

# Understanding BEx Query Designer: Part-1 Screen Appearance



## Applies to:

SAP NetWeaver BW.

## Summary

This document is the first installment of a 6 part Query Designer Training guide for Beginners. It deals with understanding first thing you see in the query designer – the menu, the buttons, the screen sections etc. This document will also be helpful to intermediate and advanced level users to learn some usually ignored but helpful facts about the Query Designer.

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## 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.

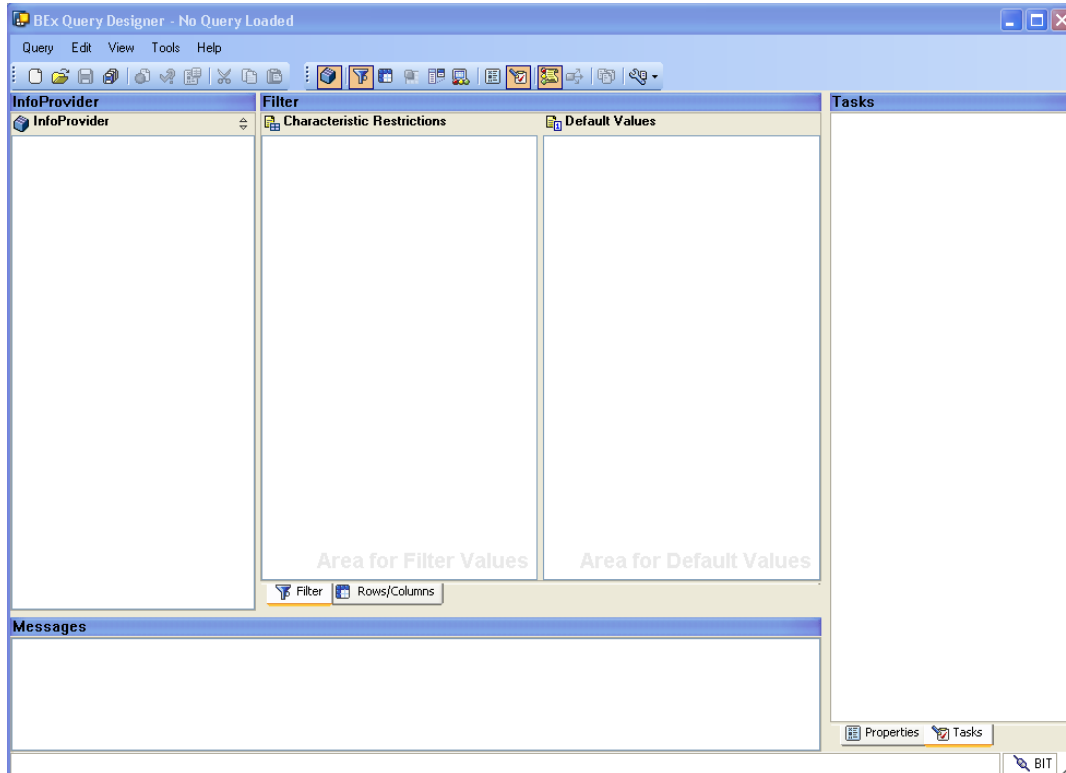
After it is inserted into the Web browser, a query is displayed in the default initial view. By navigating through the query, you can generate different views of the InfoProvider data, by dragging one of the user-defined characteristics into the rows or columns of the query, for example, or by filtering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

## Screen Layout

### A First look at the Query Designer

On opening the query designer, the following default screen appears.



As you can see in the screenshot above, the screen layout is divided into several sections such as InfoProvider, Characteristic restrictions etc.

These sections will be discussed in detail in this document.

### Screen Sections

#### InfoProvider

This pane displays the elements of the InfoProvider in consideration used to develop the query.

You can drag and drop the Key figures, characteristics, attributes, etc. from the InfoProvider pane to the query definition.

