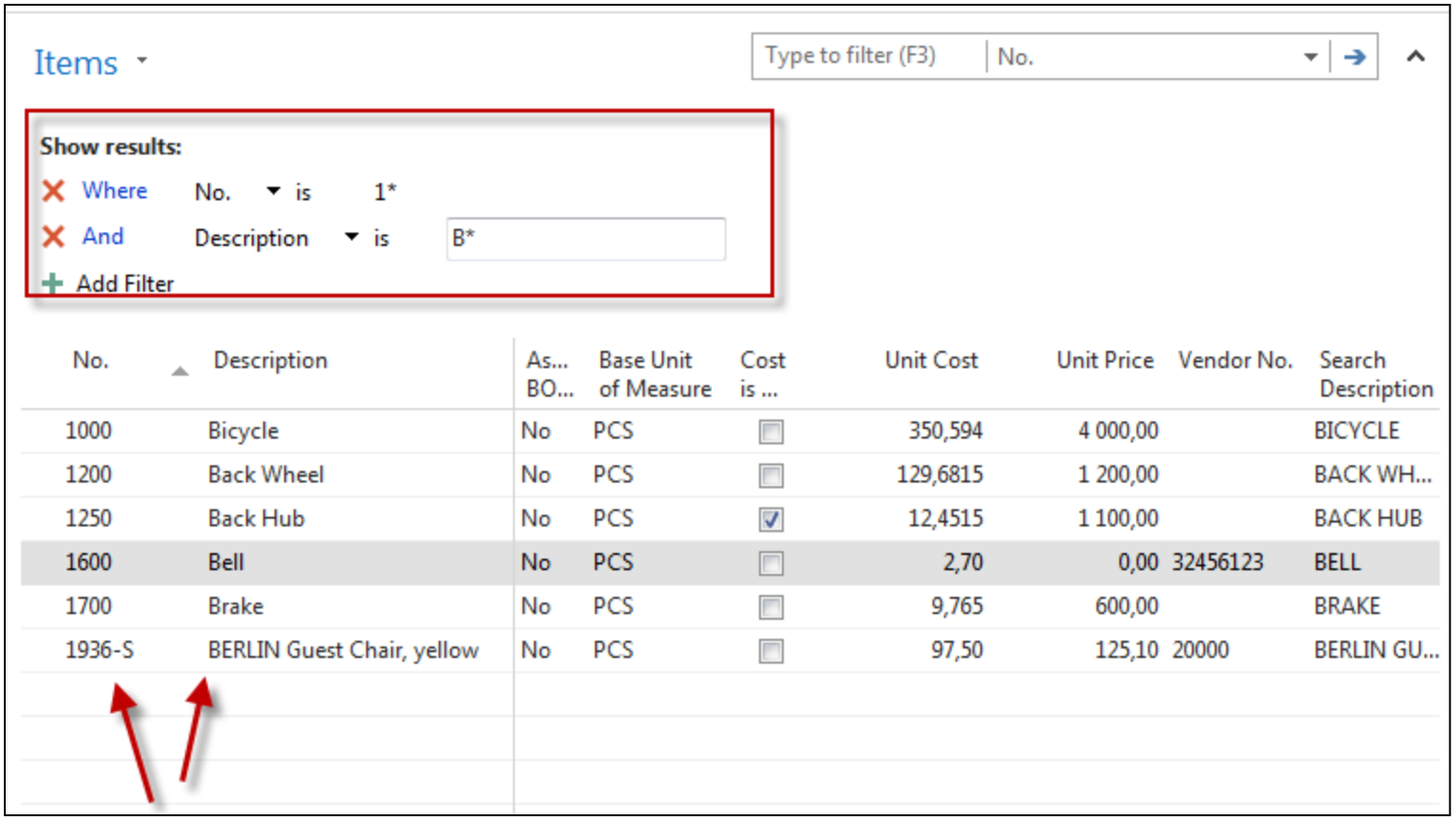


Will be shown by the tutor and examined on demo student databases by them (Find Vendor, Item, Customer, General Ledger Account, Profile and so on)

