HR
WSD Personnel

SAP Business Intelligence Reporting

BEx Query Designer

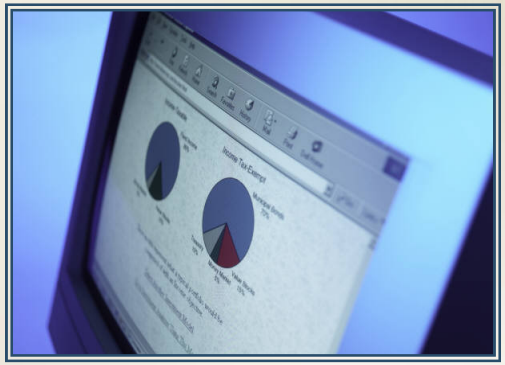
Washington State HRMS Business Intelligence (BW/BI)
BW/BI Power User Workshop Materials

General Topics – BW/BI Power Users

BEx Query Designer

The following section provides an overview of BEx Query Designer.

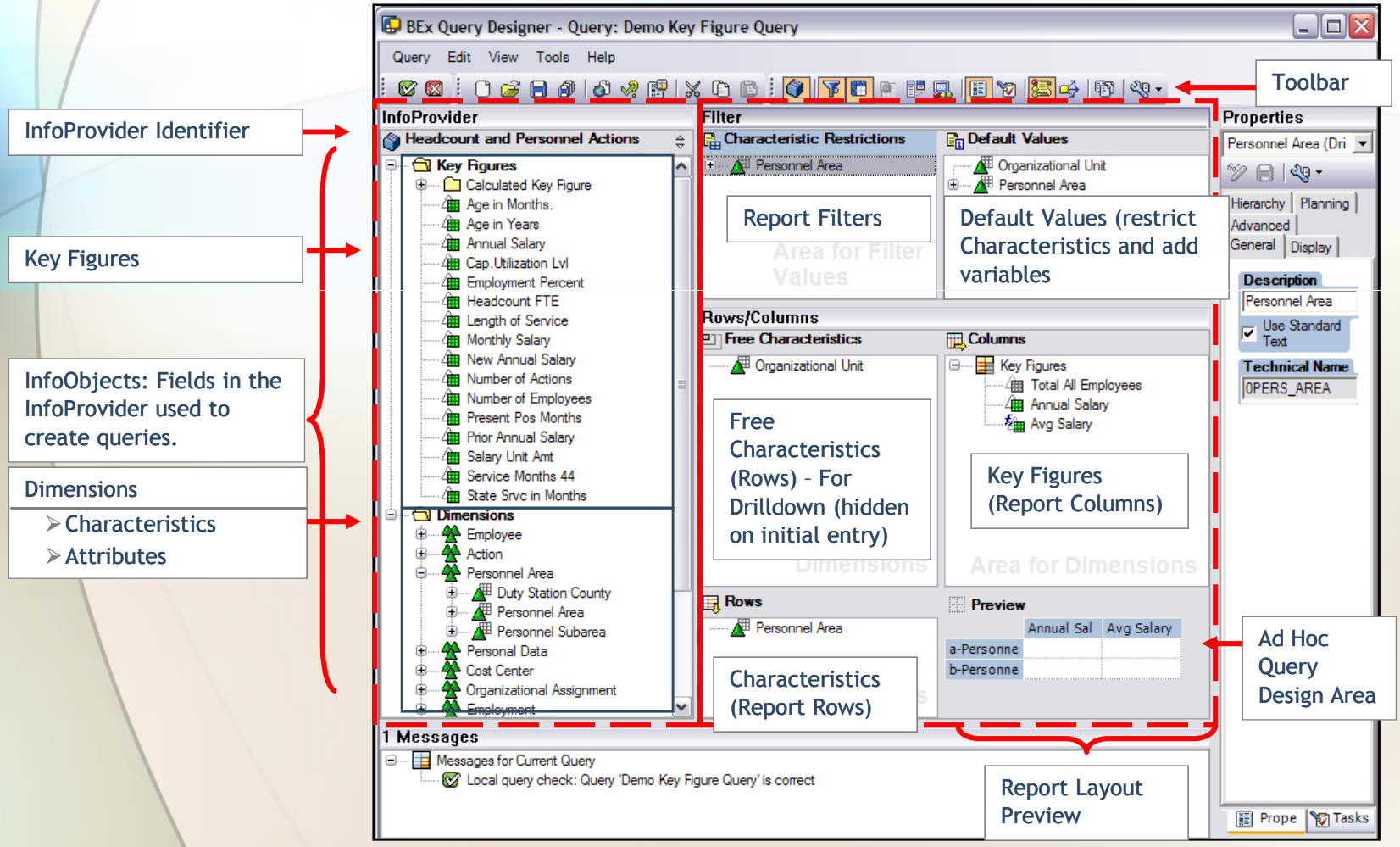
- Business Intelligence
- BW/BI Security
- BW/BI Environment
- Business Explorer (BEx)
  - What is BEx?
  - BEx Tools Overview
  - BEx Query Designer
    - BEx Query Designer Overview
    - BEx Query Designer Toolbar
    - Accessing BEx Query Designer
    - Creating a New Ad Hoc Query
    - Saving an Ad Hoc Query
    - Opening/Running an Existing Ad Hoc Query
    - Modifying an Existing Ad Hoc Query
    - Deleting an Existing Ad Hoc Query
    - Closing BEx Query Designer
  - BEx Query Analyzer



BEx Query Designer Overview

BEx Query Designer is a tool used to create ad hoc queries and is part of the BEx suite of tools. Ad hoc queries are comprised of Characteristics (usually in the Rows section), Free Characteristics, Key Figures (usually in the Columns section) and Filters.

