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# How to add Financial Dimensions to Default cubes

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Dynamics AX 2009

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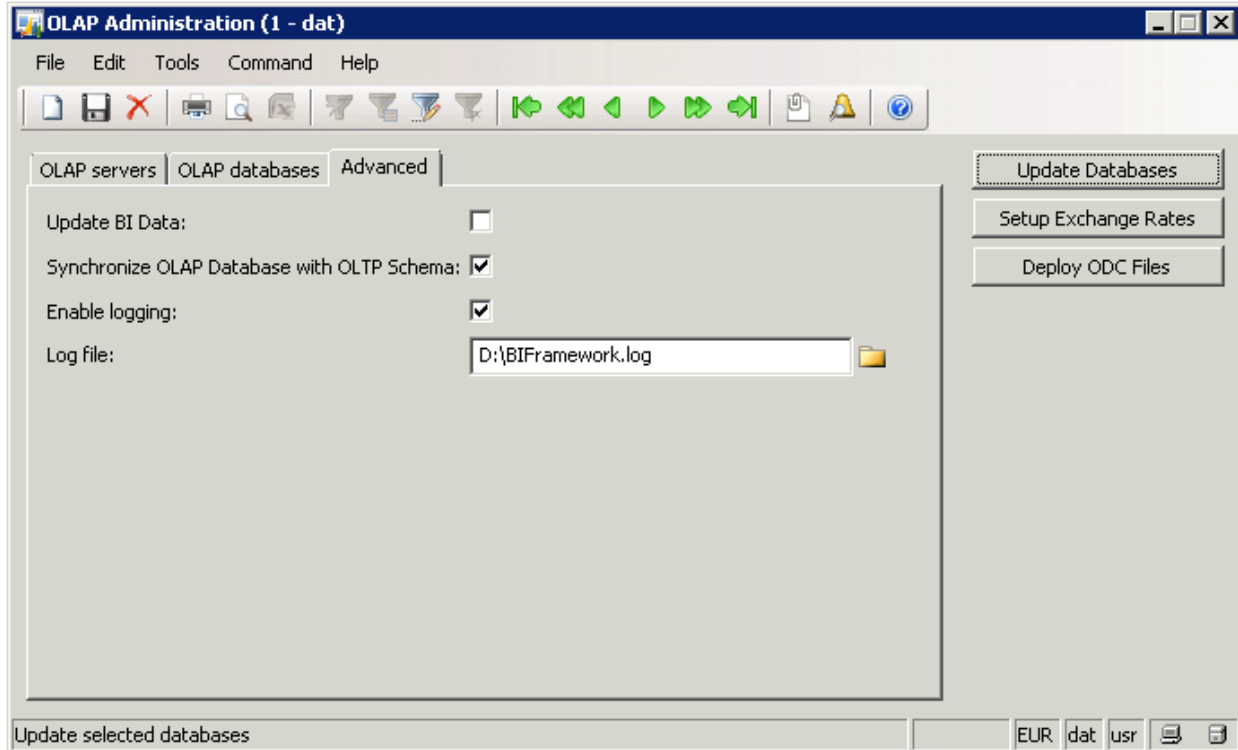
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Team Blog: <http://blogs.msdn.com/emeadaxsupport/>