#### Filter

If the filter has to be restricted on some specific characteristics, then those restrictions are defined in the filter area of the query designer. It is further subdivided into 2 different panes:

- **Characteristic Restrictions**

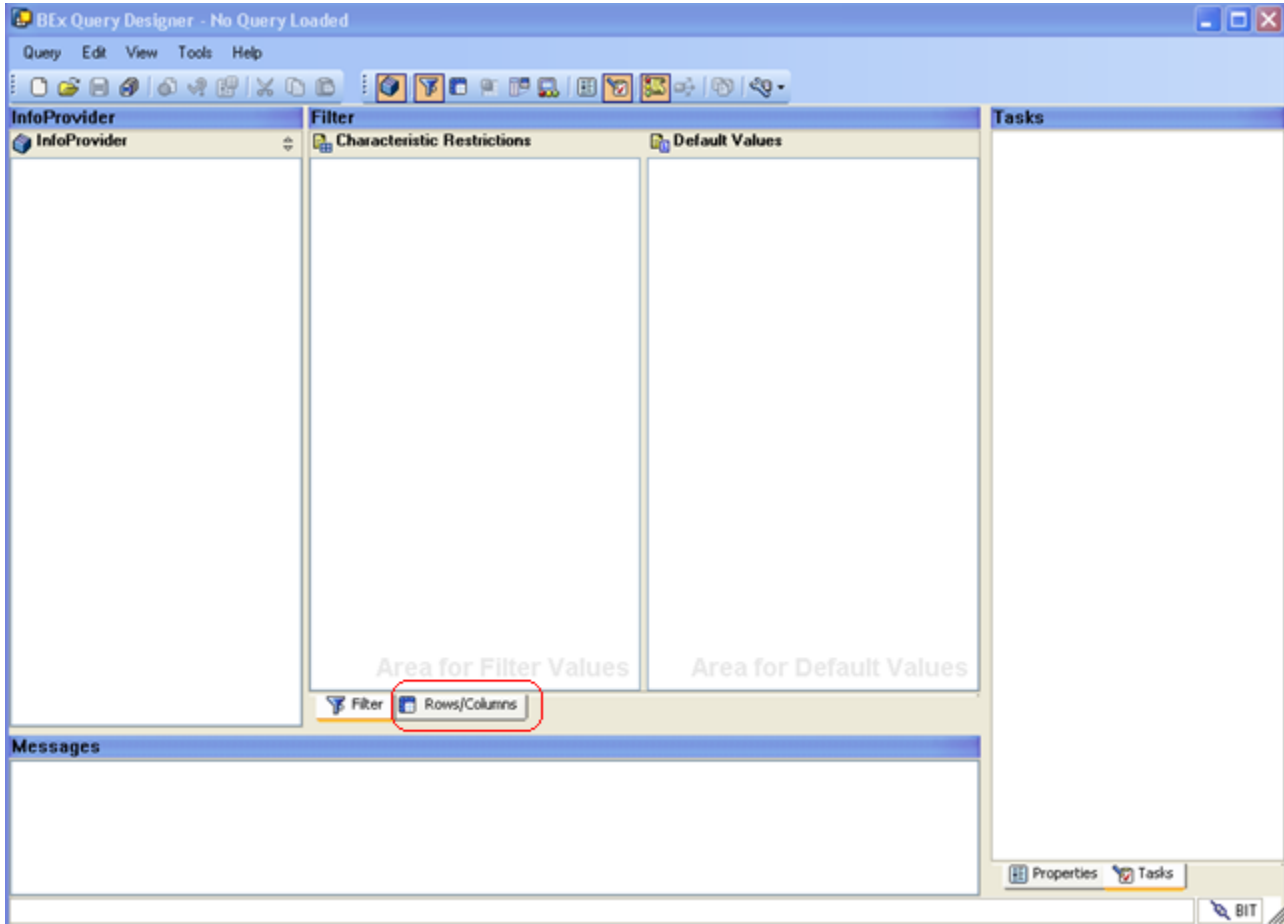
The static filters are defined in this pane.

