

Understanding BEx Query Designer: Part-6 Simple Query Design



Applies to:

SAP NetWeaver BW.

Summary

This document is the sixth and final installment of a 6 part Query Designer Training guide for Beginners. After going through the first five parts, the reader will have now had a broad level of familiarity with the design and function of the Query Designer. This document provides an insight into applying those concepts into a query development. It will also be helpful to intermediate and advanced level users to learn some usually ignored but helpful facts about the Query Designer.

Author: Shyam Uthaman

Company: Accenture Services Pvt. Ltd.

Created on: 6 Jun 2011

Author Bio



Shyam Uthaman is working as SAP-BI Consultant.

He is working simultaneously on multiple projects for different clients in Accenture.

Table of Contents

The BEx Query Designer	3
Definition	3
Use	3
Integration	3
Features	4
Creating a Simple Query	5
Business Requirement.....	7
Illustrated demonstration of Query Design	7
Executing the Query	14
Related Content	15
Disclaimer and Liability Notice	16

The BEx Query Designer

Definition

It is an Independent desktop application for defining queries.

Use

You analyze the dataset of the Business Information Warehouse by defining queries for InfoProviders using the BEx Query Designer. By selecting and combining InfoObjects (characteristics and key figures) or reusable structures in a query, you determine the way in which you navigate through and evaluate the data in the selected InfoProvider.

Integration

You open the Query Designer from Start/Programs/Business Explorer/Query Designer.

You can also call up the BEx Query Designer from the following components:

- BEx Analyzer
- BEx Web Application Designer
- Crystal Reports (Crystal Reports \geq 8.5 incl. CR add-ons for SAP)

Features

The BEx Query Designer contains the following functions:

- You can use the queries that you define in the query designer for OLAP reporting and also for tabular reporting.
- You can parameterize the queries by using variables for characteristic values, hierarchies, hierarchy nodes, texts, or formulas.
- You can select InfoObjects more precisely by:
 - . Restricting characteristics to characteristic values, characteristic intervals and hierarchy nodes
 - . Defining formulas
 - . Defining selections
 - . Defining reusable calculated and restricted key figures.
 - . Using local or reusable structures
 - . Defining exceptions
 - . Defining conditions

The most significant components of the query definition are the filter and navigation:

- The selections in the **filter** have a limiting effect on the whole query. When defining the filter, you select characteristic values from one or more characteristics or from a key figure. All of the InfoProvider data is aggregated using the filter selection of the query. The filter selection cannot be changed by navigation.
- For the **navigation** you select user-defined characteristics and determine the content of the rows and columns of the query. You use this selection to determine the data areas of the InfoProvider over which you want to navigate. The arrangement of the contents of the rows and columns also determines the default view of the query and the rows and columns axes in the results area.

After it is inserted into the Web browser, a query is displayed in the default initial view. By navigating through the query, you can generate different views of the InfoProvider data, by dragging one of the user-defined characteristics into the rows or columns of the query, for example, or by filtering a characteristic according to a single characteristic value.

With the definition of a query, the InfoProvider data can be evaluated specifically and quickly. The more detail in which the query is defined, the quicker its execution and navigation.

