bi4dynamics
Transforming your data into knowledge

BI4Dynamics NAV White Paper

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This document contains **106** pages.

1 PREFACE

1.1 How to use this document

This document describes BI4Dynamics NAV analytical areas with corresponding measures and dimensions used in a single OLAP cube. This document is presented in two parts:

Part 1 - Analytical Areas or Cubes

- List of dimensions in specific cubes
- List of measures and their explanations in each specific cube

Part 2 - Dimensions

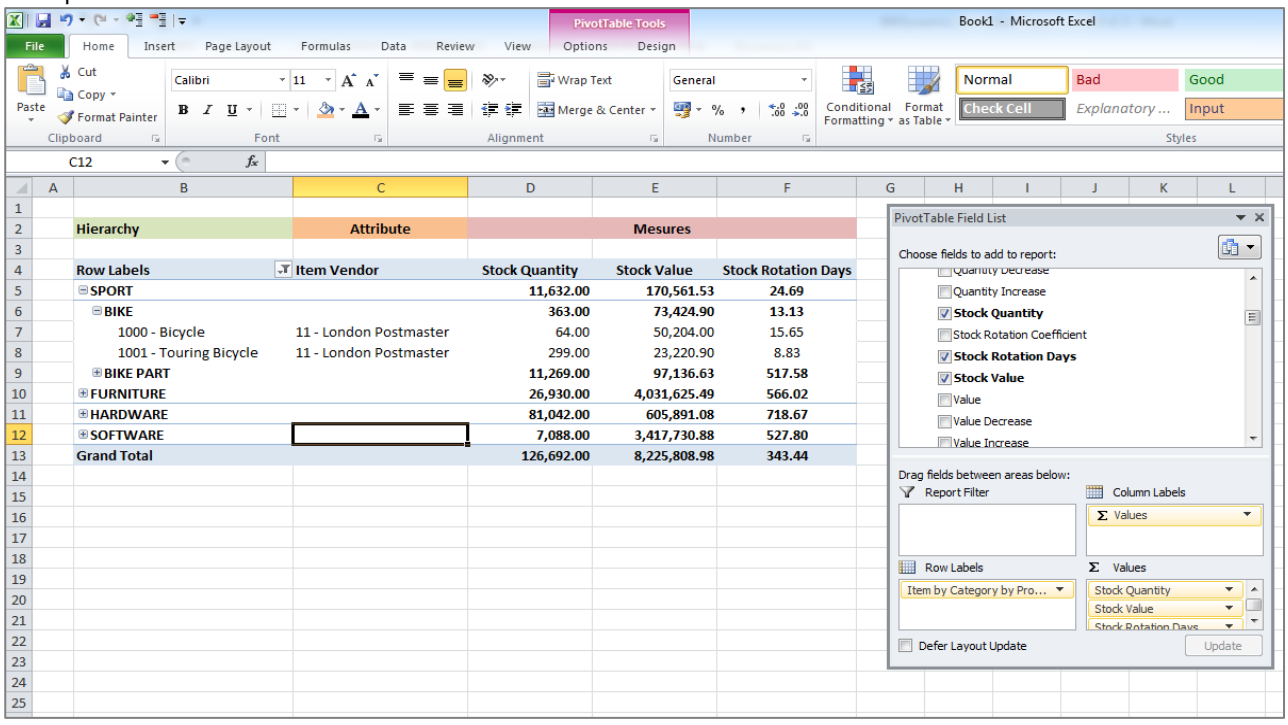
- Details related to the dimensions, attributes and hierarchies; Dimensions are not described in each cube since many dimension (for example Item) are available in more than one cube. Dimensions are unique, meaning that they are the same in each cube.

1.2 Understanding dimensions and cubes

In this chapter, the difference between cubes, dimensions, attributes and hierarchies are presented.

- Every cube is composed of different dimensions and different set of measures.
- Dimension consists of single attributes that are grouped in predefined hierarchy.
- Hierarchies have the possibility to drilldown by levels thus making it easier for the business to quickly analyze the granular data.
- Many attributes are visible and many more are hidden. They can be made visible via the Bi4Dynamics customization wizard or by modification of properties in Microsoft Analysis Server (cube).

Example:



Picture: Item Category Group by measures: Stock Quantity, Stock Value, Stock Rotation Days.

Measures can be viewed over different dimensions and their hierarchies or attributes.

1.3 General features

One Installation, Any Database, Any Company,

BI4Dynamics can join data across any supported version of Microsoft Dynamics NAV database and company within – in one single data warehouse.

Global dimensions

Each measure in a specific OLAP cube can be viewed over multiple companies and over eight global dimensions.

Local currency, additional currency, posting currency

Standard measures are in local currency. BI4Dynamics NAV supports by default one additional currency that is calculated in data warehouse with the information from currency exchange rate data in Microsoft Dynamics NAV. The measures for additional currencies have an ACY suffix. Measures with suffix of PCY have values in original currency posted. Such measures should always be analyzed with dimension Currency to avoid incorrect totals.

One Installation, Any Language

Translations for all languages are available in every cube. Users can set-up local connection string (in Excel) with Locale ID and change the display language in BI client (Excel).

Language	Locale identifier	Connection string
Croatian	1050	Locale identifier=1050
Czech	1029	Locale identifier=1029
Danish	1030	Locale identifier=1030
Dutch - Belgium	2067	Locale identifier=2067
Dutch - Netherlands	1043	Locale identifier=1043
English - United States	1033	Locale identifier=1033
Estonian	1061	Locale identifier=1061
Finnish	1035	Locale identifier=1035
French - France	1036	Locale identifier=1036
German - Germany	1031	Locale identifier=1031
German - Switzerland	2055	Locale identifier=2055
Italian - Italy	1040	Locale identifier=1040
Lithuanian	1063	Locale identifier=1063
Norwegian (Bokmål)	1044	Locale identifier=1044
Polish	1045	Locale identifier=1045
Portuguese - Portugal	2070	Locale identifier=2070
Serbian (Cyrillic)	3098	Locale identifier=3098
Serbian (Latin)	2074	Locale identifier=2074
Slovak	1051	Locale identifier=1051
Slovenian	1060	Locale identifier=1060
Spanish - Spain (Traditional Sort)	1034	Locale identifier=1034
Swedish	1053	Locale identifier=1053

Table of available languages and locale identifiers

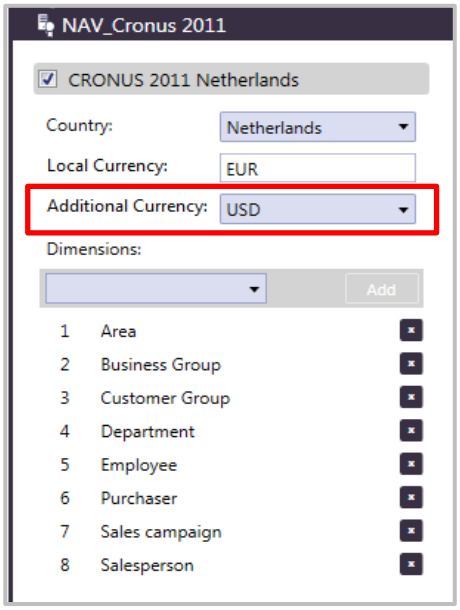
This feature is available on STANDARD version of Microsoft SQL server.

1.4 Documentation of attributes and hierarchies

In some cases this document may not contain all description of dimension attributes and hierarchies. In every such case filed in a Microsoft Dynamics table is added as dimension attribute to BI4Dynmaics (1:1) with the same name therefore relations are self-explaining.

1.5 Documentation for Additional currency

BI4Dynamics offers one Additional Currency that is selected during installation process (Step 4 – Select companies). Any currency can be selected from Currency table and it may not be the same currency as Additional Currency for reporting in NAV.



Calculations

Calculations are based in current exchange rate or last available (same as NAV).

Calculation of values that are transactional (Amount, Debit, Credit) are same as in NAV. Calculations of balances are sum of transactional values and are not same as in NAV when report Adjust Exchange Rates is run in NAV. BI4Dynamics does not support this functionality.

Sample of measures

This is a sample of measure from General Ledger. Measures calculated in Additional Currency are getting appendix (ACY).

Base measures	Calculated measure name	Calculated measure formula
Net change	Net change (ACY)	Amount (LCY) x exchange rate (ACY)
Debit Amount	Debit Amount (ACY)	Debit Amount (LCY) x exchange rate (ACY)
Credit Amount	Credit Amount (ACY)	Credit Amount (LCY) x exchange rate (ACY)

Example GL measure group

This table is showing a section of standard measures and Additional Currency measures (ACY). Additional currency measures (with ACY suffix) are not specifically described in White paper and as they are calculated based on explanation model above.

Measure	Description
Debit	Debit amount. (Financial Management – General Ledger – Chart of accounts – Debit Amount – table G/L Entry)
Credit	Credit amount. (Financial Management – General Ledger – Chart of accounts – Credit Amount – table G/L Entry)
Additional Currency	
Debit ACY	
Credit ACY	

2 ANALYTICAL AREA: BANK ACCOUNT

The Bank Accounts are an important analytical area in larger organizations where Information about transactions and trends across companies are tracked.

2.1 How to use dimensions and measures

Dimension	Bank Account measure group
Bank Account	X
Company	X
Currency	X
Data Source	X
Date	X
Dimension (1-8)	X
Document Bank Account	X
Reason Code	X
Source Code	X

2.2 Dimension

Date

Measure group	Date field in MS Dynamics NAV
Bank Account measure group	Posting Date. (Financial Management – Cash Management – Bank Accounts – Bank Account – Ledger Entries – table BA Ledger Entry)

2.3 Measures

All the following measures are calculated from the Bank Account Ledger Entries (Financial Management – Cash Management – Bank Accounts – Bank Account – Ledger Entries – table BA Ledger Entry)

Name	Description
Average Balance	Average Balance (LCY)
Account Balance	Account Balance (LCY)
Credit	Credit Amount (LCY)
Debit	Debit Amount (LCY)
Initial Balance	Initial Balance (LCY)
Max Balance in Time Span	Maximum Balance in Bank Account (LCY)
Min Balance in Time Span	Minimum Balance in Bank Account (LCY)
Net Change	Amount (LCY)
Additional Currency	
Average Balance ACY	
Account Balance ACY	
Credit ACY	
Debit ACY	
Initial Balance ACY	
Max Balance ACY in Time Span	
Min Balance ACY in Time Span	
Net Change ACY	
Bank Account Currency	

Average Balance - Bank Account Currency	Average balance in Bank Account Currency.
Account Balance - Bank Account Currency	Account Balance in Bank Account Currency.
Credit - Bank Account Currency	Credit Amount
Debit - Bank Account Currency	Debit Amount
Initial Balance - Bank Account Currency	Initial Balance in Bank Account Currency
Max Balance - Bank Account Currency in Time Span	Maximum Balance in Bank Account
Min Balance - Bank Account Currency in Time Span	Minimum Balance in Bank Account
Net Change - Bank Account Currency	Amount

3 ANALYTICAL AREA: FIXED ASSETS

The Fixed Asset module enables you to easily track different fixed assets. You can check their maintenance, posting category, depreciation over multiple companies and global dimensions. In addition you can check the state of fixed assets.

3.1 Extending functionality of MS Dynamics NAV

Main advantage:

- Multiple companies.
- 8 global dimensions.
- Easily check of Fixed Asset state.
- Employees taking care of fixed asset.
- Easily maintenance checks.

3.2 How to use dimensions and measures

In the table below it is shown how to use different dimensions in combination with measures. Possible combinations are indicated with "X". In case of other combinations, results are not correct.

Dimensions	FA count measure group	FA entry measure group	Maintenance ledger measure group
Company	X	X	X
Dimension (1-8)		X	X
Depreciation Book	X	X	
FA Posting Category		X	
FA Posting Date	X	X	X
FA Posting Group		X	
FA Posting Type		X	
Fixed Asset	X	X	X
Maintenance			X
Part of Book Value		X	
Posting Date		X	X
Reason Code		X	X
Source Code		X	X
Measures	FA count, FA count change	Amount, Credit, Debit, FA value	Maintenance

3.3 Dimensions

Date

Date dimension always have the same meaning, but it depends on measure group date in use.

Measure group	Date field in MS Dynamics NAV
FA Count measure group	Disposal Date. (Financial Management – – Fixed Assets – Fixed Assets – Fixed Assets – Depreciation Books – table FA Depreciation Book)
FA Entry measure group	Posting Date. (Financial Management – Fixed Assets – Fixed Assets – Depr. Book – Ledger Entries – Contract Management – Invoices – table FA Ledger Entry)
Maintenance Ledger measure group	Posting Date. (Financial Management – Fixed Assets – Fixed Assets – Depr. Book – Maintenance Ledger Entries – table Maintenance Ledger Entry)

3.4 Measures

FA count measure group

Measure	Description
FA Count	Count of fixed assets.
FA Count Change	Count of changed fixed assets statuses. (Manually made measure on data warehouse level.

FA entry measure group

Measure	Description
Acquisition Cost Amount	Amount where FA Posting Category = ' ' and FA Posting Type = Acquisition Cost
Amount	Amount considering specific fixed asset. (Financial Management – Fixed Assets – Fixed Assets – Fixed Assets – Ledger Entries – table FA Ledger Entry)
Appreciation Amount	Amount where FA Posting Category = ' ' and FA Posting Type = Appreciation
Book Value On Disposal Amount	Amount where Depreciation Book Code = Depreciation Book Code and Part of Book Value = Yes
Credit	Credit Amount, posted depreciation, considering specific fixed asset. (Financial Management – Fixed Assets – Fixed Assets – Fixed Assets – Ledger Entries – table FA Ledger Entry)
Custom1 Amount	Amount where FA Posting Category = ' ' and FA Posting Type = Custom 1
Custom2 Amount	Amount where FA Posting Category = ' ' and FA Posting Type = Custom 2
Debit	Debit Amount, acquiring amount, considering specific fixed asset. (Financial Management – Fixed Assets – Fixed Assets – Fixed Assets – Ledger Entries – table FA Ledger Entry)
Depreciation Amount	Amount where FA Posting Category = ' ' and FA Posting Type = Depreciation
FA Value	Fixed Asset value at the end of selected period. (To – date amount sum.)
Gain Loss Amount	Amount where FA Posting Category = ' ' and FA Posting Type = Gain/Loss
Max FA Value in Time Span	Maximum Fixed Asset value in selected period.

Measure	Description
Min FA Value in Time Span	Minimum Fixed Asset value in selected period.
Proceeds On Disposal Amount	Amount where FA Posting Category = ' ' and FA Posting Type = Proceeds on Disposal
Salvage Value Amount	Amount where FA Posting Category = ' ' and FA Posting Type = Salvage Value
Write Down Amount	Amount where FA Posting Category = ' ' and FA Posting Type = Write Down
Additional Currency	
Amount ACY	
Credit ACY	
Debit ACY	

Maintenance ledger measure group

Measure	Description
Maintenance	Maintenance amount. (Financial Management – Fixed Assets – Fixed Assets – Fixed Assets – Maintenance Ledger Entries – table Maintenance Ledger Entry)
Maintenance ACY	Maintenance Amount x exchange rate (ACY)

4 ANALYTICAL AREA: GENERAL LEDGER

The General Ledger Analysis enables the tracking of all activities regarding General ledger postings and budgeting. Support for multiple companies over chart of accounts with predefined usage of 8 global dimensions, makes GL analysis ideally suitable for organizations that have multiple companies in MS Dynamics NAV.

4.1 Extending functionality of MS Dynamics NAV

Main advantages:

- Budget / realization indexes over multiple dimensions and chart of accounts.
- Drill down the hierarchy of chart of accounts to single posting.

4.2 How to use dimensions and measures

In the table below it is shown how to use different dimensions in combination with measures. Possible combinations are indicated with "X". In case of other combinations, results are not correct.

Dimensions	GL budget measure group	GL measure group
Account Schedule	X	X
Business Unit		X
Closed Period		X
Company	X	X
Customer		X
Date	X	X
Dimension (1-8)	X	X
Document GL	X	X
Fixed Asset		X
General Posting Type		X
General Business Posting Group		X
General Product Posting Group		X
GL Account	X	X
GL Budget	X	
Reason Code		X
Source Code		X
Source GL		X
VAT Business Posting Group		X
VAT Product Posting Group		X
Vendor		X
Measures	Net change, Debit, Credit, Balance, Net change YTD, Net change last YTD, Net change YTD index, VAT Amount	Budget amount, Budget amount YTD, Budget variance, Budget variance YTD, Net change/budget index, Net change/budget YTD index

4.3 Dimension

Date

Date dimension always means the same, but it depends on which cube and measures are checked.

Measure group	Date field in MS Dynamics NAV
GL Measure group	Posting Date. (Financial Management – General Ledger – Chart of accounts – Account – Ledger entries – table G/L Entry)
GL Budget group	Date. (Financial Management – General Ledger – Budgets – table G/L Budget Entry)

4.4 Measures

GL measure group

Measure	Description
Debit	Debit amount. (Financial Management – General Ledger – Chart of accounts – Debit Amount – table G/L Entry)
Credit	Credit amount. (Financial Management – General Ledger – Chart of accounts – Credit Amount – table G/L Entry)
Net Change	Debit – Credit. (Financial Management – General Ledger – Chart of accounts – Net Change – table G/L Entry)
VAT Amount	Debit – Credit. (Financial Management – General Ledger – Chart of accounts – VATAmount – table G/L Entry)
Additional Currency	
Net Change ACY	
Debit ACY	
Credit ACY	

GL Budget measure group

Measure	Description
GL Budget Amount	Budget or planned amount. (Financial Management – General Ledger – Budgets – Budget Amount – table G/L Entry)
GL Budget Amount ACY	

Calculated measures

Measure	Description
Balance	Balance at specific date. (Depends on the value of date dimension; if not specified current day is used)
Opening Balance	Year-To-Date net change in previous time period. (Sum of net change from January to previous time period in specified year.)
Net Change Last	Amount of net change in previous time period.
Net Change/ Budget Index	Net change YTD/Budget Amount
Year - To - Date	
GL Budget Amount YTD	Year-To-Date budget amount. (Sum of budget amount from January to chosen month in specified year.)

GL Budget Variance YTD	Year-To-Date Net change – Budget amount.
Net Change YTD	Year-To-Date net change. (Sum of net change amount from January to chosen month in specified year.)
Net Change/Budget YTD Index	Net change/Budget amount YTD.
Net Change Last YTD	Previous year Year-To-Date net change. (Sum of net change amount from January to chosen month in specified year.)
Net Change YTD Index	Net change YTD/ Net change last YTD.
Net Change Last YTD	Previous year Year-To-Date net change. (Sum of net change amount from January to chosen month in specified year.)
Additional Currency	
Balance ACY	
Opening Balance ACY	
Net Change Last ACY	
GL Budget Variance ACY	
Net Change ACY/Budget ACY Index	
GL Budget Amount ACY YTD	
GL Budget Variance ACY YTD	
Net Change ACY/Budget ACY YTD Index	
Net Change ACY Last YTD	
Net Change ACY YTD	
Net Change ACY YTD Index	

5 ANALYTICAL AREA: INVENTORY

Inventory analysis is always a challenge in any ERP system, because data has to be calculated for every item through all posted item entries. Because of this approach, analysis is very slow and analyzing average inventory value or turnover coefficient over multiple locations and items are almost impossible.

Optimizing inventory is key in any analysis and with this in mind, we created daily snapshots of data in BI4NAV data warehouse to provide business users with very fast and agile analysis of complete inventory through history data.

5.1 Extending functionality of MS Dynamics NAV

Main advantages:

- Very fast analysis over multiple items and warehouse locations.
- Analyzing trends of inventor value/quantity over period of time (years, months, days).
- Advanced measures – avg. stock value, stock rotation coefficients, turnover of stock in days.
- Analyzing groups of items over multiple locations with turnover in days to see quickly which items are longer on stock.
- Decrease / increase analysis over item ledger entry type (purchase, sales, output, transfers, etc.).
- Analyze specific posting through source and reason code.

5.2 How to use dimensions and measures

In the table below it is shown how to use different dimensions in combination with measures. Possible combinations are indicated with "X". In case of other combinations, results are not correct.

Dimensions	Inventory value measure group	Inventory State measure group	Inventory Aging measure group
Company	X	X	X
Date	X	X	X
Dimension (1-8)	X		
Document Inventory	X		
General Business Posting Group	X		
General Product Posting Group	X		
Item	X	X	X
Item Ledger Entry Type	X		
Item Variant	X		
Location	X	X	X
Reason Code	X		
Source Code	X		
Inventory Aging			X
Measures	Average price, Average stock quantity, Average stock value, Quantity, Quantity increase, Quantity decrease, Invoiced quantity,	Value increase, Opening stock value, Opening stock quantity, Stock rotation coefficient, Stock rotation days, Max stock value in time span,	Aging stock quantity, Aging stock value, Aging stock value ACY

	Invoiced quantity increase, Invoiced quantity decrease, Value, Value decrease,	Min stock value in time span, Max stock quantity in time span, Min stock quantity in time span, Stock quantity, Stock value	

5.3 Dimensions

Date

Date dimension always means the same, but it depends on which cube and measures are checked.

Measure group	Date field in MS Dynamics NAV
Inventory Value Measure Group	Posting Date. (Item – Item ledger entries or Value entries)

5.4 Measures

Inventory aging measure group

Group of measures for tracking inventory state in a given time period.

Name	Description
Aging Stock Quantity	Quantity of stock for the last day in selected period.
Aging Stock Value	Value of stock for the last day in selected period.
Aging Stock Value ACY	Value of stock in additional currency for the last day in selected period.

Inventory Aging calculates from 3 NAV tables: Item Application Entry, Item Ledger Entry and Value Entry. If the posted Purchase Receipt writes data into Item Application Entry or Item Ledger Entry, then it becomes a part of Inventory Aging data and is reflected in the cube. However, the correct aging quantity and value is available only when inbound document is invoiced. Most common issues resulting in wrong gaing information are backdating of outbound entry (sales is before purchase) and not invoiced "hanging" document.

Inventory state measure group

Group of measures for tracking inventory state in a given time period.

Name	Description
Stock Value	Sum of value up to specific day in selected period.
Stock Quantity	Sum of quantity up to specific day in selected period.
Stock Value ACY	Sum of quantity up to specific day in selected period in additional currency

Inventory State calculates from fact table Inventory Transactions

Inventory value measure group

Group of measures used for tracking stock in a given time period.

Name	Description
Cost Posted To GL	All movements of inventory Cost amount posted to G/L in specific period. (Cost Amount to G/L from table Value Entry where Item Ledger Entry Type is not empty.)
Cost Posted To GL Expected	All movements of inventory Cost amount posted to G/L + Expected Cost Posted to G/L in specific period. (Cost Amount to G/L + Expected Cost Posted to G/L from table Value Entry where Item Ledger Entry Type is not empty.)
Quantity	All movements of quantity in specific period at the last day of period. (Valued Quantity from table Item Ledger Entry.)
Quantity Increase	All positive movements of quantity.

	(Quantity from table Item Ledger Entry when than zero.)
Quantity Decrease	All negative movements of quantity. (Quantity from table Item Ledger Entry smaller than zero. It is multiplied with "-1" to get positive number.)
Invoiced Quantity	All movements of invoiced quantity in specific period. (Invoiced quantity from table Value Entry where Item Ledger Entry Type is not empty.)
Invoiced Quantity Increase	All positive movements of invoiced quantity. (Invoiced quantity from table Value Entry bigger than zero and where Item Ledger Entry Type is not empty.)
Invoiced Quantity Decrease	All negative movements of invoiced quantity. (Invoiced quantity from table Value Entry lower than zero and where Item Ledger Entry Type is not empty.)
Inventory Cost Amount	All movements of inventory amount in specific period. (Cost Amount from table Value Entry where Item Ledger Entry Type is not empty.)
Inventory Cost Amount Expected	All movements of inventory expected amount in specific period. (Cost Amount Expected and Cost Amount Actual summed from table Value Entry where Item Ledger Entry Type is not empty.)
Inventory Cost Amount Consumption	Measure Value where Item Ledger Type = Consumption
Inventory Cost Amount Consumption ACY	Measure Value in additional currency where Item Ledger Type = Consumption.
Inventory Cost Amount Negative Adjmt	Measure Value where Item Ledger Type = Negative Adjmt
Inventory Cost Amount Negative Adjmt ACY	Measure Value in additional currency where Item Ledger Type = Negative Adjmt.
Inventory Cost Amount Positive Adjmt	Measure Value where Item Ledger Type = Positive Adjmt
Inventory Cost Amount Positive Adjmt ACY	Measure Value in additional currency where Item Ledger Type = Positive Adjmt.
Inventory Cost Amount Output	Measure Value where Item Ledger Type = Output
Inventory Cost Amount Output ACY	Measure Value in additional currency where Item Ledger Type = Output.
Inventory Cost Amount Sale	Measure Value where Item Ledger Type = Sale
Inventory Cost Amount Sale ACY	Measure Value in additional currency where Item Ledger Type = Sale.
Inventory Cost Amount Purchase	Measure Value where Item Ledger Type = Purchase
Inventory Cost Amount Purchase ACY	Measure Value in additional currency where Item Ledger Type = Purchase.
Inventory Cost Amount Transfer	Measure Value where Item Ledger Type = Transfer
Inventory Cost Amount Transfer ACY	Measure Value in additional currency where Item Ledger Type = Transfer.
Inventory Cost Amount decrease	All positive movements of inventory amount. (Cost Amount from table Value Entry bigger than zero and where Item Ledger Entry Type is not empty.)