- **Default Values**

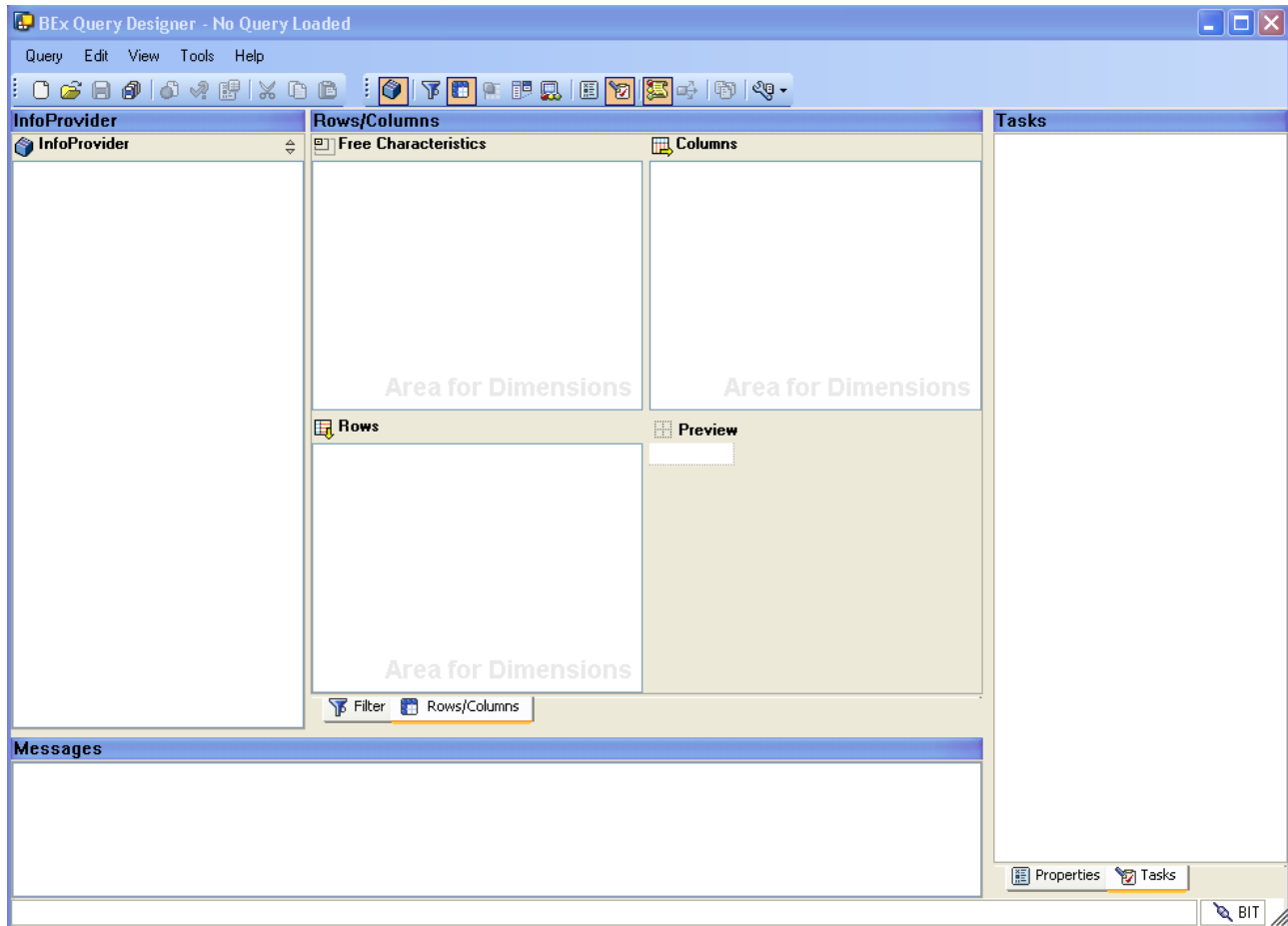
The default values for which the query should be first executed is defined in this pane

## Rows/Columns

Press the **Rows/Columns** tab circled in red below to bring up this pane.