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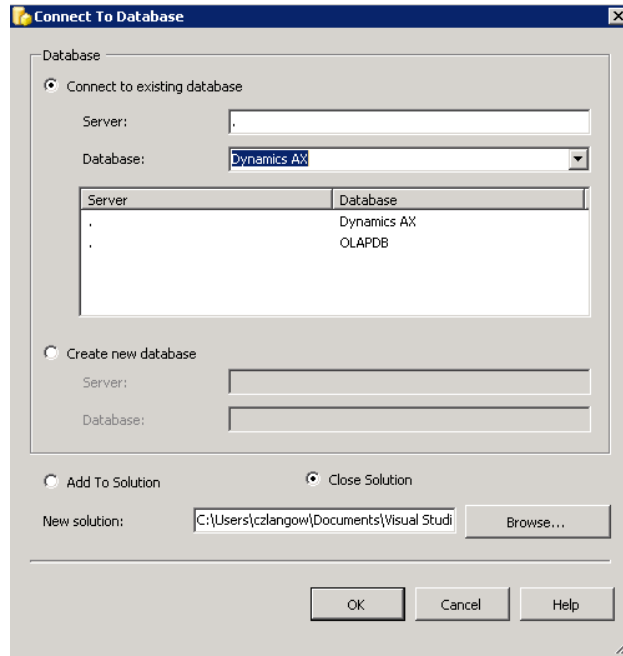




- e. Click Update Databases to synchronize the OLAP database with the schema from the OLTP database. This process may take an hour or more to complete.
3. Create new OLAP Project if you are using SQL Enterprise or Development Edition
  - a. Open the Business Intelligence Development Studio (Start > Programs > Microsoft SQL Server > SQL Server Business Intelligence Development Studio).
  - b. Click File > New > Project. The New Project window is displayed.
  - c. In the Templates pane of the window, select the option to import an Analysis Services database.
  - d. At the bottom of the New Project window, in the Name field, enter Dynamics AX.
  - e. In the Location field, specify where you want to save the project.
  - f. Click OK. A wizard is displayed to help you import the Dynamics AX OLAP database.
  - g. In the Welcome window, click Next.
  - h. In the Source database window, do the following:
    - i. Enter the name of your OLAP server.
    - j. Select the Dynamics AX database.
    - k. Click Next.
    - l. When the database has been imported, click Finish.
  - m. Your new project is available in the Solution Explorer pane of the Business Intelligence Development Studio. Leave this project open. You will use this project to complete many of the procedures in this document.
  - n. Move to step 5
4. If you are using SQL Standard Edition, you will need to restore Dynamics AX OLAP database to development environment and connect to this database directly (This is because Dynamics AX

OLTP database contains translations for metadata, which is not supported by Standard Edition. You would be able to create project but you would not be able to deploy such a project as error will be raised)

- a. Open the Business Intelligence Development Studio (Start > Programs > Microsoft SQL Server > SQL Server Business Intelligence Development Studio).
- b. Click File > Open > Analysis Services Database
- c. Select Server and Database:



- d. Click OK

5. For each new dimension you need to include, create a named query in the DSV that provides the data

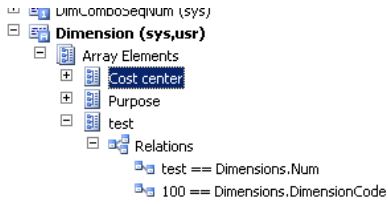
- a. In Solution Explorer go to Data Source Views and double click on Dynamics AX
- b. Ex. See the named query TABLEEX\_DIMENSION\_1 in the DSV provided with the OOB cube project

```
SELECT DISTINCT DATAAREAID, NUM, DESCRIPTION
FROM    dbo.DIMENSIONS
WHERE   (DIMENSIONCODE = 0)
```

- c. You could create a named query by picking the correct dimension in the where clause

```
SELECT DISTINCT DATAAREAID, NUM, DESCRIPTION
FROM    dbo.DIMENSIONS
WHERE   (DIMENSIONCODE = n)
```