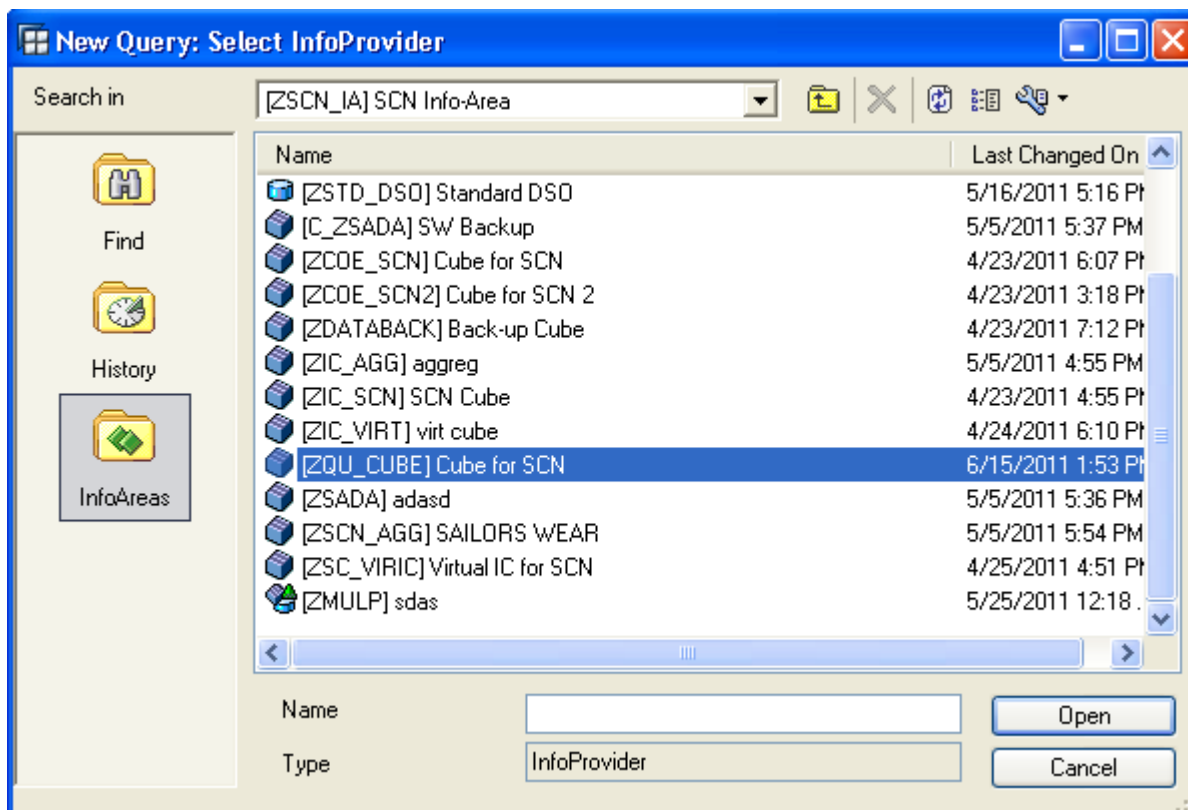
Creating a Simple Query

To create a new query, click on the Create button circled in red below. Or use the menu Query → New

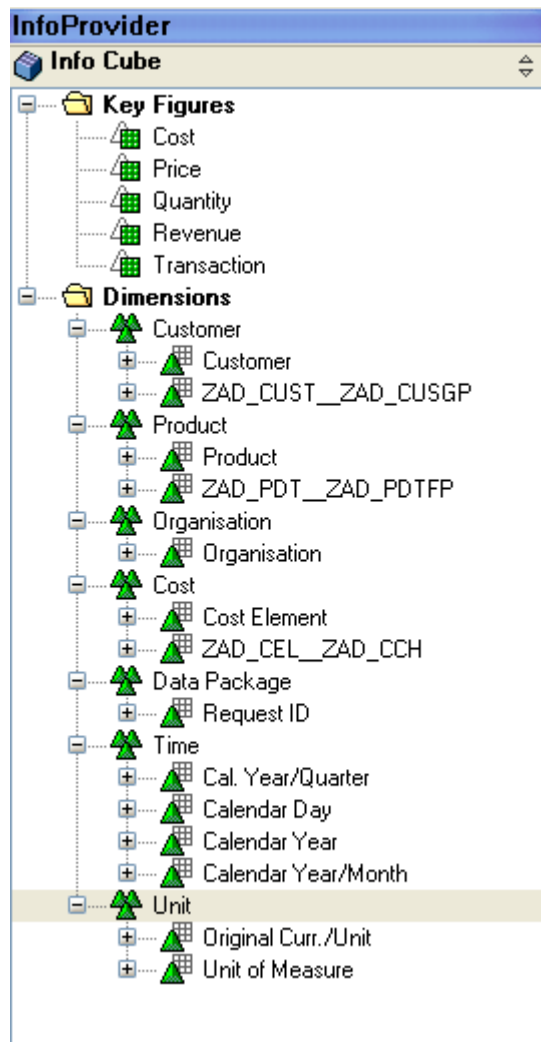


The following window pops up asking you to select an InfoProvider.

Navigate through the InfoAreas to select the InfoProvider on which you want to create the query and click on the open button to return to the main screen.



The InfoProvider definition will be displayed now in the InfoProvider pane as shown below.



Business Requirement

Determine the top five customers with the highest sold quantity for 2002 by applying a condition.

Secondly, compare the results with their revenues.

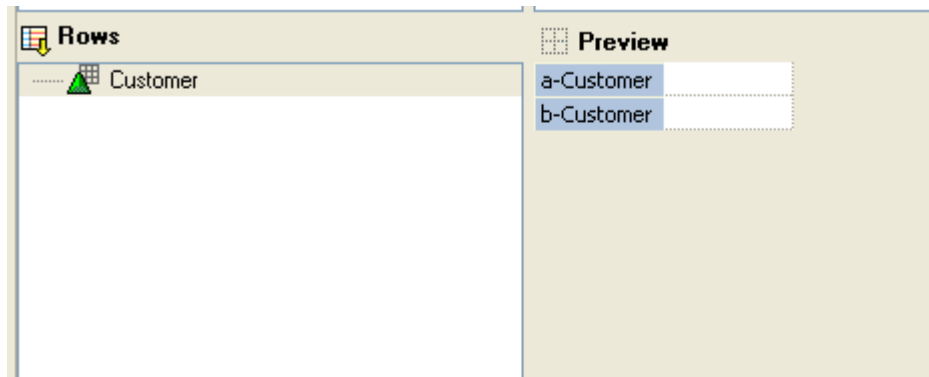
Illustrated demonstration of Query Design

Firstly, we will define the Rows of the Query.

To do this, drag the Characteristics/key figures you want to see in the rows to the Rows pane of the Query Designer.