The following screen appears



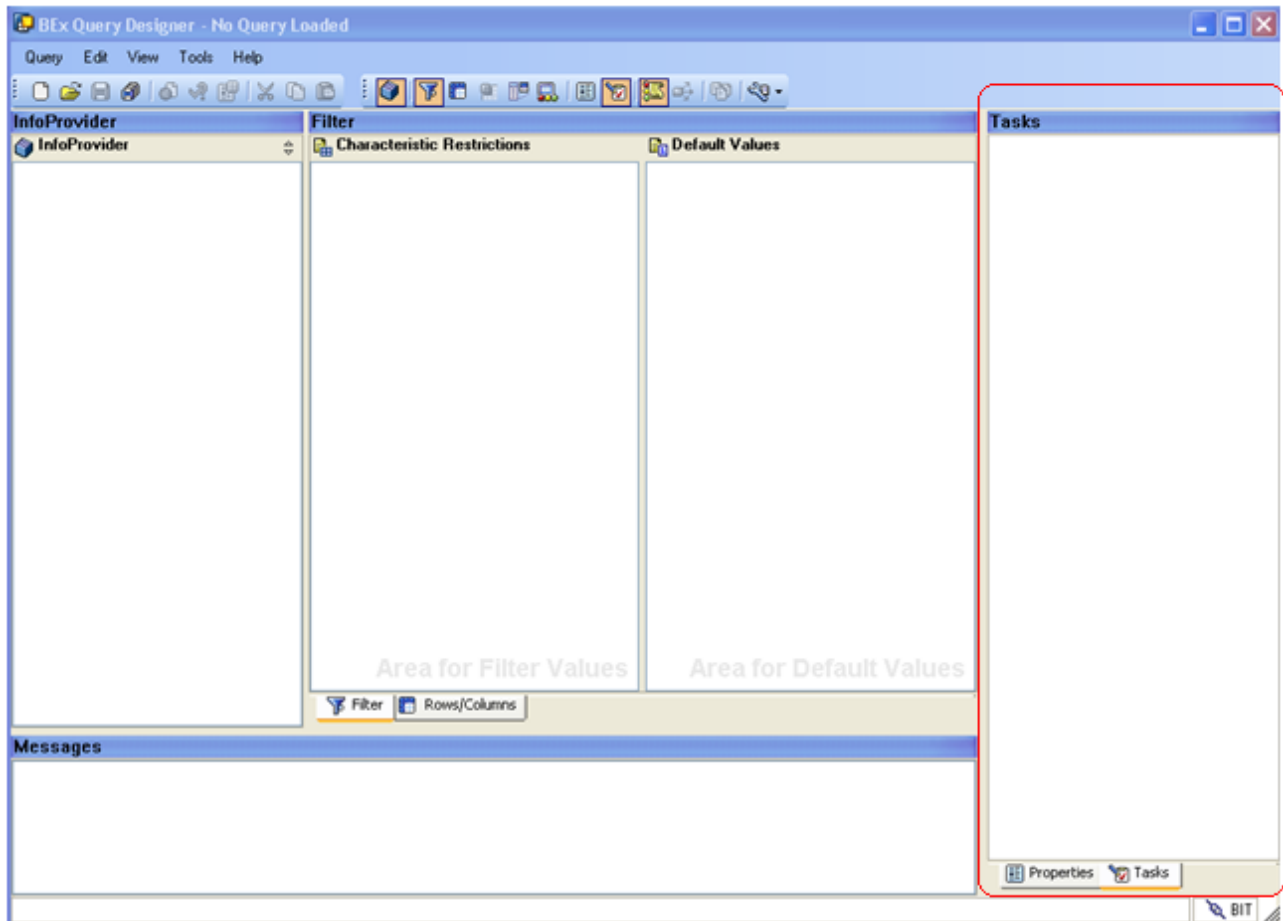
The layout of the query is defined on the Rows/Columns tab of the Query Designer.

Rows/Columns area of the query designer is further subdivided into 4 different panes:

- **Rows**  
Includes the characteristics and key-figures to be included as rows.
- **Columns**  
Includes the characteristics and key-figures to be included as columns.
- **Free Characteristics**  
If you want some characteristics to not be included in the default view of the query, but still be available for drilldown if needed, place them in this pane.
- **Preview**  
This pane provides a preview of the query structure and layout.

## Tasks

You will find this pane on the right side of the screen (as circled in red below).



For different components of a query, there are different tasks or actions that can be performed depending on the element selected. In case of errors, the possible corrective actions and error help are also visible in the Task area.

## Properties

Click on the Properties tab to switch from the Task Tab explained above.

All elements of the query have their own sets of properties and settings which determine the behavior of that element. These properties and settings are visible in this pane.