Simple filter

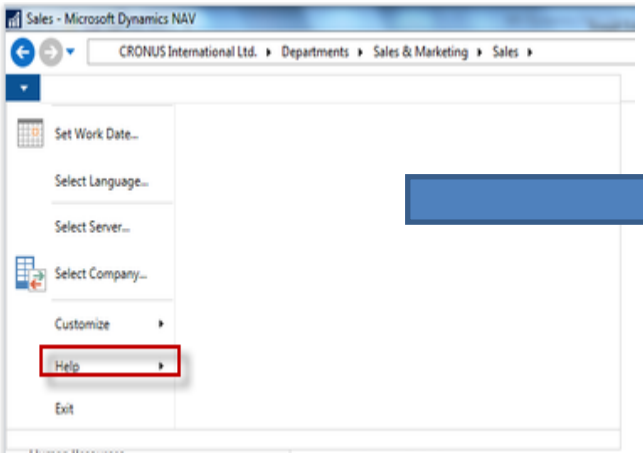


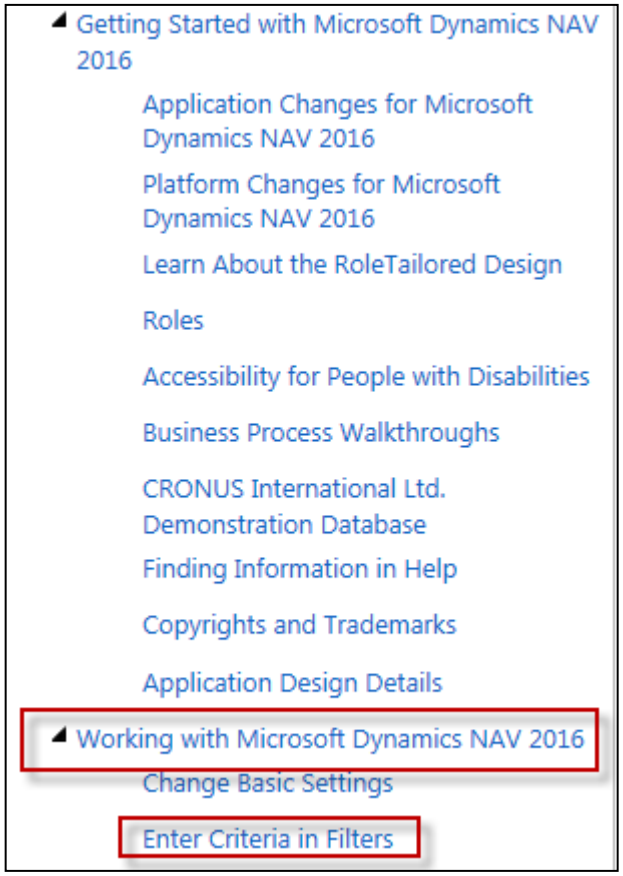
Multiple filter



No.	Description	As... BO...	Base Unit of Measure	Cost is ...	Unit Cost	Unit Price	Vendor No.	Search Description
1000	Bicycle	No	PCS	☐	350,594	4 000,00		BICYCLE
1200	Back Wheel	No	PCS	☐	129,6815	1 200,00		BACK WH...
1250	Back Hub	No	PCS	☑	12,4515	1 100,00		BACK HUB
1600	Bell	No	PCS	☐	2,70	0,00	32456123	BELL
1700	Brake	No	PCS	☐	9,765	600,00		BRAKE
1936-S	BERLIN Guest Chair, yellow	No	PCS	☐	97,50	125,10	20000	BERLIN GU...