Inventory Cost Amount increase	All negative movements of inventory amount. (Cost Amount from table Value Entry lower than zero and where Item Ledger Entry Type is not empty. Value is multiplied with "-1" to get positive value.)
Invoiced Quantity Consumption	All movements of invoiced quantity in specific period. Type = Consumption
Invoiced Quantity Negative Adjmt	All movements of invoiced quantity in specific period. Type = Negative Adjmt
Invoiced Quantity Output	All movements of invoiced quantity in specific period. Type = Output
Invoiced Quantity Positive Adjmt	All movements of invoiced quantity in specific period. Type = Positive Adjmt
Invoiced Quantity Purchase	All movements of invoiced quantity in specific period. Type = Purchase
Invoiced Quantity Sale	All movements of invoiced quantity in specific period. Type = Quantity Sale
Invoiced Quantity Transfer	All movements of invoiced quantity in specific period. Type = Transfer
Additional Currency	
Stock Value ACY	
Cost Posted to GL ACY	
Cost Posted to GL Expected ACY	
Inventory Cost Amount Expected ACY	
Inventory Cost Amount ACY	
Inventory Cost Amount decrease ACY	
Inventory Cost Amount increase ACY	

Calculated measures

Name	Description
Average Stock Quantity	Average of stock quantity in selected period.
Average Stock Value	Average of stock value in selected period.
Average Stock Value ACY	Average of stock value in selected period in Additional Currency.
Average Price	Average value of transaction (Inventory Cost Amount]/Quantity)
Avg Price ACY	Average value of transaction in additional currency. (Inventory Cost Amount ACY]/Quantity)
Average Stock Price	Average value of inventory balance (Inventory Cost Amount/Quantity)
Avg Stock Price ACY	Average value of inventory balance in additional currency. (Inventory Cost Amount ACY/Quantity)
Stock Rotation Coefficient	COGS (Cost of goods sold) / Average stock value (if Avg. stock value is smaller than one)
Stock Rotation Coefficient ACY	COGS (Cost of goods sold) / Average stock value in additional currency. (if Avg. stock value ACY is smaller than one)
Stock Rotation (Days)	365/Stock rotation coefficient. (Turnover of stock in year period.)
Opening Stock Value	Stock Value – Value.
Opening Stock Value ACY	Stock Value ACY - Inventory Cost Amount ACY.
Opening Stock Quantity	Stock Quantity – Quantity.

Max Stock Value in Time Span	Max Stock Value in specified period.
Min Stock Value in Time Span	Min Stock Value in specified period.
Max Stock Quantity in Time Span	Max Stock Quantity in specified period.
Min Stock Quantity in Time Span	Min Stock Quantity in specified period.
% of Total Invoiced Quantity	Percent of Invoiced quantity of all transactions - regardless if following filters are active: Date, Document Inventory, Gen Bus Posting Group, Gen Prod Posting Group, Item, Item Ledger Entry Type, Location, Reason Code, Source Code
% of Total Value	Percent of Invoiced cost amount of all transactions - regardless if following filters are active: Date, Document Inventory, Gen Bus Posting Group, Gen Prod Posting Group, Item, Item Ledger Entry Type, Location, Reason Code, Source Code

5.5 Appendix

Stock Rotation – how it works

In following tables is explanation how BI4Dynamics calculates Stock Rotation.

Formula: Stock Rotation = Cost of Sales (COGS) / Average Stock Value

- Left part of table: Excel data from BI4Dynamics Inventory Cube
- Right part of table: how Stock Rotation is being calculated

Row Labels	Inventory Cost Amount Sale	Avg Stock Value	Stock Rotation Coefficient	Stock Rotation Days
2013	291,078	444,915	.65	558
2013 - Jan	104,500	536,629	2.29	159
2013 - Feb	90,877	431,691	2.74	133
2013 - Mar	95,701	375,339	3.00	122
Grand Total	291,078	761,390		

	Inv. Cost Amount Sale / Avg Stock Value	Days in Month	Days in Year	Days in Year / Days in Month	Stock Rotation Coefficient	Stock Rotation Days
	B/C			I/H	G*J	365/K
2013 - Jan	0.195	31	365	11.77	2.29	159
2013 - Feb	0.211	28	365	13.04	2.74	133
2013 - Mar	0.255	31	365	11.77	3.00	122

6 ANALYTICAL AREA: JOBS AND RESOURCES

Powerful analysis of jobs and resource, which can provide the answer related to budgets, costs and profits on different open jobs in just one report. Costs and profit can be viewed per hour on specific items or resources. One of the key advantages is the ability to compare budgets, costs and profit at same time in one report for a specific project.

Jobs and resources distinguish between MS NAV versions. So module "Jobs and Resources" differs for NAV 4.0 and from NAV 5.0 up.

6.1 Extending functionality of MS Dynamics NAV

Main advantages:

- It provides easy cost checking over jobs, items and resources
- it provides easy budget checking over jobs, items and resources
- it provides cost, budget and profit checking per hour on different dimensions
- multiple companies
- 8 Global dimensions to slice with other dimensions

6.2 How to use dimensions and measures

In the table below it is shown how to use different dimensions in combination with measures. Possible combinations are indicated with "X". In case of other combinations, results are not correct.

Dimension	Job measure group	Job Planning measure group	Resource Capacity measure group
Company	X	X	X
Customer	X	X	
Date	X	X	X
Dimension (1-8)	X		X
GL Account	X	X	
Item	X	X	
Job	X	X	
Job Task	X	X	
Resource	X	X	X
Resource Group	X	X	X
Type	X	X	X
Chargeable (4.0)	X		
Phase (4.0)	X	X	
Step (4.0)	X	X	
Task (4.0)	X	X	
Unit of Measure	X		
Work Type (4.0)	X		
Measures (4.0)	Hour consumption, Resource cost, Resource sales expected, Resources sales actual, Item quantity, Item cost, Item sales expected, Item sales actual, GL cost,	Budget hour consumption, Budget resource cost, Budget resource sales, Budget item quantity, Budget item cost, Budget item sales, Budget GL cost, Budget GL sales, Total budget cost,	Capacity, Utilization

	GL sales, Item profit, Item profit%, Resource sales/h, Resource profit, Resource profit%, Resource profit/h, Total cost, Total sales, Total sales/h, Total profit, Total profit%, Total profit/h, Invoice rate, Markup % , WIP	Total budget sales	
Measures (5.0+)	Hour consumption, Resource cost, Resource sales expected, Resources sales actual, Item quantity, Item cost, Item sales expected, Item sales actual, GL cost, GL sales, Item profit, Item profit%, Resource sales/h, Resource profit, Resource profit%, Resource profit/h, Total cost, Total sales, Total sales/h, Total profit, Total profit%, Total profit/h	Total contracted cost, Total contracted sales, Total scheduled cost, Total scheduled sales, Contracted hour consumption, Contracted resource cost, Contracted resource sales, Scheduled hour consumption, Scheduled resource cost, Scheduled resource sales, Contracted item cost, Contracted item quantity, Contracted item sales, Scheduled item cost, Scheduled item quantity, Scheduled item sales, Contracted GL cost, Contracted GL sales, Scheduled GL cost, Scheduled GL sales	Capacity, Utilization

6.3 Dimensions

Date

Date dimension is used to observe costs, budgets and profits over time and to filter data on a specific date interval.

Measure group	Date field in MS Dynamics NAV
Job measure group	Posting Date. (Resource Planning – Jobs – Jobs –Job – table Ledger Entry)
Job Planning measure group	Date (NAV 4.0)/Planning Date. (Resource Planning – Jobs – Jobs –Planning – table Job Budget Entry (NAV 4.0)/table Job Planning Line)

Resource Capacity group	Date. (Resources – Planning – Resource Capacity – table Resource Capacity Entry)

6.4 Measures

Measures are divided into three different groups. Part of measures are as they are in MS Dynamics Navision database, part of them are calculated in the cube.

Job measure group

Non calculated measures in job measure group are same for data source NAV 4.0 and NAV 5.0 up.

Measure	Description
Hour Consumption	Resource hour consumption. (Quantity from Job Ledger Entry table when entry type is usage and type resource.)
Resource Cost	Resource cost. (Total Cost from Job Ledger Entry table when entry type is usage and type resource.)
Resource Sales Expected	Resource expected sales. (Total Price from Job Ledger Entry when entry type is usage and type resource.)
Resource Sales Actual	Resource sales. (Total Price from Job Ledger Entry when entry type is sales and type resource. Total Price is multiplied with minus one.)
Item Quantity	Item quantity used. (Quantity from Job Ledger Entry table when entry type is usage and type item.)
Item Cost	Item cots used. (Total Cost from Job Ledger Entry table when entry type is usage and type item.)
Item Sales Expected	Item sales expected. (Total Price from Job Ledger Entry when entry type is usage and type item.)
Item Sales Actual	Item sales. (Total Price from Job Ledger Entry when entry type is sales and type item. Total Price is multiplied with minus one.)
Item Net Sales Actual	Item Gross Sales Actual - Item Discount
Resource Net Sales Actual	Resource Gross Sales Actual - Resource Discount
GL Cost	Cost posted directly to GL. (Total Cost from Job Ledger Entry table when entry type is usage and type G/L Account.)
GL Sales	Sales posted directly to GL. (Total Price from Job Ledger Entry when entry type is sales and type G/L Account. Total Price is multiplied with minus one.)
GL Discount	Discount posted directly to GL. (Total discount from Job Ledger Entry table when entry type is usage and type G/L Account.)
GL Sales Expected	Sales posted directly to GL. (Total Price from Job Ledger Entry when entry type is usage and type G/L Account.)
Item Discount	Item Discount. (Total Discount from Job Ledger Entry table when entry type is usage and type Item.)
Resource Discount	Resource Discount. (Total Discount from Job Ledger Entry table when entry type is usage and type resource.)

Job planning measure group

Data Source NAV 4.0.

Measure	Description
Budget Hour Consumption	Resource budgeted hour consumption. (Quantity from Job Budget Entry table when Type is Resource or Group (Resource).)
Budget Resource Cost	Resource budgeted cost. (Total Cost from Job Budget Entry table when Type is Resource or Group (Resource).)
Budget Resource Sales	Resource budgeted sales. (Total Price from Job Budget Entry table when Type is Resource or Group (Resource).)
Budget Item Quantity	Budgeted item quantity on some job. (Quantity from Job Budget Entry table when Type is Item.)
Budget Item Cost	Scheduled item cost. (Total Cost from Job Budget Entry table when Type is Item.)
Budget Item Sales	Budgeted item sales. (Total Price from Job Budget Entry table when Type is Item.)
Budget GL Cost	Budgeted GL cost. (Total Cost from Job Budget Entry table when Type is G/L Account.)
Budget GL Sales	Budgeted GL sales. (Total Price from Job Budget Entry table when Type is G/L Account.)

Data Source NAV 5.0 up.

Measure	Description
Scheduled Hour Consumption	Resource scheduled hour consumption. (Quantity from Job Planning table when Line Type is schedule and Type is Resource.)
Contracted Hour Consumption	Resource contracted hour consumption. (Quantity from Job Planning table when Line Type is contract and Type is Resource)
Scheduled Resource Cost	Resource scheduled cost. (Total Cost LCY (Total Cost in NAV 4.0) from Job Planning table when Line Type is schedule and Type is Resource.)
Contracted Resource Cost	Resource contracted cost. (Total Cost LCY (Total Cost in NAV 4.0) from Job Planning table when Line Type is contract and Type is Resource.)
Scheduled Resource Sales	Resource scheduled sales. (Total Price LCY (Total Price in NAV 4.0) from Job Planning table when Line Type is schedule and Type is Resource.)
Contracted Resource Sales	Resource contracted sales. (Total Price LCY (Total Price in NAV 4.0) from Job Planning table when Line Type is contract and Type is Resource. Line is multiplied wit minus to get positive value.)
Scheduled Item Quantity	Scheduled item quantity on some job. (Quantity from Job Planning table when Line Type is schedule and Type is Item.)
Contracted Item Quantity	Item budget quantity. (Quantity from Job Planning table when Line Type is contract and Type is Item.)
Scheduled Item Cost	Scheduled item cost. (Total Cost LCY (Total Cost in NAV 4.0) from Job Planning table when Line Type is schedule and Type is Item.)
Contracted Item Cost	Contracted item cost.

	(Total Cost LCY (Total Cost in NAV 4.0) from Job Planning table when Line Type is contract and Type is Item.)
Scheduled Item Sales	Scheduled item sales. (Total Price LCY (Total Price in NAV 4.0) from Job Planning table when Line Type is schedule and Type is Item.)
Contracted Item Sales	Contracted item sales. (Total Price LCY (Total Price in NAV 4.0) from Job Planning table when Line Type is contract and Type is Item. Line is multiplied with minus to get positive value.)
Contracted Item Discount	Contracted Item Discount. (Total Discount from Job Planning table when Line Type is contract and Type is Item.)
Scheduled Item Discount	Scheduled Item Discount. (Total Discount from Job Planning table when Line Type is schedule and Type is Item.)
Contracted Item Net Sales	Contracted Item Net Sales. (Total Net Sales from Job Planning table when Line Type is contract and Type is Item.)
Scheduled Item Net Sales	Scheduled Item Net Sales. (Total Net Sales from Job Planning table when Line Type is schedule and Type is Item.)
Contracted Resource Net Sales	Contracted Resource Net Sales. (Total Net Sales from Job Planning table when Line Type is contract and Type is Resource.)
Scheduled Resource Net Sales	Scheduled Resource Net Sales. (Total Net Sales from Job Planning table when Line Type is scheduled and Type is Resource.)
Contracted Resource Discount	Contracted Resource Discount. (Total Discount from Job Planning table when Line Type is contract and Type is Resource.)
Scheduled Resource Discount	Scheduled Resource Discount. (Total Discount from Job Planning table when Line Type is schedule and Type is Resource.)
Contracted Resource Profit	Contracted Resource Profit. (Total Profit from Job Planning table when Line Type is contracted and Type is Resource.)
Scheduled GL Cost	Scheduled GL cost. (Total Cost LCY (Total Cost in NAV 4.0) from Job Planning table when Line Type is schedule and Type is G/L Account.)
Contracted GL Cost	Contracted GL cost. (Total Cost LCY (Total Cost in NAV 4.0) from Job Planning table when Line Type is contract and Type is G/L Account.)
Scheduled GL Sales	Scheduled GL sales. (Total Price LCY (Total Price in NAV 4.0) from Job Planning table when Line Type is schedule and Type is G/L Account.)
Contracted GL Sales	Contracted GL sales. (Total Price LCY (Total Price in NAV 4.0) from Job Planning table when Line Type is contract and Type is G/L Account.)
Scheduled GL Discount	Scheduled GL Discount. (Total Discount from Job Planning table when Line Type is schedule and Type is GL.)
Contracted GL Discount	Contracted GL Discount. (Total Discount from Job Planning table when Line Type is contract and Type is GL.)
Contracted GL Net Sales	Contracted GL Net Sales.

	(Total Net Sales from Job Planning table when Line Type is contract and Type is GL.)
Scheduled GL Net Sales	Scheduled GL Net Sales. (Total Net Sales from Job Planning table when Line Type is schedule and Type is GL.)
Contracted GL Profit	Contracted GL Profit. (Total Profit from Job Planning table when Line Type is contracted and Type is GL.)
Contracted Item Profit	Contracted Item Profit. (Total Profit from Job Planning table when Line Type is contracted and Type is Item.)

Resource capacity measure group

Measure	Description
Capacity	Resource capacity. (Capacity from table Res. Capacity Entry table.)

Calculated measures

Data Source NAV 4.0.

Measure	Description
Item Profit	Item sales actual – Item cost.
Item Profit %	Item profit/Item sales actual.
Resource Sales/H	Resources sales actual/Hour consumption.
Resource Profit	Resource sales actual – Resource cost.
Resource Profit %	Resource profit/Resource sales actual.
Resource Profit/H	Resource profit/Hour consumption.
Total Cost	GL cost + Item cost + Resource cost.
Total Sales	GL sales + Item sales actual + Resource sales actual.
Total Sales/H	Total sales/Hour consumption.
Total Profit	Total sales – Total cost.
Total Profit %	Total profit/Total sales.
Total Profit/H	Total profit/Hour consumption.
Invoice Rate	Hour consumption (when charged)/Hour consumption.
Markup %	Total sales (when charged)/Total cost – 1.
WIP	Remaining amount.
Utilization	Hour consumption/Capacity.
Total Budget Cost	Budget item cost + Budget resource cost.
Total Budget Sales	Budget item sales + Budget resource sales.

Data Source NAV 5.0.

Measure	Description
GL Net Sales	GL Gross Sales - GL Discount
GL Net Sales Expected	GL Sales Expected – GL Discount
GL Profit	GL Net Sales - GL Cost
GL Profit %	IIF(ISEMPTY(GL Net Sales) OR GL Net Sales = 0, NULL, GL Profit / GL Net Sales)

Measure	Description
Item Profit	Item sales actual – Item cost.
Item Profit %	Item profit/Item sales actual.
Item Profit Expected	Item Sales Expected – Item Cost.
Item Profit Expected %	Item Profit Expected / Item Sales Expected.
Item Net Sales Expected	Item Sales Expected – Item Discount.
GL Profit Expected	GL Sales Expected – GL Cost.
GL Profit Expected %	GL Profit Expected / GL Sales Expected.
Resource Profit	Resource sales actual – Resource cost.
Resource Profit %	Resource profit/Resource sales actual.
Resource Profit Expected	Resource Sales Expected – Resource Cost.
Resource Profit Expected %	Resource Profit Expected / Resource Sales Expected.
Resource Profit Expected/H	Resource Profit Expected / Hour consumption.
Resource Profit/H	Resource profit/Hour consumption.
Total Cost	GL cost + Item cost + Resource cost.
Total Sales	GL sales + Item sales actual + Resource sales actual.
Total Sales Expected	GL Sales Expected + Item Sales Expected + Resource Sales Expected
Total Sales/H	Total sales/Hour consumption.
Total Sales Expected/H	Total Sales Expected / Hour consumption.
Total Profit	Total sales – Total cost.
Total Profit %	Total profit/Total sales.
Total Profit/H	Total profit/Hour consumption.
Total Profit Expected	Total Sales Expected – Total Cost.
Total Profit Expected %	Total Profit Expected / Total Sales Expected.
Total Profit Expected/H	Total Profit Expected / Hour Consumption.
Scheduled GL Profit	Scheduled GL Net Sales - Scheduled GL Cost
Scheduled Item Profit	Scheduled Item Net Sales - Scheduled Item Cost
Scheduled Resource Profit	Scheduled Resource Net Sales - Scheduled Resource Cost
Total Contracted Cost	Contracted GL cost + Contracted item cost + Contracted resource cost.
Total Contracted Sales	Contracted GL sales + Contracted item sales + Contracted resource sales.
Total Scheduled Cost	Scheduled GL cost + Scheduled item cost + scheduled resource cost.
Total Contracted Profit	Total Contracted Net Sales – Total Contracted Cost.
Total Scheduled Profit	Total Scheduled Net Sales – Total Scheduled Cost.
Total Discount	Item Discount + Resource Discount + GL Discount.
Total Scheduled Discount	Scheduled GL Discount + Scheduled Item Discount + Scheduled Resource Discount.
Total Contracted Discount	Contracted GL Discount + Contracted Item Discount + Contracted Resource Discount.
Total Gross Sales	GL Gross Sales + Item Gross Sales Actual + Resource Gross Sales Actual.
Total Scheduled Gross Sales	Scheduled GL Gross Sales + Scheduled Item Gross Sales + Scheduled Resource Gross Sales.
Total Contracted Gross Sales	Contracted GL Gross Sales + Contracted Item Gross Sales + Contracted Resource Gross Sales.
Total Net Sales	GL Net Sales + Item Net Sales Actual + Resource Net Sales Actual.
Total Scheduled Net Sales	Scheduled GL Net Sales + Scheduled Item Net Sales + Scheduled Resource Net Sales.

Total Contracted Net Sales	Contracted GL Net Sales + Contracted Item Net Sales + Contracted Resource Net Sales.
% Complete Hour Consumption	Hour Consumption / Contracted Hour Consumption.
% Complete Item Quantity	Item Quantity / Contracted Item Quantity.
% Complete GL Cost	GL Cost / Contracted GL Cost.
% Complete Item Cost	Item Cost / Contracted Item Cost.
% Complete Resource Cost	Resource Cost / Contracted Resource Cost.
% Complete Total Cost	Total Cost / Total Contracted Cost.
% Complete GL Profit	GL Profit / Contracted GL Profit.
% Complete Item Profit	Item Profit Actual / Contracted Item Profit.
% Complete Resource Profit	Resource Profit / Contracted Resource Profit.
% Complete Total Profit	Total Profit / Total Contracted Profit.
% Contracted Hour Consumption	Contracted Hour Consumption / Scheduled Hour Consumption.
% Contracted Item Quantity	Contracted Item Quantity / Scheduled Item Quantity.
% Contracted GL Cost	Contracted GL Cost / Scheduled GL Cost.
% Contracted Item Cost	Contracted Item Cost / Scheduled Item Cost.
% Contracted Resource Cost	Contracted Resource Cost / Scheduled Resource Cost.
% Contracted Total Cost	Total Contracted Cost / Total Scheduled Cost.
% Complete GL Net Sales	GL Net Sales / Contracted GL Sales.
% Complete Item Net Sales	Item Net Sales Actual / Contracted Item Net Sales.
% Complete Resource Net Sales	Resource Net Sales Actual / Contracted Resource Net Sales.
% Complete Total Net Sales	Total Net Sales / Total Contracted Net Sales.
% Contracted GL Net Sales	Contracted GL Net Sales / Contracted GL Net Sales.
% Contracted Item Net Sales	Contracted Item Net Sales / Scheduled Item Net Sales.
% Contracted Resource Net Sales	Contracted Resource Net Sales / Scheduled Resource Net Sales.
Utilization	Hour consumption/Capacity.

7 ANALYTICAL AREA: MANUFACTURING

The Manufacturing module enables the tracking of all activities related to the production of different products. It is easy to check expected and actual consumption and output costs with quantities. In case of differences between consumption and output can be checked by run, scrap and stop time over dates, orders, scraps and stops reason.

7.1 Extending functionality of MS Dynamics NAV

Main advantages:

- All information about items and capacities in one place
- All about where are items or capacities consumed
- All about how has been produced one item

7.2 How to use dimensions and measures

In the table below it is shown how to use different dimensions in combination with measures. Possible combinations are indicated with "X". In case of other combinations, results are not correct.

Dimensions	Manufacturing measure group	Manufacturing expected measure group	Capacity calendar measure group
Company	X	X	X
Composition	X	X	X
Consumption	X	X	X
Date	X	X	X
Dimension (1 – 8)	X	X	
Location	X	X	
Output	X	X	
Production Order	X	X	
Scrap	X		
Stop	X		
Subcontracting	X		
Measures	Avg consumption cost, Avg output cost, Consumption cost, Consumption quantity, Cost, Output cost, Output quantity, Overhead cost, Percent, Quantity, Run time, Scrap quantity, Setup time, Stop time, WIP	Cost/expected cost index, Expected consumption cost, Expected consumption quantity, Expected cost, Expected cost variance, Expected output cost, Expected output quantity, Expected overhead cost, Expected quantity, Expected quantity variance, Expected run time, Expected setup time, Quantity/expected quantity index	Capacity, Capacity variance, Quantity/capacity index

7.3 Dimensions

Date

The Date dimension always have the same meaning, but it depends on measure group date in use.