## Messages

Errors, warnings and other information related to the query are displayed in the Messages screen area.



## Toolbar Options

The following image shows the menu bar and the other toolbars of BEx Query Designer







### Menu Bar

Following are the five menu options available in the menu bar:







- **Query**  
The functions under this menu options allow you to create, save, open, check, execute, and delete a query.
- **Edit**  
You can perform different edit functions using this menu option. Also, you can toggle between the display only and edit mode of the query.
- **View**  
The functions under this menu option allow you to display different screen areas as well as toolbars. You can also toggle between different options to display the technical name and description of query elements.
- **Tools**  
The Save All function under this menu option saves the query definition as well as all the other reusable components that are created while working on the query.
- **Help**  
Functions under this menu option provide error help and also provide help to SAP online documentation

### Standard Toolbar

The Icons available on the Standard toolbar is explained below:





-  **New Query**  
If you want to create a query, select the symbol for New Query. You reach the BEx Open dialog where you choose the InfoProvider whose data you want to use as the basis for your query. You can select the InfoProvider either from the InfoProviders in your history or from the list of all available InfoProviders under InfoAreas.
-  **Open Query**  
Choose Open Query to get to the BEx Open dialog. Here, all existing queries are available in your history, favorites, roles or listed according to InfoArea. Under InfoAreas you get a list of all existing queries in the Business Information Warehouse for which you have display authorization.
-  **Save Query**  
You can save a query that you have changed under its current name using the function Save Query. If the query does not yet have a technical name, the system offers the function Save Query as automatically.
-  **Save All**

It saves the query definition as well as all the other reusable components that are created while working on the query. If you want to save the query under a new technical name, choose Save Query As. Enter the new technical name. You can save the query in your favorites or roles.

-  **Execute**  
Executes the query in portal.
-  **Check Query**  
Checks the query design for possible errors/warnings.
-  **Query Properties**  
All elements of the query have their own sets of properties and settings which determine the behavior of that element. Click this option to view these properties.
-  **Cut**  
Cuts a query element.
-  **Copy**  
Copies a query element.
-  **Paste**  
Pastes a query element.

### View Toolbar

The Icons available on the View toolbar is explained below:

-  **InfoProvider**  
Open/Move the focus to the InfoProvider Pane.
-  **Filter**  
Open/Move the focus to the Filter Pane. Usage has already been explained earlier in the document.
-  **Cells**  
You can define formulas and selection conditions explicitly for cells in queries with two structures. In this way you can override the cell values that are created implicitly from the intersection of the structure components. This function allows you to design much more detailed queries.  
  
This option is only available for queries with two structures. For queries with only one structure, the symbol is deactivated.
-  **Condition**  
Choose Condition, if you want to define conditions for a query. You can specify threshold value conditions for the key figure values in every characteristic. For example, you can specify all sales

figures under or above a certain threshold value. In the query, the selected characteristics are displayed with the restricted key figures.

➤  **Exceptions**

You can define exceptions for a query. Exceptions are variations in key figure values that you define yourself. They are displayed in a different color in the query view. This allows you to see, at a glance, any unusual deviations from the results you expect to get.

➤  **Properties**

Open/Move the focus to the Properties Pane. Usage has already been explained earlier in the document.

➤  **Tasks**

Open/Move the focus to the Tasks Pane. Usage has already been explained earlier in the document.

➤  **Messages**

Open/Move the focus to the Messages Pane. Usage has already been explained earlier in the document.

➤  **Where-Used List**

With the Query Where-Used List, you can see the objects (workbooks, Web templates, Crystal Reports or Reporting Agent settings) in which the query is used.

➤  **Documents**

Provides help from SAP online documentation.

➤  **Technical Names**

You can show or hide the technical names of the query components (InfoObjects, structures, variables, and so on) using this function.

## Related Content

[http://help.sap.com/saphelp\\_nw04/helpdata/en/9d/76563cc368b60fe1000000a114084/content.htm](http://help.sap.com/saphelp_nw04/helpdata/en/9d/76563cc368b60fe1000000a114084/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](http://help.sap.com/saphelp_nw04/helpdata/en/f1/0a569ae09411d2acb90000e829fbfe/content.htm)

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