The following diagram displays the main work area of BEx Query Designer:



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BEx Query Designer Toolbar

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BEx Query Designer Toolbar, Cont…

The following table provides an overview of functions available from the BEx Query Designer Toolbar:

	Quit and Use Query	Execute the query in MS Excel (enabled only when BEx Query Designer is opened from BEx Query Analyzer).
	Exit Query	Logoff and Exit BEx Query Designer.
	New Query	Create a new ad hoc query.
	Open Query	Open an existing query.
	Save Query	Save the ad hoc query.
	Save All	Save the ad hoc query.
	Display Query on the Web	Execute the query on the web.
	Check Query	Before a new query is saved, use the *Check Query* command to check the query definition for errors.
	Query Properties	Set query properties such as the query description,
	Cut	Cut object out of query.
	Copy	Copy object in query.
	Paste	Paste object that have been Cut or Copied in the query.

Continued…

BEx Query Designer Toolbar, Cont…

BEx Query Designer Toolbar overview, cont…

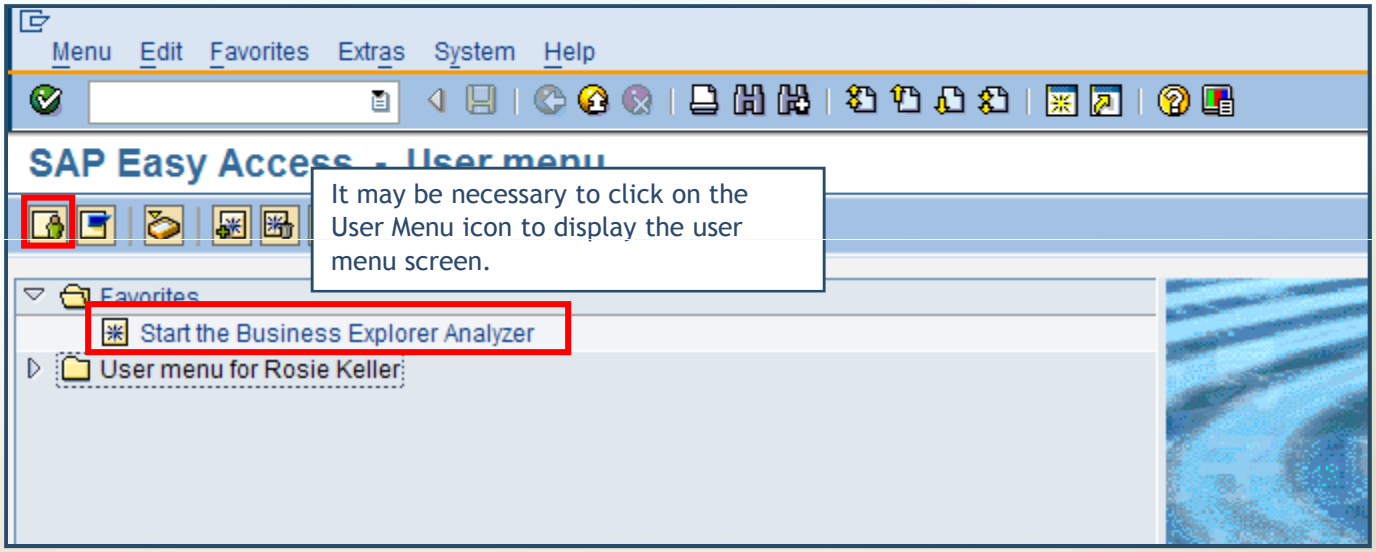
InfoProvider	Select the InfoProvider pane.
Filter	Select the Filter pane.
Rows/Columns	Select the Rows/Columns pane.
Cells	Define formulas and selection conditions explicitly for cells in queries with two or more structures.
Create a Condition	Create a condition for the ad hoc query.
Create an Exception	Create an exception for the ad hoc query.
Properties	Select the Properties pane.
Tasks	Select the Tasks pane.
Messages	Select the Messages pane.
Where-used List	Check to see which objects (for example, workbooks) are using the current query.
Documents	Displays the documents pane.
Technical Names	Show or hide the technical names of the query components.

Accessing BEx Query Designer

To access BEx Query Designer:

1. Logon to the HRMS Business Intelligence via SAP GUI as described in the Business Explorer (BEx) module.

2. Double-click "Start the Business Explorer Analyzer" link.



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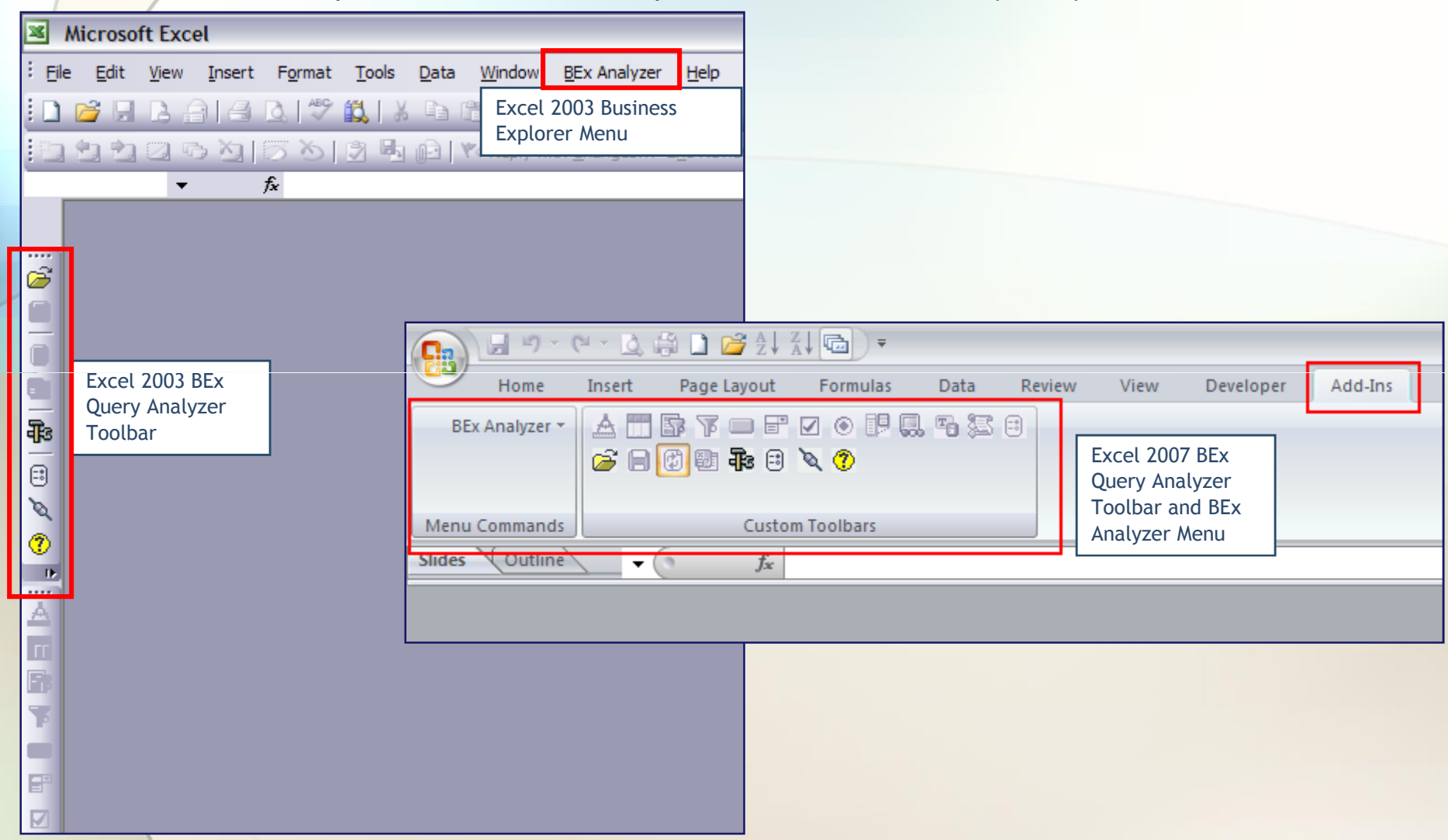
Accessing BEx Query Designer, Cont…

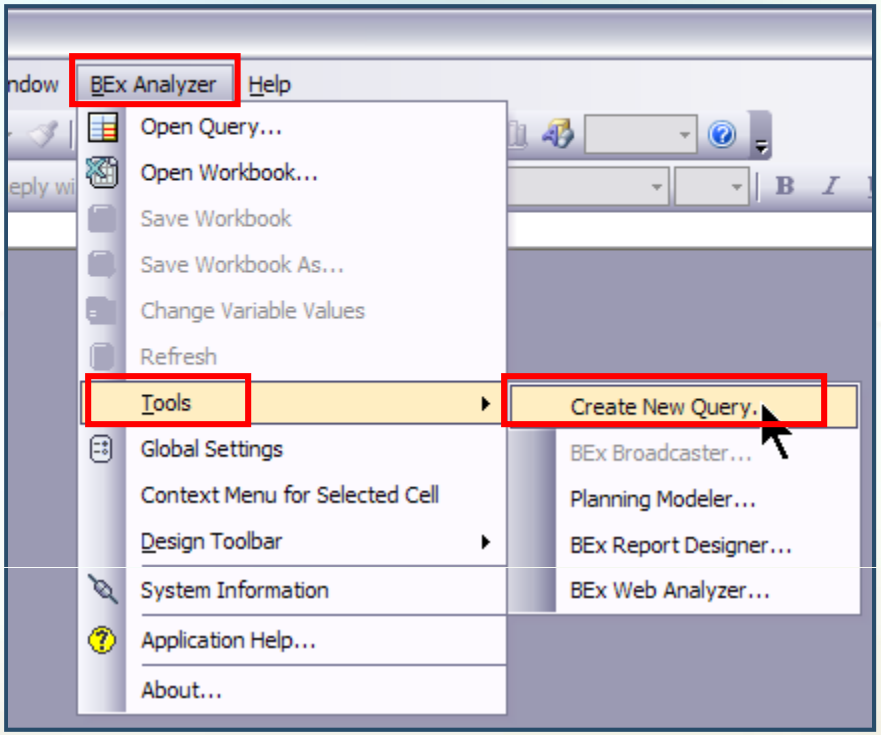
Result: MS Excel will open with the Business Explorer menu and BEx Query Analyzer toolbar enabled.