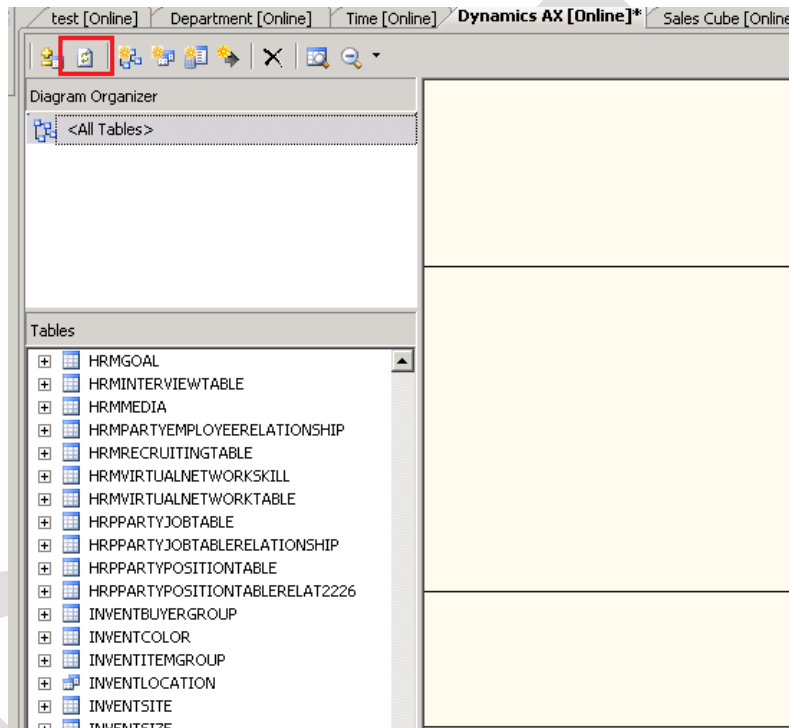
- d. \*the dimension code can be find in AOT \ Data Dictionary \ Extended Data Type \ Dimension when you extend Relations for your created dimension:



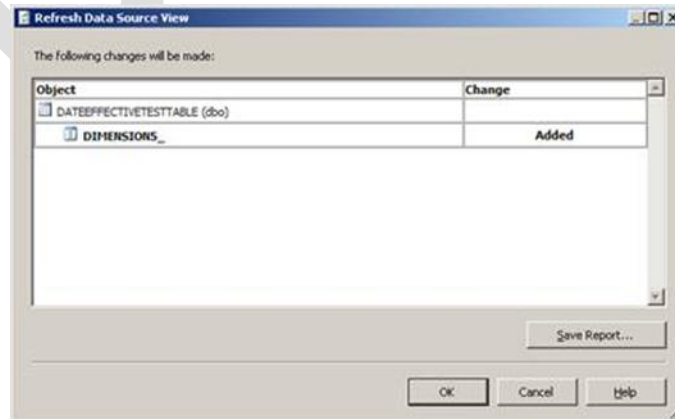
In this case my where criteria will look like that:

WHERE (DIMENSIONCODE = 100)

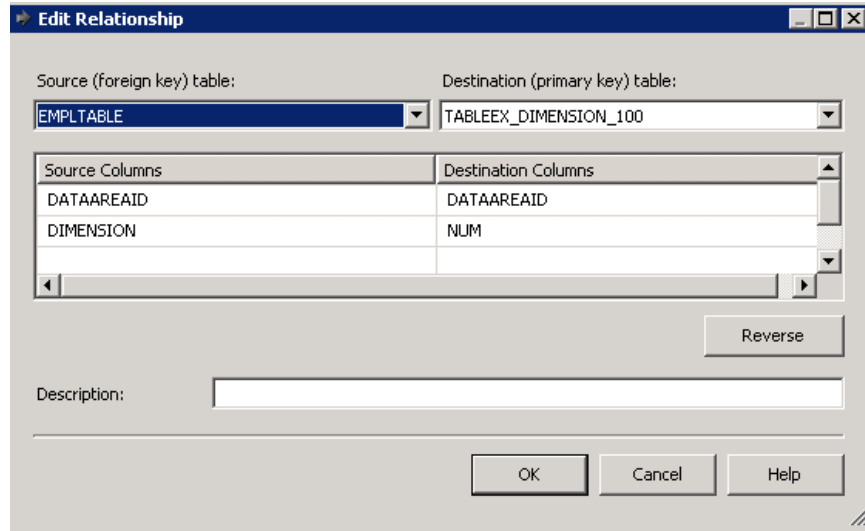
6. Check if tables are updated and contain new column DIMENSION4\_
  - a. In Dynamics AX Data Source View select table LegerTrans
  - b. Check if table contains column DIMENSION4\_
  - c. If table does not contain column click on refresh button:



- d. You will be presented with a dialog that lists all differences between your OLTP and the BIDS project's DSV



- e. You should take the time and review all changes that will be made. It's also a good idea that you take the opportunity and save a report of all these.
    - f. Apply the changes (press OK) and now your fact tables should already have all the missing DIMENSIONxxx\_ fields that you needed
  7. Edit named queries to add column DIMENSIONxxx to columns
    - a. In Dynamics AX Data Source View find named query CustTable
    - b. Right click on query and select Edit query
    - c. Add DIMENSIONxxx into select statement.
    - d. The same steps need to be done for following queries:
      - CustInvoiceTrans
      - CustInvoicePackingSlipTrans
      - CustTransTotalSales
      - DIRPARTYINTERNALORGANIZATI2216
      - EMPLTABLE
      - INVENTLOCATION (watch out here should be added INVENTSITE.DIMENSIONxxx AS INVENTSITE\_DIMENSIONxxx)
      - INVENTTABLE
      - KMACTION
      - LEDGERBUDGET
      - PRODROUTETRANS
      - PRODTABLE (watch out here column PRODTABLE.DIMENSIONxxx should be also added to group by statement)
      - PROJEMPLTRANS
      - PROJFORECASTEMPL
      - PROJINVOICETABLE
      - PROJTABLE
      - TRVEXPTRANS
      - TRVPOLICYVIOLATIONSLOG
      - VENDINVOICETRANS
      - VENDPACKINGSLIPTRANS
      - VENDTABLE
      - VendTransTotalPurchases
      - WRKCTRTABLE
    - e. Save changes
8. Create relationship between named queries and fact tables (based on relationships already created for TABLEEX\_DIMENSION\_1) :
  - a. Right click on named query and select "New relationship" and select:



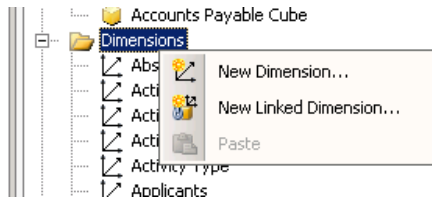
After you do that, a dialog will pop up asking if you want a PK to be defined on the Named Query – click Yes. This will result in adding the Primary Key to the NUM and DATAAREAID fields of your newly created Named Query.

b. Repeat step a for following values:

Source	Columns	Destination	Columns
<b>EmplTable</b>		<b>TABLEEX_DIMENSION_100</b>	
	INVENTSITE_DATAAREAID		DATAAREAID
	INVENTSITE_DIMENSION		NUM
<b>CustTable</b>		<b>TABLEEX_DIMENSION_100</b>	
	INVENTSITE_DATAAREAID		DATAAREAID
	INVENTSITE_DIMENSION		NUM
<b>CustTable</b>		<b>TABLEEX_DIMENSION_100</b>	
	DATAAREAID		DATAAREAID
	DIMENSION		NUM
<b>WrkCtrTable</b>		<b>TABLEEX_DIMENSION_100</b>	
	INVENTSITE_DATAAREAID		DATAAREAID
	INVENTSITE_DIMENSION		NUM
<b>InventLocation</b>		<b>TABLEEX_DIMENSION_100</b>	
	INVENTSITE_DATAAREAID		DATAAREAID
	INVENTSITE_DIMENSION		NUM
<b>InventTable</b>		<b>TABLEEX_DIMENSION_100</b>	
	DATAAREAID		DATAAREAID
	DIMENSION		NUM
<b>VendTable</b>		<b>TABLEEX_DIMENSION_100</b>	
	INVENTSITE_DATAAREAID		DATAAREAID
	INVENTSITE_DIMENSION		NUM
<b>ProjTable</b>		<b>TABLEEX_DIMENSION_100</b>	
	DATAAREAID		DATAAREAID
	DIMENSION		NUM

