



Customizing Blackboard Intelligence

Adding a custom system dimension

Code Template(s):

- Common.Create Custom System Dimension.sql – Create the final dimension table.

HEA Metadata Tables:

Create Custom System Dimension

- HEA.Entity
- HEA.SystemDimension
- HEA.EntityPrimaryKey

New Database Objects and Changes to Existing Objects:

Create Custom Dimension

- New Table CustomFinal.<DimDimensionName>

Additional Considerations:

The system dimension members will need to be inserted into the CustomFinal Dim table; this can be completed via an insert script.

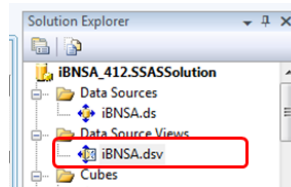
The new dimension will need to be added to a Fact table; see information on “Adding Columns to Facts”.

Most Common SSAS Steps:

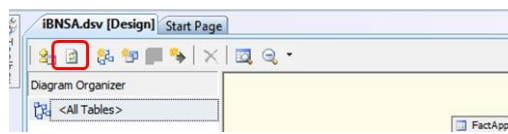
These are the most common steps that will need to occur when adding a dimension to an SSAS solution. It is possible that the dimension being added will require additional steps to make it function as desired.

1. Open the SSAS Solution in Business Development Studio (BIDS) or SQL Data Tools (SQL Server 2012.)

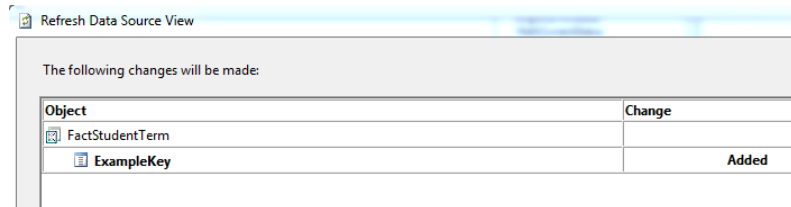
2. Open the data source view by double clicking the data source view in the Solution Explorer window.



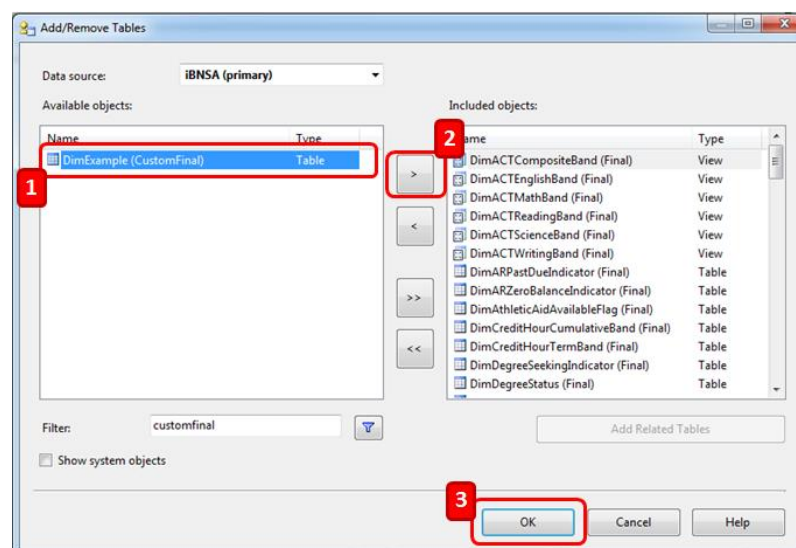
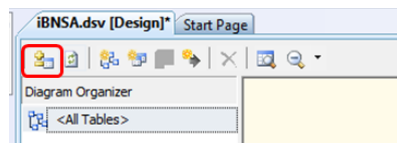
3. Refresh the data source view.



If you added the column to any existing Fact tables, you should see that column show on the refresh report.