Measure group	Date field in MS Dynamics NAV
Manufacturing measure group	Posting Date. (Manufacturing – History – Finished prod. Orders – table Item Ledger Entry, Capacity Ledger Entry)
Manufacturing Expected measure group	Due Date. (Manufacturing – History – Finished prod. Orders – table Prod. Order Component)
Capacity Calendar measure group	Date. (Manufacturing – Capacities – Work Centers (Machine Center) – Planning – Calendar – table Calendar Entry)

7.4 Measures

Manufacturing measure group

Measure	Description
Output Quantity	Actual quantity we have on specific output. (In the case of item it is Quantity from table Item Ledger Entry, where Entry Type is Output. When we have capacity Output Quantity is always 0.)
Consumption Quantity	Actual quantity used in production. (In case of item it is Invoiced Quantity from table Value Entry where Item Ledger Entry Type is Consumption. Measure is multiplied with "-1", to get positive value. When we have capacity it is Quantity from table Capacity Ledger Entry where Value Entry type is Direct cost.)
Quantity	Total quantity of consumption and output.
Scrap Quantity	Scrap quantity we had. (When we have capacity, then it is Scrap Quantity from table Capacity Ledger Entry.)
Setup Time	Setup time. (When we have capacity, then it is Setup Time from table Capacity Ledger Entry.)
Run Time	Run time of a capacity. (When we have capacity then it is Run Time from table Capacity Ledger Entry.)
Stop Time	Stop time of a capacity. (When we have capacity, then it is Stop Time from table Capacity Ledger Entry.)
Output Cost	Actual cost we had on specific output. (In the case of Item it is Cost Amount Actual from table Value Entry where Item Ledger Entry Type is Output and Value Entry Type is Indirect Cost. When we have capacity Actual Output Cost is always 0.)
Consumption Cost	Actual cost for used item or a capacity. (In the case of Item it is Cost Amount Actual from table Value Entry where Item Ledger Entry Type is Consumption and Value Entry Type is Direct Cost. Measure is multiplied with "-1", to get positive value. When we have capacity it is Cost Amount Actual from table Value Entry where Value Entry Type is Direct Cost.)
Cost	Total cost of consumption and output.

Measure	Description
Overhead Cost	Actual overhead cost. (In the case of Item it is Cost Amount Actual from table Value Entry where Item Ledger Entry Type is Consumption and Value Entry Type is Indirect Cost. Measure is multiplied with "-1", to get positive value. When we have capacity it is Cost Amount Actual where Value Entry Type is Indirect Cost.)

Manufacturing expected measure group

Measure	Description
Expected Consumption Quantity	Expected quantity of material or capacity we will use in production. (In case of material it is Expected Quantity from table Prod. Order Component, where source type is item. When we have capacity it is Expected Capacity Need from table Prod. Order Routing Line.)
Expected Output Quantity	Expected output quantity. (It is only on output items and it is Quantity (Base) from table Prod. Order Line.)
Expected Quantity	Total of expected quantities on consumption and output.
Expected Consumption Cost	Cost we expect to have with used materials and capacities. (In case of material it is Cost Amount minus Overhead Amount from table Prod. Order Component. When we have capacity it is Expected Operation Cost Amount minus Expected Capacity Overhead. Cost from table Prod. Order Routing Line.)
Expected Output Cost	Expected output cost. (It is only on output items and it is Unit Cost multiplied with Quantity from table Prod. Order Line.)
Expected Cost	Total of expected costs on consumption and output.
Expected Overhead Cost	Expected overhead cost. (In case of Item it is Overhead Amount from table Prod. Order Component. When we have capacity then it is Expected Capacity Overhead. Cost from table Prod. Order Routing Line.)
Expected Run Time	Expected capacity run time. (In case of capacity is Run Time from table Prod. Order Routing Line.)
Expected Setup Time	Expected capacity setup time. (In case of capacity is Setup Time from table Prod. Order Routing Line.)

Capacity calendar measure group

Measure	Description
Capacity	Capacity effectiveness. (Capacity Effective from table Calendar Entry.)

Calculated measures

Measure	Description
Average Consumption Cost	Consumption cost/Consumption quantity.
Average Output Cost	Output cost/Output quantity.
Total Cost (%)	Percentage of total cost.
WIP	Consumption cost – Output cost.
Cost/Expected Cost Index	Cost/Expected cost.
Expected Cost Variance	Cost – Expected cost.
Expected Quantity Variance	Quantity – Expected quantity.

Measure	Description
Quantity/Expected Quantity Index	Quantity/Expected quantity.
Capacity Variance	Quantity – Capacity
Quantity/Capacity Index	Quantity/Capacity.
Run Time (%)	Percentage of run time.
Setup Time (%)	Percentage of setup time.
Stop Time (%)	Percentage of stop time.
Expected Run Time (%)	Percentage of Expected Run time.
Expected Setup Time (%)	Percentage of Expected Setup time.

8 ANALYTICAL AREA: PAYABLES

The Payables module enables an overview and different financial analysis relating to vendors. You can easily analyze payables, relation between debit/credit, balance and various rotation coefficients through different dimension attributes.

The Balance is calculated daily from the first day of posting to MS Dynamics NAV. It enables overview on or before due and overdue payables in intervals by 30-60-90-120-150-180 days. Insight into payables is enabled for specific document on chosen date.

8.1 Extending functionality of MS Dynamics NAV

Main advantages:

- Advanced measures – average payables, rotation in days, avg. open days, avg. due days
- Payables balance through all vendors through time dimension (trends of payables).
- Calculations made on day level in BI4NAV Data warehouse makes due/overdue payables analysis very fast.

8.2 How to use dimensions and measures

In the table below it is shown how to use different dimensions in combination with measures. Possible combinations are indicated with "X". In case of other combinations, results are not correct.

	Payables analysis measure group	Vendor analysis measure group
Buy From Vendor	X	X
Company	X	X
Currency	X	X
Date	X	X
Dimension (1-8)	X	X
Document Vendor	X	X
Due Analysis	X	
Due Date		X
Pay To Vendor	X	X
Salesperson–Purchaser	X	X
Measures	Payables balance, Payables balance PCY, Average payables, Average due days payables, Average open days payables, Average Overdue days payables, Payables coefficient, Payables turnover (days)	Vendor net change, Vendor debit, Vendor credit, Purchase, Vendor discount, Vendor net change PCY, Vendor debit PCY, Vendor credit PCY

8.3 Dimensions

Date

Date dimension always means the same, but it depends on which cube and measures are checked.

Measure group	Date field in MS Dynamics NAV
Payables Analysis measure group	Posting Date. (Financial Management – Payables – Vendors – Vendor – Detailed Ledger entries – Posting Date – table Detailed Vendor Ledger Entry)

Vendor Analysis measure group	Posting Date. (Financial Management – Payables – Vendors – Vendor – Ledger entries – Posting Date – table Vendor Ledger Entry)

8.4 Measures

Payables analysis measure group

Payables balance works with date dimension by selecting last child in given level of the time dimension. Example:

- Selecting year 2007, will set the filter for payables balance on the last posted day in 2007
- Select month 2007-January will set the filter for payables balance on 31. January 2007

Measure	Description
Payables Balance	Payables balance on specific day. (Calculated for every day based on Amount.)
Payables Balance PCY	Payables balance calculated in posting currency. (Calculated for every day based on Amount.)

Vendor analysis measure group

Measure	Description
Vendor Credit	Credit amount. (Financial Management – Payables – Vendors – Vendor – table Detailed Vendor Ledger Entry – Credit Amount (LCY)) Just if Entry Type from table Detailed Vendor Ledger Entry is not Application.
Vendor Debit	Debit amount. (Financial Management – Payables – Vendors – Vendor – table Detailed Vendor Ledger Entry – Debit Amount (LCY)) Just if Entry Type from table Detailed Vendor Ledger Entry is not Application.
Vendor Net change	Debit – credit. (Financial Management – Payables – Vendors – Vendor – table Detailed Vendor Ledger Entry –Amount (LCY)) Just if Entry Type from table Detailed Vendor Ledger Entry is not Application, Appln. Rounding or Correction of Remaining Amount.
Purchase	Purchase amount in MS Dynamics NAV (without VAT). (Financial Management – Payables – Vendors – Vendor – table Vendor Ledger Entry – Purchase LCY) Just if Entry Type from table Detailed Vendor Leg. Entry is Initial Entry.
Vendor Discount	Financial discount on a given invoice. (Financial Management – Payables – Vendors – Vendor – table Vendor Ledger Entry – Inv. Discount LCY) Just if Entry Type from table Detailed Vendor Leg. Entry is Initial Entry.
Avg Payables Payment Terms	Due Days weighed by Vendor Net Change where document type is Invoice or Credit Memo; DueDays = InitialEntryDueDate – PostingDate in Detailed Vendor Ledger Entry
Posted Currency	
Vendor Credit PCY	Credit amount in posted currency. (Financial Management – Payables – Vendors – Vendor – table Detailed Vendor Ledger Entry – Credit Amount) Just if Entry Type from table Detailed Vendor Ledger Entry is not Application.
Vendor Debit PCY	Debit amount in posted currency. (Financial Management – Payables – Vendors – Vendor – table Detailed Vendor Ledger Entry – Debit Amount) Just if Entry Type from table Detailed Vendor Ledger Entry is not Application.
Vendor Net change PCY	Debit – credit in posted currency.

Measure	Description
	(Financial Management – Payables – Vendors – Vendor – table Detailed Vendor Ledger Entry –Amount) Just if Entry Type from table Detailed Vendor Ledger Entry is not Application, Appln. Rounding or Correction of Remaining Amount.

Calculated measures

Measure	Description
Average Open Days Payables	Payables open days * Amount/ Payables AmountOnDay. (How many days are the documents open by average. Example: if payment days is 90, then 90 means that we are paying our vendors on time.)
Average Due Days Payables	Payables due days * Amount / Payables AmountOnDay. (How many days are we late with payments by weighted average)
Average Overdue Days Payables	Payables Overdue days * Amount / Payables AmountOnDay.
Average Payables	Average payables balance in a given time period.
Purchase on Credit	Purchase where document application (payment) date of is greater document of posting date
Purchase on Credit (%)	Purchase On Credit/Purchase
Payables Coefficient	Vendor debit / Average payables (Turn over coefficient. If Average payables is smaller than 1 or bigger than -1 is null.)
Payables Turnover (Days)	What is the turnover of payables expressed in days? Number of days in specified interval divided by Payables coefficient (if we are looking at year level then 365).
% of Total Payables Balance	Payables balance in percentage, sensible on filter of dimension: Date, Currency, Document Vendor, Buy From Vendor, Pay To Vendor, Due Analysis, Salesperson-Purchaser
% of Total Purchase	Purchase in percentage of all time purchase, sensible on filter of dimension: Date, Currency, Document Vendor, Buy From Vendor, Pay To Vendor, Due Analysis, Salesperson-Purchaser
% Payables Overdue	Payables Overdue in percentage of Payables Balance.
Additional Currency	
Payables Balance ACY	
Purchase On Credit ACY	
Purchase ACY	
Vendor Credit ACY	
Vendor Debit ACY	
Vendor Discount ACY	
Vendor Net Change ACY	
Avg Payables ACY	
Payables Coefficient ACY	
Payables Turnover (Days) ACY	
% Payables Overdue ACY	
% of Total Payables Balance ACY	
% of Total Purchase ACY	
Avg Payables Payment Terms ACY	

Purchase On Credit (%) ACY	
Avg Overdue Days Payables ACY	
Avg Due Days Payables ACY	
Avg Open Days Payables ACY	

9 ANALYTICAL AREA: PURCHASE

Complete purchase analysis (item, GL, fixed asset) over multiple measures with rich dimension attributes and multi company support.

9.1 Extending functionality of MS Dynamics NAV

Main advantages:

- Possibility to analyze vendors by Pay-to > Buy-from > Ship-to that is very hard to do in MS Dynamics NAV (because some information is on ledger entries and some on posted documents).
- Analyze specific posting through source and reason code.

9.2 Purchase Orders History Functionality

See Sales Order History Functionality.

9.3 How to use dimensions and measures

In the table below it is shown how to use different dimensions in combination with measures. Possible combinations are indicated with "X". In case of other combinations, results are not correct.

Dimensions	Purchase item ledger measure group	Purchase value entry measure group	Purchase orders state measure group	Purchase budget measure group	Purchase Delivery measure group
Buy from Vendor	X	X	X	X	X
Company	X	X	X	X	X
Currency		X			
Date	X	X	X	X	X
Dimension (1-8)	X	X	X	X	X
Document Purchase	X	X			X
Document Purchase order			X		
Fixed Asset		X			
General Business Posting Group	X	X			X
General Product Posting Group	X	X			X
GL Account		X			
Item	X	X	X	X	X
Item Charge	X	X			X
Item Variant	X	X			X
Location	X	X	X	X	X
Pay to Vendor	X	X	X		X
Purchase Budget				X	
Reason Code	X	X			X
Salesperson – Purchaser	X	X	X		
Source Code	X	X			X
Type	X	X	X		X
Shipment Method					X
Transport Method	X				X
Expected Receipt Date					X

Requested Receipt Date					X
Promised Receipt Date					X
Planned Receipt Date					X

Dimensions	Purchase item ledger measure group	Purchase value entry measure group	Purchase orders state measure group	Purchase budget measure group
Measures	Received quantity	Cost amount ACY, Purchase invoiced quantity, Cost amount, Purchased discount amount, Purchase Discount Amount ACY	Purchase order amount, Purchase Order Discount Amount, Purchase Order Gross Amount, Purchase order amount invoiced, Purchase order amount received, Purchase order amount to invoice, Purchase order amount to receive, Purchase order outstanding amount, Purchase order outstanding quantity, Purchase order quantity, Purchase order quantity invoiced, Purchase order quantity received, Purchase order quantity to invoice, Purchase order quantity to receive	Purchase budget quantity, Purchase budget Cost Amount, Purchase Budget Purchase Amount

Note:
Measure group Purchase Values Distinct is used for document count. Measures, calculated here are shown in Purchase Value measure group**.**

9.4 Dimensions

Date

Date dimension always means the same, but it depends on which cube and measures are checked.

Measure group	Date field in MS Dynamics NAV
Purchase Item Ledger measure group	Posting Date. (Purchase – Planning – Items – Item – Entries – Ledger Entries – Posting Date – table Item Ledger Entry)
Purchase Value Entry measure group	Posting Date. (Purchase – Planning – Items – Item – Entries – Value Entries – Posting Date – table Value Entry)
Purchase Orders State measure group	Posting Date. (Manufacturing – History – Finished prod. orders – Order – Entries – Value entries)
Purchase Budget measure group	Posting Date.

Measure group	Date field in MS Dynamics NAV
Purchase Delivery measure group	Posting Date. (Purchase – Order Processing – Orders / Return Orders – General – table Purch. Rcpt. Header / Return Shipment Header)

9.5 Measures

Purchase item ledger measure group

Measure	Description
Received Quantity	Received quantity in base unit of measure. (Quantity from table Item Ledger Entry where Entry Type is Purchase.)

Purchase value entry measure group

Name	Description
Purchase Invoiced Quantity	Invoiced quantity in base unit of measure. • Invoiced quantity from table Value Entry where Item Ledger Entry Type is Purchase, • Quantity from Purchase. Invoice Line where Type is fixed assets, GL account and resource, • Quantity multiplied with minus from Purchase. Cr. Memo Line where Type is fixed asset, GL account, resource.
Cost Amount	Cost amount with all discounts. • Cost Amount (Actual) from table Value Entry where Item Ledger Entry Type is Purchase and when Expected Cost is 0. • Quantity multiplied with Unit cost from Purchase. Inv. Line where Type is fixed asset, GL account and resource, • Quantity multiplied with unit cost and minus from Purchase. Cr. Memo Line where Type is fixed asset, GL account and resource.
Purchase Discount Amount	Discount amount. • Discount Amount from table Value Entry where Item Ledger Entry Type is Purchase and when Expected Cost is 0, • Line Discount Amount from Purchase. Inv. Line where Type is fixed asset, GL account and resource, • Line Discount Amount from Purchase. Cr. Memo Line where Type is fixed asset, GL account and resource.
Cost Amount Expected	Cost Amount Expected + Cost Amount Actual (from table Value Entry where Item Ledger Entry Type is Purchase)
Additional Currency	
Cost Amount ACY	
Cost Amount Expected ACY	
Purchase Discount Amount ACY	
Posted Currency	
Cost Amount PCY	
Cost Amount Expected PCY	
Purchase Discount Amount PCY	

Purchase orders state measure group

All measures are calculated where Document Type is Quotation, Order and Blanket Order.

Measure	Description
Purchase order quantity	Purchase order quantity in base units. (Purchase – Order Processing – Orders – Quantity (Base) – table Purchase Line)
Purchase order quantity received	Quantity of items that is already received in base units. (Purchase – Order Processing – Orders – Qty. Received (Base) – table Purchase Line)
Purchase order quantity invoiced	Already invoiced Purchase order quantity in base units. (Purchase – Order Processing – Orders – Qty. Invoiced (Base) – table Purchase Line)
Purchase Order Quantity To Receive	Quantity (Base) – Qty. Received (Base). (Purchase – Order Processing – Orders – Quantity (Base), Qty. Received (Base) – table Purchase Line)
Purchase Order Quantity To Invoice	Quantity (Base) – Qty. Invoiced (Base). (Purchase – Order Processing – Orders – Quantity (Base), Qty. Invoiced (Base) – table Purchase Line)
Purchase Order Outstanding Quantity	Qty. Received (Base) – Qty. Invoiced (Base). (Purchase – Order Processing – Orders – Qty. Received (Base), Qty. Invoiced (Base) – table Purchase Line)
Purchase Order Amount	Line Amount – Invoiced Discount Amount. (Purchase – Order Processing – Orders – Line Amount, Invoiced Discount Amount – table Purchase Line)
Purchase Order Discount Amount	Invoiced Discount Amount. (Purchase – Order Processing – Orders – Invoiced Discount Amount – table Purchase Line)
Purchase Order Gross Amount	Line Amount. (Purchase – Order Processing – Orders – Line Amount – table Purchase Line)
Purchase Order Amount Received	(Line Amount – Invoiced Discount Amount)/Quantity (Base) * Qty. Received (Base).
Purchase Order Amount Invoiced	(Line Amount – Invoice Discount Amount)/Quantity (Base) * Qty. Invoiced (Base).
Purchase Order Amount to Receive	(Line Amount – Invoice Discount Amount)/Quantity (Base) * (Quantity (Base) – Qty. Received (Base)).
Purchase Order Amount to Invoice	(Line Amount – Invoice Discount Amount)/Quantity (Base) * (Quantity (Base) – Qty. Invoiced (Base)).
Purchase Order Outstanding Amount	((Line Amount – Invoice Discount Amount)/Quantity (Base) * Qty. Received (Base)) – ((Line Amount – Invoice Discount Amount)/Quantity (Base) * Qty. Invoiced (Base)).
Average Purchase Price	Cost amount/Purchase invoiced quantity.
Additional Currency	
Purchase Order Amount ACY	
Purchase Order Discount Amount ACY	
Purchase Order Gross Amount ACY	
Purchase Order Amount Invoiced ACY	
Purchase Order Amount Received ACY	
Purchase Order Amount to Invoice ACY	

Measure	Description
Purchase Order Amount to Receive ACY	
Purchase Order Outstanding Amount ACY	

Purchase budget measure group

Measure	Description
Purchase Budget Quantity	Purchase Budget Quantity
Purchase Budget Cost Amount	Purchase Budget Cost Amount
Purchase Budget Cost Amount ACY	Purchase Budget Cost Amount in additional currency.

Purchase delivery measure group

Measures described below based on **Expected Receipt Date**, work also on **Requested Receipt Date**, **Promised Receipt Date** and **Planned Receipt Date**.
Global dimensions referenced to **Purchase Delivery** measure group are based on **Posted Receipts** / **Posted Return Shipments** and not on Posted Invoices / Posted Credit Memos.

Measure	Description
Lines Late – Expected Receipt Date	Represents no. of records from Purch. Rcpt. Line / Return Shipment Line, where Expected Receipt Date was before Posting Date.
Lines On Time – Expected Receipt Date	Represents no. of lines, where Expected Receipt Date was greater or equal to Posting Date.
Qty Late – Expected Receipt Date	Represents quantity in base unit of measure, where Expected Receipt Date was before Posting Date. (Quantity (Base) from table Purch. Rcpt. Line / Return Shipment Line)
Qty On Time – Expected Receipt Date	Represents quantity in base unit of measure, where Expected Receipt Date was greater or equal to Posting Date. (Quantity (Base) from table Purch. Rcpt. Line / Return Shipment Line)
Amount Late – Expected Receipt Date	Represents Quantity multiplied with Unit Cost (LCY) and Line Discount % from Purch. Rcpt. Line / Return Shipment Line, where Expected Receipt Date was before Posting Date.
Amount Late ACY – Expected Receipt Date	Represents Quantity multiplied with Unit Cost (LCY) and Line Discount % from Purch. Rcpt. Line / Return Shipment Line x exchange rate (ACY), where Expected Receipt Date was before Posting Date.

Calculated measures

Measure	Description
% of Total Cost Amount	Cost Amount in percentage of all time value, sensible on following dimensions: Date, Document, Gen Bus Posting Group, Gen Prod Posting Group Item, Item Charge, Location, Reason Code, Salesperson-Purchaser, Source Code, Type, Fixed Asset, GL Account, Buy From Vendor, Pay To Vendor
% of Total Cost Amount ACY	Cost Amount in additional currency in percentage of all time value, sensible on following dimensions: Date, Document, Gen Bus Posting Group, Gen Prod Posting Group Item, Item Charge, Location, Reason Code, Salesperson-Purchaser, Source Code, Type, Fixed Asset, GL Account, Buy From Vendor, Pay To Vendor
Cost Amount FA	Cost Amount when type is Fixed Asset.
Cost Amount FA ACY	Cost Amount in additional currency when type is Fixed Asset.

Cost Amount GL	Cost Amount when type is GL Account
Cost Amount GL ACY	Cost Amount in additional currency when type is GL Account
Cost Amount Item	Cost Amount when type is Item.
Cost Amount Item ACY	Cost Amount in additional currency when type is Item.
Average Purchase Price	Cost amount/Purchase invoiced quantity.
Avg Purchase Price ACY	Cost amount in additional currency/Purchase invoiced quantity.
Received/Invoiced Variance	Received Quantity - Purchase Invoiced Quantity
Days Since Last Purchase	Difference in days from last process date and last invoiced transactions.
Last Purchase Date	Date of last invoiced transaction.
Number of Credit Memos	Number of Purchase Credit Memos. Note: This measure is available only on SQL version 2008 or higher.
Number of Purchase Receipts	Number of Purchase Receipts. Note: This measure is available only on SQL version 2008 or higher.
Number of Purchase Documents	Number of Purchase Invoiced Documents (Number of Credit Memos + Number of Purchase Receipts + Number of Purchase Invoices).
Number of Purchase Invoices	Number of Purchase Invoices. Note: This measure is available only on SQL version 2008 or higher.
Year To Date	
Cost Amount YTD	Cost Amount in last year (parallel period) based on Year-to-Date period
Cost Amount Last YTD	Cost Amount in this year based on Year-to-Date period
Cost Amount YTD Index	Cost Amount YTD / Cost Amount Last YTD
Purchase Invoiced Quantity YTD	Purchase Invoiced Quantity in last year (parallel period) based on Year-to-Date period
Purchase Invoiced Quantity Last YTD	Purchase Invoiced Quantity in this year based on Year-to-Date period
Purchase Invoiced Quantity YTD Index	Purchase Invoiced Quantity YTD / Purchase Invoiced Quantity Last YTD
Received Quantity Last YTD	Received Quantity in last year (parallel period) based on Year-to-Date period
Received Quantity YTD	Received Quantity in this year based on Year-to-Date period
Received Quantity YTD Index	Received Quantity YTD / Received Quantity Last YTD
Received/Invoiced Variance YTD	Received Quantity - Invoiced Quantity based on Year-to-Date period
Additional Currency	
Cost Amount ACY Last YTD	
Cost Amount ACY YTD	
Cost Amount ACY YTD Index	
Purchase Delivery measures	
Lines Count – Expected Receipt Date	Sum of Lines Late – Expected Receipt Date and Lines On Time – Expected Receipt Date
Late Amount % – Expected Receipt Date	Amount Late – Expected Receipt Date / Amount of all lines
On Time Amount % - Expected Receipt Date	1 – Late Amount % – Expected Receipt Date
Late Qty % - Expected Receipt Date	Qty Late – Expected Receipt Date / Quantity of all lines
On Time Qty % - Expected Receipt Date	1 – Late Qty % - Expected Receipt Date

Late Lines % - Expected Receipt Date	Lines Late - Expected Receipt Date / Lines Count - Expected Receipt Date
On Time Lines % - Expected Receipt Date	Lines On Time - Expected Receipt Date / Lines Count - Expected Receipt Date
Average Days Late - Expected Receipt Date	(Number of days difference between Expected Receipt Date and Posting Date multiplied by Amount) / Amount Late - Expected Receipt Date

10 ANALYTICAL AREA: RECEIVABLES

The Receivables module enables an overview of all financial analysis regarding customers. You can easily analyze receivables, relation between debit/credit, balance and various rotation coefficients through different dimension attributes.
Balance is calculated daily from the first day of posting to MS Dynamics NAV. It enables overview on before due and overdue receivables in intervals by 30-60-90-120-150-180 days. Insight into payables is enabled for specific document on chosen date.

