

White Paper

**bi4dynamics**

Standardized BI Solutions

# 1 PREFACE

Document describes main analytical areas with corresponding measures and dimensions used in single OLAP cube.

## Analytical areas

BI4NAV is standardized business intelligence solution on top of Microsoft Dynamics NAV that covers all main analytical areas in NAV:

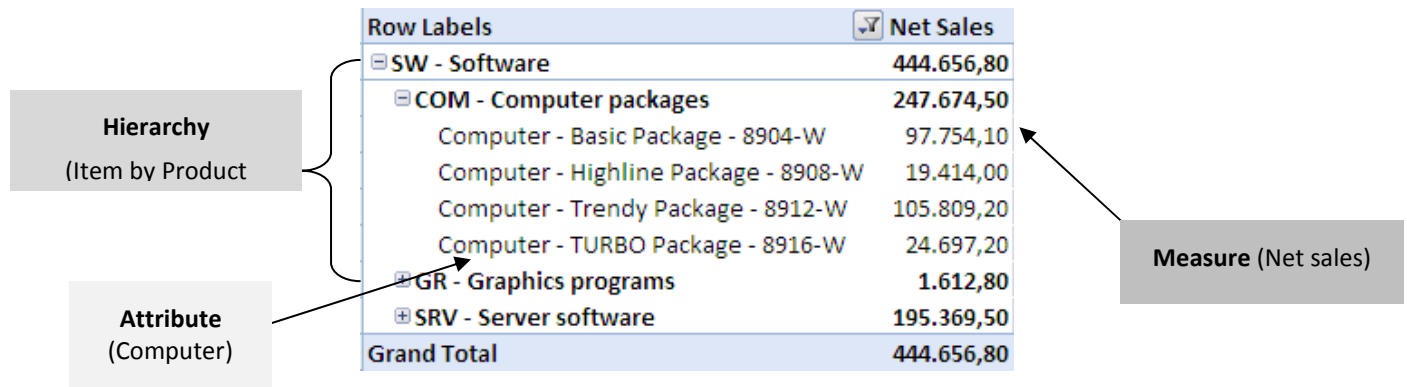
- GL
- Payables
- Receivables
- Purchase
- Inventory
- Sales

## Understanding dimensions and cubes

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 drill down by levels and making business users quickly analyze granular data. Attributes are hidden by default and can be made visible with modification of properties in BI4NAV UDM on Microsoft Analysis server.

Example:

| Attribute               | Hierarchy                   | Dimension |
|-------------------------|-----------------------------|-----------|
| Name (Red Bike)         | Customer by Category group: | Item      |
| Product Group (Bikes)   | -SPORTS (Category group)    |           |
| Category Group (SPORTS) | -Bikes (Product group)      |           |
| Number (378925)         | -Red Bike (Name)            |           |



Report 1: Item category group by Net sales.

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

## General

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

Standard measures are in local currency. BI4NAV supports by default 2 additional currencies (one is automatically visible by default installation) that are calculated in data warehouse with the information from currency exchange rate data in MS Dynamics NAV. The measures of additional currencies have suffix ACY and ACY2.

Measures with suffix PCY have values in original currency posted. Such measures should always be analyzed with dimension Currency to avoid wrong totals of data.

## 2 DIMENSIONS

### Closed income statement

#### Company

#### Contact

#### Attributes

- Contact
- Contact type
- Contact country

#### Currency

#### Customer Posting Group

#### Customer

#### Attributes

- Bill-to country
- Bill-to gen. bus. post. group
- Bill-to posting group
- Bill-to customer
- Sell-to customer

#### Date

#### Attributes

- Year
- Quarter
- Month
- Week
- Day

#### Hierarchies

- Date YMD
- Date YQMD
- Date YWD

### Document Customer

#### Attributes

- Document type
- Posted year month
- Document No

### Document GL

#### Attributes

- Document type
- Posted year month
- Document No

### Document Inventory

#### Attributes

- Document type
- Posted year month
- Document No

### Document Purchase

#### Attributes

- Document type
- Posted year month
- Document No
- Ship – to name
- Ship – to code

### Document Sales

#### Attributes

- Document type
- Posted year month
- Document No
- Ship – to name
- Ship – to code

### Document Vendor

#### Attributes

- Document Type
- Posted year month
- Document No

### Due analysis

To be used with measure payables balance to analyze due/overdue.

#### Attributes

- Due Overdue
- Due group
- Days due

### Fixed Asset

#### Attributes

- Fixed asset class code
- Fixed asset subclass code
- Fixed asset

### General bus posting group

### General prod posting group

### GL Account

#### Attributes

- GL Account
- Level 1-7

### GL Budget

#### Attributes

- Budget
- Company

### Global dimensions (1 to 8)

#### Attributes

- Global dimension
- Level 1-7

### Inventory Posting Group

### Item

#### Attributes

- Inventory posting group
- Item category group
- Item product group
- Item vendor
- Item gen prod posting group
- Item

#### Hierarchies

- Item by inventory posting group
- Item by category by product group
- Item by vendor
- Item by gen prod posting group

### Item Charge

### Item GL Resource Asset

#### Attributes

- Item GL Resource Asset
- Type No
- Group

### Item Ledger Entry Type

### Location

### Reason code

### Resource

#### Attributes

- Resource group No
- Resource type
- Resource gen prod posting group
- Resource

#### Hierarchies

- Resource by group No
- Resource by type
- Resource by gen prod post group

### Salesperson Purchaser

### Source code

### Vendor

We provide two level structures: Pay-To and Buy-From.