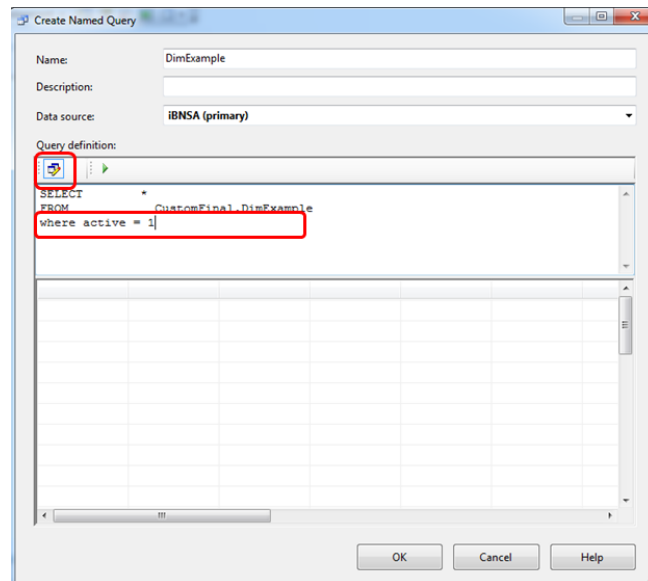
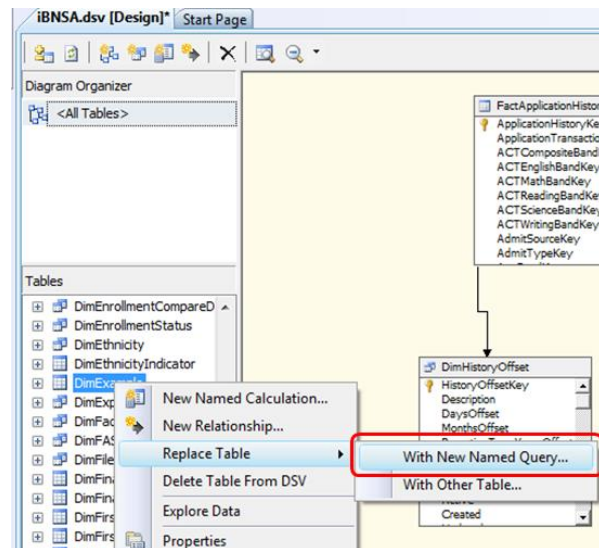


4. Add the Custom Dimension to the data source view.



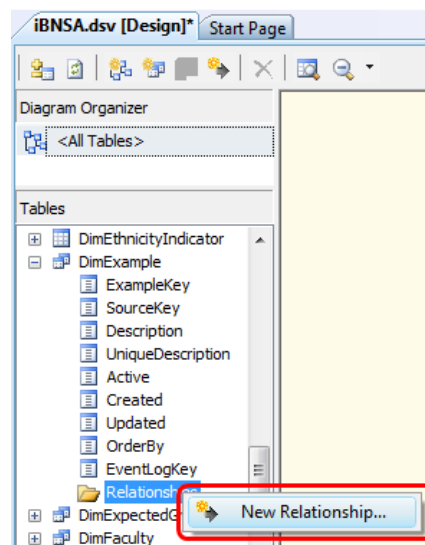
- Replace Dimension table With New Named Query to only include records “where active = 1”