10.1 Extending functionality of MS Dynamics NAV

Main advantages:

- Advanced measures – average receivables, rotation in days, average open days for an invoice, avg. due days for specific/group of invoices.
- Receivables balance through all customers through time dimension (trends of receivables).
- Calculations made on day level in BI4NAV Data warehouse makes due/overdue receivables analysis very fast.
- Analysis of receivables through different attributes on customer card (by country, by posting group, by general business posting group).

10.2 How to use dimensions and measures

In the table below it is shown how to use different dimensions in combination with measures. Possible combinations are indicated with "X". In case of other combinations, results are not correct.

Dimensions	Receivables analysis measure group	Customer analysis measure group
Company	X	X
Currency	X	X
Date	X	X
Dimension (1-8)	X	X
Document Customer	X	X
Due Analysis	X	
Customer	X	X
Salesperson-Purchaser	X	X
Due Date		X
Measures	Receivables Balance, Receivables Balance PCY, Average Receivables, Average Due Days Receivables, Average Open Days Receivables, Average Overdue Days Receivables, Receivables Coefficient, Receivables Turnover (days)	Customer Net Change, Customer Debit, Customer Credit, Sales, Customer Discount, Customer Net Change PCY, Customer Debit PCY, Customer Credit PCY,

10.3 Dimensions

Date

Date dimension always means the same, but it depends on which cube and measures are checked.

Measure group	Date field in MS Dynamics NAV
Due Overdue Receivables measure group	Posting Date. (Financial Management – Receivables – Customers – Customer – Detailed ledger entries – table Detailed Customer Ledger Entry – Posting date)
Customer Analysis measure group	Posting Date. (Financial Management – Receivables – Customers – Customer – Customer ledger entries – table Customer Ledger Entry – Posting Date)

10.4 Measures

Due Overdue receivables measure group

Receivables balance works with date dimension by selecting last child in given level of the time dimension. Example:

- Selecting year 2007, will set the filter for receivables balance on the last posted day in 2007
- Select month 2007-January will set the filter for receivables balance on 31. January 2007

Measure	Description
Receivables balance	Receivables Balance on specific day. (Calculated for every day based on Amount (LCY))
Receivables balance PCY	Receivables balance calculated in posting currency. (Calculated for every day based on Amount)

Customer analysis measure group

Measure	Description
Customer Credit	Credit amount. (Financial Management – Receivables – Customer –Customer – Customer Ledger Entries – table Detailed Customer Ledger Entry – Credit Amount (LCY)) Just if Entry Type from table Detailed Customer Ledger Entry is not Application.
Customer Debit	Debit amount. (Financial Management – Receivables – Customer –Customer – Customer Ledger Entries – table Detailed Customer Ledger Entry – Debit Amount (LCY)) Just if Entry Type from table Detailed Customer Ledger Entry is not Application.
Customer Net Change	Debit amount – Credit amount. (Financial Management – Receivables – Customer –Customer – Customer Ledger Entries – table Detailed Customer Ledger Entry –Amount (LCY)) Just if Entry Type from table Detailed Customer Ledger Entry is not Application, Appln. Rounding or Correction of Remaining Amount.
Sales	Sales amount in Dynamics NAV (without VAT). (Financial Management – Receivables – Customers – Customer – Customer Ledger Entries – table Customer Ledger Entry – Sales (LCY)) Just if Entry Type from table Detailed Customer Ledger Entry is not Initial Entry.
Customer Discount	Financial discount on a given invoice.

Measure	Description
	(Financial Management – Receivables – Customers – Customer – Customer Ledger Entries – table Customer Ledger Entry – Inv. Discount (LCY)) Just if Entry Type from table Detailed Customer Ledger Entry is not Initial Entry.
Posted Currency	
Customer Credit PCY	Credit amount in posted currency. (Financial Management – Receivables – Customer –Customer – Customer Ledger Entries – table Detailed Customer Ledger Entry – Credit Amount) Just if Entry Type from table Detailed Customer Ledger Entry is not Application.
Customer Debit PCY	Debit amount in posted currency. (Financial Management – Receivables – Customer –Customer – Customer Ledger Entries – table Detailed Customer Ledger Entry – Debit Amount) Just if Entry Type from table Detailed Customer Ledger Entry is not Application.
Customer Net Change PCY	Debit – credit in posted currency. (Financial Management – Receivables – Customer –Customer – Customer Ledger Entries – table Detailed Customer Ledger Entry –Amount (LCY)) Just if Entry Type from table Detailed Customer Ledger Entry is not Application, Application. Rounding or Correction of Remaining Amount.

Calculated measures

Measure	Description
Avg Receivables Payment Terms	Due Days weighed by Customer Net Change where document type is Invoice or Credit Memo; DueDays = InitialEntryDueDate – PostingDate in Detailed Vendor Ledger Entry
Average Open Days Receivables	Receivables open days * Receivables Amount / Receivables AmountOnDay. (How many days are the documents open by average. Example: if payment days is 90, then 90 means that customers are paying us on time.)
Average Due Days Receivables	Receivables due days * Receivables Amount / Receivables AmountOnDay. (How many days are customers late with payments by average)
Average Overdue Days Receivables	Receivables Overdue days * Receivables Amount / Receivables AmountOnDay.
Average Receivables	Average receivables balance in a given time period.
Receivables Coefficient	Customer credit / Average receivables. (Turn over coefficient. If Avg. receivables is smaller than 1.)
Receivables Turnover (days)	What is the turnover of receivables expressed in days? Number of days in specified interval divided by Receivables coefficient (if we are looking at year level then 365).
Sales On Credit	Sales where document Application date > Posting date
Percentage	
% of Total Receivables Balance	Total Receivable balance in percentage, sensible on filter of dimension: Date, Currency, Bill To Customer, Sell To Customer, Due Analysis, Salesperson – Purchaser
% of Total Sales	Total Sales in percentage, sensible on filter of dimension: Date, Currency, Bill To Customer, Sell To Customer, Due Analysis, Salesperson – Purchaser
% Receivables Overdue	Receivables overdue as percentage of Receivables Balance

Sales On Credit (%)	Sales On Credit as percentage of Sales
Additional Currency	
Customer Credit ACY	
Customer Debit ACY	
Customer Discount ACY	
Customer Net Change ACY	
Sales ACY	
Sales On Credit ACY	
Avg Receivables Payment Terms ACY	
Avg Receivables ACY	
Receivables Coefficient ACY	
Receivables Turnover (Days) ACY	
% Receivables Overdue ACY	
% of Total Receivables Balance ACY	
% of Total Sales ACY	
Sales on Credit (%) ACY	
Avg Overdue Days Receivables ACY	
Avg Due Days Receivables ACY	
Avg Open Days Receivables ACY	

11 ANALYTICAL AREA: SALES

Complete sales analysis (item, resource, GL, fixed asset) over multiple measures with rich dimension attributes and multi company support.

Analysis of sales trends, margin report, parallel period, year-to-date sales, extends standard reporting and makes analyzing data for business users simple, powerful and quick.

11.1 Extending functionality of MS Dynamics NAV

Main advantages:

- Integration of all sales transaction types
- Sales Posted Documents (quantities, values, delivery measures)
- Sales Budgets
- Sales Orders State history
- Sales Service (when deploying Service module)
- Possibility to analyze customers by Bill-To > Sell-To > Ship-To that is hard to do properly in Dynamics NAV (Ship-To is from shipment document).
- Support for 40+ Additional currency types of measure

11.2 Sales Orders History Functionality

- Sales Orders history is created **on each processing**, usually this is daily
- Many fields from T36 and T37 are copied and storeed to SNAPSHOT database (see detail list of fields in this document)
- SNAPSHOT data will appear after first BI4Dynamics processing. **It is not possible to re-create the past snapshots;**
- Snapshot concept requires that a **single date must be selected** in Date dimension to analyze open Sales Orders on that specific day
- By selecting year in Date hierarchy, data are shown **for the last day of that year**, for which data probably do not existing.
- If you have difficulties to find the last snapshot day, try **adding other measure** to pivot table (Net sales for example) and snapshot data will appear as well
- Sales Orders (regardless of the status) will appear in the report if they were **open on a selected day**
- Documents that are created and posted within the period between two snapshots (usually within the working day) **will not appear** in snapshot database as they were not open at the time of the processing
- Sales headers without lines do not appear in snapshots as there is nothing to analyze
- When migrating solution from one instance to another user should make a **SQL backup** of snapshot table in one instance and restore it to another instance

11.3 How to use dimensions and measures

In the table below it is shown how to use different dimensions in combination with measures. Possible combinations are indicated with "X". In case of other combinations, results are not correct.

Dimensions	Sales Quantities measure group	Sales Values measure group	Sales Orders State measure group	Sales Budget measure group	Sales Delivery measure group
Company	X	X	X	X	X
Currency		X			
Bill-to Customer	X	X	X		X

Sell-to Customer	X	X	X	X	X
Date	X	X	X	X	X
Dimension (1-8)	X	X	X	X	X
Document Sales	X	X			X
Document Sales Order			X		
General Business Posting Group	X	X			X
General Product Posting Group	X	X			X
Item	X	X	X	X	X
Item charge	X	X			X
Item Variant	X	X			X
Location	X	X	X	X	X
Planned Delivery Date					X
Planned Shipment Date					X
Promised Delivery Date					X
Reason Code	X	X			X
Requested Delivery Date					X
Resource	X	X	X		X
Return Reason	X	X			
Sales Budget				X	
Salesperson–Purchaser	X	X	X		X
Shipment Date					X
Shipment Method					X
Shipping Agent					X
Shipping Agent Services					X
Source Code	X	X			X
Transport Method	X				X
Type	X	X	X		X
Measures	Shipped quantity, Shipped quantity YTD, Shipped quantity last YTD, Shipped quantity YTD index, Shipped / Invoiced variance, Shipped / Invoiced variance YTD	Avg sales price, Avg sales Profit, Avg sales Cost, Sales invoiced quantity, Sales discount amount, Cost, Gross sales, Profit, Profit %, Net sales, Net sales YTD, Net sales last YTD, Net sales YTD index,	Order value, Quote value, Ratio order to invoice, Ratio quote to order, Sales order amount, Sales Order Cost Amount, Sales Order Discount Amount, Sales Order Gross Amount, Sales order amount invoiced, Sales order amount shipped,	Budget amount YTD, Budget variance, Budget variance YTD, Net sales/Budget index, Net sales/Budget YTD index, Sales budget cost amount,	Lines Late, Lines on Time, Qty Late, Qty on Time Amount Late, Amount Late ACY Lines Count, Late Amount %, On Time Amount %, Late Qty %, On Time Qty %,

		Sales invoiced quantity last YTD, Sales invoiced quantity YTD, Sales invoiced quantity YTD index, Days Since Last sales, Last Sales date	Sales order amount to invoice, Sales order amount to ship, Sales order outstanding amount, Sales order outstanding quantity, Sales order quantity, Sales order quantity invoiced, Sales order quantity shipped, Sales order quantity to invoice, Sales order quantity to ship	Sales budget quantity, Sales budget sales amount	Late Lines %, On Time Lines %, Average Days Late

Note:
Measure group Sales Values Distinct is used for document count. Measures, calculated here are shown in Sales Value measure group**.**

11.4 Dimensions

Date

Date dimension always means the same, but it depends on which cube and measures are checked.

Measure group	Date field in MS Dynamics NAV
Sales Quantities measure group	Posting Date. (Sales & Marketing – Inventory & Pricing – Items – Item – Entries – Ledger entries – Posting Date – table Item Ledger Entry)
Sales Values measure group	Posting Date. (Sales & Marketing – Inventory & Pricing – Items – Item – Entries – Value entries – Posting Date – table Value Entry)
Sales Orders State measure group	Posting Date. (Sales & Marketing – Order Processing – Orders – General – table Sales Header)
Sales Budget measure group	Date. (Sales & Marketing – Analysis & Reporting – Budgets – table Item Budget Entry)
Sales Delivery measure group	Posting Date. (Sales & Marketing – Order Processing – Orders / Return Orders – General – table Sales Shipment Line / Return receipt Line)

11.5 Measures

Sales Quantities measure group

Measure	Description
Shipped quantity	Shipped quantity in base unit of measure, multiplied with "-1" to get positive value. (Quantity from table Item Ledger Entry where Entry Type is Sale.)

Sales Values measure group

Name	Description
Sales Invoiced Quantity	Invoiced quantity in base unit of measure. • Invoiced quantity from table Value Entry where Item Ledger Entry Type is Sale. Measure is multiplied with "-1", to get positive value, • Quantity from Sales Invoice Line where Type is Fixed Asset and resource, • Quantity multiplied with "-1" from Sales Cr. Memo Line where Type is Fixed Asset and resource. • If Service module is selected then Quantity from Service Invoice Line where Type is fixed asset, resource or GL account is added. • When Service module is selected Quantity multiplied with "-1" from Service Cr. Memo Line is added too, Type is fixed asset, resource or GL account.
Net Sales	Sales amount with all discounts. • Sales Amount (Actual) from table Value Entry where Item Ledger Entry Type is Sale and when Expected Cost is 0, • Amount from Sales Invoice Line where Type is fixed asset, resource and GL account, • Amount from Sales Cr. Memo Line multiplied with "-1" where Type is fixed asset, resource and GL account. • If Service module is selected then Amount from Service Invoice Line where type is fixed asset, resource or GL account is added. • When Service module is selected Amount multiplied with "-1" from Service Cr. Memo Line is added too, Type is fixed asset, resource or GL account.
Sales Discount Amount	Discount amount. • Discount Amount from table Value Entry where Item Ledger Entry Type is Sale and when Expected Cost is 0. Measure is multiplied with "-1", to get positive value. • Line Discount Amount from Sales Invoice Line where Type is fixed asset, resource and GL account, • Line Discount Amount from Sales Cr. Memo Line multiplied with "-1" where Type is fixed asset, resource and GL account. • If Service module is selected then Line Discount Amount from Service Invoice Line where type is fixed asset, resource or GL account is added. • When Service module is selected Line Discount Amount multiplied with "-1" from Service Cr. Memo Line is added too, Type is fixed asset, resource or GL account.
Cost	Cost of goods sold. • Cost Amount (Actual) from table Value Entry where Item Ledger Entry Type is Sale and when Expected Cost is 0. Measure is multiplied with "-1", to get positive value. • Unit Cost LCY multiplied with Quantity from Sales Invoice Line where Type is fixed asset, resource and GL account, • Unit Cost LCY multiplied with Quantity from Sales Cr. Memo Line multiplied with "-1" where Type is fixed asset, resource and GL account. • If Service module is selected then Unit Cost LCY multiplied with Quantity from Service Invoice Line where type is fixed asset, resource or GL account is added. • When Service module is selected Unit Cost LCY multiplied with Quantity multiplied with "-1" from Service Cr. Memo Line is added too, Type is fixed asset, resource or GL account.

Name	Description
Cost Amount Non-adjusted	• Cost Amount Non-adjusted from table Customer Ledger Entry (Sales – Profit) where Item Ledger Entry Type in Value Entry table is Sale and when Expected Cost is 0 and Adjustment is 1.
Original Profit	Profit LCY from table Customer Ledger Entry.

Sales orders state measure group

Measure	Description
Sales Order Amount	Sales order value – Sales order discount value. **(**Sales & Marketing – Order Processing – Orders – Sales Line)
Sales Order Cost Amount	Sales order unit cost x Sales order quantity in base units. **(**Sales & Marketing – Order Processing – Orders – table Sales Line – Unit Cost) x **(**Sales & Marketing – Order Processing – Orders – table Sales Line – Quantity (Base))
Sales Order Discount Amount	Sales order discount value. **(**Sales & Marketing – Order Processing – Orders – Sales Line)
Sales Order Gross Amount	Sales order value. **(**Sales & Marketing – Order Processing – Orders – Sales Line)
Sales Order Amount Invoiced	(Line Amount - Inv. Discount Amount) / Quantity (Base) * Qty. Invoiced (Base). (Sales & Marketing – Order Processing – Orders – table Sales Line)
Sales Order Amount Shipped	(Line Amount - Inv. Discount Amount) / Quantity (Base) * Qty. Shipped (Base). (Sales & Marketing – Order Processing – Orders – table Sales Line)
Sales Order Amount to Invoice	(Line Amount - Inv. Discount Amount) / Quantity (Base) * (Quantity (Base) - Qty. Invoiced (Base)). **(** Sales & Marketing – Order Processing – Orders – table Sales Line)
Sales Order Amount To Ship	(Line Amount - Inv. Discount Amount) / Quantity (Base) * ((Quantity (Base) - Qty. Shipped (Base)). **(**Sales & Marketing – Order Processing – Orders – table Sales Line)
Sales Order Amount Variance	(LineAmount - InvoiceDiscountAmount) / QuantityBase) * QtyShippedBase) - (((LineAmount - InvoiceDiscountAmount) / QuantityBase) * QtyInvoicedBase)
Sales Order Outstanding Amount	(((Line Amount – Invoice Discount Amount) / Quantity Base) * Qty. Shipped Base) - (((Line Amount – Invoice Discount Amount) / Quantity Base) * Qty. Invoiced Base). **(** Sales & Marketing – Order Processing – Orders – table Sales Line)
Sales Order Outstanding Quantity	Quantity (Base) – Qty. Shipped (Base) **(** Sales & Marketing – Order Processing – Orders – table Sales Line)
Sales Order Quantity	Sales order quantity in base units. (Sales & Marketing – Order Processing – Orders – table Sales Line)
Sales Order Quantity Invoiced	Already invoiced Sales order quantity in base units. **(**Sales & Marketing – Order Processing – Orders – table Sales Line)
Sales Order Quantity Shipped	Already shipped Sales order quantity in base units. **(**Sales & Marketing – Order Processing – Orders – table Sales Line)
Sales Order Quantity to Invoice	Quantity (Base) - Qty. Invoiced (Base). **(**Sales & Marketing – Order Processing – Orders – table Sales Line)
Sales Order Quantity to Ship	Sales orders quantity in base units, yet to be shipped. **(**Sales & Marketing – Order Processing – Orders – table Sales Line)
Sales Order Quantity Variance	Quantity Shipped Base – Quantity Invoiced Base

Sales Budget measure group

Measure	Description
Sales Budget Quantity	Sales budget quantity. (Sales & Marketing – Analysis & Reporting – Budgets – table Item Budget Entry)
Sales Budget Cost Amount	Budgeted sales cost amount. (Sales & Marketing – Analysis & Reporting – Budgets – table Item Budget Entry)
Sales Budget Sales Amount	Budgeted sales amount. (Sales & Marketing – Analysis & Reporting – Budgets – table Item Budget Entry)
Sales Budget Cost Amount ACY	Budgeted sales cost amount in additional currency.
Sales Budget Sales Amount ACY	Budgeted sales amount in additional currency.

Sales Delivery measure group

Measures described below can be based on one of four (4) dates: **Requested Delivery Date**, **Promised Delivery Date**, **Planned Delivery Date** or **Planned Shipment Date**.
Global dimensions referenced to **Sales Delivery** measure group are based on **Posted Shipments** / **Posted Return Receipts** and not on Posted Invoices / Posted Credit Memos.

Note: Service documents are not included.

Measure	Description
Lines Late	Represents no. of records from Sales shipment Line / Return Receipt Line, where Requested Delivery Date was before Shipment Date.
Lines on Time	Represents no. of lines, where Requested Delivery Date was greater or equal to Shipment Date.
Qty Late	Represents shipped quantity in base unit of measure, where Requested Delivery Date was before Shipment Date. (Quantity (Base) from table Sales Shipment Line / Return Receipt Line)
Qty on Time	Represents shipped quantity in base unit of measure, where Requested Delivery Date was greater or equal to Shipment Date. (Quantity (Base) from table Sales Shipment Line / Return Receipt Line)
Amount Late	Represents Quantity multiplied with Unit Price and Line Discount % from Sales Shipment Line / Return Receipt Line, where Requested Delivery Date was before Shipment Date.
Amount Late ACY	

Calculated measures

Name	Description
Gross Sales	Net sales + Discount amount.
Profit	Net sales – Cost.
Profit %	Profit / Net sales.
Original Profit %	Original Profit / Net Sales.
Average Sales Price	Net sales/Sales invoiced quantity.
Average Sales Profit	Profit / Number of Sales Documents
Sales Discount %	Sales Discount / Gross sales
Budget Variance	Net sales – Sales budget sales amount.
Net Sales/Budget Index	Net sales/Sales budget sales amount.
Order Value	Sum of Sales order amount when Document type is Order.
Quote Value	Sum of Sales order amount when Document type is Quote.
Ratio Order to Invoice	Net sales/Order value.

Ratio Quote to Order	Order value/Quote value.
Sales Order Profit	Sales Order Amount – Sales Order Cost Amount.
Sales Order Profit %	Sales Order Profit / Sales Order Amount.
Shipped/Invoiced Variance	Shipped quantity – Sales invoiced quantity.
Days Since Last Sale	Difference in days from last process date and last invoiced transactions.
Last Sale Date	Date of last invoiced transaction
Number of Credit Memos	Number of Sales Credit Memos (service area is not included) Note: This measure is available only on SQL version 2008 or higher.
Number of Return Receipts	Number of Sales Return Receipts (service area is not included) Note: This measure is available only on SQL version 2008 or higher.
Number of Sales Documents	Number of Sales Invoiced Documents (Number of Credit Memos + Number of Return Receipts + Number of Sales Invoices + Number of Shipments) (service area is not included)
Number of Sales Invoices	Number of Sales Invoices (service area is not included) Note: This measure is available only on SQL version 2008 or higher.
% of Total Net Sales	Net Sales in percentage of all time sales, sensible on filter of dimension: Bill To Customer, Sell To Customer, Document Sales, General Business Posting Group, General Product Posting Group, Item, Item Charge, Location, Reason Code, Resource, Salesperson-Purchaser, Type
% of Total Sales Invoiced Quantity	Total Sales Invoiced Quantity in percentage sensible on filter of dimension: Bill To Customer, Sell To Customer, Document Sales, General Business Posting Group, General Product Posting Group, Item, Item Charge, Location, Reason Code, Resource, Salesperson-Purchaser, Type
Expected Values measures	
Profit Expected	Net Sales Expected - Cost Expected
Profit % Expected	Profit Expected / Net Sales Expected
Cost Expected	Cost Amount Expected
Net Sales Expected	Sales Amount Expected
Non-adjusted Values measures	
Profit Non-adjusted	Net Sales - Cost Non-adjusted
Profit % Non-adjusted	Profit Non-adjusted / Net Sales
Cost Non-adjusted	Cost Amount Non-adjusted
Last periods measures	
Net Sales -1M	Net sales from previous month.
Net Sales -2M	Net sales from 2 months ago.
Net Sales -3M (-4M, -5M, -6M, -7M, -8M, -9M, -10M, -11M, -12M)	Net sales from 3 to 12 months ago.
Profit -1M	Profit from previous month.
Profit -2M	Profit from 2 months ago.
Profit -3M (-4M, -5M, -6M, -7M, -8M, -9M, -10M, -11M, -12M)	Profit from 3 to 12 months ago.
Sales Invoiced Quantity -1M	Sales invoiced quantity from previous month.
Sales Invoiced Quantity -2M	Sales invoiced quantity from 2 months ago.
Sales Invoiced Quantity -3M (-4M, -5M, -6M, -7M, -8M, -9M, -10M, -11M, -12M)	Sales invoiced quantity from 3 to 12 months ago.
Year - To - Date measures	

Budget Amount YTD	Year-To-Date budget amount.
Budget Variance YTD	Net sales YTD – Budget amount YTD.
Net Sales Last YTD	Previous year Year-To-Date net sales. (Sum of net sales from January to chosen month in previous year.)
Net Sales YTD	Year-To-Date net sales. (Sum of net sales from January to chosen month in specified year.)
Net Sales YTD Index	Net sales YTD / Net sales last YTD.
Net Sales YTD Variance	Net Sales YTD – Net Sales Last YTD.
Net Sales YTD Variance %	(Net Sales YTD / Net Sales Last YTD) – 1.
Net Sales/Budget YTD Index	Net sales YTY/Budget amount YTD.
Profit Last YTD	Previous year Profit Year-To-Date. (Sum of profit from January to chosen month in previous year.)
Profit YTD	Profit Year-To-Date. (Sum of profit from January to chosen month in specified year.)
Profit YTD Index	Profit YTD / Profit Last YTD.
Profit YTD Variance	Profit YTD – Profit Last YTD.
Profit YTD Variance %	(Profit YTD / Profit Last YTD) – 1.
Profit Non-adjusted Last YTD	Previous year Profit Non-adjusted Year-To-Date. (Sum of non-adjusted profit from January to chosen month in previous year.)
Profit Non-adjusted YTD	Profit Non-adjusted Year-To-Date. (Sum of non-adjusted profit from January to chosen month in specified year.)
Profit Non-adjusted YTD Index	Profit Non-adjusted YTD / Profit Non-adjusted Last YTD.
Profit Non-adjusted YTD Variance	Profit Non-adjusted YTD – Profit Non-adjusted Last YTD.
Profit Non-adjusted YTD Variance %	(Profit Non-adjusted YTD / Profit Non-adjusted Last YTD) – 1.
Sales Invoiced Quantity Last YTD	Previous year Year-To-Date sales invoiced quantity. (Sum of sales invoiced quantity from January to chosen month in previous year.)
Sales Invoiced Quantity YTD	Year-To-Date sales invoiced quantity. (Sum of sales invoiced quantity from January to chosen month in specified year.)
Sales Invoiced Quantity YTD Index	Sales Invoiced Quantity YTD / Sales Invoiced Quantity Last YTD.
Sales Invoiced Quantity YTD Variance	Sales Invoiced Quantity YTD – Sales Invoiced Quantity Last YTD.
Sales Invoiced Quantity YTD Variance %	(Sales Invoiced Quantity YTD / Sales Invoiced Quantity Last YTD) – 1.
Shipped Quantity Last YTD	Previous year Year-To-Date shipped quantity. (Sum of shipped quantity from January to chosen month in specified year.)
Shipped Quantity YTD	Year-To-Date shipped quantity. (Sum of shipped quantity from January to chosen month in specified year.)
Shipped Quantity YTD Index	Shipped quantity YTD/Shipped quantity last YTD.
Shipped/Invoiced Variance YTD	Shipped quantity YTD – Sales invoiced quantity YTD.
Rolling Measures (all measures take into account only finished months)	
Net Sales Rolling 3 Month	Sum of net sales from previous 3 months.
Net Sales Rolling 6 Month	Sum of net sales from previous 6 months.
Net Sales Rolling 12 Month	Sum of net sales from previous 12 months.
Profit Rolling 3 Month	Sum of profit from previous 3 months.
Profit Rolling 6 Month	Sum of profit from previous 6 months.
Profit Rolling 12 Month	Sum of profit from previous 12 months.