Here, we have dragged and dropped only Customer into the rows as per our requirement

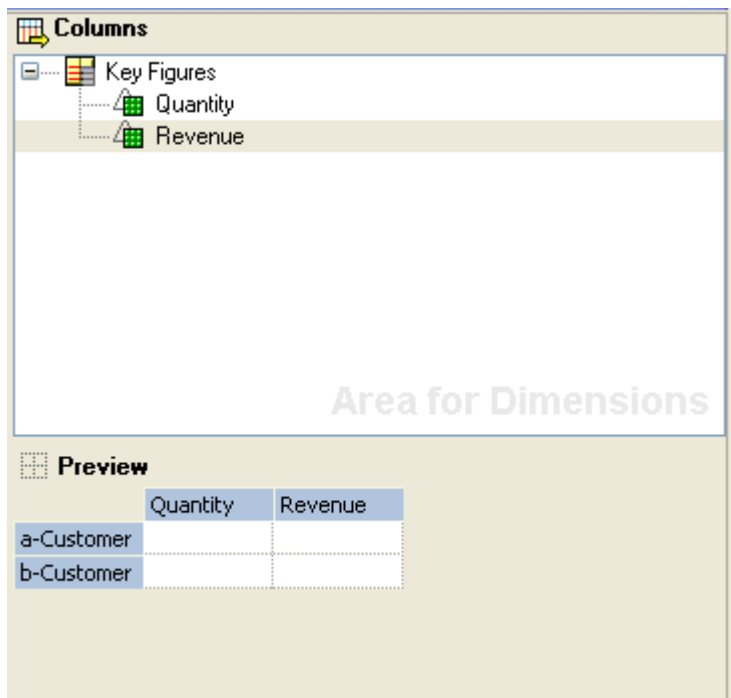
The Preview pane re-affirms the design as shown below.



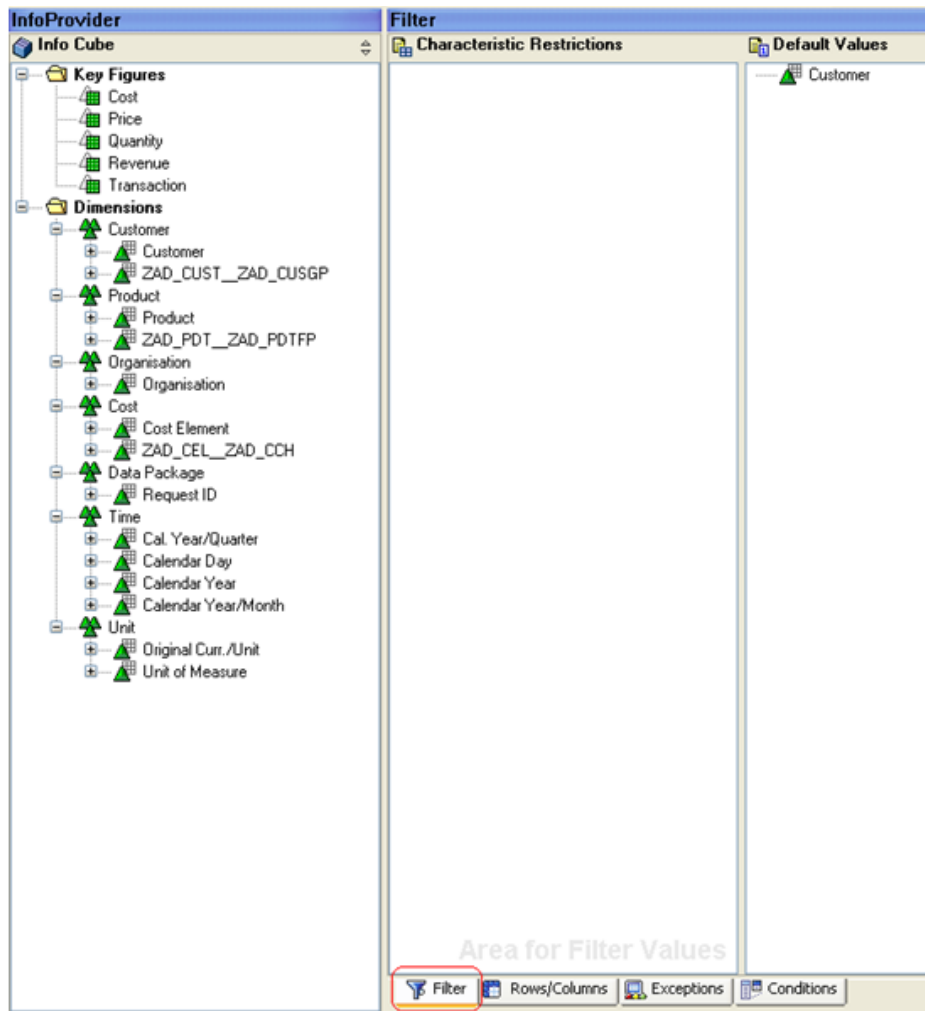
Now, we will define the columns of the query.

According to the requirement, Quantity and revenue have to be dragged and dropped into the columns pane.

The preview changes with the new design as shown below.