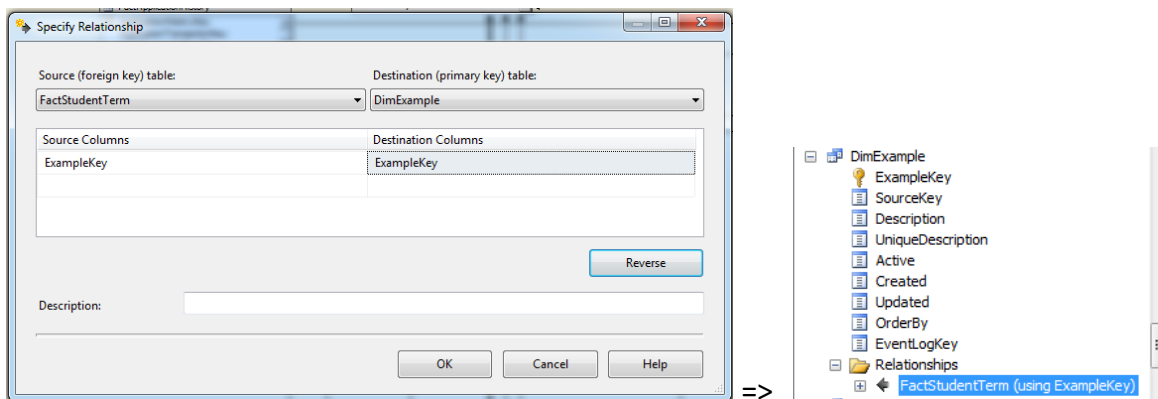
You may want to switch to the Generic Query Builder view to make it easier to modify the query.



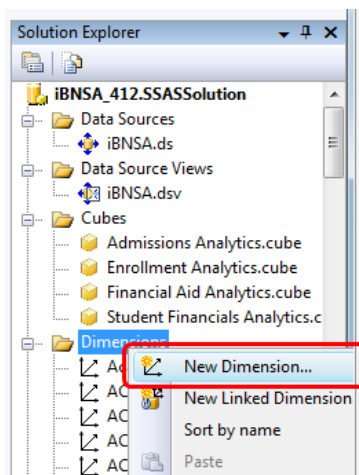
- Add Fact relationships to the data source view for the dimension (if they do not already exist.)

The Fact table should be identified as the “Source (foreign key) table” when setting up the relationships.



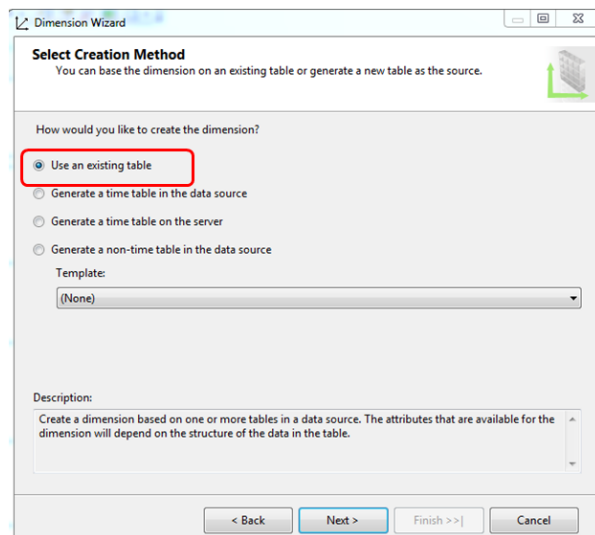


7. Add the dimension to the solution.



8. Follow the Add New Dimension wizard.

a. Use an existing table. *Next >*



- b. Select the dimension name as the Main table.
- c. Ensure the Key column is set correctly (<dimensionName>Key)
- d. Set the Name column to the appropriate display column (typically Description or UniqueDescription.) *Next >*

Specify Source Information
Select a data source and specify how the dimension is bound to it.

Data source view: iBNSA

Main table: DimExample

Key columns: ExampleKey
(Add key column)

Name columns: UniqueDescription

< Back Next > Finish >>| Cancel

- e. Select which attributes should be included in the dimension. *Next >*

Select Dimension Attributes
Specify dimension attributes and select Enable Browsing to surface them as hierarchies.