Sales Invoiced Quantity Rolling 3 Month	Sum of sales invoiced quantity from previous 3 months.
Sales Invoiced Quantity Rolling 6 Month	Sum of sales invoiced quantity from previous 6 months.
Sales Invoiced Quantity Rolling 12 Month	Sum of sales invoiced quantity from previous 12 months.
Period – over- Period measures	
Net Sales PoP	Net Sales Period-Over-Period Net sales from previous period.
Net Sales PoP Index	Net Sales / Net Sales PoP.
Profit PoP	Profit Period-Over-Period Profit from previous period.
Profit PoP Index	Profit / Profit PoP.
Sales Invoiced Quantity PoP	Sales Invoiced Quantity Period-Over-Period Sales invoiced quantity from previous period.
Sales Invoiced Quantity PoP Index	Sales Invoiced Quantity / Sales Invoiced Quantity PoP.
Year – over- Year measures	
Net Sales YoY	Net Sales Year-Over-Year Net sales from previous year.
Net Sales YoY Index	Net Sales / Net Sales YoY.
Profit YoY	Profit Year-Over-Year Profit from previous year.
Profit YoY Index	Profit / Profit YoY.
Sales Invoiced Quantity YoY	Sales Invoiced Quantity Year-Over-Year Sales invoiced quantity from previous year.
Sales Invoiced Quantity YoY Index	Sales Invoiced Quantity / Sales Invoiced Quantity YoY.
Additional Currency	
Cost ACY	
Cost Non-adjusted ACY	
Sales Discount Amount ACY	
Sales Discount % ACY	
Gross Sales ACY	
Net Sales ACY	
Net Sales ACY YTD	
Net Sales ACY Last YTD	
Net Sales ACY YTD Index	
Net Sales ACY YTD Variance	
Net Sales ACY YTD Variance %	
Net Sales ACY PoP	
Net Sales Pop Index ACY	
Net Sales ACY YoY	
Net Sales YoY Index ACY	
Net Sales ACY Rolling 3 Month	
Net Sales ACY Rolling 6 Month	
Net Sales ACY Rolling 12 Month	
Net Sales ACY -1M	
Net Sales ACY -2M	
Net Sales ACY -3M (-4M, -5M, -6M, -7M, -8M, -9M, -10M, -11M, -12M)	
Profit ACY	
Profit Non-adjusted ACY	
Profit ACY %	

Profit % Non-adjusted ACY	
Profit Expected ACY	
Profit % Expected ACY	
Profit ACY YTD	
Profit ACY Last YTD	
Profit ACY YTD Index	
Profit ACY YTD Variance	
Profit ACY YTD Variance %	
Profit ACY PoP	
Profit PoP Index ACY	
Profit ACY YoY	
Profit YoY Index ACY	
Profit ACY Rolling 3 Month	
Profit ACY Rolling 6 Month	
Profit ACY Rolling 12 Month	
Profit ACY -1M	
Profit ACY -2M	
Profit ACY -3M (-4M, -5M, -6M, -7M, -8M, -9M, -10M, -11M, -12M)	
Net Sales ACY FA	
Net Sales ACY GL	
Net Sales ACY Item	
Net Sales ACY Item Charge	
Net Sales ACY Resource	
Sales Order Amount ACY	
Sales Order Discount Amount ACY	
Sales Order Gross Amount ACY	
Sales Order Amount Invoiced ACY	
Sales Order Amount Shipped ACY	
Sales Order Amount To Invoice ACY	
Sales Order Amount To Ship ACY	
Sales Order Amount Variance ACY	
Sales Order Outstanding Amount ACY	
Avg Sales Price ACY	
Avg Sales Cost ACY	
Avg Sales Profit ACY	
Sales Budget Amount YTD ACY	
Sales Budget Variance ACY	
Sales Budget Variance YTD ACY	
Net Sales ACY/Budget Index	
Net Sales ACY/Budget YTD Index	
Original Profit ACY	
Posted Currency	
Net Sales PCY	
Gross Sales PCY	
Cost PCY	
Cost Non-adjusted PCY	
Sales Discount Amount PCY	
Profit PCY	
Profit Non-adjusted PCY	

Net Sales Expected PCY	
Original Profit PCY	
Sales Delivery Calculated Measures	
Lines Count	Sum of Lines Late – Requested Delivery Date and Lines On Time – Requested Delivery Date
Late Amount %	Amount Late – Requested Delivery Date / Amount of all lines
On Time Amount %	1 – (Late Amount % – Requested Delivery Date)
Late Qty %	Qty Late – Requested Delivery Date / Quantity of all lines
On Time Qty %	1 – (Late Qty % - Requested Delivery Date)
Late Lines %	Lines Late - Requested Delivery Date / Lines Count - Requested Delivery Date
On Time Lines %	Lines On Time - Requested Delivery Date / Lines Count - Requested Delivery Date
Average Days Late	(Number of days difference between Requested Delivery Date and Shipment Date multiplied by Amount) / Amount Late - Requested Delivery Date

12 ANALYTICAL AREA: SERVICE MANAGEMENT

The Service module enables us to track all activities relating to the services undertaken by the company. You can easily check service values for different customers and years. You can easily location items that are service for frequently and the reasons for their fault. In addition you can even track different common symptoms for different faults.

12.1 Extending functionality of MS Dynamics NAV

Main advantages:

- Easy check of service contracts and belonging items.
- Easy check of most common faults.
- Easy check of cost for different faults.

12.2 How to use dimensions and measures

In the table below it is shown how to use different dimensions in combination with measures. Possible combinations are indicated with "X". In case of other combinations, results are not correct.

Dimensions	Count measure group	Service measure group	Service Contract Count	Service Order Count	Resource Ledger Entry	Service Contract Line
Company	X	X	X	X	X	X
Contract Expiration Date						X
Customer	X	X	X	X	X	X
Date	X	X	X	X	X	
Document Date					X	
Document Service	X	X	X	X		
Document Service Order	X	X	X	X		
Fault Area	X	X	X	X		
Fault Code	X	X	X	X		
Fault Reason Code	X	X	X	X		
Item						X
Last Service Date						X
Reason Code					X	
Resolution Code	X	X	X	X		
Resource					X	
Resource Group					X	
Resource Ledger					X	
Service	X	X	X	X		
Service Contract	X	X	X	X		X
Service Contract Line						X
Service Item	X	X	X	X		X
Service Ledger	X	X	X	X		
Source Code					X	
Symptom Code	X	X	X	X		
Unit Of Measure	X	X	X	X	X	X
Warranty	X	X	X	X		
Work Type	X	X	X	X	X	

Dimensions	Count measure group	Service measure group	Service Contract Count	Service Order Count	Resource Ledger Entry	Service Contract Line
Measures	Service Item count	Amount, Cost amount, Discount amount, Quantity	Service Contract count	Service Order count	Direct Unit Cost, Quantity, Total Cost, Total Price, Unit Cost, Unit Price	Amount, Cost, Discount, Discount Amount, Profit, Value

12.3 Dimensions

Date

Date dimension always have same meaning, but it depends on measure group date we use.

Measure group	Date field in MS Dynamics NAV
Count measure group	Posting Date. (Service – Contract Management – Invoices – table Service Invoice Header)
Service measure group	Posting Date. (Service – Contract Management – Invoices – table Service Invoice Header)
Service Contract Count measure group	Posting Date. (Service – Contract Management – Invoices – table Service Invoice Header)
Service Order Count measure group	Posting Date. (Service – Contract Management – Invoices – table Service Invoice Header)
Resource Ledger Entry measure group	Posting Date. (table Res. Ledger Entry)

12.4 Measures

Count measure group

Measure	Description
Service Item Count	Counts serviced items.

Service measure group

Measure	Description
Amount	Amount of service. (Contract Management – Invoices – invoice lines. Amount from table Service Invoice Line where Type is resource, service cost and GL account.)
Cost Amount	Cost for servicing an item, it is Unit cost multiplied with quantity. (Contract Management – Invoices – invoice lines. Unit Cost LCY and Quantity from Service Invoice Line table where Type is resource, service and GL account.)
Discount Amount	Line discount amount for a serviced item. (Contract Management – Invoices – invoice lines. Line discount amount from Service Invoice Line table where Type is resource, service and GL account.)
Quantity	Quantity of items. (Contract Management – Invoices – invoice lines. Quantity from Service Invoice Line table where Type is resource, service and GL account.)

Service Contract Count measure group

Measure	Description
Service Contract Count	Counts service contracts.

Service Order Count measure group

Measure	Description
Service Order Count	Counts service orders.

Resource Ledger Entry measure group

Measure	Description
Direct Unit Cost	Direct unit cost. (Direct Unit Cost from table Res. Ledger Entry)
Quantity	Quantity. (Quantity from table Res. Ledger Entry)
Total Cost	Total cost. (Total Cost from table Res. Ledger Entry)
Total Price	Total price. (Total Price from table Res. Ledger Entry)
Unit Cost	Unit cost. (Unit Cost from table Res. Ledger Entry)
Unit Price	Unit Price. (Unit Price from table Res. Ledger Entry)

Service Contract Line measure group

Measure	Description
Amount	Amount. (Amount from table Service Contract Line)
Cost	Cost. (Cost from table Service Contract Line)
Discount	Discount. (Discount from table Service Contract Line)
Discount Amount	Discount amount. (Discount Amount from table Service Contract Line)
Profit	Profit. (Profit from table Service Contract Line)
Value	Value. (Value from table Service Contract Line)

Calculated measures

Name	Description
Service Profit	Service Amount – Service Cost Amount.
Service Profit %	Service Profit / Service Amount.
Avg Service Price	Service Amount / Service Quantity.
Avg Service Cost	Service Cost Amount / Service Quantity.
Avg Service Profit	Avg Service Price - Avg Service Cost.
Resource Ledger Entry Profit	Resource Ledger Entry Total Price - Resource Ledger Entry Total Cost.
Resource Ledger Entry Profit %	Resource Ledger Entry Total Profit / Resource Ledger Entry Total Price.

13 ANALYTICAL AREA: WAREHOUSE

The Warehouse module provides the facility to track different warehouse events and activities.

13.1 Extending functionality of MS Dynamics NAV

Main advantages:

- Tracking of warehouse traffic from a warehouse to a document and transfer order level
- Calculations of open order and warehouse states made on a daily level in Data warehouse for faster analysis.

13.2 How to use dimensions and measures

In the table below it is shown how to use different dimensions in combination with measures. Possible combinations are indicated with "X". In case of other combinations, results are not correct.

	Warehouse	Warehouse Document Count	Transfer Orders State	Warehouse Open State
Action Type	X	X		X
Bin	X	X		X
Bin (from Bin)			X	
Bin (to Bin)			X	
CaseSubCase No	X	X		
Company	X	X	X	X
Data Source	X	X		
Date	X	X	X	X
Document Transfer Order			X	
Document Warehouse	X	X		
Document Warehouse Order				X
Item	X	X	X	X
Location	X	X		X
Location (from Location)			X	
Location (to Location)			X	
Open CaseSubCase No				X
Receipt Status	X	X		
Warehouse	X	X		
Warehouse Employee	X	X		X
Measures	Quantity Base, Quantity Put Away Base, Warehouse Count	Warehouse Document Count	Original Requested Quantity, Outstanding Quantity Base, Quantity in Transit Base, Quantity Received Base,	Warehouse Open Quantity Base, Quantity Outstanding Base, Warehouse Open Quantity Received Base, Warehouse Open Quantity To Receive Base, Warehouse Open Quantity Shipped Base, Warehouse Open Quantity To Ship Base, Quantity Picked Base, Quantity Handled Base,

			Quantity Shipped Base, Quantity To Receive Base, Quantity To Ship Base, Transfer Orders Count	Warehouse Open Document Count, Warehouse Open State Count, Outstanding Quantity, Outstanding Days, Quantity, Assignment Open Duration Min

13.1 Dimensions

Date

Date dimension always means the same, but it depends on which cube and measures are checked.

Measure group	Date field in MS Dynamics NAV
Warehouse, Warehouse Document	Posting Date.
Warehouse Order State	Registered Date.
Warehouse Open State	Date of open state (calculated value)

13.2 Measures

Warehouse Measure Group

Group of measure used to track the overall warehouse traffic.

Name	Description
Quantity Base	Sum of the quantity of warehouse traffic (in base units)
Quantity Put Away Base	Sum of the quantity of warehouse traffic that has been executed (in base units).
Warehouse Count	Count of all Warehouse events.

Warehouse Document

Group of measures used for warehouse documents.

Name	Description
Warehouse Document Count	Count of all warehouse documents.

Transfer Order State

Group of measures used to track transfer order state.

Name	Description
Original Requested Quantity	Quantity that has been requested by the transfer order.
Outstanding Quantity Base	Quantity outstanding (in base units)
Quantity in Transit Base	Quantity that is in transit (in base units).
Quantity Received Base	Quantity that has been received (in base units).
Quantity Shipped Base	Quantity that has been shipped (in base units).
Quantity To Receive Base	Quantity that has to be received (in base units).
Quantity To Ship Base	Quantity that has to be shipped (in base units).
Transfer Order State Count	Count of all transfer orders.

Warehouse Open State

Group of measures used to track warehouse state.

Name	Description
Warehouse Open Quantity State	Quantity that will be transferred (in base units)
Quantity Outstanding Base	Quantity outstanding (in base units).
Warehouse Open Quantity Received Base	Quantity that has been received (in base units).
Warehouse Open Quantity To Receive Base	Quantity that has to be received (in base units).
Warehouse Open Quantity Shipped Base	Quantity that has been shipped (in base units).
Warehouse Open Quantity To Ship Base	Quantity that has to be shipped (in base units).
Quantity Picked Base	Quantity that has to been picked (in base units).
Quantity Handled Base	Quantity that has been handled (in base units).
Warehouse Open State Count	Number of warehouse events (states) that are opened.
Outstanding Quantity	Quantity outstanding.
Outstanding Days	Days outstanding.
Quantity	Quantity that will be transferred.
Assignment Open Duration Min	Number of minutes that the assignment was opened.

14 DIMENSIONS

The Common dimensions appears in all cubes and can be used with all measures.

14.1 ¤Multi-Measure Tool¤

Enables to analyze measures on various attributes. By adding new dimension "Multi-Measure Tool" to columns, current measure (for example Net Sales) is automatically expanded by 28 new measures. New measures are based on combination of base measure and date. It works with every transactional measure in all cubes!

Attributes

Name	Measure criteria
Aggregation	-1M, -2M, -3M, -4M, -1W, -2W, -3W, -4W, Rolling 3M, Rolling 6M, Rolling 12M, Rolling 3M Avg, Rolling 6M Avg, Rolling 12M Avg, Running Total
Comparison	YTD, YTD Previous, YTD Index, YTD Variance, YTD Variance %, Previous Year, Previous Year Variance, Previous Year Variance %, Year over Year, Period over Period
Aggregation and Comparison	YTD, YTD Previous, YTD Index, YTD Variance, YTD Variance %, Previous Year, Previous Year Variance, Previous Year Variance %, Year over Year, Period over Period, -1M, -2M, -3M, -4M, -1W, -2W, -3W, -4W, Rolling 3M, Rolling 6M, Rolling 12M, Rolling 3M Avg, Rolling 6M Avg, Rolling 12M Avg, Running Total

Description of Multi-measure Tool attributes and criteria:

Criteria	Description
-1M	Measure from previous months.
-2M	Measure from 2 months ago.
-3M	Measure from 3 months ago.
-4M	Measure from 4 months ago.
-1W	Measure from previous week.
-2W	Measure from 2 weeks ago.
-3W	Measure from 3 weeks ago.
-4W	Measure from 4 weeks ago.
Rolling 3M	Sum of measure from previous 3 months.
Rolling 6M	Sum of measure from previous 6 months.
Rolling 12M	Sum of measure from previous 12 months.
Rolling 3M Avg	Average of measure from previous 3 months.
Rolling 6M Avg	Average of measure from previous 6 months.
Rolling 12M Avg	Average of measure from previous 12 months.
Running Total	Balance from beginning without date filter
YTD	Year-To-Date measure. (Sum of measure from January to chosen month in specified year.)
YTD Previous	Year-To-Date net sales. (Sum of measure from January to chosen month in previous year.)
YTD Index	Measure YTD / Measure last YTD.
YTD Variance	Measure YTD – Measure Last YTD.
YTD Variance %	(Measure YTD / Measure Last YTD) – 1.
Previous Year	Measure in the same period of previous year.
Previous Year Variance	Measure – Previous year
Previous Year Variance %	(Measure – Previous year)/Measure in %.
Year over Year	(Measure / Measure from previous year) in %.

	Period is Y.
Period over Period	(Measure / Measure from previous period) in %. Period can be Y, Q, M, W – any date hierarchy.

14.2 Account schedule

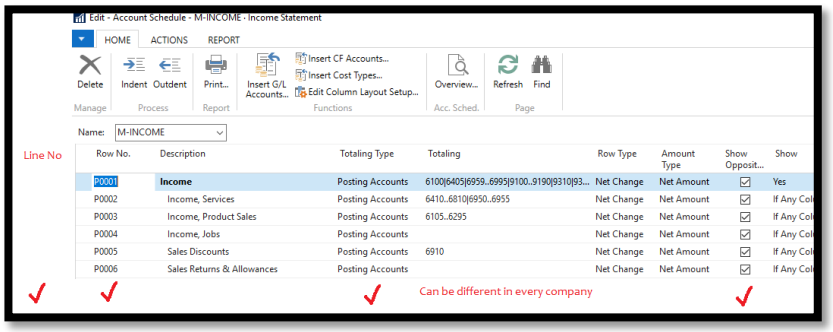
Enables to analyze figures in G/L accounts.

Attributes

Name	Description
Schedule Name	The name of specific schedule. (Financial Management – General Ledger – Analysis & Reporting – Account schedules – Name – table Acc. Schedule Name)
No Name Description	Number, name, description of selected account schedule. (Financial management – General ledger – Analysis & Reporting – Account schedules – Line No, Schedule Name, Description – table Acc. Schedule Line.)

For proper working of Account Schedule Dimension please refer to these notes:

- **Row No**. must be unique: in every Account Schedule this field must be unique. It is clear that Microsoft Dynamics NAV allows same Row No to be used multiple times and has no problem presenting calculations for Account Schedule. Unfortunately SQL calculations require unique primary key and if SQL finds same attribute again and it will skip this Account Schedule. Such Account Schedule will not appear in GL cube.
- Using **Account Schedules - Multi Company Module** requires the same setup across Account schedules that need to be shown across more companies:



  - ✓ Line No.
  - ✓ Row No.
  - ✓ Totaling
  - ✓ Show Opposite Sign,

  These fields must be the same in all companies. This is achieved in NAV by copy/paste Account Schedule to empty (new) lines, so that every Line No. has value 10000 higher than the previous one.
- Do not use following characters in Totaling: |, -, *, /, <>, <, >, ”,” (comma), =, <=, >=, ~=, !=, ^=, (and).These signs should be avoided due to SQL language. BI4Dynamics are aware that this feature is supported by Microsoft Dynamics NAV.
- Currently supported Totaling Types:
  - 0: Posting Account
  - 1: Total Account
  - 2: Formula
- Standard solution supports 8 global dimension but it does not support Dimension 1 Filter or Dimension 2 Filter. Account schedules is one of few areas that use relation many-to-many that brings few unique features to this area. This also means when we add more dimensions (members) to fact it multiplies number of records: #GL Account x #Dim1 x #Dim2 … x Dim8. We have removed dimension filters as standard feature as it may work too slowly in situation when customers have many dimensions and many dimension records. In past versions 4, we had 4 dimensions as standard. In version 5 it is not there anymore. Still, scripts are available on request free of charge from support@bi4dynamics.com; If processing is slow after applying, scrips should be removed.

Hierarchy

Name	Description
Account Schedule	Schedule name – Name and Description

14.3 Action Type

Attributes

Name	Description
Action Type	Option type: 0 = ' ' 1 = Take 2 =Place

14.4 Bank Account

Attributes

Following dimension attributes correspond to fields in NAV table Bank Account:
(Financial Management – Cash management – Bank accounts)

Name	Description
Bank Account	Bank Account
Currency Code	Currency Code
IBAN	IBAN
Posting Group Code	Posting Group Code
SWIFT Code	SWIFT Code

Hierarchies

Name	Description
Bank Account by Currency Code	Currency Code – Bank Account
Bank Account by Posting Group Code	Posting Group Code – Bank Account

14.5 Bin

Attributes

Following dimension attributes correspond to fields in NAV table Bins:
(Warehouse – Set-up – Location - Bins)

Name	Description
Bin	Code
Location	Location code
Zone	Zone code

Hierarchies

Name	Description
Bin by Location by Zone	Location – Zone – Bin

14.6 Business Unit

Attributes

Name	Description
Code	Code of business unit.
Business Unit Name	Name of business unit.

14.7 Chargeable

Dimension is automatically generated and has two values, "Yes" or "No". Gives information about charged or not charged values. It is used with "Jobs and Resources" module if data source is NAV 4.0.

Attributes

Name	Description
Chargeable	Yes/No option, to see charged or not charged values.

14.8 Closed period

Dimension with true / false values that makes possible to not include general ledger entries that were applied for income accounts at closing period. This is very useful when we want to observe time trends through years on income accounts.

Attributes

Name	Description
Closed Period	Yes/No option if we want to include closing ledger entries in our analysis. (If Posting date in G/L Entry table is equal to 0 then No, else is Yes.)

14.9 Company

Dimension consists of all companies selected at installation of BI4Dynamics.

Attributes

Name	Description
Company	Company name as read from Dynamics NAV
Company short name	A new field - usually shorter name of the company – entered in Company setup form of installation proces
Company ID	Internal number of a company from setup.Company
Data Source ID	Internal data source number of a data source from setup.DataSource
Data Source Server Name	Name of NAV data source server
Data Source Database Name	Name of NAV database

14.10 Composition

Composition dimension is used to see consumptions and outputs at once. Filtering specific order we can see all consumptions and outputs.

Attributes

Name	Description
Entry Type	Manually made member. It can be consumption or output, depends on entry type.
Source Type	Manually made member. It can be item, work or machine center.