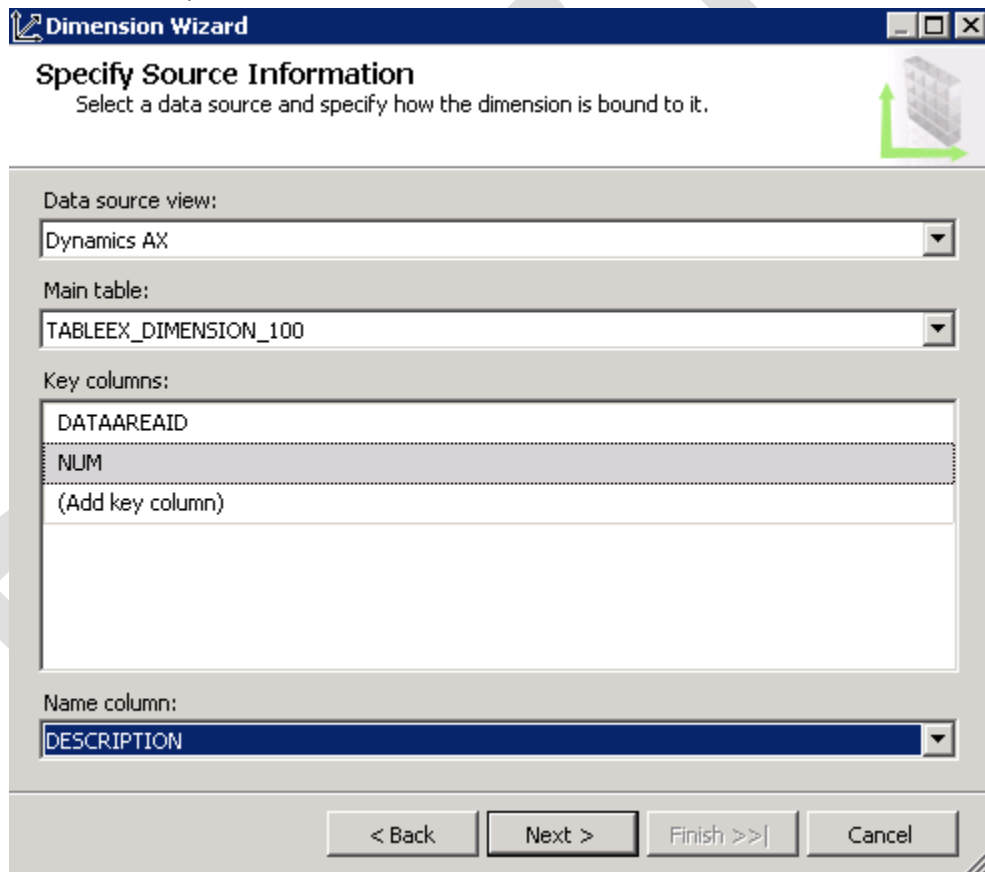
c. Save changes

9. Create a new Dimension using the dimension wizard using this named query as the source of data

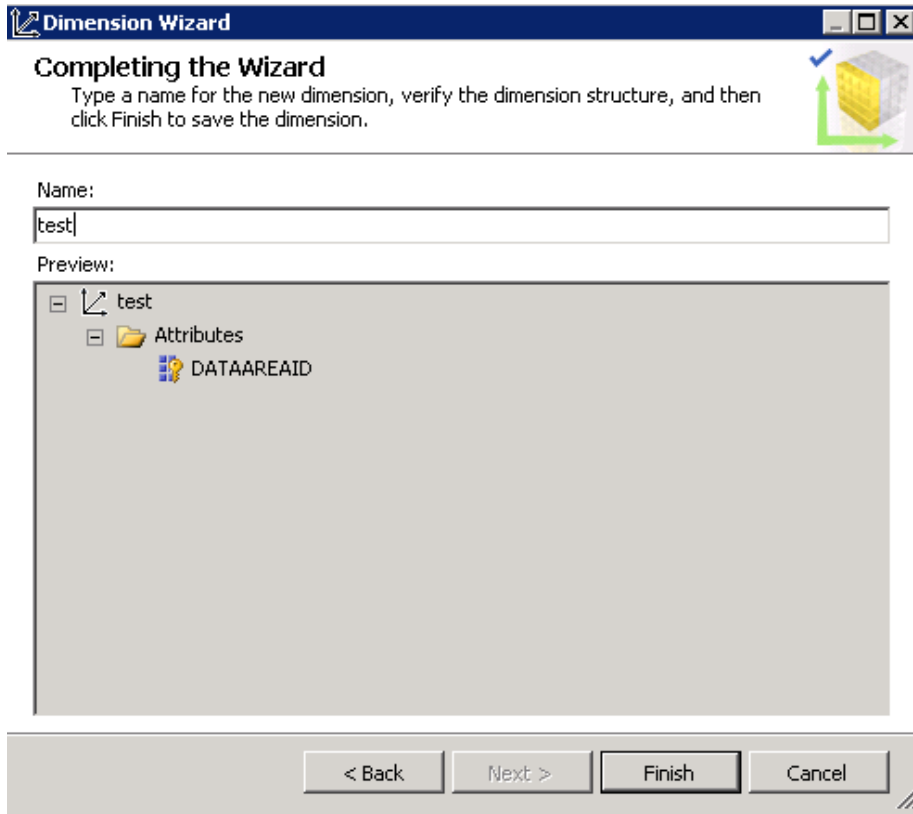


Select:

- Select "Use an Existing table"
- Use in "Main table" just created Named query. Specify DataareaID and Num as keys, Name column: Description

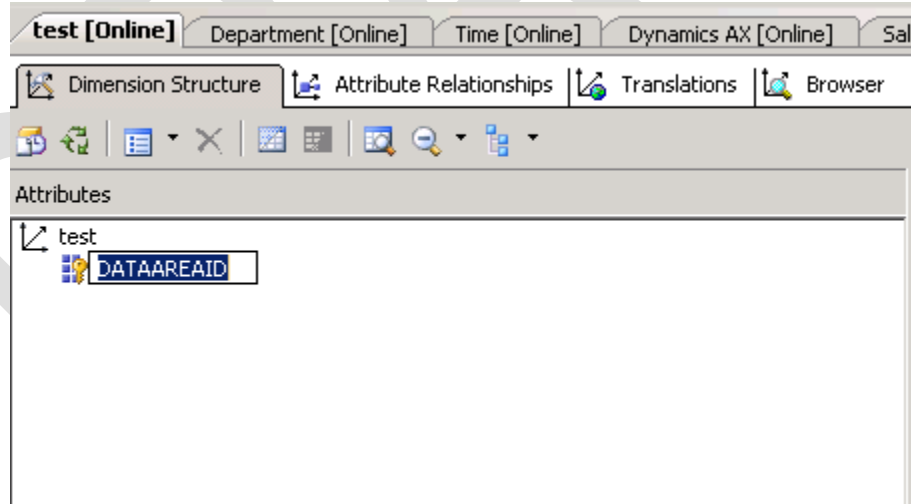


c. Change Name of dimension to more suitable:

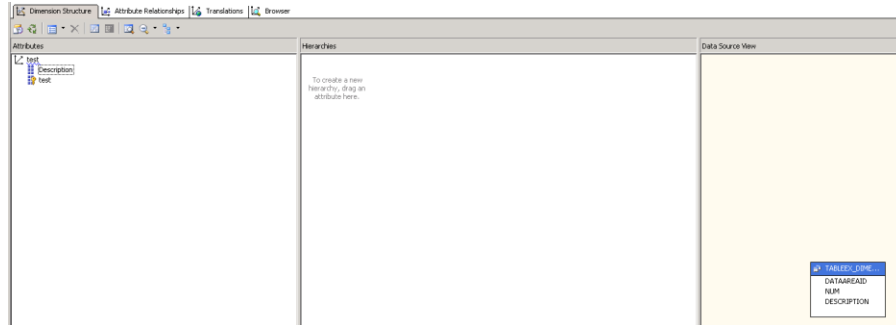


10. Once dimension is created:

a. Change DataAreaId attribute name into name of dimension:



b. Add Description as attribute to dimension (if not added) - you can just drag and drop from Data Source View panel to Attributes panel:

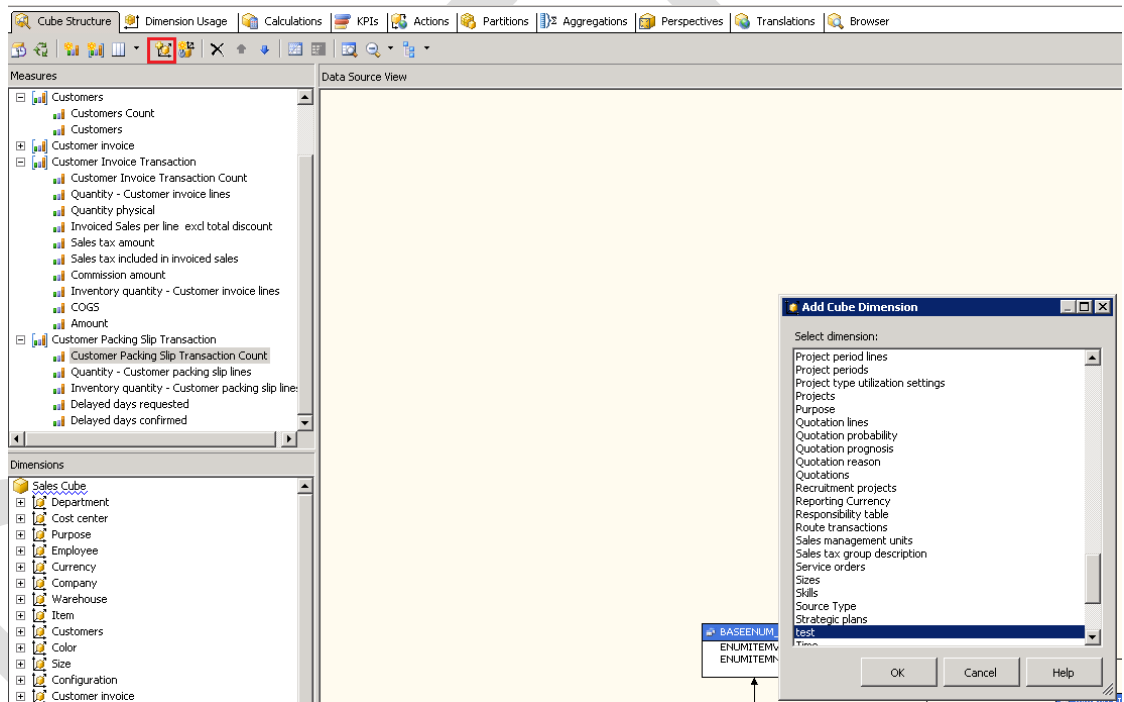


c. Save changes in dimension

11. Add the newly created dimension to the cubes that require slicing by this dimension

a. Open the cube in BI dev studio

b. Select "Add cube dimension icon" and select your created dimension

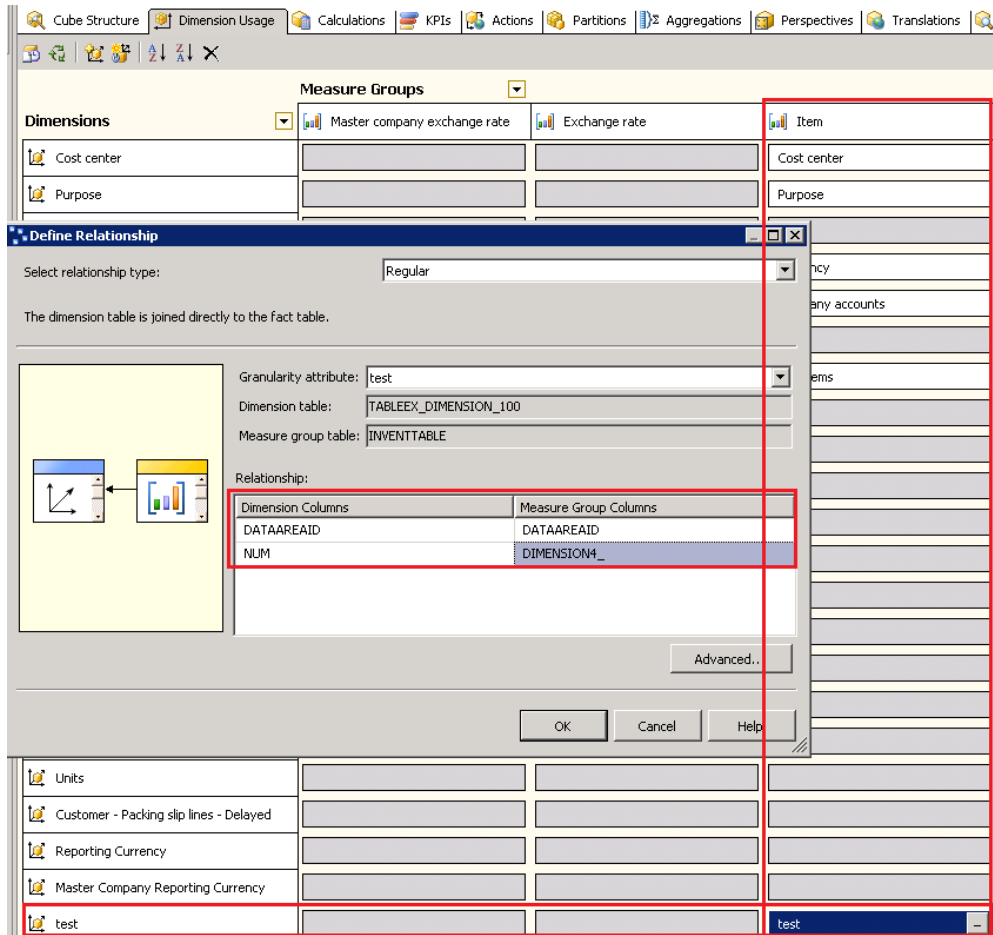


c. Go to tab 'Dimension usage' to double check relationship between dimension and dimension

d. Set up relationship for new dimension in the same way as for other dimensions (Department, Cost center, Purpose)

e. Ie for Sale Cube following relationships should be created:

- For measure Item:



- The rest of relationships for Sales Cube will be look like:

MEASURE	MEASURE GROUP COLUMNS	DIMENSION COLUMNS
<b>Customers</b>	DATAAREAID	DATAAREAID
	NUM	DIMENSIONxxx
<b>Customers invoice</b>	DATAAREAID	DATAAREAID
	NUM	DIMENSIONxxx
<b>Customer Invoice Transactions</b>	DATAAREAID	DATAAREAID
	NUM	DIMENSIONxxx
<b>Customer Packing Slip Transaction</b>	DATAAREAID	DATAAREAID
	NUM	DIMENSIONxxx

- f. The same action needed to be done for the rest of cubes
- g. Save changes
- h. Process cubes