Example of using help _filter criteria)





Example of using help _filter criteria)

Sample Expression	Records Displayed
1100..2100	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
22..23	From 22-current month-current year 0:00:00 until 23-current month-current year 23:59:59

(|) Either/or

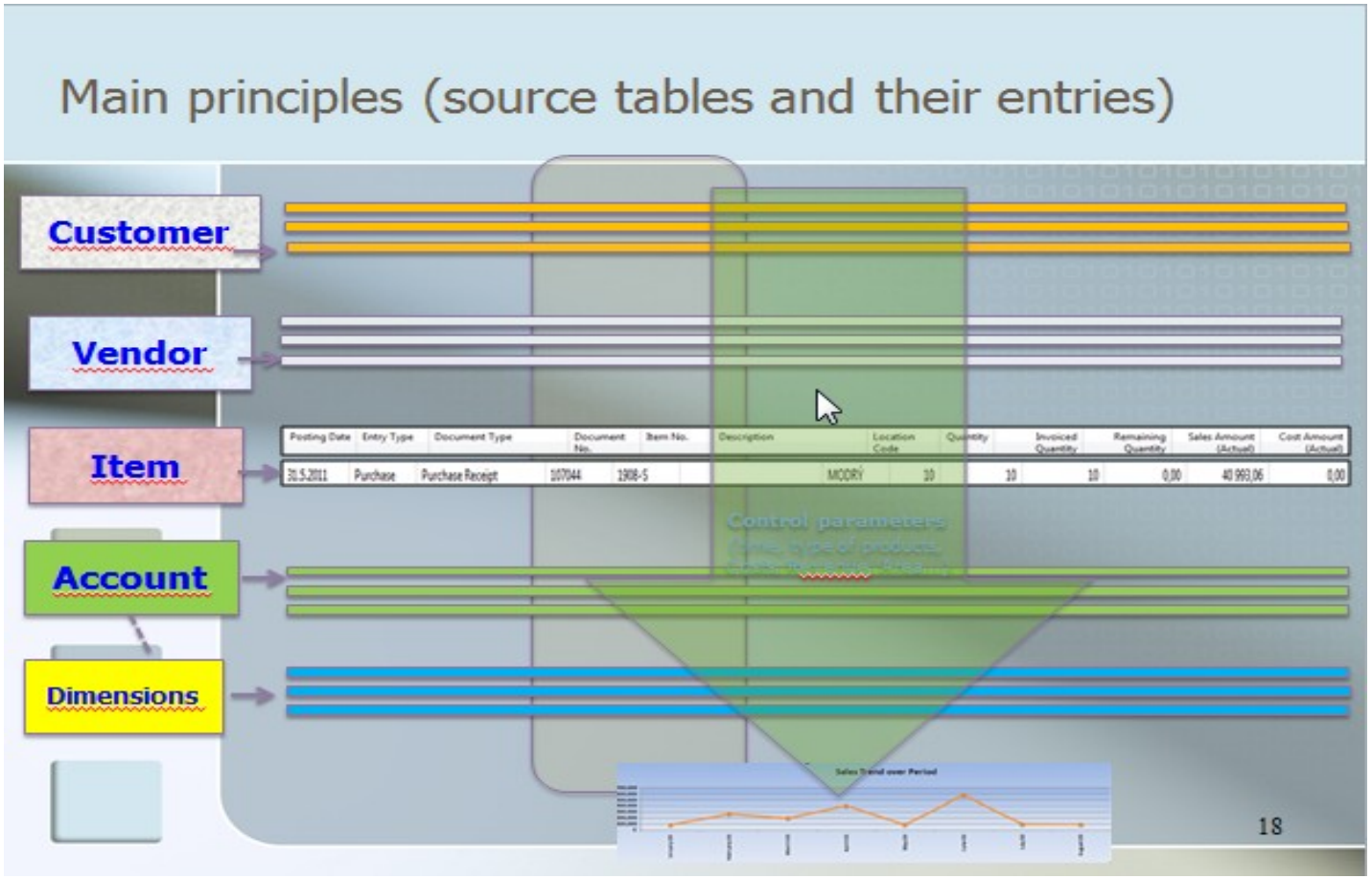
Sample Expression	Records Displayed
1200|1300	Numbers with 1200 or 1300