Category Group	Depends what we check. If we look at Item, then this is Item category, if we look at work center, then this is work center group and in case of machine center this is a machine center. (Item card – Work center card – Machine center card)
Product Group	Sub group of category group. (Item card – Product group code – General – table Item Category – Code, Description)
Inventory Posting Group	Depends what we check. If we look at the Item, then this is Inventory Posting Group, if we look at work center, then this is work center group and in case of machine center this is machine center. (Item card – Work center card – Machine center card)
Composition	Depends on what we check. If we look at Item, then we see number and name of an item, in case of work center we see number and name of work center, in case of machine center there is number and name of machine center. (Item card – Work center card – Machine center card)

Hierarchies

Name	Description
Composition by Type	Entry type – Source type – Composition
Composition by Category Group	Entry type – Source type – Category group – Product group – Composition
Composition by Inventory Posting Group	Entry type – Source type – Inventory posting group – Composition

14.11 Consumption

Dimension is used to analyze consumptions for an output.

Attributes

Name	Description
Source Type	Manually made member. It can be item, work or machine center.
Category Group	Depends what we check. If we look at Item, then this is Item category, if we look at work center, then this is work center group and in case of machine center this is a machine center. (Item card – Work center card – Machine center card)
Product Group	Sub group of category group. (Item card – Product group code – General – table Item Category – Code, Description)
Inventory Posting Group	Depends what we check. If we look at the Item, then this is Inventory Posting Group, if we look at work center, then this is work center group and in case of machine center this is machine center. (Item card – Work center card – Machine center card)
Consumption	Depends on what we check. If we look at Item, then we see number and name of an item, in case of work center we see number and name of work center, in case of machine center there is number and name of machine center. (Item card – Work center card – Machine center card)

Hierarchies

Name	Description
Consumption by Category Group	Source type – Category group – Product group – Consumption

Consumption by Inventory Posting Group	Source type – Inventory posting group – Consumption
Consumption by Type	Source type – Consumption

14.12 Currency

Dimensions used to define currency.

Attributes

Name	Description
Currency	Currency. (Financial Management – Payables – Vendors – Vendor – Ledger entries – Currency – table Vendor Ledger Entry – Code, Description)

14.13 Customer posting group

Dimension is used to define customer posting group.

Attributes

Name	Description
Customer Posting Group	Customer posting group. (Customer card – General - Customer Posting Group – table Customer Posting Group – Code)

14.14 Customer

All information regarding Customer. We provide two dimensions for customer:
Bill – to Customer and Sell – to Customer.
Both dimensions comes directly from NAV.

Attributes

Name	Description
Bill – to Country	Country of bill-to customer. (Customer card – General - Country Code – table Country – Code, Name)
Bill-to General Business Posting Group	General business posting group of specific bill-to customer. (Customer card –General - Gen. Bus. Posting Group – table Gen. Business Posting Group – Code, Description)
Bill-to Posting Group	Customer posting group of specific bill-to customer. (Customer card – General – Customer Posting Group – table Customer Posting Group – Code, Description)
Bill-to Customer	Customer that received the invoice. (Customer card –General –No, Name) Additional information is written on specific document (Sales Shipment header, Sales Invoice Header, Sales Cr Memo Header, Posted Service Header and Return Receipt Header.)
Sell–to Customer	For which customer did we shipped the order. (Customer card – No, Name) Additional information is written on specific document, exactly Source No. in table Value Entry or Item Ledger Entry.
Company ID	In BI4Dynamics data warehouse most dimension records have attribute CompanyID that explain in which company this record has been created. If Customer has same code and name in more companies, CompanyID is an attribute (identifier) that separates transactions by company.

Hierarchies

Name	Description
Customer by Country	Bill-to country – Bill-to territory – Bill-to City - Bill-to customer – Sell-to customer
Customer by Posting Group	Bill-to posting group – Bill-to customer – Sell-to customer
Customer by General Business Posting Group	Bill-to general business posting group – Bill-to customer – Sell-to customer
Customer by Discount Group	Bill-to discount group - Bill-to customer – Sell-to customer
Customer by Price Group	Bill-to price group - Bill-to customer – Sell-to customer
Customer by Payment Terms	Bill-to payment terms - Bill-to customer – Sell-to customer
Customer by Responsibility Center	Bill-to responsibility center - Bill-to customer – Sell-to customer
Customer by Salesperson	Bill-to salesperson - Bill-to customer – Sell-to customer

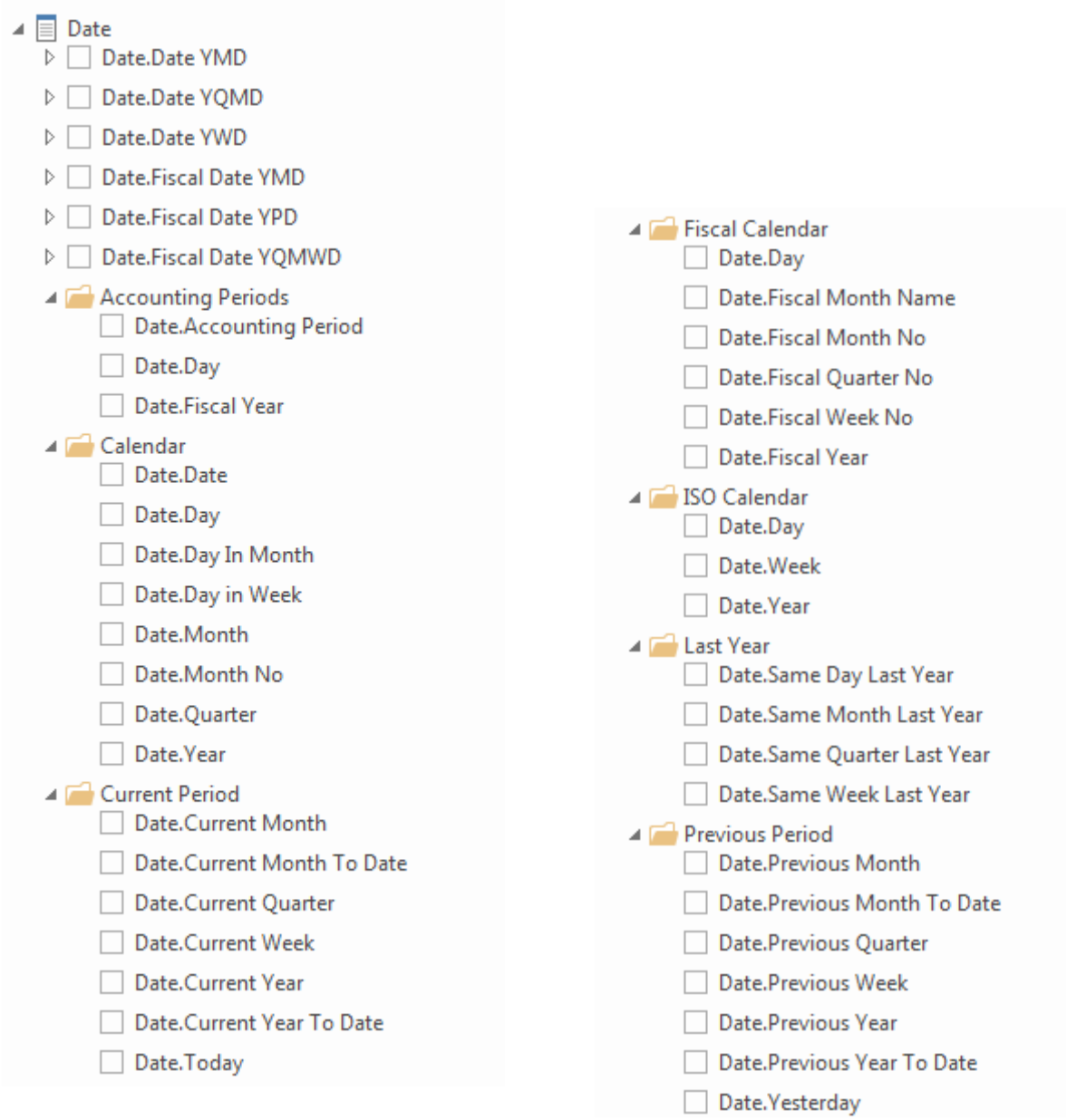
14.15 Data Source

Attributes

Name	Description
Data Source	Server and database name of Microsoft Dynamics NAV database

14.16 Date

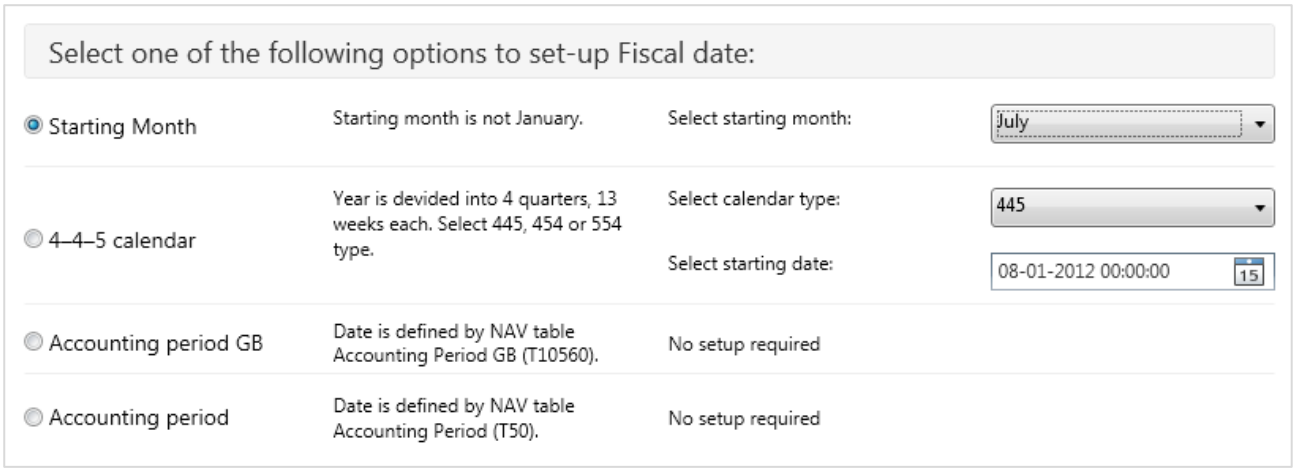
Date dimension is the most important dimension.



There is only one Date dimension in all BI4Dynamics cubes. All properties in role playing date dimensions (Shipment date, Delivery Date) are equal.

Fiscal date setup

Fiscal date is created from following sources:



Date dimension hierarchies

Based on date dimensions setup these are date hierarchies:

Calendar Date

- Date YMD, Date YQMD

Calendar Date ISO - based on ISO Week

- Date YWD

Fiscal Date based on Starting Month setup,
Fiscal Date based on 4-4-5 Calendar setup,
Fiscal Date based on table **Accounting Periods GB** in Dynamics NAV

- Fiscal Date YMD, Fiscal Date YQMWD

Fiscal Date based on table **Accounting Periods** in Dynamics NAV

- Fiscal Date YPD

Note:

"Year" attribute in YWD hierarchy is based on ISO week and is different from "Year" in Calendar date hierarchy. Therefore it is not correct to create additional hierarchy "Date YQM**W**D" as most customer want to have ISO week value.

There is a work around to get YQMWD hierarchy: select Fiscal Date hierarchy with Starting month "January" (even you don't use fiscal date). Just for YQMWD hierarchy use Fiscal date.

Attributes

Name	Description
Accounting Period	Period as defined in NAV table "Accounting Periods"
Date	Date in date format
Day in Month	Day (1-31)
Day in Week	Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday Week starting day and translation are depending on Windows Setup.
Fiscal Month Name	Month Name as defined in Fiscal Date when using Accounting Periods (UK)
Fiscal Month No	Fiscal Month Number (1, 2, 3, …) as defined in Fiscal Date when using Accounting Periods (UK)

Fiscal Week	Fiscal Week Number (1,2,3,4) as defined in Fiscal Date when using Accounting Periods (UK)
Fiscal Quarter	Fiscal Quarter as defined in Fiscal Date when using Accounting Periods (UK)
Fiscal Quarter No	Fiscal Quarter Number (1,2,3,4) as defined in Fiscal Date when using Accounting Periods (UK)
Fiscal Year	Year as defined in Fiscal Date as defined in Fiscal Date when using Date dimension setup field "Fiscal Year Starting in" or Accounting Periods (UK) (see section above)
Month	Month in specified Calendar Year (January, February, March…)
Month No	Month number (1, 2, 3, …) in Calendar Year
Quarter	Quarter in specified Calendar Year (Q1, Q2, Q3, Q4)
Week	ISO Week in specified Calendar Year (1-53)
Week No	ISO Week number (1, 2, 3, …) in specified Calendar Year
Year	Year (Calendar)
Year Month	Year-Month combination (2014-Jan, 2014-Feb, 2014-March…) in specified Calendar Year
Year Quarter	Year-Quarter combination (2014-Q1, 2014-Q2, 2014-Q3…) in specified Calendar Year
Year Week	ISO Year - ISO Week combination (2014-1, 2014-2, 2014-3…) ISO Year (date attribute based on internationally recognized function ISO Week) is different from Calendar Year. Few days in January and December may belong to diffent ISO week than Calendar Week and therefore ISO Year attribute is different than Calendar Year attribute. ISO Year attribute is only available as part of Year Week hierarchy and not as a separate date attribute.
Current Year **Current Year To Date** **Current Quarter** **Current Month** **Current Month To Date** **Current Week** **Today** **Previous Year** **Previous Year To Date** **Previous Quarter** **Previous Month** **Previous Month To Date** **Previous Week** **Yesterday** **Same Quarter Last Year** **Same Month Last Year** **Same Week Last Year** **Same Day Last Year**	Calculations of all dates and date periods are based on date of processing, that is determining "Today". Processing update is done usually once per day thefore: • If processing of date dimension is done before midnight, than "Today" is true last day of processing. • If processing of date dimension is done after midnight, than "Today" is actually a new day, and all last day postings belong to "Yesterday", Processing of date dimension is done just after processing staging area. It is possible to change of calcatiing "Today" - shift formula for few hours – in SQL script.

Hierarchies

Name	Description
Date YMD	Year – Month – Day (Calendar)
Date YQMD	Year – Quarter – Month – Day (Calendar)
Date YWD	Year – Week – Day (ISO Week function)
Fiscal Date YPD	Fiscal year – Period – Day (Accounting Periods (UK))
Fiscal Date YMD	Year – Month – Day (Fiscal Date)
Fiscal Date YQMWD	Year – Fiscal Quarter – Month – Week – Day (Fiscal Date)

MDX measures and time intelligence formulas

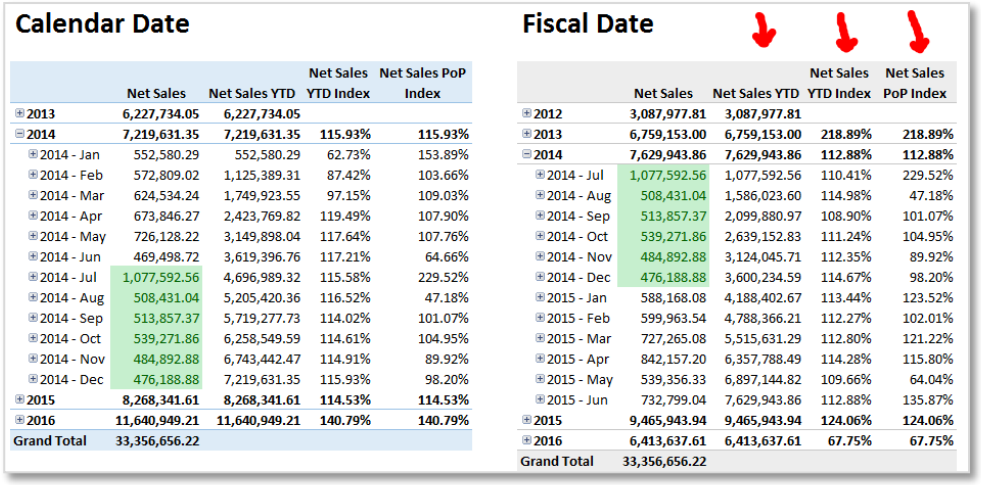
MDX measures are cube calculations that are created from existing data warehouse measures. Time intelligence formulas (YTD, YTD Index and similar) are calculated only on one Date hierarchy, this is by default **Calendar Date**.

Additionally to this, BI4Dynamics has extended functionality of MDX measures by **Fiscal Date** to all measures in following cubes:

- GL cube
- Sales cube
- Purchase cube

Measures in these cubes support both Calendar and Fiscal date hierarchy.

Example:



Calendar Date

	Net Sales	Net Sales YTD	Net Sales YTD Index	Net Sales PoP Index
2013	6,227,734.05	6,227,734.05		
2014	7,219,631.35	7,219,631.35	115.93%	115.93%
2014 - Jan	552,580.29	552,580.29	62.73%	153.89%
2014 - Feb	572,809.02	1,125,389.31	87.42%	103.66%
2014 - Mar	624,534.24	1,749,923.55	97.15%	109.03%
2014 - Apr	673,846.27	2,423,769.82	119.49%	107.90%
2014 - May	726,128.22	3,149,898.04	117.64%	107.76%
2014 - Jun	469,498.72	3,619,396.76	117.21%	64.66%
2014 - Jul	1,077,592.56	4,696,989.32	115.58%	229.52%
2014 - Aug	508,431.04	5,205,420.36	116.52%	47.18%
2014 - Sep	513,857.37	5,719,277.73	114.02%	101.07%
2014 - Oct	539,271.86	6,258,549.59	114.61%	104.95%
2014 - Nov	484,892.88	6,743,442.47	114.91%	89.92%
2014 - Dec	476,188.88	7,219,631.35	115.93%	98.20%
2015	8,268,341.61	8,268,341.61	114.53%	114.53%
2016	11,640,949.21	11,640,949.21	140.79%	140.79%
Grand Total	33,356,656.22			

Fiscal Date

	Net Sales	Net Sales YTD	Net Sales YTD Index	Net Sales PoP Index
2012	3,087,977.81	3,087,977.81		
2013	6,759,153.00	6,759,153.00	218.89%	218.89%
2014	7,629,943.86	7,629,943.86	112.88%	112.88%
2014 - Jul	1,077,592.56	1,077,592.56	110.41%	229.52%
2014 - Aug	508,431.04	1,586,023.60	114.98%	47.18%
2014 - Sep	513,857.37	2,099,880.97	108.90%	101.07%
2014 - Oct	539,271.86	2,639,152.83	111.24%	104.95%
2014 - Nov	484,892.88	3,124,045.71	112.35%	89.92%
2014 - Dec	476,188.88	3,600,234.59	114.67%	98.20%
2015 - Jan	588,168.08	4,188,402.67	113.44%	123.52%
2015 - Feb	599,963.54	4,788,366.21	112.27%	102.01%
2015 - Mar	727,265.08	5,515,631.29	112.80%	121.22%
2015 - Apr	842,157.20	6,357,788.49	114.28%	115.80%
2015 - May	539,356.33	6,897,144.82	109.66%	64.04%
2015 - Jun	732,799.04	7,629,943.86	112.88%	135.87%
2015	9,465,943.94	9,465,943.94	124.06%	124.06%
2016	6,413,637.61	6,413,637.61	67.75%	67.75%
Grand Total	33,356,656.22			

14.17 Depreciation book

Different depreciation books set in MS Dynamics NAV.

Attributes

Name	Description
Depreciation Book	Depreciation book. (Financial Management – Fixed Assets – Setup – Depreciation Book – table Depreciation book – Code and Description)

14.18 Dimensions (1 to 8) – Dim "Dimension"

Dimensions are based on settings of dimension in MS Dynamics NAV. Standard installation of BI4NAV supports eight dimensions, all additional should be made as customization

If standard functionality for grouping specific dimension values is defined in MS Dynamics NAV ((begin-total and end-total with function Indent Dimension Values) then the complete hierarchy for specific dimension is automatically build in data warehouse.

The information about dimension values for posted entries is gathered through posted dimension ledger entries.

Attributes

Name	Description
Dimension	Value of specific dimension.

	(Financial Management – Setup – Dimensions – table Dimension value – Code, Name)
Level 1-7	Custom levels for hierarchy of dimension in NAV table Dimension Values.

Hierarchy

Name	Description
Dimension by Levels	Level (1 ... 7) – Global dimension levels defined in NAV table Dimension Values.

14.19 Document Bank Account

All documents in Bank Account ledger entries:
(Financial management – Cash management - Bank Account – Bank Account – Ledger entries)

Attributes

Name	Description
Document Number	Document No. (Document number)
Document Type	Document Type (Types of posted documents – Invoice, Payment, Financial Charge Memo, Credit Memo, Reminder, Refund).
Posted Year Month	Grouping based on posting date on Year – Month level of posting date

Hierarchies

Name	Description
Document Bank Account by Type	Document Type – Posted Year Month - Document Number

14.20 Document Customer

All posted documents in customer ledger entries.

Attributes

Name	Description
Document Type	Types of posted documents – invoice, payment, prepayment, credit memo, etc. (Financial Management – Receivables – Customers – Customer – Customer ledger entries – table Customer Ledger Entry – Document Type)
Posting Description	Posting Description (from table Cust Ledger Entry)
Posted Year Month	Grouping based on posting date on month level. Example: 2007 – 01. (Financial Management – Receivables – Customers – Customer – Customer ledger entries – table Customer Ledger Entry – Posting Date)
Document Number	Document number. (Financial Management – Receivables – Customers – Customer – Customer ledger entries – table Customer Ledger Entry – Document No.)
External Document Number	External Document Number (from table Customer Ledger Entry)
Due Date	Due Date (from table Customer Ledger Entry)
Closed at Date	Closed at Date (from table Customer Ledger Entry)
On Hold	On Hold (from table Customer Ledger Entry)
Open	Open (from table Customer Ledger Entry)

Due Days	Difference in days between last BI4Dynamics processing date and Due Date.

Hierarchy

Name	Description
Document Customer by Type	Document type – Posted year month – Document number.

14.21 Document GL

All posted documents in general ledger.

Attributes

Name	Description
Document Type	Types of posted documents – invoice, payment, prepayment, prepaid invoice, credit memo, ... (Financial Management – General Ledger – Chart of accounts – Account – Ledger entries – table G/L Entry – Document Type)
Posted Year Month	Grouping based on posting date on month level. Example: 2007 – 01 (Financial Management – General Ledger – Chart of accounts – Account – Ledger entries – table G/L Entry – Posting date)
Document Number	Document number. (Financial Management – General Ledger – Chart of accounts – Account – Ledger entries – table G/L Entry – Document No.)
External Document No	External Document Number (from table GL Entry)
Document Date	Document Date (from table GL Entry)
General Posting Type	General Posting Type (from table GL Entry)
Posting Description	Posting Description (from table GL Entry)

Hierarchy

Name	Description
Document GL by Type	Document type – Posted year month – Document number

14.22 Document Inventory

All documents regarding Inventory field.

Attributes

Name	Description
Entry Type	Types of posted documents – purchase, positive adjustment, sale, etc. From which history area is the posted document.
Posted Year Month	Grouping based on posting date on month level. Example: 2007 – 01. (Warehouse – History – Posted documents – Posting Date)
Document Number	Document number. (Warehouse – History – Posted documents – No.)

Hierarchy

Name	Description
Document Inventory by Entry Type	Entry type – Posted year month – Document number

14.23 Document Purchase

All posted documents in Purchase MS Dynamics NAV module.

Attributes

Name	Description
Document Type	Types of posted purchase documents – invoice, shipment, credit memo, return shipment, receipt, etc. From which history area is the posted document (Posted invoices, posted shipments, etc.)
Posted Year Month	Grouping based on posting date on month level. Example: 2007 – 01. (Purchase – History – Posted Invoices, Posted Receipts, etc. - Posting Date)
Posting Description	Posting Description (from tables Purch Rcpt Header, Purch Inv Header, Return Shipment Header, Purch Cr Memo Hdr)
Document Number	Document number. (Purchase – History – Posted documents – Posted Invoices, Posted Receipts, etc. - General – No.)
Ship–to Name	From which vendor were the goods received. (Posted document header – Shipping –Ship-to name)
Ship–to Code	From which vendor were the goods received. (Posted document header – Shipping – Ship-to code)

Hierarchy

Name	Description
Document Purchase by Type	Document type – Posted year month – Document number.

14.24 Document Purchase order

Document purchase order dimension enables us to filter purchase orders on specific document (order) or specific type of documents.

Attributes

Name	Description
Document Number	Document number. (Purchase – Order Processing – Orders – table Purchase Header – No.)
Document Type	Type of purchase order document. (Purchase – Order Processing – table Purchase Header – Document Type)
Document Year Month	Represents the group of specific order dates (year, month). (Purchase – Order Processing – table Purchase Header – Document Date)
Document Date	Date of document creation. (Purchase – Order Processing – table Purchase Header – Document Date)
Order Year Month	Represents the group of specific order dates (year, month). (Purchase – Order Processing – table Purchase Header – Order Date)
Order Date	Date of the order creation. (Purchase – Order Processing – table Purchase Header – Order Date)
Posted Year Month	Represents the group of specific order dates (year, month). (Purchase – Order Processing – table Purchase Header – Posting Date)
Posting Date	The date when the order was posted. (Purchase – Order Processing – table Purchase Header – Posting Date)
Promised Year Month	Represents the group of specific promised dates (year, month).