Accessing BEx Query Designer, Cont…

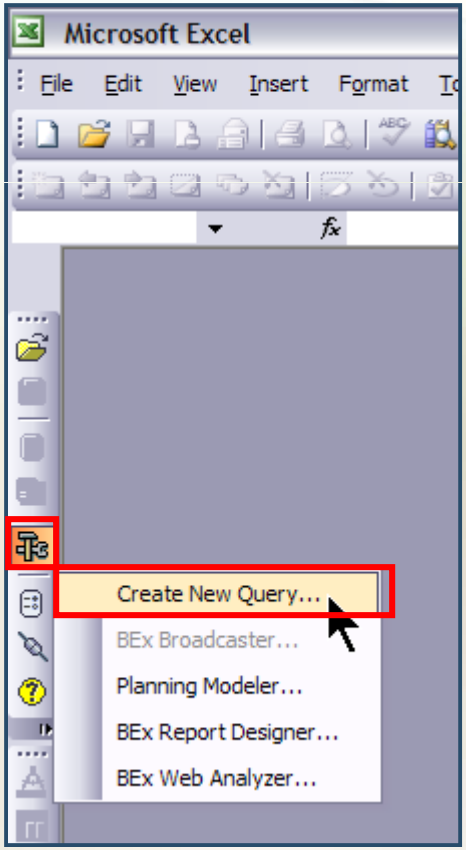
Excel 2003

1. Click the "BEx Analyzer" menu item.
2. Select "Tools".
3. Click "Create New Query".



OR

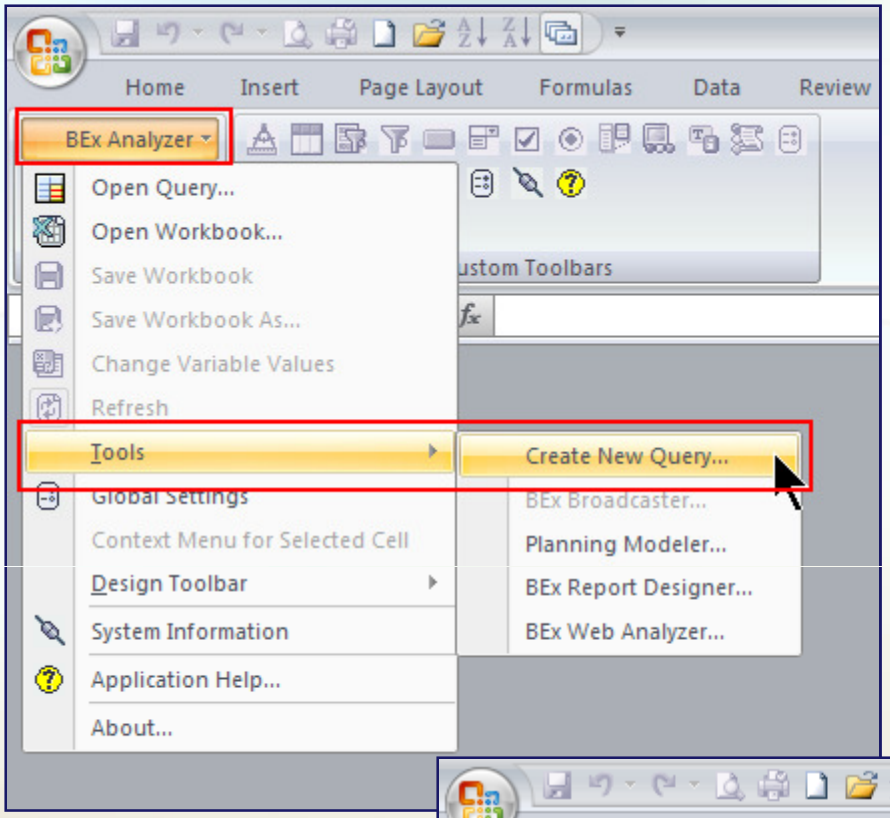
1. Click the Tools icon on the BEx Query Analyzer toolbar.
2. Click "Create New Query".