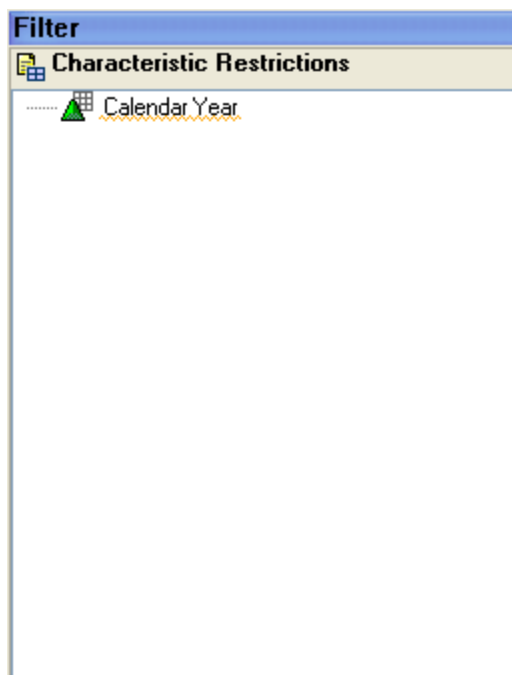


Now, we have to define the filter. To do that, click on the filter tab circled in red below.

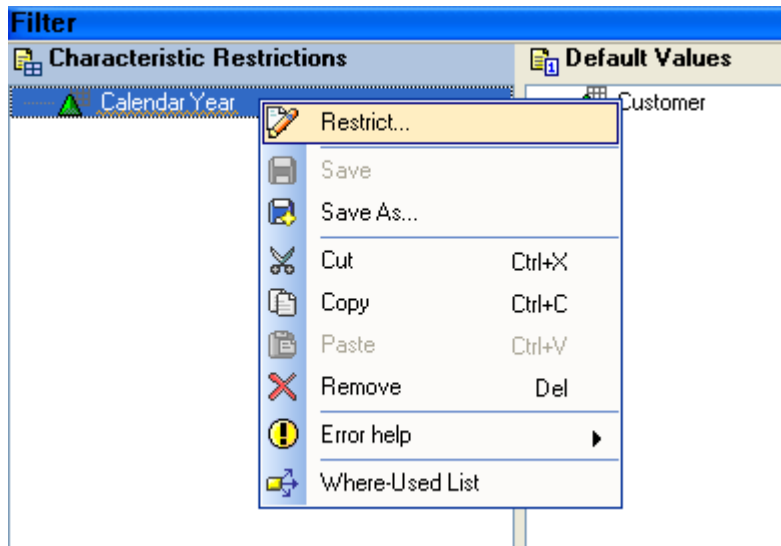


Now, drag and drop Calendar Year to the Characteristics Restrictions Pane

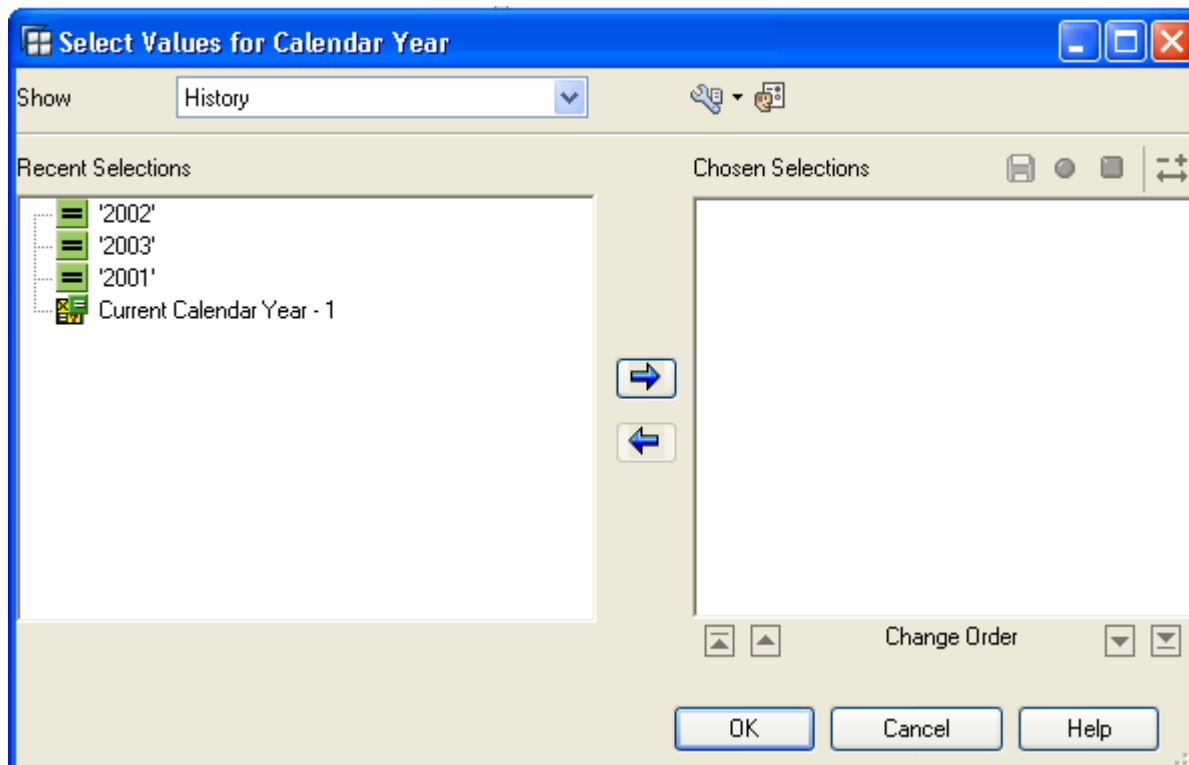
Now we have to define the restriction on it.