	(Purchase – Order Processing – table Purchase Header – Promised Receipt Date)
Promised Receipt Date	The date when the sold goods were promised for delivery. (Purchase – Order Processing – table Purchase Header – Promised Receipt Date)
Requested Year Month	Represents the group of specific requested dates (year, month). (Purchase – Order Processing – table Purchase Header – Requested Receipt Date)
Requested Receipt Date	The date when the sold goods were requested for delivery. (Purchase – Order Processing – table Purchase Header – Requested Receipt Date)

Hierarchies

Name	Description
Document Purchase Orders	Document type – Document number
Purchase Document Date	Document year month – Document date
Purchase Order Date	Order year month – Order date
Purchase Posting Date	Posted year month – Posting date
Purchase Promised Receipt Date	Promised year month – Promised receipt date
Purchase Requested Receipt Date	Requested year month – Requested receipt date

14.25 Document Sales

All posted documents in Sales & Marketing MS Dynamics NAV module.

Attributes

Name	Description
Document type	Types of posted documents – invoice, shipment, credit memo, return receipt, etc. From which history area is the posted document (Posted invoices, posted shipments, etc.
External Document Number	External Document Number (from tables Sales Shipment Header, Sales Invoice Header, Return Receipt Header, Sales Cr Memo Header)
Order Number	Order Number (from tables Sales Shipment Header, Sales Invoice Header, Return Receipt Header, Sales Cr Memo Header)
Posting Description	Posting Description (from tables Sales Shipment Header, Sales Invoice Header, Return Receipt Header, Sales Cr Memo Header)
Posted Year Month	Grouping based on posting date on month level. Example: 2007 – 01. (Sales & Marketing – History – Posted documents – Posting Date)
Document Number	Document number. (Sales & Marketing – History – Posted documents –No.)
Ship–to Name	To which customer were the goods shipped to. (Posted document header – Shipping –Ship-to name)
Ship–to Code	(Posted document header – Shipping – Ship-to code) In case Ship to code is empty, then 'N/A' is written.

Hierarchy

Name	Description
Document Sales By Type	Document type – Posted year month – Document number.

14.26 Document Sales order

Document sales order dimension enables us to filter sales orders on specific document (order) or specific type of orders.

Attributes

Name	Description
Document Number	Document number. (Sales & Marketing – Order Processing – Orders – No. – table Sales Header)
Document Type	Type of sales order document. (Sales & Marketing – Order Processing – Orders – Document Type – table Sales Header)
Posting Date	The date when the order was posted. (Sales & Marketing – Order Processing – Orders – Posting Date – table Sales Header)
Posted Year Month	Represents the group of specific posted dates (year, month). (Sales & Marketing – Order Processing – Orders – Posting Date – table Sales Header)
Order Date	Date of the order creation. (Sales & Marketing – Order Processing – Orders – Order Date – table Sales Header)
Order Year Month	Represents the group of specific order dates (year, month). (Sales & Marketing – Order Processing – Orders – Order Date – table Sales Header)
Document Date	Date of the document creation. (Sales & Marketing – Order Processing – Orders – Document Date – table Sales Header)
Document Year Month	Represents the group of specific document dates (year, month). (Sales & Marketing – Order Processing – Orders – Document Date – table Sales Header)
Requested Delivery Date	The date on which customer requests delivery. (Sales & Marketing – Order Processing – Orders – Requested Delivery Date – table Sales Header)
Requested Year Month	Represents the group of specific requested dates (year, month). (Sales & Marketing – Order Processing – Orders – Requested Delivery Date – table Sales Header)
Promised Delivery Date	The date when the sold goods were promised for delivery. (Sales & Marketing – Order Processing – Orders – Promised Delivery Date – table Sales Header)
Promised Year Month	Represents the group of specific promised dates (year, month). (Sales & Marketing – Order Processing – Orders – Promised Delivery Date – table Sales Header)

Hierarchies

Name	Description
Document Sales Orders	Document type – Document number
Sales Document Date	Document year month – Document date
Sales Order Date	Order year month – Order date
Sales Posting Date	Posted year month – Posting date
Sales Promised Delivery Date	Promised year month – Promised delivery date
Sales Requested Delivery Date	Requested year month – Requested delivery date

14.27 Document Service

All posted documents through service module. Dimension is available only if NAV data source is 5.0 or higher.

Attributes

Name	Description
Document Type	Types of posted documents – invoice, credit memo, shipment. (Service – History – Posted Shipments/Invoices/Credit memos – table Service shipment header, Service invoice header, Service cr. Memo header.
Posted Year Month	Grouping based on posting date on month level. Example: 2007 – 01. (Service – History – Posted Shipments/Invoices/Credit memos – table Service shipment header, Service invoice header, Service cr. Memo header – Posting Date)
Document Number	Document number. (Service – History – Posted Shipments/Invoices/Credit memos – table Service shipment header, Service invoice header, Service cr. Memo header – No.)
Ship to Code	Customer code to which we shipped. (Service – History – Posted Shipments/Invoices/Credit memos – table Service shipment header, Service invoice header, Service cr. Memo header – Ship to code)
Ship to Name	Customer name to which we shipped. (Service – History – Posted Shipments/Invoices/Credit memos – table Service shipment header, Service invoice header, Service cr. Memo header – Ship to name)

Hierarchy

Name	Description
Document Service by Type	Document type – Posted year month – Document number.

14.28 Document Service Order

Dimension is available only if NAV data source is 5.0 or higher.

Attributes

Name	Description
Bill-to Customer	Bill-to Customer number and name of the order. (Service – Order Processing – Orders – Invoicing – Bill-to Customer No. and Name – table Service Header and Customer)
Bill-to Customer No	Bill-to Customer number of the order. (Service – Order Processing – Orders – Invoicing – Bill-to Customer No. – table Service Header)
Bill-to Customer Name	Bill-to Customer name of the order. (Service – Order Processing – Orders – Invoicing – Bill-to Name – table Customer)
Contact No	Contact number of the order. (Service – Order Processing – Orders – General – Contact No. – table Service Header)
Contract No	Contract number of the order. (Service – Order Processing – Orders – General – Contract No. – table Service Header)
Customer	Customer number and name of the order.

	(Service – Order Processing – Orders – General – Customer No. and Name – table Service Header and Customer)
Customer No	Customer number of the order. (Service – Order Processing – Orders – General – Customer No. – table Service Header)
Customer Name	Customer name of the order. (Service – Order Processing – Orders – General – Name – table Customer)
Customer Price Group	CustomerPriceGroup field from Service Header table.
Description	Description of the order. (Service – Order Processing – Orders – General – Description – table Service Header)
Document No	Document number of the order. (Service – Order Processing – Orders – General – No. – table Service Header)
Document Service Order	Document number and description of the order. (Service – Order Processing – Orders – General – No. and Description – table Service Header)
Document Type	DocumentType field from Service Header table.
Due Date	Due date of the order. (Service – Order Processing – Orders – Invoicing – Due Date – table Service Header)
General Business Posting Group	GenBusPostingGroup field from Service Header table.
Location	Location code of the order. (Service – Order Processing – Orders – Shipping – Location Code – table Service Header)
Order Date	Order date of the order. (Service – Order Processing – Orders – Details – Order Date – table Service Header)
Posting Date	Posting date of the order. (Service – Order Processing – Orders – Invoicing – Posting Date – table Service Header)
Priority	Priority of the order. (Service – Order Processing – Orders – General – Priority – table Service Header)
Reason Code	ReasonCode field from Service Header table.
Response Date	Response date of the order. (Service – Order Processing – Orders – Invoicing – Response Date – table Service Header)
Salesperson	Salesperson code of the order. (Service – Order Processing – Orders – Invoicing – Salesperson Code – table Service Header)
Service Order Type	Service order type of the order. (Service – Order Processing – Orders – General – Service Order Type – table Service Header)
Status	Status of the order. (Service – Order Processing – Orders – General – Status – table Service Header)

Hierarchies

Name	Description
Document Service Order by Contact No	Contact No – Document Service Order.

Document Service Order by Contract No	Contract No – Document Service Order.
Document Service Order by Customer	Customer – Document Service Order.
Document Service Order by Document Type	Document Type – Document Service Order.
Document Service Order by Status	Status – Document Service Order.

14.29 Document Transfer Order

Attributes

Following dimension attributes are fields from table Transfer Header:
(Warehouse – Orders & Contacts – Transfer Orders)

Name	Description
Document No	No. (Document number)
Document Type	Type = 0 : Transfer Order
Posted Year Month	Grouping based on posting date on month level
Posting Date	Posting Date
Receipt Date	Receipt Date
Receipt Year Month	Grouping based on receipt date on month level
Shipment Date	Shipment Date
Shipment Year Month	Grouping based on shipment date on month level

Hierarchies

Name	Description
Transfer Orders	Document Type – Document Number
Transfer Posting Date	Posted Year Month – Posting Date
Transfer Receipt Date	Receipt Year Month – Receipt Date
Transfer Shipment Date	Shipment Year Month – Shipment Date

14.30 Document Vendor

All posted documents in vendor ledger entry.

Attributes

Name	Description
Document Type	Types of posted documents – Invoice, Payment, Credit Memo, (Financial Management – Payables – Vendors – Vendor – Ledger entries – Document Type – table Vendor Ledger Entry – Document Type)
Posted Year Month	Grouping based on posting date on month level. Example: 2007 – 01. (Financial Management – Payables – Vendors – Vendor – Ledger entries – Posting Date – table Vendor Ledger Entry – Posting Date)
Document Number	Document number. (Financial Management – Payables – Vendors – Vendor – Ledger entries – Document No. – table Vendor Ledger Entry – Document No.)
External Document Number	External Document Number (from table Vendor Ledger Entry)
Due Date	Due Date (from table Vendor Ledger Entry)
Closed at Date	Closed at Date (from table Vendor Ledger Entry)
On Hold	On Hold (from table Vendor Ledger Entry)
Open	Open (from table Vendor Ledger Entry)
Due Days	Difference in days between today and Due Date.

Posting Description	Posting Description (from table Vendor Ledger Entry)

Hierarchy

Name	Description
Document Vendor by Type	Document type – Posted year month – Document number.

14.31 Document Warehouse

Attributes

Dimension attributes are fields from 3 tables by 3 types:
1 = Receipt (Posted Whse. Receipt Header)
2 = Put-away (Posted Whse. Shipment Header)
3 = Pick (Registered Whse. Activity Hdr.)

Name	Description
Assignment Date	Assignment Date
Assignment Time	Assignment Time
Document No	Document number from list of document types in Document Type attribute.
Document Type	1 = Receipt (Posted Whse. Receipt Header) 2 = Put-away (Posted Whse. Shipment Header) 3 = Pick (Registered Whse. Activity Hdr.)
Posted Year Month	Grouping based on posting date on year-month level
Vendor Shipment No	Field "Vendor Shipment No." from on document (only for Type=Receipt)

Hierarchies

Name	Description
Document Warehouse by Type	Document Type – Posted Year Month – Document No
Document Warehouse by Vendor	Vendor Shipment – Document No

14.32 Document Warehouse Open

Attributes

Dimension attributes are fields below listed tables that are created in Snapshot database functionality of Warehouse module. It includes following snapshot tables that have been created by adequate header and lines (list by Document Type):

- 1: Warehouse Receipt = Warehouse Receipt Header + Warehouse Receipt Line
- 2: Warehouse Shipment = Warehouse Shipment Header + Warehouse Shipment Line
- 3: Warehouse Activity = Warehouse Activity Header + Warehouse Activity Line

Name	Description
Assignment Date	Assignment Date
Assignment Time	Assignment Time
Assignment Year Month	Grouping based on Assignment date on year-month level
Document No	Document number
Document Type	Option type: 1: Warehouse Receipt 2: Warehouse Shipment 3: Warehouse Activity
Ending Date	Ending Date

Ending Time	Ending Time
Ending Year Month	Ending Year Month
Last Print Date Time	Last Print Date Time (available for Warehouse Receipt)
Posted Year Month	Grouping based on posting date on year-month level
Posting Date	Posting Date
Shipment Date	Shipment Date (available for Warehouse Shipment and Warehouse Activity, N/A for Warehouse Receipt)
Shipment Year Month	Shipment Year Month (available for Warehouse Shipment and Warehouse Activity, N/A for Warehouse Receipt)
Source No	"Source No" field on related Warehouse document is "Document number" of source document: Sales Order, Sales Return Order, Purchase Order, Purchase Return Order, Outbound Transfer
Starting Date	Starting Date (available for Warehouse Receipt and Warehouse Activity, N/A for Warehouse Shipment)
Starting Year Month	Starting Year Month (available for Warehouse Receipt and Warehouse Activity, N/A for Warehouse Shipment)
Vendor Shipment No	Vendor Shipment No (available for Warehouse Receipt)

Hierarchies

Name	Description
Document Warehouse Open	Document Type – Document No.
Warehouse Document Open by Vendor	Vendor Shipment – Document No.
Warehouse Open Assignment Date	Assignment Year Month – Assignment Date
Warehouse Open Ending Date	Ending Year Month – Ending Date
Warehouse Open Shipment Date	Shipment Year Month – Shipment Date
Warehouse Open Starting Date	Starting Year Month – Starting Date
Warehouse Open Posting Date	Posting Year Month – Posting Date

14.33 Due analysis

Generic dimension used with measure payables balance gives us possibility to analyze due/overdue balance.

Attributes

Name	Description
Due Overdue	Two groups which dived values into before due or overdue.
Due Group	Groups that define time intervals (in days) for due/over-dues. Standard values (-60, -45, -30, -15, 0, 30, 60, 90, 120, 180, 365, over)
Days Due	Exact number of days for due / overdue. (Due days are extracted from table Customer Ledger Entry and from Detailed Customer Ledger Entry for customers and from Vendor Ledger

	Entry and from Detailed Vendor Ledger Entry for vendors. Due days is sum of difference between Initial Entry Due Date and Date.)

Hierarchy

Name	Description
Due Analysis	Due overdue – Due group – Due days

14.34 Expected Receipt Date

Expected Receipt dimension is used to observe trends through time periods and to filter data on specific date interval, just like Date dimension.
It is referenced to Purchase Rcpt. Line based on the Expected Receipt Date; if Expected Receipt Date in Purchase Rcpt. Line is empty, then it is referenced based on the Expected Receipt Date in document header. That also applies to Return Shipment Header, because Return Shipment Line does not contain this data. In case that Expected Receipt Date in document header is also empty, then it is referenced to Posting Date.

14.35 FA posting category

Dimension shows us different categories of posted fixed assets.

Attributes

Name	Description
FA Posting Category	Fixed Asset posting category. (table FA Ledger Entry)

14.36 FA Posting Group

Attributes

Name	Description
FA Posting Group	Fixed Asset posting group. (table FA Ledger Entry)

14.37 FA posting type

Different posting types of posted fixed assets.

Attributes

Name	Description
FA Posting Type	Fixed Asset posting type. (table FA Ledger Entry)

14.38 Fault area

Dimension identifies different areas of faults encountered with service items.

Attributes

Name	Description
Fault Area	Different fault areas. (table Fault area)

14.39 Fault code

Dimension identifies different service item faults or the actions taken on service items. It is available only if NAV data source is 5.0 or higher.

Attributes

Name	Description
Fault Area	Different fault areas. (Service – Setup – Fault reporting – Fault areas – table Fault area)

14.40 Fault reason code

Dimension identifies typical reasons for service item faults. It is available only if NAV data source is 5.0 or higher.

Attributes

Name	Description
Fault Reason Code	Different fault reason codes for service item faults. (Service – Setup – Fault reporting – Fault reason codes – table Fault reason code)

14.41 Fixed Asset

Dimension gives an overview of fixed assets in a company.

Attributes

Name	Description
FA Blocked	Shows if Fixed Asset is blocked or not. (Financial Management – Fixed Assets – Fixed Assets – General – Blocked – table Fixed Asset)
FA Budgeted Asset	Shows if Fixed Asset is for budgeting purposes or not. (Financial Management – Fixed Assets – Fixed Assets – Posting – Budgeted Asset – table Fixed Asset)
FA Inactive	Shows if Fixed Asset is active or inactive. (Financial Management – Fixed Assets – Fixed Assets – General – Inactive – table Fixed Asset)
FA Maintenance Vendor	Fixed Asset maintenance vendor. (Financial Management – Fixed Assets – Fixed Assets – Maintenance – Maintenance Vendor No. – table Fixed Asset/Vendor)
FA No	Fixed Asset number.
FA Serial No	Fixed Asset serial number.
FA Vendor	Fixed Asset vendor. (Financial Management – Fixed Assets – Fixed Assets – Maintenance – Vendor No. – table Fixed Asset/Vendor)
Fixed Asset Class	Fixed Asset class. (Financial management – Fixed Assets – FA Classes – table FA Class)
Fixed Asset Location	Fixed Asset location. (Financial Management – Fixed Assets – Fixed Assets – Posting – FA Location Code – table Fixed Asset/Location)
Fixed Asset Posting Group	Fixed Asset Posting Group
Fixed Asset Subclass	Fixed Asset subclass.

	(Financial Management – Fixed Assets – FA Subclasses – table FA Subclass)
Fixed Asset	Employee responsible for specific fixed asset. (Financial Management – Fixed Assets – Fixed Assets – General – Responsible Employee – table Fixed Asset/Employee)
Responsible Employee	Employee responsible for specific fixed asset. (Financial Management – Fixed Assets – Fixed Assets – General – Responsible Employee – table Fixed Asset/Employee)

Hierarchies

Name	Description
Fixed Asset by Class	FA class – FA subclass – Fixed asset
Fixed Asset by Responsible Employee	Responsible employee – Fixed asset
Fixed Asset by Location	FA location – Fixed asset
Fixed Asset by FA Posting Group	FA Posting Group – Fixed asset

14.42 General business posting group

Different business groups connected with customers and vendors.

Attributes

Name	Description
General Business Posting Group	General business posting group used for posted value entry. (table Gen. Business Posting Group)

14.43 General posting type

Attributes

Name	Description
General Posting Type	General posting type used for posted GL entry. (table G/L Entry – Gen. Posting Type)

14.44 General product posting group

Attributes

Name	Description
General Product Posting Group	General product posting group used for posted value entry. (table Gen. Product Posting Group – Code, Description)

14.45 GL account

Dimension represents complete chart of accounts. If standard functionality for grouping of accounts is specified in MS Dynamics NAV (begin-total and end-total with function Indent chart of accounts) then the complete hierarchy for chart of accounts is automatically build in data warehouse.

Attributes

Name	Description
GL Account	General ledger account name.

	(Financial Management – General Ledger – Chart of accounts – Name, No. – table G/L Account – No., Name)
Level 1-7	Custom levels for hierarchy of chart of accounts.
Company ID	In BI4Dynamics data warehouse most dimension records have attribute CompanyID that explain in which company this record has been created. If GL Account has same code and name in more companies, CompanyID is an attribute (identifier) that separates transactions by company.

Hierarchy

Name	Description
GL Account By Levels	Level (1..7) – GL account

14.46 GL budget

Information about all budgets, so the business user can specify which plan/budget/forecast will analyze with realization.

Attributes

Name	Description
GL Budget	Name of the budget. (Financial Management – General Ledger – Budgets – Budget Name – table G/L Budget Name – Budget Name)

14.47 Inventory Aging

Information related to inventory aging groups Dimension is used for analysis in Inventory cube.
Note:

- If Open Ledger Entry has a negative quantity, aging can't be calculated. That's way is listed under separate folder called Age not defined.
- This has to be fixed inside NAV.

Attributes

Name	Description
Aging No	Days of inventory
Group	Inventory aging group
Group Desc	Description of Inventory aging group: • Under 10 days • 10 - 20 days • 20 - 30 days • 30 - 40 days • 40 - 60 days • 60 - 80 days • 80 - 100 days • 100 - 120 days • 120 - 180 days • 180 - 270 days • 270 - 365 days • 1 - 2 years • 2 - 3 years • 3 - 4 years • 4 - 5 years • Age not defined

Hierarchy

Name	Description
Days By Group	Group - Day

14.48 Inventory posting group

Attributes

Name	Description
Inventory Posting Group	Inventory posting group. (table Inventory Posting Group)

14.49 Item

Dimension used to analyze items on different groups or for making reports on specific item.

Attributes

Name	Description
Item Inventory Posting Group	Inventory posting group for item. (Item card – Invoicing – Inventory Posting Group – table Inventory Posting Group – Code, Description)
Item Category Group	Category group for items. (Item card – Item Category Code – General – table Item Category – Code, Description)
Item Product Group	Sub group of category group. (Item card – Product Group Code – General – table Item Category – Code, Description)
Item Vendor	From which Vendor is purchased item. (Item card – Replenishment – Vendor No. – table Vendor – Name, No.)
Item General Product Posting Group	General posting group. (Item card – Invoicing – Gen. prod posting group – table Gen. Product Posting Group – Code, Description)
Item	Item description + number. (Item card – General – No., Description – table Item – No., Description)
Item Base Unit of Measure	Base unit of measure. (Item card – General – Base Unit Of measure – table Item – Base Unit Of measure)
Item Description	Item description. (Item card – General – Description – table Item – Description)
Item No	Item No. (Item card – General – No – table Item – No)
Item Discount Group	Discount Group. (Item card – Invoicing – Item Disc. Group – table Item – Item Disc. Group)
Item Standard Cost	Standard Cost. (Item card – Invoicing – Standard Cost – table Item – Standard Cost)
Item Unit Cost	Unit Cost. (Item card – Invoicing – Unit Cost – table Item – Unit Cost)
Company ID	In BI4Dynamics data warehouse most dimension records have attribute CompanyID that explain in which company this record has been created. If Item has same code and name in more companies, CompanyID is an attribute (identifier) that separates transactions by company.

Hierarchies

Name	Description
Item by Inventory Posting Group	Inventory posting group – Item
Item by Category By Product Group	Item category group – Item product group – Item
Item by Vendor	Item vendor – Item
Item by General Product Posting Group	Item general product posting group - Item

14.50 Item charge

Dimension is used to show postings over different item charges.

Attributes

Name	Description
Item Charge	Additional cost posted as item charge. (Item – Value entries – Item Charge No. – table Item charge – Description, Code)

14.51 Item ledger entry type

Attributes

Name	Description
Item Ledger Entry Type	Source of the specified posted entry. Source of inventory value (Sales / Purchase / Adjustment / Output / Consumption) (Entry type depends if it is from table Value Entry or table Item Ledger Entry)

14.52 Item Variant

Attributes

Name	Description
Item Variant Code	Item variant code. (Item card – General – table Item Variant – Code)
Item Variant Description	Item variant description. (Item card – General – table Item Variant – Description)
Item Variant Description 2	Item variant description 2. (Item card – General – table Item Variant – Description 2)

14.53 Job

Job dimension enables us to view all jobs we have in NAV. Dimension is a bit different between deploying it on NAV 4.0 or NAV 5.0 up.

Attributes

Name	Description
Posting Group	Job posting group.

	(Jobs – Jobs – Posting – Job Posting Group)
Job	Job number and job name. (Jobs – Jobs – General – No & Description)
Status	Job status (opened, closed, order). (Jobs – Jobs – General – Status)
Bill-to Customer	Job Bill-to Customer. (Jobs – Job Card – General – Bill-to Customer)
Salesperson	Customer Salesperson. (Sales – Customer Card – General – Salesperson Code)
Person Responsible	Job Person Responsible. (Jobs – Job – General – Person Responsible)

Hierarchies

Name	Description
Job by Posting Group	Posting group – Job
Job by Status	Status - Job
Job by Bill-to Customer	Bill-to Customer – Job
Job by Salesperson	Salesperson - Job
Job by Person Responsible	Person Responsible - Job

*Hierarchy "Job by job task" is visible just if deployed on NAV 5.0 or higher.

14.54 Job Task

Job Task dimension enables us to view all job tasks we have in NAV.
Dimension is available from NAV version 5.0 on.

Attributes

Name	Description
Job	Job number and job name. (Jobs – Jobs – General – No & Description)
Level 1-7	Job levels.
Job Task	Job tasks. (Jobs – Job – Job Task Lines)

Hierarchies

Name	Description
Job by Job Task *	Job – Job task (levels)

14.55 Location

Dimension used to allocate goods and resources.

Attributes

Name	Description
Location	On which warehouse are the goods located. (Item – Value entries or Item ledger entries – Location – table Location – Code, Name)
Company ID	In BI4Dynamics data warehouse most dimension records have attribute CompanyID that explain in which company this record has been created.

	If Location has same code and name in more companies, CompanyID is an attribute (identifier) that separates transactions by company.