Accessing BEx Query Designer, Cont…

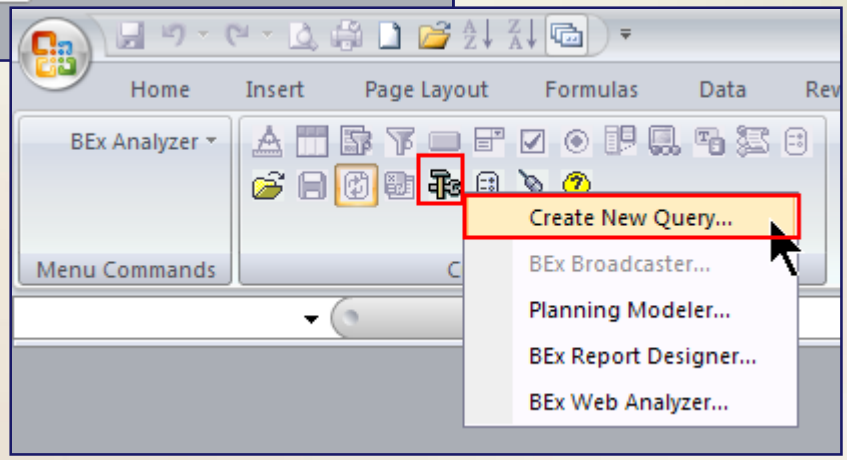
Excel 2007

1. Click the "BEx Analyzer" menu item.
2. Select "Tools".
3. Click "Create New Query".



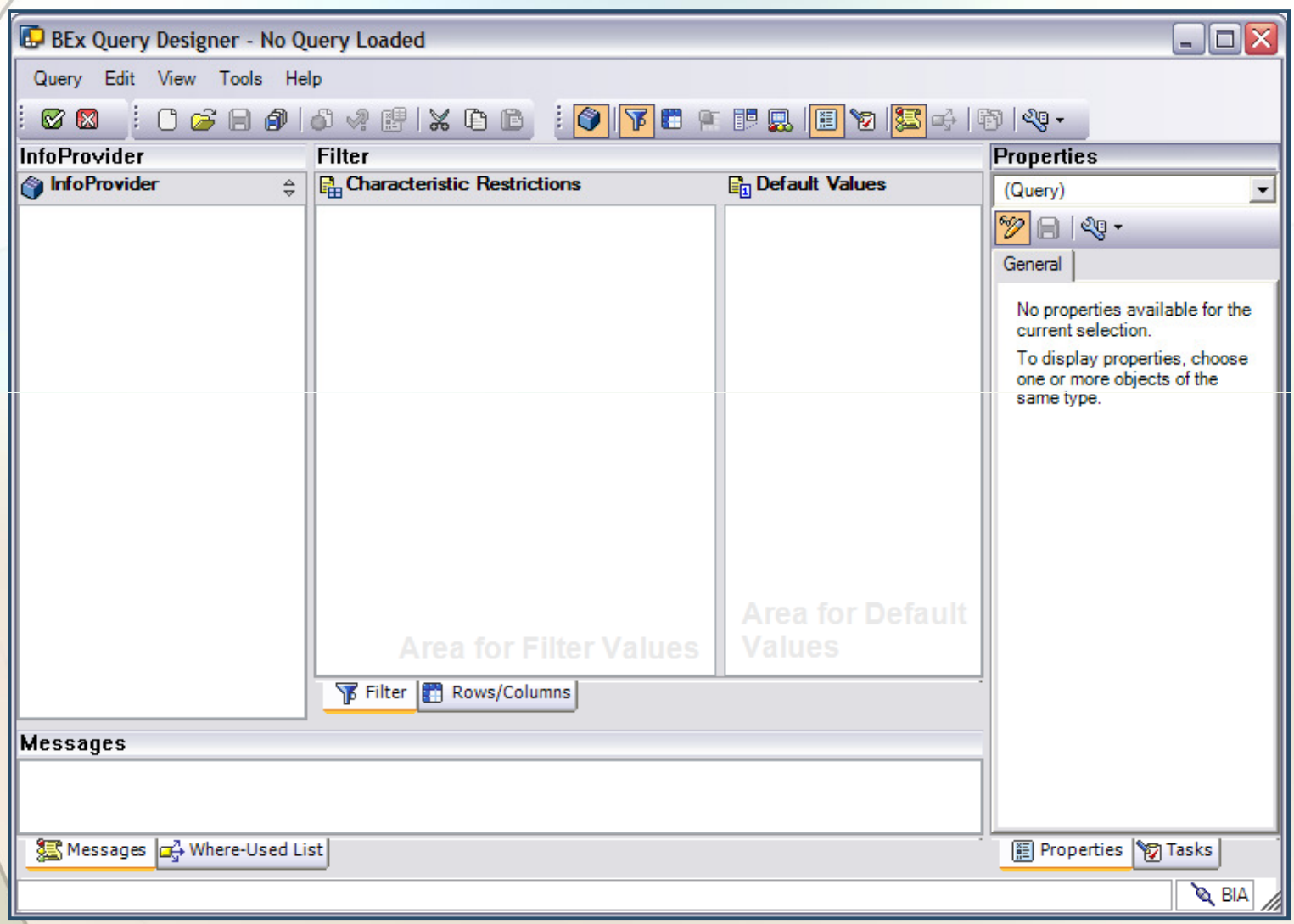
OR

1. Click the Tools icon on the BEx Query Analyzer toolbar.
2. Click "Create New Query".



Accessing BEx Query Designer, Cont…

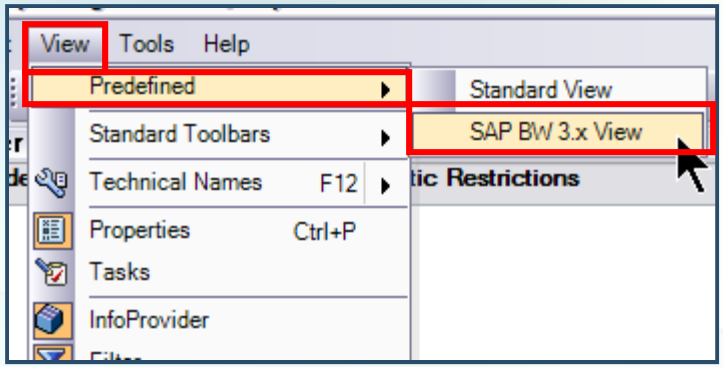
Result: BEx Query Designer will be opened in the Standard View.