#### Attributes

- Pay – to country
- Pay-to gen bus post group
- Pay-to posting group
- Pay-to vendor
- Buy – from vendor

#### Hierarchies

- Vendor by country
- Vendor by posting group
- Vendor by gen bus post group

### 3 ANALYTICAL AREAS

#### General Ledger

|                         | GL budget measure group  | GL measure group  |
|-------------------------|--|---|
| Closed income statement |  | X   |
| Company                 | X  | X   |
| Date                    | X  | X   |
| Document GL             |  | X   |
| GL account              | X  | X   |
| Global dimension (1-8)  | X  | X   |
| GL budget               | X  |   |
| Measures                | Budget amount, Budget variance, Index plan/realization, YTD budget amount, | Net change, Debit, Credit, Balance, Budget variance, Index plan/realization, YTD Net change |

#### Sales

|                        | Item ledger measure group | Value entry measure group  |
|------------------------|---------------------------|--|
| Company                | X                         | X  |
| Customer               | X                         | X  |
| Date                   | X                         | X  |
| Document Sales         | X                         | X  |
| Gen bus posting group  |                           | X  |
| Gen prod posting group |                           | X  |
| Global dimension (1-8) | X                         | X  |
| Item                   | X                         | X  |
| Item charge            |                           | X  |
| Item GL resource asset | X                         | X  |
| Location               | X                         | X  |
| Reason code            |                           | X  |
| Resource               |                           | X  |
| Sales – Purchaser      |                           | X  |
| Source code            |                           | X  |
| Measures               | Shipped quantity          | Invoiced quantity, Net sales, Discount amount, COGS, Gross sales, Profit margin, Margin %, Shipped Invoiced variance |

#### Purchase

|                          | Item ledger measure group   | Value entry measure group                       |
|--------------------------|---|---|
| Company                  | X   | X   |
| Date                     | X   | X   |
| Document Purchase        | X   | X   |
| Gen bus posting group    |   | X   |
| Gen prod posting group   |   | X   |
| Global dimension (1-8)   | X   | X   |
| Item                     | X   | X   |
| Item charge              |   | X   |
| Item GL resource asset   | X   | X   |
| Location                 | X   | X   |
| Reason code              |   | X   |
| Resource                 |   | X   |
| Sales – Purchaser        |   | X   |
| Source code              |   | X   |
| Vendor                   | X   | X   |
| Measures                 | Received quantity   | Invoiced quantity, Cost amount, Discount amount |
| Purchase discount amount | Discount amount. (Discount Amount from table Value Entry where Item Ledger Entry Type is Purchase and when Expected Cost is 0.) |   |

## Payables

|                        | Payables analysis measure group   | Vendor analysis measure group   |
|------------------------|---|---|
| Company                | X   | X   |
| Currency               | X   | X   |
| Date                   | X   | X   |
| Document Vendor        | X   | X   |
| Due Analysis           | X   |   |
| Global dimension (1-8) | X   | X   |
| Sales – Purchaser      | X   | X   |
| Vendor                 | X   | X   |
| Measures               | Payables balance, Payables balance PCY, Avg payables, Avg due days payables, Avg open 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, Payables coefficient, Payables turnover (days) |

## Receivables

|                         | Receivables analysis measure group   | Customer analysis measure group  |
|-------------------------|--|--|
| Company                 | X  | X  |
| Currency                | X  | X  |
| Date                    | X  | X  |
| Document Customer       | X  | X  |
| Due Analysis            | X  |  |
| Global dimension (1-8)  | X  | X  |
| Sales – Purchaser       | X  | X  |
| Customer                | X  | X  |
| Salesperson - Purchaser | X  | X  |
| Measures                | Receivables balance, Receivables balance PCY, Avg receivables, Avg due days receivables, Avg open 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, Customer coefficient, Customer turnover (days) |

## Inventory

|                        | Inventory state measure group  | Inventory Value measure group   |
|------------------------|--|---|
| Company                | X  | X   |
| Date                   | X  | X   |
| Document Inventory     |  | X   |
| Gen bus posting group  |  | X   |
| Gen prod posting group |  | X   |
| Global dimension (1-8) | X  | X   |
| Item                   | X  | X   |
| Item Ledger Entry Type |  | X   |
| Location               | X  | X   |
| Reason code            |  | X   |
| Source code            |  | X   |
| Measures               | Stock quantity, Stock value, Avg. stock quantity, Avg. stock value, Stock Rotation Coefficient, Stock rotation (days), Opening stock value, Opening stock quantity, Max stock value in time span, Min stock value in time span, Max stock quantity in time span, Min stock quantity in time span | Quantity, Quantity increase, Quantity decrease, Invoiced quantity, Invoiced quantity increase, Invoiced quantity Decrease, Value, Value decrease, Value increase, Value expected, Value posted to GL, Opening stock value, Opening stock quantity |