14.56 Maintenance

Attributes

Name	Description
Maintenance	Maintenance code of Fixed Asset maintenance transaction (Financial management – Fixed Assets – Setup – Maintenance)

14.57 Output

Dimension is used to analyze outputs for different consumptions.

Attributes

Name	Description
Output Inventory Posting Group	Inventory posting group for item. (Item card – Invoicing – Inventory Posting Group – table Inventory Posting Group – Code, Description)
Output Category Group	Category group for items. (Item card – Item Category Code – General – table Item Category – Code, Description)
Output Product Group	Sub group of category group. (Item card – Product Group Code – General – table Item Category – Code, Description)
Output General Product Posting Group	General posting group. (Item card – Invoicing – Gen. prod posting group – table Gen. Product Posting Group – Code, Description)
Output	Item description and number. (Item card – General – No., Description – table Item – No., Description)
Company ID	In BI4Dynamics data warehouse most dimension records have attribute CompanyID that explain in which company this record has been created. If Output has same code and name in more companies, CompanyID is an attribute (identifier) that separates transactions by company.

Hierarchies

Name	Description
Output by Inventory Posting Group	Output Inventory posting group – Output
Output by Category By Product Group	Output category group – Output product group – Output
Output by General Product Posting Group	Output general product posting group – Output

14.58 Part of book value

Attributes

Name	Description
Part of Book Value	If amortization value is shown or not.

14.59 Phase

Dimension is used to display different phases of a Job. Dimension is deployed only when NAV 4.0 or lower is used as data source.

Attributes

Name	Description
Phase	Phase of a Job. (Resource Planning – Jobs – Job Journals – Phase Code)

14.60 Planned Delivery Date

Planned Delivery Date dimension is used to observe trends through time periods and to filter data on specific date interval, just like Date dimension.
It is referenced to Sales Shipment Line based on the Planned Delivery Date; if Planned Delivery Date is empty, then it is referenced based on the Shipment Date or Posting Date just like Shipment Date dimension. Because Return Receipt does not contain this data, it is referenced to Planned Delivery Date dimension based on the Shipment Date or Posting Date just like Shipment Date dimension.

14.61 Planned Shipment Date

Planned Shipment Date dimension is used to observe trends through time periods and to filter data on specific date interval, just like Date dimension.
It is referenced to Sales Shipment Line based on the Planned Shipment Date; if Planned Shipment Date is empty, then it is referenced based on the Shipment Date or Posting Date just like Shipment Date dimension. Because Return Receipt does not contain this data, it is referenced to Planned Shipment Date dimension based on the Shipment Date or Posting Date just like Shipment Date dimension.

14.62 Planned Receipt Date

Planned Receipt Date dimension is used to observe trends through time periods and to filter data on specific date interval, just like Date dimension.
It is referenced to Purch. Rcpt. Line based on the Planned Receipt Date; if Planned Receipt Date is empty, then it is referenced based on the Posting Date. Because Return Shipment does not contain this data, it is referenced to Planned Receipt Date dimension based on the Posting Date.

14.63 Production order

The dimension is used to analyze different production orders.

Attributes

Name	Description
Status	Order status is manually made dimension. It can be simulated, planned, released or finished order.
Production Order	Production number (Manufacturing – • Planning – Advanced Planning – Simulated Prod. Orders) • Execution – Planned Prod. Orders, Firm Planned Prod. Orders, Releases Prod. Orders • History – Finished Prod. Orders)

Hierarchy

Name	Description

Production Order by Status	Status – Production order

14.64 Promised Delivery Date

Promised Delivery Date dimension is used to observe trends through time periods and to filter data on specific date interval, just like Date dimension.
It is referenced to Sales Shipment Line based on the Promised Delivery Date; if Promised Delivery Date in Sales Shipment Line is empty, then it is referenced based on the Promised Delivery Date in document header. That also applies to Return Receipt Header, because Return Receipt Line does not contain this data. In case that Promised Delivery Date in document header is also empty, then it is referenced to Shipment Date or Posting Date just like Shipment Date dimension.

14.65 Promised Receipt Date

Promised Receipt Date dimension is used to observe trends through time periods and to filter data on specific date interval, just like Date dimension.
It is referenced to Purch. Rcpt. Line based on the Promised Receipt Date; if Promised Receipt Date in Purch. Rcpt. Line is empty, then it is referenced based on the Promised Receipt Date in document header. Because Return Shipment does not contain this data, it is referenced to Promised Receipt Date dimension based on the Posting Date.

14.66 Purchase Budget

Attributes

Name	Description
Purchase Budget	Item Budget Name, where Analysis area = Purchase

14.67 Reason code

Dimension is used to have an overview over created entries, actually their origin.

Attributes

Name	Description
Reason Code	Additional information about posted entry. (Item – Entries – Value entries – Reason Code– table Reason Code – Code, Description)

14.68 Return Reason code

Attributes

Name	Description
Return Reason Code	Additional information about returned items. (Item – Entries – Value entries – Reason Code– table Reason Code – Code, Description)

14.69 Receipt Status

Attributes

Name	Description
Status	Warehouse document status, available only for Type=Receipt: 0 "empty"

	1 Partially Put Away 2 Completely Put Away

14.70 Requested Delivery Date

Requested Delivery Date dimension is used to observe trends through time periods and to filter data on specific date interval, just like Date dimension.
It is referenced to Sales Shipment Line based on the Requested Delivery Date; if Requested Delivery Date in Sales Shipment Line is empty, then it is referenced based on the Requested Delivery Date in document header. That also applies to Return Receipt Header, because Return Receipt Line does not contain this data. In case that Requested Delivery Date in document header is also empty, then it is referenced to Shipment Date or Posting Date just like Shipment Date dimension.

14.71 Requested Receipt Date

Requested Receipt Date dimension is used to observe trends through time periods and to filter data on specific date interval, just like Date dimension.
It is referenced to Purch. Rcpt. Line based on the Requested Receipt Date; if Requested Receipt Date in Purch. Rcpt. Line is empty, then it is referenced based on the Requested Receipt Date in document header. Because Return Shipment does not contain this data, it is referenced to Requested Receipt Date dimension based on the Posting Date.

14.72 Resolution code

Dimension is available only if NAV data source is 5.0 or higher.

Attributes

Name	Description
Resolution code	Resolution codes. (Service – Order Processing – Setup – Fault reporting – Resolution Codes – table Resolution Code – Code, Description)

14.73 Resource

Dimension used to analyze resources. The measure data is extracted from posted sales lines.

Attributes

Name	Description
Resource Group	Group of resources. (Resource card – General – Resource Group No. – table Resource Group – No., Name)
Resource Type	Type of resource (Person or Machine). (Resource card – General – Type)
Resource General Product Posting Group	General posting group for resource. (Resource card – Invoicing – Gen. Prod. Posting group – table Product Posting Group – Code, Description)
Resource	Description and number of specified resource sold. (Resource card – General – No., Description – table Resource – No., Name)

Hierarchies

Name	Description
Resource by Group	Resource group – Resource
Resource by Type	Resource type – Resource

Resource by General Product Posting Group	Resource general product posting group – resource

14.74 Resource ledger

Attributes

Name	Description
Chargable	Res. Ledger Entry table – Chargable.
Work Type	Res. Ledger Entry table – Work Type Code.
Unit of Measure	Res. Ledger Entry table – Unit of Measure Code.
Entry Type	Res. Ledger Entry table – Entry Type.

14.75 Resource group

Attributes

Name	Description
Resource Group	Resource group description. (Resource Planning – Resources – General – Resource Group No)

14.76 Sales budget

Attributes

Name	Description
Sales Budget	Item Budget Name, where Analysis area = Sales (Sales & Marketing – Analysis & Reporting – Budgets – table Item Budget Name)

14.77 Salesperson-purchaser

Dimension used to analyze sales/purchasers people.

Attributes

Name	Description
Salesperson-Purchaser	Name of sales/purchaser person responsible for posted document. (Salesperson/Purchaser Card – General – Code, Name) Additional data about salesperson/purchaser are seen on different documents.
Company ID	In BI4Dynamics data warehouse most dimension records have attribute CompanyID that explain in which company this record has been created. If "Salesperson purchaser" has same code and name in more companies, CompanyID is an attribute (identifier) that separates transactions by company.

14.78 Scrap

Dimension is used to analyze production scrap.

Attributes

Name	Description
Description	Scrap description. (Manufacturing – Capacities – Setup – Scrap code)

14.79 Service

Dimension is available only if NAV data source is 5.0 or higher.

Attributes

Name	Description
Item	Service item. (Service – Contract Management – Service Item – Item No. and Item Description)
Service Item	Service item number and description. (Service – Contract Management – Service Items – No. and Description)
Type	Different Service types – resource, item, service cost, Manually made attribute, based on Type field from Service Ledger Entry table.
Number	Number from Service Ledger Entry table.
Service Item Group	Service item group. (Service – Contract Management – Service Items – General – Service Item Group Code)

Hierarchies

Name	Description
Service	Item – Service item – Type – Number
Service Item by Group	Service item group – Service item
No by Type	Type – Number

14.80 Service contract

Dimension is available only if NAV data source is 5.0 or higher.

Attributes

Name	Description
Service Contract	Number and description of service contract. (Service –Contract Management – Contracts – Contract No. and Description – table Service Contract Header)
Service Contract No	Number of service contract. (Service – Contract Management – Contracts – Contract No. – table Service Contract Header)
Service Contract Description	Description of service contract. (Service – Contract Management – Contracts – Description – table Service Contract Header)
Contract Type	Type of service contract. (Service – Contract Management – Contracts – Type – table Service Contract Header)
Customer	Customer's number and name of service contract. (Service – Contract Management – Contracts – Name – table Service Contract Header and Customer)
Customer No	Customer's number of service contract. (table Service Contract Header)
Customer Name	Customer's name of service contract. (Service – Contract Management – Contracts – Name – table Customer)
Bill-to Customer	Bill-to Customer's number and name of service contract. (table Service Contract Header and Customer)
Bill-to Customer No	Bill-to Customer's number of service contract. (table Service Contract Header)

Bill-to Customer Name	Bill-to Customer's name of service contract. (Service – Contract Management – Contracts – Name – table Customer)
Contract Group	Contract Group's code and description of service contract. (table Service Contract Header and Contract Group)
Contract Group Code	Contract Group's code of service contract. (table Service Contract Header)
Contract Group Description	Contract Group's description of service contract. (table Contract Group)
Invoice Period	Invoice period of service contract. (table Service Contract Header)
Next Invoice Date	Date of next invoice of service contract. (table Service Contract Header)
Salesperson Code	Salesperson code of service contract. (Service – Contract Management – Contracts – Salesperson Code – table Service Contract Header)
Expiration Date	Date of expiry of service contract. (table Service Contract Header)
Prepaid	If service contract is prepaid. (table Service Contract Header)
Status	Status of service contract. (table Service Contract Header)
Cancel Reason Code	Reason code for canceling service contract. (table Service Contract Header)

Hierarchies

Name	Description
Service Contract by Contract Type	Service Contract Type – Service Contract
Service Contract by Bill-to Customer	Bill-to Customer – Service Contract
Service Contract by Invoice Period	Invoice Period - Service Contract

14.81 Service contract line

Dimension is available only if NAV data source is 5.0 or higher.

Attributes

Name	Description
Contract No	Number of service contract. (Service – Contract Management – Contracts – Contract No. – table Service Contract Line)
Service Item No	Number of service item. (Service – Contract Management – Contracts – Line view – ServiceItem No. – table Service Contract Line)
Contract Status	Status of service contract. (Service – Contract Management – Contracts – Status – table Service Contract Line)
Contract Type	Type of service contract. (Service – Contract Management – Contracts – Type – table Service Contract Line)
Service Period	Service period of service contract.

	(Service – Contract Management – Contracts – Line view – Service Period – table Service Contract Line)
Respons Time in Hours	Respons time of service contract. (Service – Contract Management – Contracts – Line view – Respons Time (Hours) – table Service Contract Line)

14.82 Service item

Dimension is available only if NAV data source is 5.0 or higher.

Attributes

Name	Description
Service Item	Number and description of service item. (Service – Contract Management – Service Items – No. and Description – table Service Item)
Service Item No	Number of service item. (Service – Contract Management – Service Items – No. – table Service Item)
Service Item Description	Description of service item. (Service – Contract Management – Service Items – Description – table Service Item)
Service Item Group Code	Group code of service item. (Service – Contract Management – Service Items – Service Item Group Code – table Service Item)
Customer	Customer number and name of service item. (Service – Contract Management – Service Items – Customer No. and Name – table Service Item and Customer)
Customer No	Customer number of service item. (Service – Contract Management – Service Items – Customer No. – table Service Item)
Customer Name	Customer name of service item. (Service – Contract Management – Service Items – Name – table Customer)
Ship-to Code	Ship-to code of service item. (Service – Contract Management – Service Items – Ship-to Code – table Service Item)
Customer Ship-to	Customer number and ship-to code of service item. (Service – Contract Management – Service Items – Customer No. and Ship-to Code – table Service Item)
Item	Item number and item description of service item. (Service – Contract Management – Service Items – Item No. and Item Description – table Service Item and Item)
Item No	Item number of service item. (Service – Contract Management – Service Items – Item No. – table Service Item)
Item Name	Item description of service item. (Service – Contract Management – Service Items – Item Description – table Item)
Serial No	Serial number of service item. (Service – Contract Management – Service Items – Serial No. – table Service Item)
Status	Status of service item. (Service – Contract Management – Service Items – Status – table Service Item)
Installation Date	Installation date of service item.

	(Service – Contract Management – Service Items – Installation Date – table Service Item)

Hierarchies

Name	Description
Service Item by Service Item Group	Service Item Group Code – Service Item
Service Item by Item	Item – Service Item

14.83 Service ledger

Dimension is available only if NAV data source is 5.0 or higher.

Attributes

Name	Description
Service Contract No	ServiceContractNo field from Service Ledger Entry table.
Document Type	DocumentType field from Service Ledger Entry table.
Moved from Prepaid Acc	MovedFromPrepaidAcc field from Service Ledger Entry table.
Customer No	CustomerNo field from Service Ledger Entry table.
Item No - Serviced	Service item. (Service – Contract Management – Service Item – Item No. and Item Description)
Service Item - Serviced	Service item number and description. (Service – Contract Management – Service Items – No. and Description)
Service Item No - Serviced	Service item number. (Service – Contract Management – Service Items – No.)
Service Item Description - Serviced	Service item description. (Service – Contract Management – Service Items – Description)
Bill-to Customer No	BilltoCustomerNo field from Service Ledger Entry table.
Fault Reason Code	FaultReasonCode field from Service Ledger Entry table.
Service Order Type	ServiceOrderType field from Service Ledger Entry table.
Location Code	LocationCode field from Service Ledger Entry table.
Work Type Code	WorkTypeCode field from Service Ledger Entry table.
Entry Type	EntryType field from Service Ledger Entry table.
Type	Type field from Service Ledger Entry table.
Service No	Field No from Service Ledger Entry table.
Service Description	Field Description from Service Ledger Entry table.
Service	No and Description fields from Service Ledger Entry table.
Prepaid	Field Prepaid from Service Ledger Entry table.
Document No	Field DocumentNo from Service Ledger Entry table.

Hierarchies

Name	Description
Service Item by Document Type by Document Number	Document Type – Document No – Service Item (Serviced)

14.84 Shipment Date

Shipment Date dimension is used to observe trends through time periods and to filter data on specific date interval, just like Date dimension.
It is referenced to Sales Shipment Line and Return Receipt Line based on the Shipment Date; if Shipment Date in document line is empty, then it is referenced based on the Shipment Date in document header. In case that

Shipment Date in document header is also empty, then it is referenced based on the Posting Date from document header.

14.85 Shipment Method

Attributes

Name	Description
Shipment Method	Shipment Method of the Posted Shipments / Return Receipts (Sales & Marketing – History – Posted Shipments / Posted Return Receipts - Shipping – Shipment Method Code – table Shipment Method – Code, Description)

14.86 Shipping Agent

Attributes

Name	Description
Shipping Agent	Shipping Agent of the Posted Shipments / Return Receipts (Sales & Marketing – History – Posted Shipments - Shipping – Shipping Agent Code – table Shipping Agent – Code, Name)

14.87 Shipping Agent Services

Attributes

Name	Description
Shipping Agent Services	Shipping Agent Services of the Posted Shipments (Sales & Marketing – History – Posted Shipments - Shipping – Shipping Agent Service Code – table Shipping Agent Services – Code, Description)

14.88 Source code

Attributes

Name	Description
Source Code	Source of the posted entry. (Item – Value entries – Source Code – Source – table Source Code – Code, Description)

14.89 Source GL

Information about sources for GL. Dimension is used for analysis in GL cube.

Attributes

Name	Description
Source Name	Name of source.
Source Type	Type of source. (Bank Account – Customer – Fixed Asset – Vendor – N/A)

Hierarchy

Name	Description
GL Source Entry by Type and No	Source Type – Source Name

14.90 Step

Information about Job step. Dimension is deployed only when NAV 4.0 or lower is used as data source.

Attributes

Name	Description
Step	Job step. (Resource Planning – Jobs – Job Journals – Step Code)

14.91 Stop

Dimension is used to analyze different reasons of production stop.

Attributes

Name	Description
Description	Stop description. (Manufacturing – Capacities – Setup – Stop code)

14.92 Subcontracting

Dimension is used to analyze subcontractor work on different outputs, orders.

Attributes

Name	Description
Subcontracting	Manually made attribute. It can be not subcontracting or subcontracting. (Subcontracted can be just capacity. Information is taken from capacity ledger entry table.)

14.93 Symptom code

Dimension identifies possible symptoms of service item faults. It is available only if NAV data source is 5.0 or higher.

Attributes

Name	Description
Symptom Code	Symptom codes. (Service – Order Processing – Setup – Fault reporting – Symptom Codes – table Symptom Code)

14.94 Task

Information about Job tasks. Dimension is deployed only when NAV 4.0 or lower is used as data source.

Attributes

Name	Description
Task	Job task. (Resource Planning – Jobs – Job Journals – Task Code)

14.95 Transport Method

Attributes

Name	Description

Transport Method	Transport Method of the Posted Shipments / Return Receipts (Sales & Marketing – History – Posted Shipments / Posted Return Receipts - Line – Transport Method – table Transport Method – Code, Description)

14.96 Type

Generic dimension that lets business users analyze complete sales amount of sold items, resource, direct posting to GL and sold fixed assets. With specifying filter on this dimension (by example on Items) users gets information only about item sales.

Attributes

Name	Description
No	No and description of GL Account, Resource, Item and Fixed asset.
Type	Description and number of specific Item/Resource/GL account/Fixed Asset sold. (Posted documents – Posted lines of documents – No.)
Group	Group of GL Account Item Resource Fixed Asset.

Hierarchy

Name	Description
Type	Type – Group – No

14.97 Unit of Measure

Attributes

Name	Description
Unit of Measure	Different units of measure from Unit of Measure table.

14.98 VAT Business Posting Group

Attributes

Name	Description
VAT Business Posting Group	VAT business posting group used for posted G/L entry. (table VAT Business Posting Group - Code, Description)

14.99 VAT Product Posting Group

Attributes

Name	Description
VAT Product Posting Group	VAT product posting group used for posted G/L entry. (table VAT Product Posting Group – Code, Description)

14.100 Vendor

Information regarding Vendor. We provide two level structures for dimension (Pay–to and Buy–from).

Attributes

Name	Description
Pay–to Country	From which country is vendor. (Vendor Card – General – Country Code – table Country – Code, Name)

Pay-to General Business Posting Group	General business posting group of specified vendor. (Vendor Card – Invoicing – Gen. Bus. Posting Group – table Gen. Business Posting Group – Code, Description)
Pay-to Posting Group	Vendor posting group of specified vendor. (Vendor Card – Invoicing - Vendor posting group – table Vendor Posting Group – Code, Description)
Pay-to Vendor	From which vendor we get Invoice (Vendor Card – Invoicing – Pay-to Vendor No.) Additional information is written on specified document.
Buy–from Vendor	From which vendor did we bought items. (Vendor Card – General – No, Name) Additional information is written on specified documents.
Territory	From which city is Vendor. (Vendor Card – General – City – table Postal Code – City)
Pay-to Currency	Currency Code. (Vendor Card – Foreign Trade – Currency Code – table Currency - Code)
Pay-to No	Vendor Number. (Vendor Card – General – No.)
Pay-to Payment Terms	Payment Terms Code + Description. (Vendor Card – Foreign Trade – Payment Terms Code – table Payment Terms – Code + Description)
Pay-to Purchaser	Purchaser Code + Name. (Vendor Card – General – Purchaser Code)
Pay-to Responsibility Center	Responsibility Center. (Vendor Card – General – Responsibility Center)
Pay-to Territory	Territory. (Vendor Card – General – Territory)
Pay-to Vendor Name	Vendor Name. (Vendor Card – General – Name)
Company ID	In BI4Dynamics data warehouse most dimension records have attribute CompanyID that explain in which company this record has been created. If Vendor has same code and name in more companies, CompanyID is an attribute (identifier) that separates transactions by company.

Hierarchies

Name	Description
Vendor by Country Territory City	Pay-to country – Pay-to Territory - Pay-to City - Pay-to vendor – Buy-from Vendor
Vendor by Posting Group	Pay-to posting group – Pay-to vendor – Buy-from vendor
Vendor by General Business Posting Group	Pay-to general business posting group – Pay-to vendor – Buy-from vendor
Vendor by Currency	Pay-to currency - Pay-to vendor – Buy-from vendor
Vendor by Payment Terms	Pay-to payment terms - Pay-to vendor – Buy-from vendor
Vendor by Purchaser	Pay-to purchaser- Pay-to vendor – Buy-from vendor
Vendor by Responsibility Center	Pay-to responsibility center - Pay-to vendor – Buy-from vendor

14.101 Vendor posting group

All vendors posting groups.

Attributes

Name	Description

Vendor Posting Group	Posting group of specific vendor. (Purchase – Planning – Vendors – tab Invoicing – Vendor Posting Group – table Vendor – Vendor Posting Group)

14.102 Warehouse Employee

Attributes

Dimension attributes are fields on table Warehouse Employee:
(Administration – Application Setup – Warehouse – Set-up Warehouse – Employees)

Name	Description
Location	Location
Warehouse Employee	User ID

Hierarchies

Name	Description
Warehouse Employee by Location	Location – Warehouse Employee

14.103 Warranty

Attributes

Name	Description
Warranty	Manually made dimension describes if we have warranty or not. (No warranty, Warranty, Exclude Warranty)

14.104 Work type

Information about work types. Dimension is deployed only when NAV 4.0 or lower is used as data source.

Attributes

Name	Description
Work Type	Job work type. (Resource Planning – Jobs – Job Journals – Work Type Code)

15 IMPORTANT NOTES

15.1 Avoid deleting Microsoft Dynamics NAV data

BI4Dynamics functionality may be affected when some completely legal changes in Microsoft Dynamics NAV are executed. Such changes are deletion of posted documents (that are printed) or deletion of data in source tables (customer ledger entries for balanced customer in closed period). User should avoid such changes at all times but if they have occurred user should contact BI4Dynamics to check if workaround is possible.

15.2 Avoid changing standard Microsoft Dynamics NAV functionality

BI4Dynamics functionality may be affected when some completely legal changes in Microsoft Dynamics NAV are executed. If such changes have occurred user should contact BI4Dynamics to check if workaround is possible. If changes in standard functionality are not done then BI4Dynamics will perform according to this document.

15.3 Backup BI4Dynamics

User do not need to backup BI4Dynamics data warehouse or cubes as they can be generated each time. Standard object can always be generated from BI4Dynamics installer, using the same BI4Dynamcsi version. If any changes have been done to BI4Dynamics implementation than they should be saved to folder BI4Dynamics NAV\"Instance Name"\. This folder has to be backup-ed each time some modifications are done. Scripts (files) from this backup can restore the whole BI4Dynamics project functionality.

15.4 Backup CUBE roles

It is strongly advised that changes to Role area of cubes is saved and stored as files. These roles may be deleted if they have been created in SQL management studio and cubes are deployed again. Backup or saving these roles can be done through standard SQL server Analysis Services steps

15.5 Collation in source database and BI4Dynamics data warehouse (incremental update)

When using incremental update mode, the LoadStage procedure must check if the records that exist at the staging table of BI4NAV data warehouse have been deleted at the source DB. This is done by comparing both tables (source table and BI4Dynamics NAV staging table) by columns that are defined as keys in NAV. These columns are often of character data type (varchar, etc.) and the result of comparison when comparing character fields depends on the collation defined in the BI4NAV database.

For example, if you have collation »Accent sensitive« defined in the BI4NAV data warehouse and the source database has collation »Accent insensitive«, then this comparison might be incorrect, e.g. some records might be incorrectly »identified« as deleted and therefore deleted from the staging table.