(<>) Not equal to

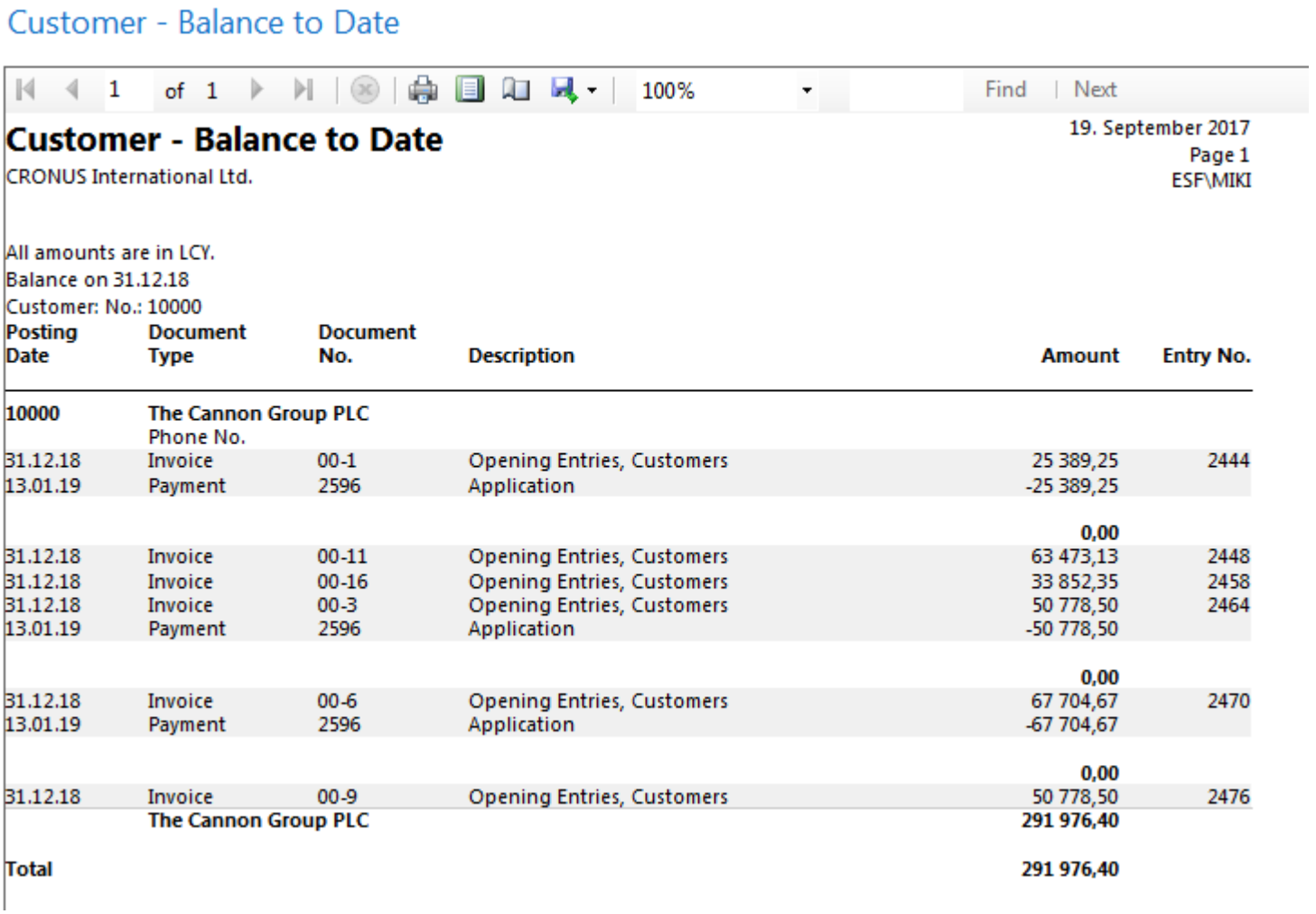
Sample Expression	Records Displayed
<>0	All numbers except 0 The SQL Server Option allows you to combine this symbol with a wild card expression. For example, <>A* meaning not equal to any text that starts with A.