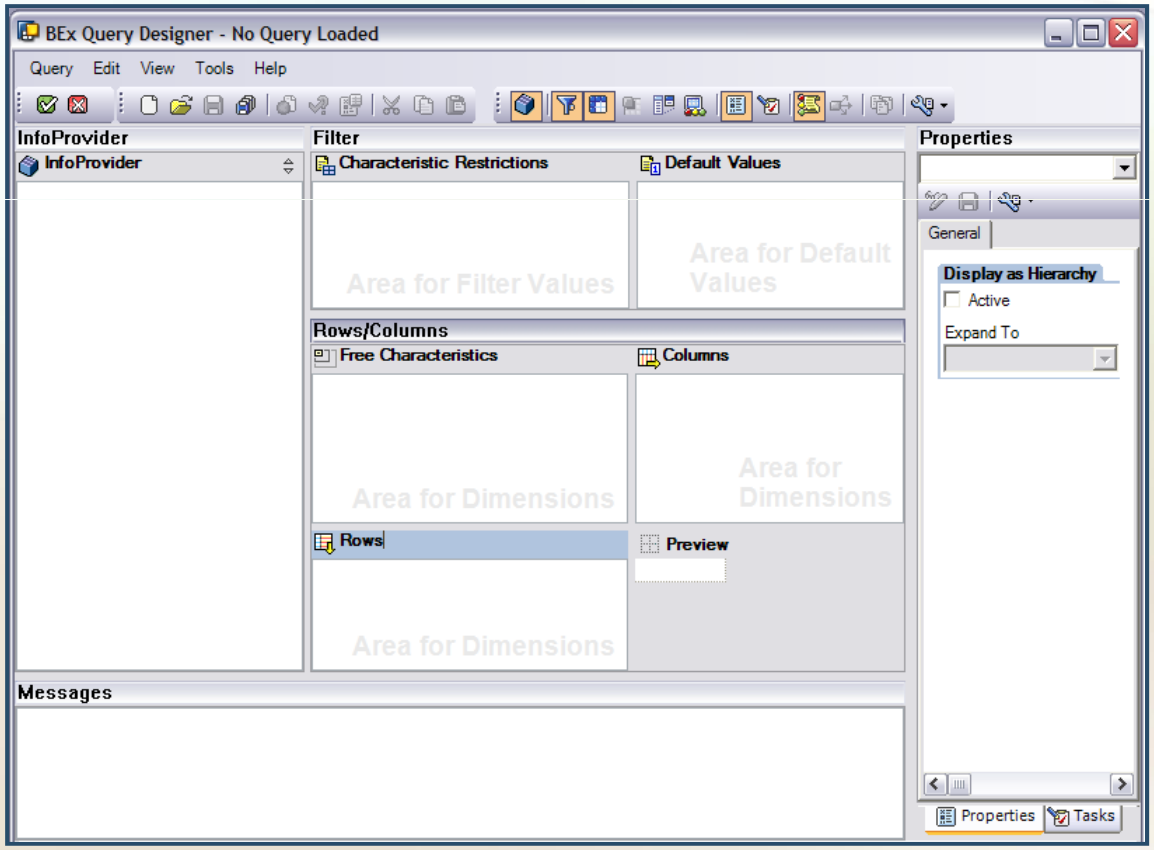
Accessing BEx Query Designer, Cont…

To access the "SAP BW 3.x view:

1. Click the "View" tab.
2. Select Predefined
3. Click Sap BW 3.x View

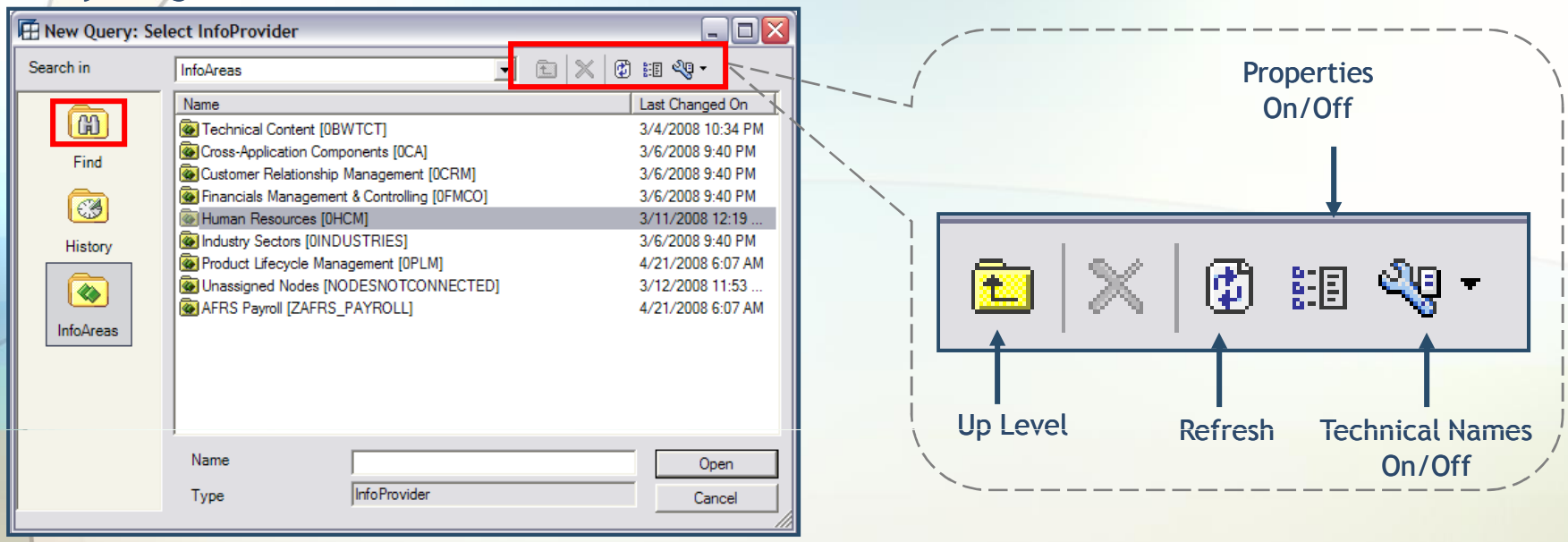


Result: BEx Query Designer will be opened in the SAP BW 3.x View.



Creating a New Ad Hoc Query

The example below provides an overview of toolbar options available from the New Query options of BEx Query Designer.



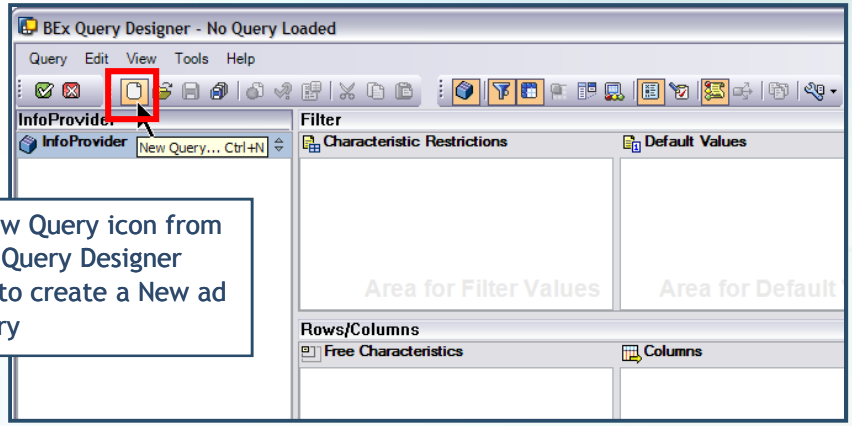
The table below provides a description of toolbar options available from the New Query options of BEx Query Designer.

Find	Find an InfoProvider from the list of InfoAreas.
Up Level	Go back to previous level.
Refresh	Refresh list.
Technical Name On/Off	Toggle the InfoArea Technical Names On/Off.
Properties On/Off	Toggle the InfoArea Properties On/Off.