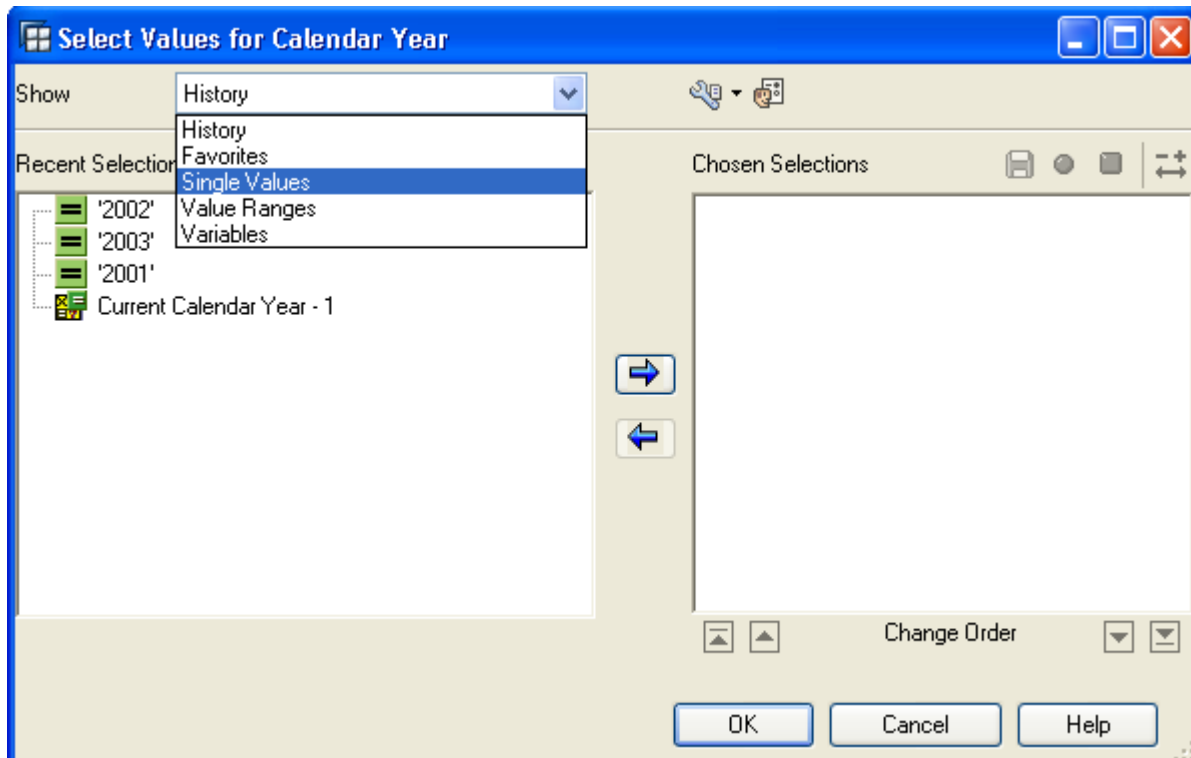
Right click on Calendar year and select restrict from the context menu.