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

Entries and their use



Report – example (data resource - Customer Ledger Entries)



Customer - Balance to Date

1 of 1 100% Find Next

Customer - Balance to Date

19. September 2017
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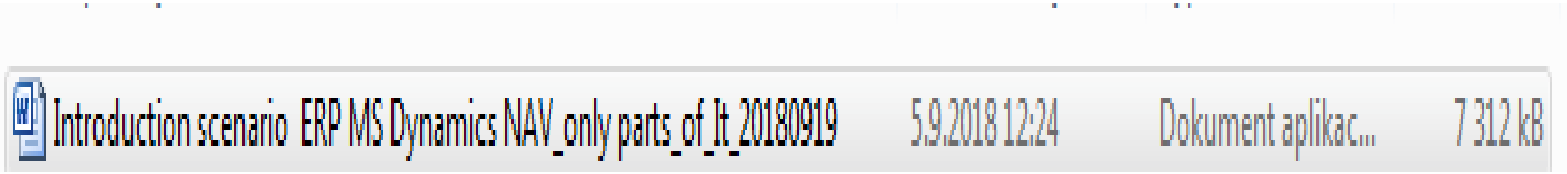
ESF\MIKI

CRONUS International Ltd.

All amounts are in LCY.
Balance on 31.12.18
Customer: No.: 10000

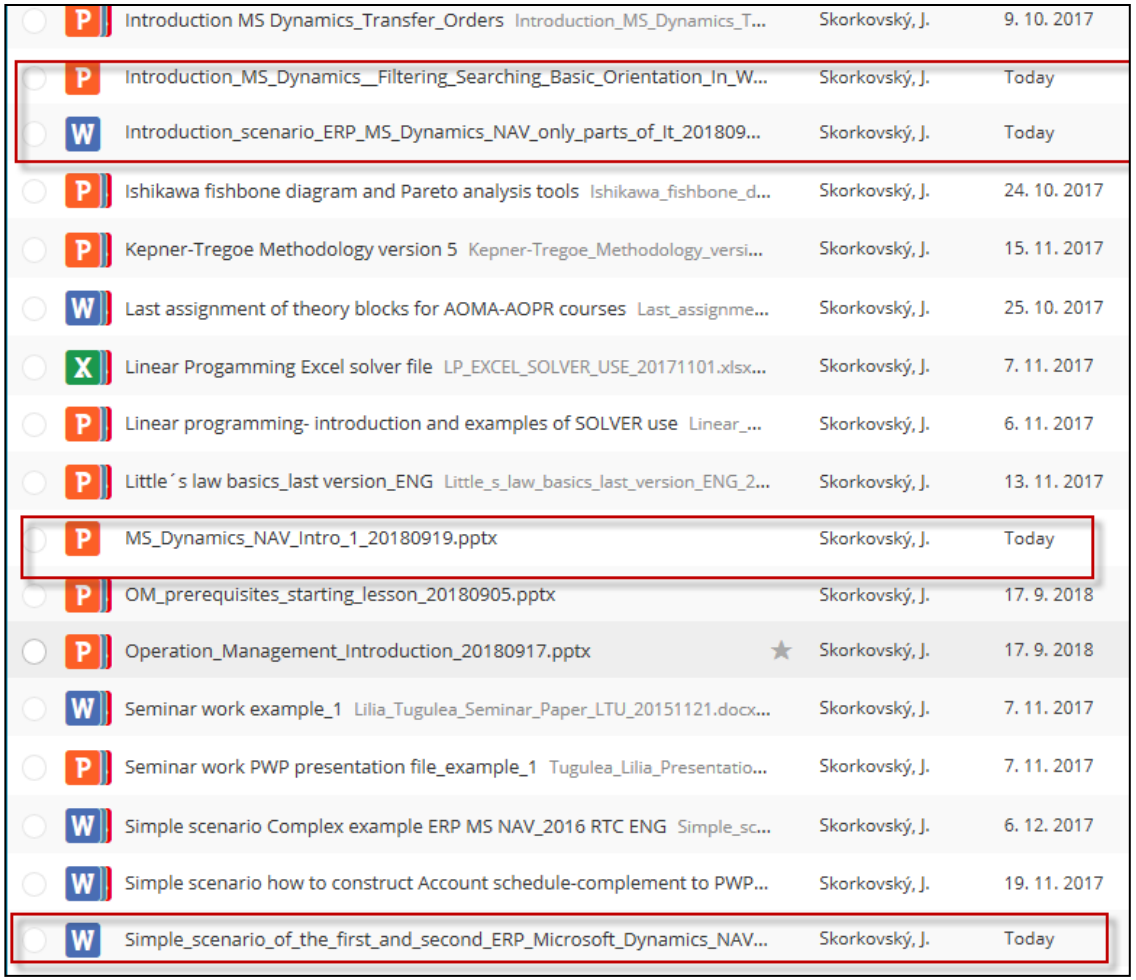
Posting Date	Document Type	Document No.	Description	Amount	Entry No.
10000	**The Cannon Group PLC** Phone No.				
31.12.18	Invoice	00-1	Opening Entries, Customers	25 389,25	2444
13.01.19	Payment	2596	Application	-25 389,25	
				0,00	
31.12.18	Invoice	00-11	Opening Entries, Customers	63 473,13	2448
31.12.18	Invoice	00-16	Opening Entries, Customers	33 852,35	2458
31.12.18	Invoice	00-3	Opening Entries, Customers	50 778,50	2464
13.01.19	Payment	2596	Application	-50 778,50	
				0,00	
31.12.18	Invoice	00-6	Opening Entries, Customers	67 704,67	2470
13.01.19	Payment	2596	Application	-67 704,67	
				0,00	
31.12.18	Invoice	00-9	Opening Entries, Customers	50 778,50	2476
	The Cannon Group PLC			**291 976,40**	
Total				**291 976,40**	