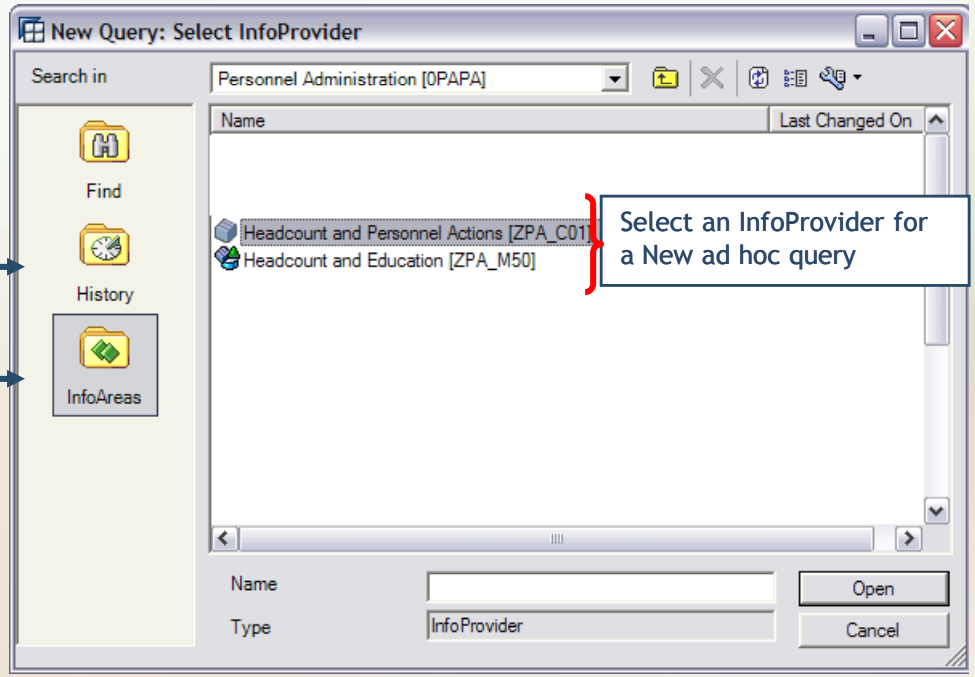
Continued...

Creating a New Ad Hoc Query, Cont…

The example below provides an overview of options available when creating a new ad hoc query from BEx Query Designer.



Click New Query icon from the BEx Query Designer toolbar to create a New ad hoc query



Select an InfoProvider for a New ad hoc query

History: Displays a list of the most recently used InfoProviders (this tab is selected by default)

InfoAreas: Displays the list of InfoAreas to select InfoProviders for new queries

Click InfoAreas when the "New Query: Select InfoProvider" screen is displayed. The History tab is selected by default.

Continued…

Creating a New Ad Hoc Query, Cont…

The Business Intelligence contains a list of InfoAreas with InfoProviders. To create a new ad hoc query, select the appropriate InfoProvider from the InfoAreas section.

InfoAreas include:

- AFRS Payroll
- Human Resources
  - Organizational Management
  - Payroll
  - Personnel Administration
  - Time Management
  - Grievance Data
  - E-Recruiting Data

Double click the folder icon to expand/collapse InfoAreas

Click here to toggle Technical names on/off

Technical Content InfoProviders are used by HRMS BW/BI Production Support staff only

- InfoCubes are identified by the symbol.
- Multicubes (a combination of two InfoProviders) are identified by the symbol.