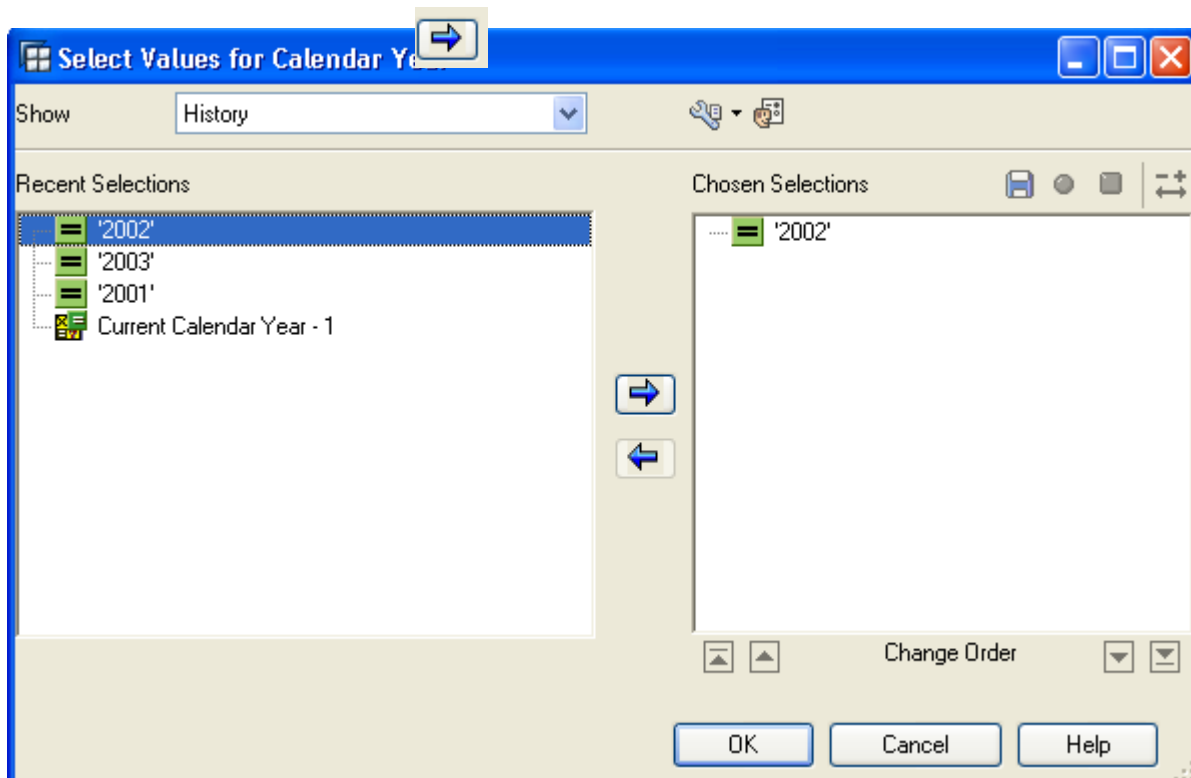
You will get the following pop-up



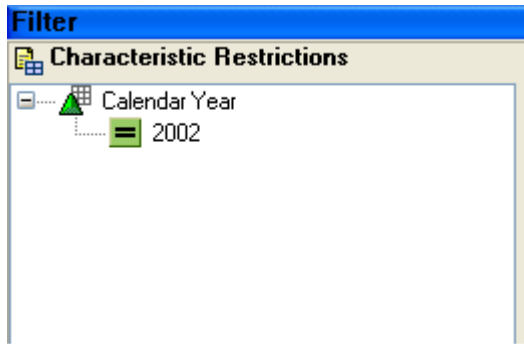
To restrict the Calendar year to 2002, first use the drop down menu on the Show field and select Single Values as shown below.



Select the year 2002 and use the  icon to move it to the Chosen Selections pane

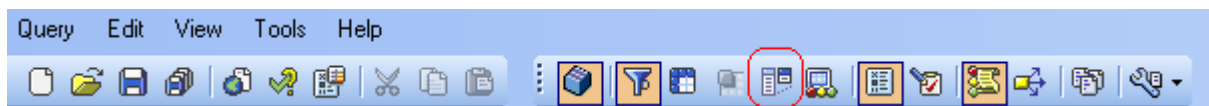


The Characteristic Restrictions pane now contains the filter as shown below

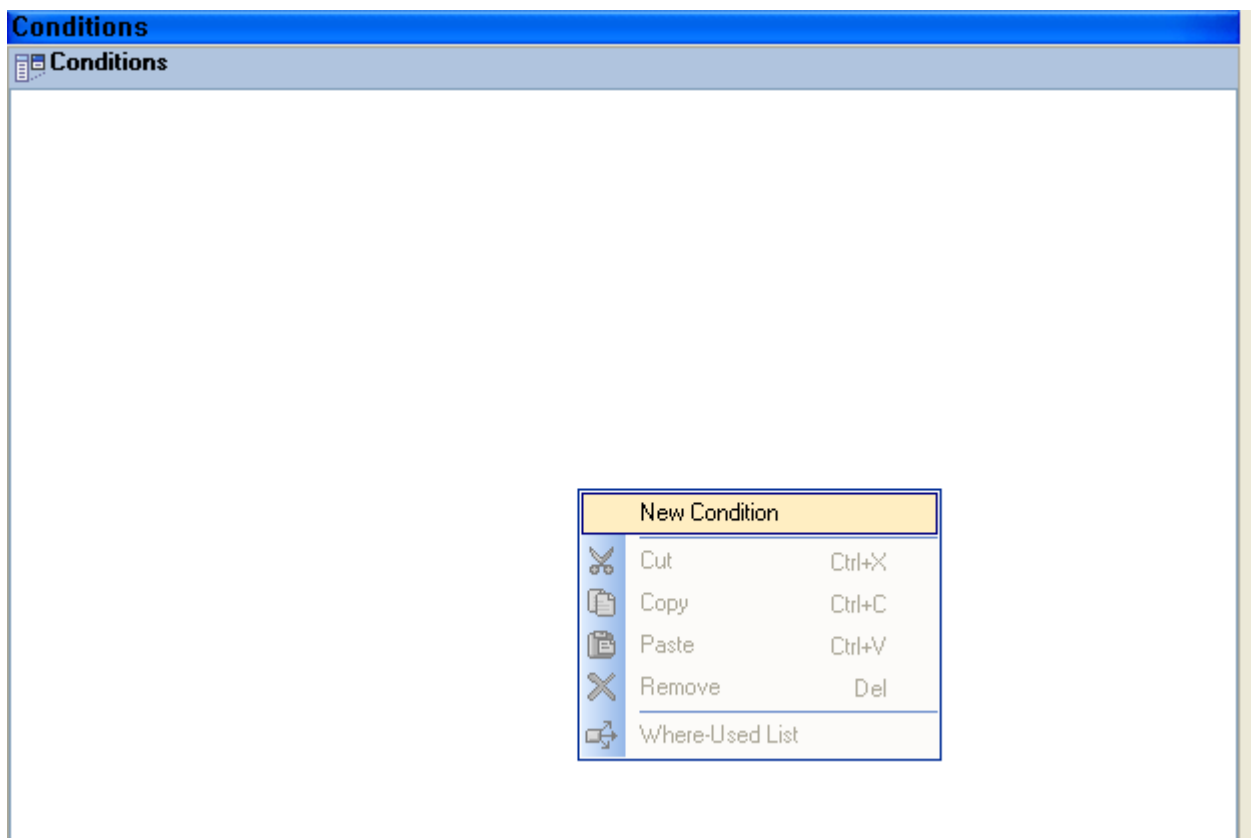


Now, we need to set the condition to get the top 5 customers with the highest sold quantity.