Available attributes:

Attribute Name	Enable Browsing	Attribute Type
<input checked="" type="checkbox"/> Example Key	<input checked="" type="checkbox"/>	Regular
<input type="checkbox"/> Source Key	<input type="checkbox"/>	Regular
<input type="checkbox"/> Description	<input type="checkbox"/>	Regular
<input type="checkbox"/> Active	<input type="checkbox"/>	Regular
<input type="checkbox"/> Created	<input type="checkbox"/>	Regular
<input type="checkbox"/> Updated	<input type="checkbox"/>	Regular
<input checked="" type="checkbox"/> Order By	<input checked="" type="checkbox"/>	Regular
<input type="checkbox"/> Event Log Key	<input type="checkbox"/>	Regular

< Back Next > Finish >>| Cancel

- f. Set the Name of the dimension. *Finish.*

Completing the Wizard
Type a name for the new dimension, verify the dimension structure, and then click Finish to save the dimension.

Name: Example

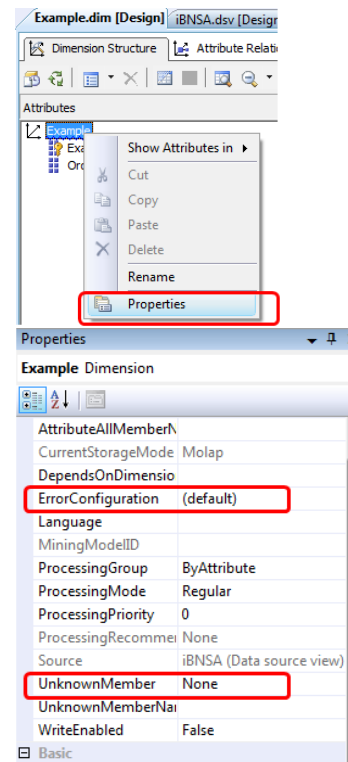
Preview:

- Example
 - Attributes
 - Example Key
 - Order By

< Back Next > Finish Cancel

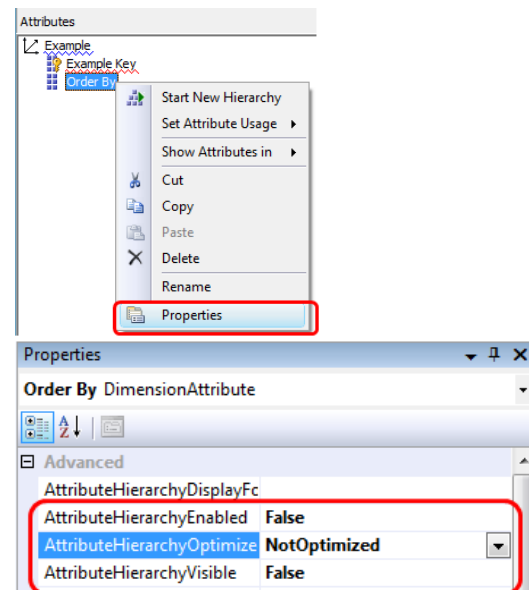
9. Configure the dimension properties

- Error Configuration = *(default)*
- Unknown Member = *None*



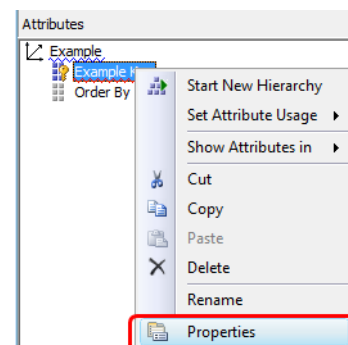
10. Configure “Order By” attribute properties