TEXT document related to this PWP show



Only to page 9 !!!

Study material for this (16.9. or 18.9) and probably next session



Introduction MS Dynamics_Transfer_Orders	Introduction_MS_Dynamics_T...	Skorkovský, J.	9. 10. 2017
Introduction_MS_Dynamics__Filtering_Searching_Basic_Orientation_In_W...		Skorkovský, J.	Today
Introduction_scenario_ERP_MS_Dynamics_NAV_only_parts_of_It_201809...		Skorkovský, J.	Today
Ishikawa fishbone diagram and Pareto analysis tools	Ishikawa_fishbone_d...	Skorkovský, J.	24. 10. 2017
Kepner-Tregoe Methodology version 5	Kepner-Tregoe_Methodology_versi...	Skorkovský, J.	15. 11. 2017
Last assignment of theory blocks for AOMA-AOPR courses	Last_assignme...	Skorkovský, J.	25. 10. 2017
Linear Progamming Excel solver file	LP_EXCEL_SOLVER_USE_20171101.xlsx...	Skorkovský, J.	7. 11. 2017
Linear programming- introduction and examples of SOLVER use	Linear_...	Skorkovský, J.	6. 11. 2017
Little´s law basics_last version_ENG	Little_s_law_basics_last_version_ENG_2...	Skorkovský, J.	13. 11. 2017
MS_Dynamics_NAV_Intro_1_20180919.pptx		Skorkovský, J.	Today
OM_prerequisites_starting_lesson_20180905.pptx		Skorkovský, J.	17. 9. 2018
Operation_Management_Introduction_20180917.pptx		Skorkovský, J.	17. 9. 2018
Seminar work example_1	Lilia_Tugulea_Seminar_Paper_LTU_20151121.docx...	Skorkovský, J.	7. 11. 2017
Seminar work PWP presentation file_example_1	Tugulea_Lilia_Presentatio...	Skorkovský, J.	7. 11. 2017
Simple scenario Complex example ERP MS NAV_2016 RTC ENG	Simple_sc...	Skorkovský, J.	6. 12. 2017
Simple scenario how to construct Account schedule-complement to PWP...		Skorkovský, J.	19. 11. 2017
Simple_scenario_of_the_first_and_second_ERP_Microsoft_Dynamics_NAV...		Skorkovský, J.	Today