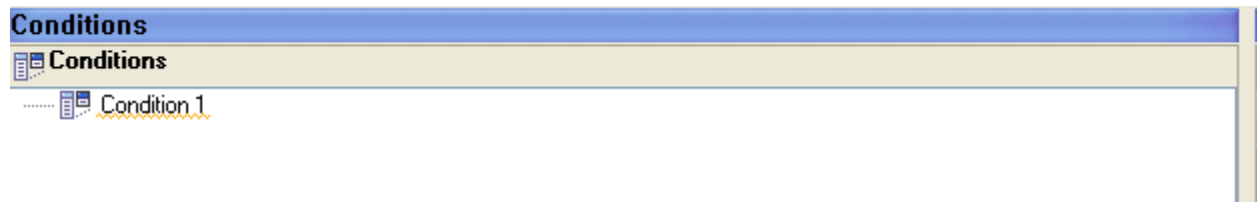
To do that, click on the conditions button on the toolbar circled in red below.



A conditions pane will open as shown below. Right click anywhere inside and select New Condition from the context menu.

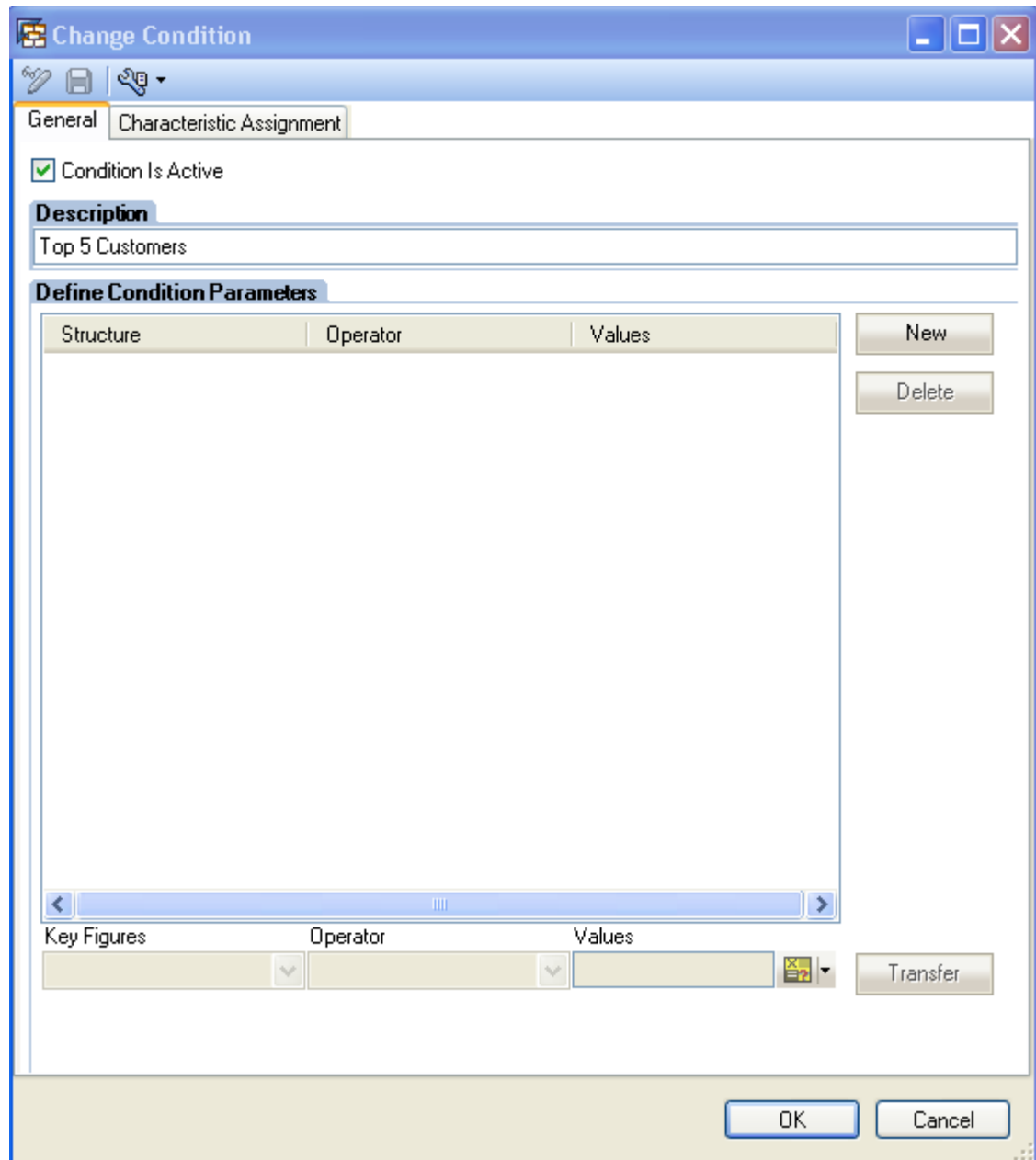


You will see that a new Condition appears as shown below.