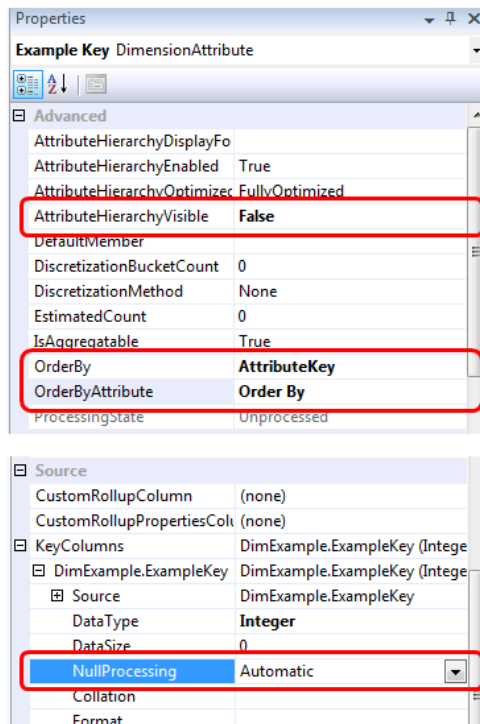
- Attribute Hierarchy Enabled = *False*
- Attribute Hierarchy Optimized State = *NotOptimized*
- Attribute Hierarch Visible = *False*



11. Configure the dimension’s key attribute properties

- Attribute Hierarchy Visible = *False*
- OrderByAttribute = *Order By*
- OrderBy = *AttributeKey*
- Under KeyColumns, set NullProcessing = *Automatic*

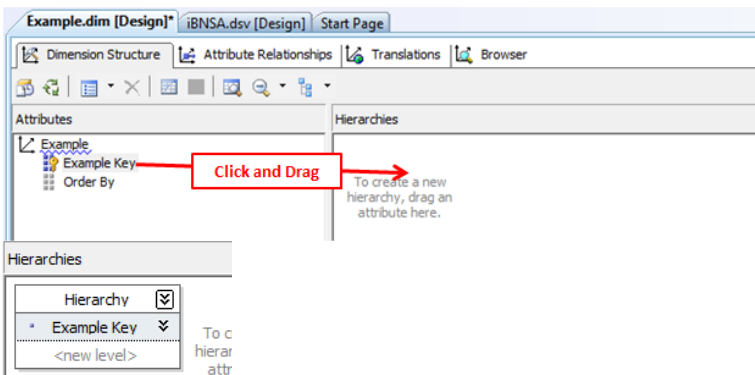




12. Configure the properties for any other dimension attributes that were added.

- Attribute Hierarchy Visible = *False*

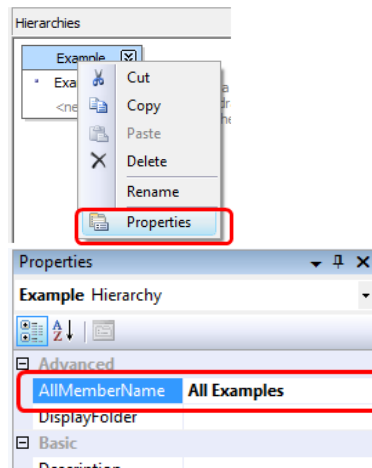
13. Add hierarchies to the dimension by clicking and dragging the attribute to the Hierarchies pane.



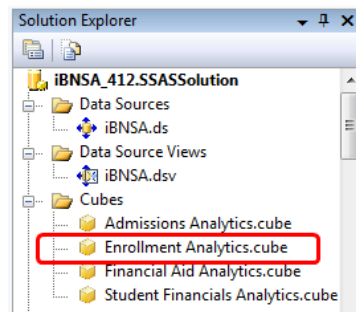
14. Rename the hierarchy and levels to a user friendly name.



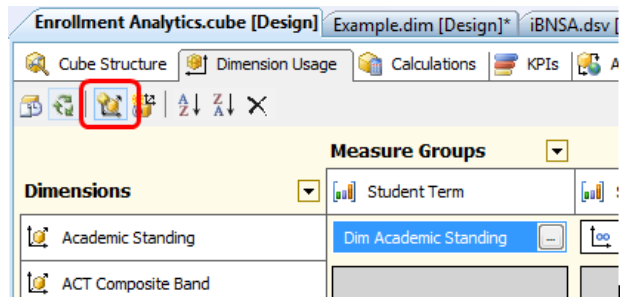
15. Set the AllMemberName property for the hierarchy to a user friendly name.