Double click on the new Condition to define it.

Fill in the Description and click on the New button to start defining it.



According to the requirement, we have filled in the settings to get the top 5 customers based on quantity. These settings have been circled in red below.

Change Condition

General **Characteristic Assignment**

☒ Condition Is Active

Description
Top 5 Customers

Define Condition Parameters

Structure	Operator	Values
Quantity	Top N	5

New
Delete

Transfer

OK Cancel

Click on the Transfer button to complete the assignment.

You will see that the new condition has been added.

Change Condition

General **Characteristic Assignment**

☒ Condition Is Active

Description
Top 5 Customers

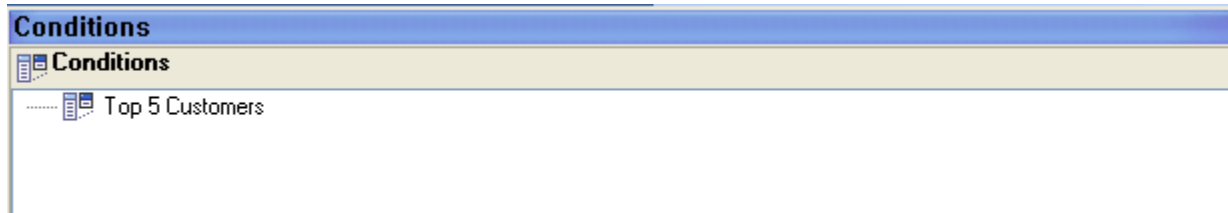
Define Condition Parameters


Structure	Operator	Values
Quantity	Top N	5

New
Delete

Now, press Ok to confirm and go back.

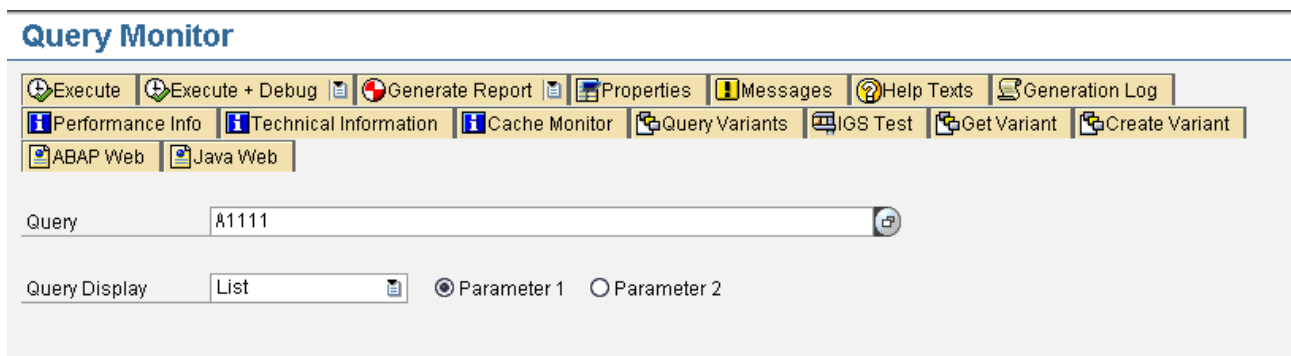
You can see that the condition Definition is complete



Now save the query using the  button.

Executing the Query

Go to RSRT transaction screen in the BW system and enter in your query name as shown below and press execute.



You will see the following output

Messages:

'Customer	'Quantity	'Revenue
'CU007	42.229,000 ERR	153.349,900 EUR
'CU003	42.203,000 ERR	162.997,200 EUR
'CU005	41.787,000 ERR	151.602,900 EUR
'CU001	38.704,000 ERR	143.846,200 EUR
'CU004	35.550,000 ERR	128.783,100 EUR

Additional information:

Free chars:

InfoObject	Name	Hierarchy Name
ZAD_CUST	Customer	

Attributes:

InfoObject	Attribute	HiText
ZAD_CUST	ZAD_CUSGP	X Customer Group

The requirement has been met and the Top 5 customers have been sorted by Quantity on year 2002.

Related Content

http://help.sap.com/saphelp_nw04/helpdata/en/9d/76563cc368b60fe10000000a114084/content.htm

<http://sapdocs.info/sap/bw-bi-bobj/sap-bex-query-designer/>

http://help.sap.com/saphelp_nw04/helpdata/en/f1/0a569ae09411d2acb90000e829fbfe/content.htm

Disclaimer and Liability Notice

This document may discuss sample coding or other information that does not include SAP official interfaces and therefore is not supported by SAP. Changes made based on this information are not supported and can be overwritten during an upgrade.

SAP will not be held liable for any damages caused by using or misusing the information, code or methods suggested in this document, and anyone using these methods does so at his/her own risk.

SAP offers no guarantees and assumes no responsibility or liability of any type with respect to the content of this technical article or code sample, including any liability resulting from incompatibility between the content within this document and the materials and services offered by SAP. You agree that you will not hold, or seek to hold, SAP responsible or liable with respect to the content of this document.