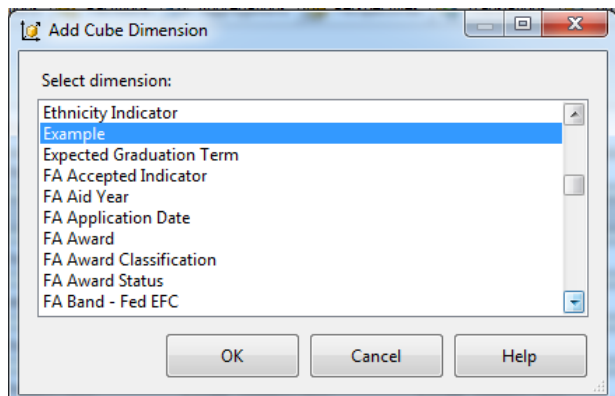
16. Add the dimension to the cube. Open the Cube that needs to have the dimension added.



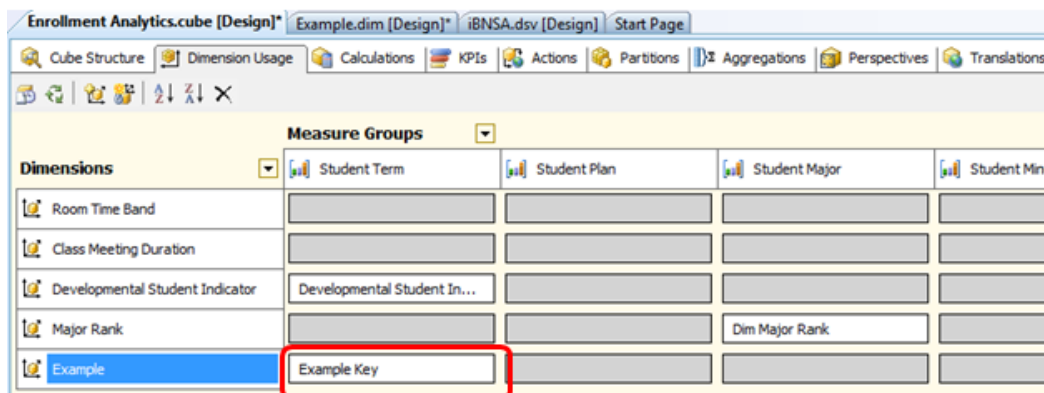
17. Select the Dimension Usage tab, and press the button for “Add Cube Dimension”



18. Select the dimension from the list and press OK.

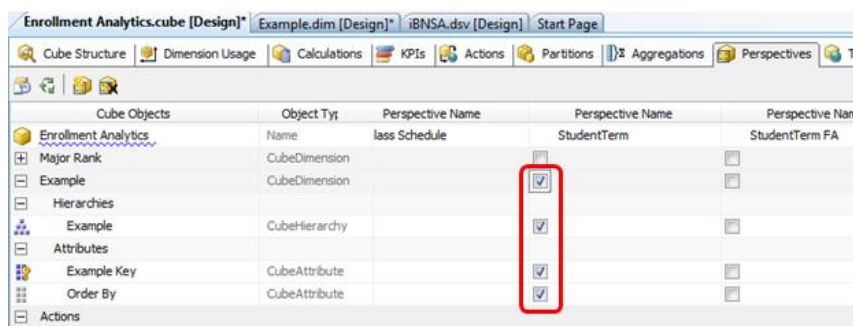


19. Confirm, correct, or add the dimension / measure group usage for the added dimension.



20. Enable the dimension (and hierarchies) in the appropriate Perspectives so the dimension is visible to users.

- Select the Perspectives tab
- Find the dimension, and check the box under the appropriate perspective.



21. Deploy the SSAS Solution and test the custom dimension.

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