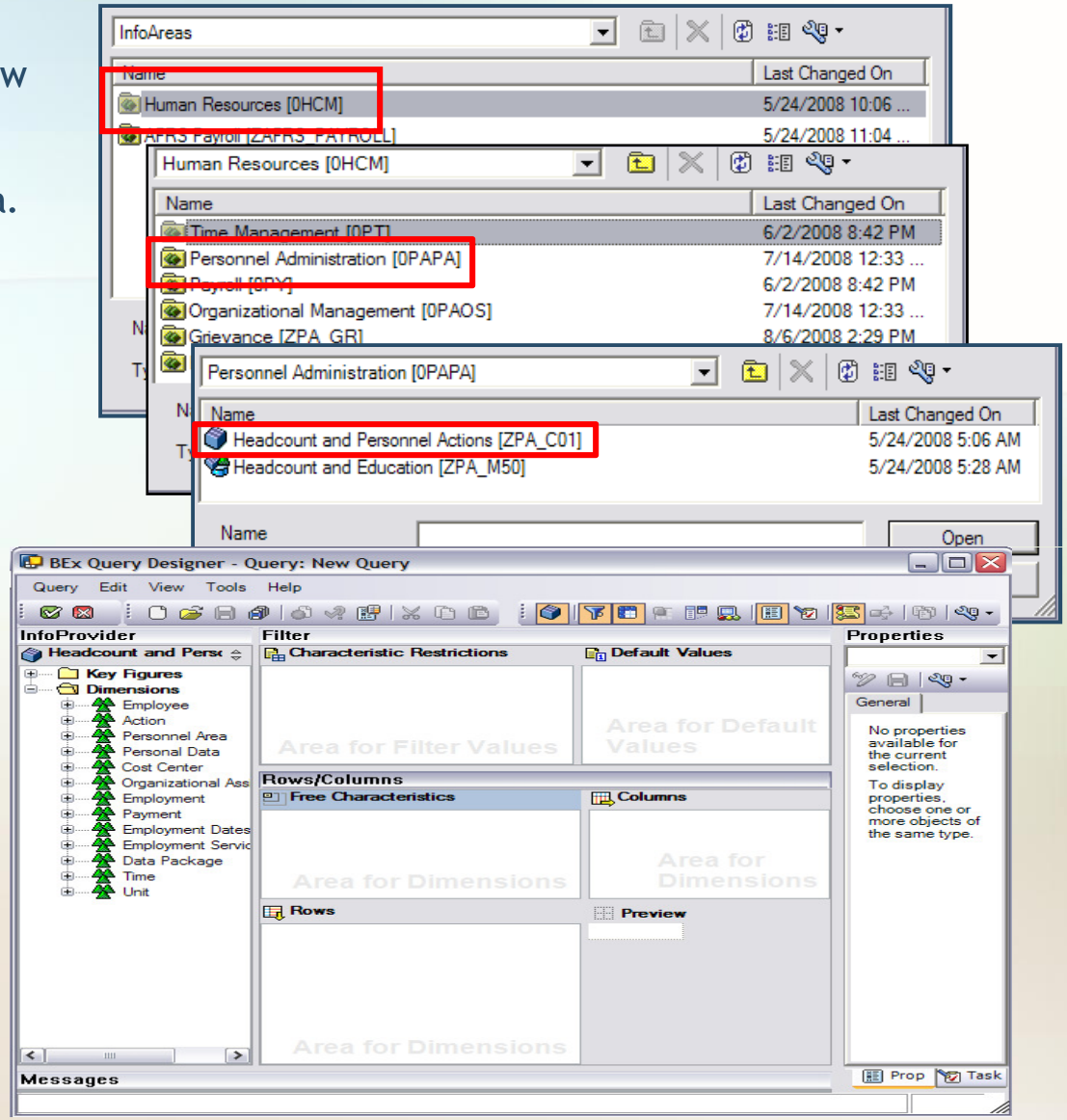
Continued…

Creating a New Ad Hoc Query, Cont…

1. Select the InfoAreas tab from the "New Query – Select InfoProvider" screen.
2. Expand the Human Resources InfoArea.
3. Expand the Personnel Administration InfoArea.
4. Select the Headcount and Personnel Actions InfoProvider.
5. Click OK.

Result: All InfoObjects of the Headcount and Personnel Actions InfoProvider are displayed in BEx Query Designer.

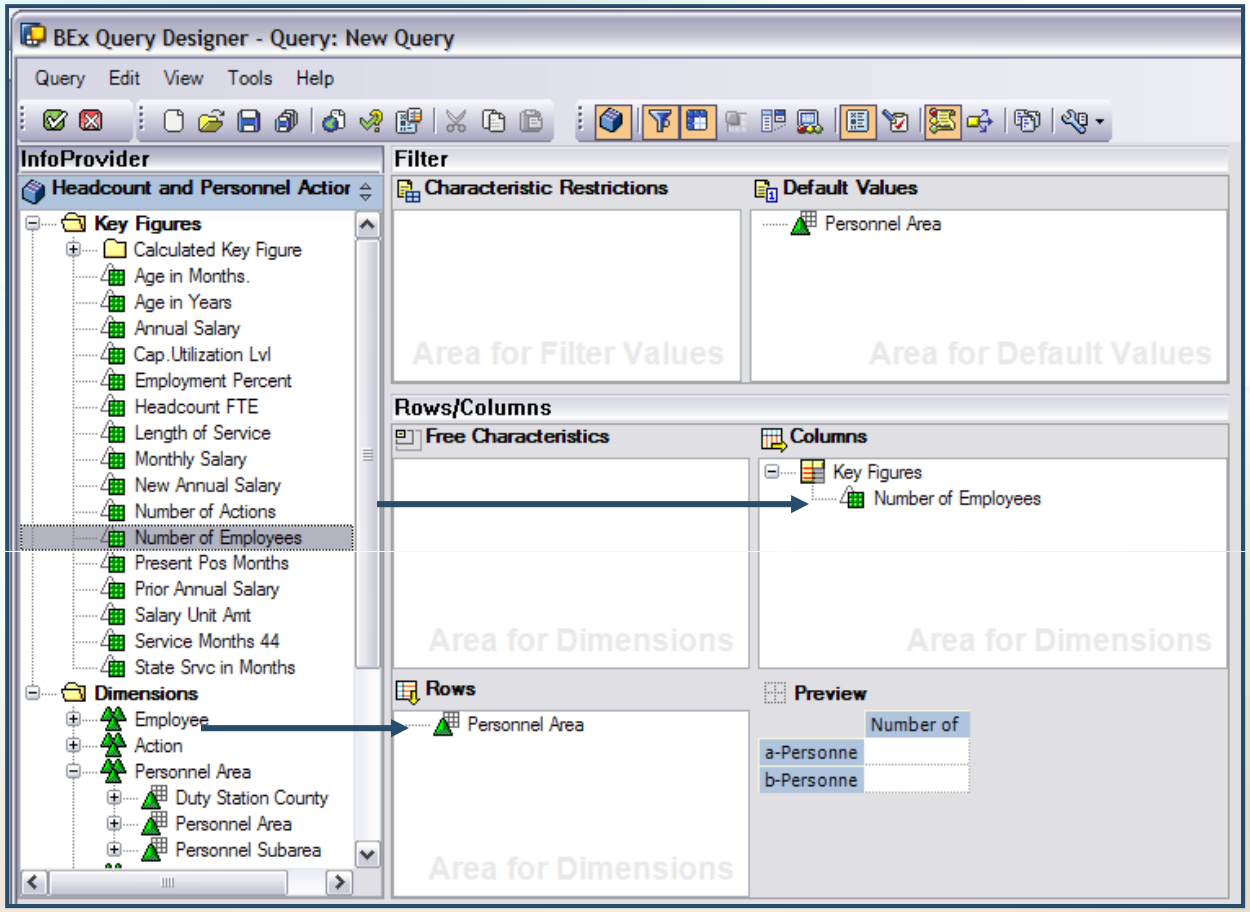
InfoObjects of the Headcount InfoProvider



Continued…

Creating a New Ad Hoc Query, Cont…

7. Drag&Drop the Number of Employees Key Figure from the Key Figures section to the Columns section of the ad hoc query.
8. Drag&Drop the Personnel Area Characteristic from the Personnel Area Dimension to the Rows section of the ad hoc query.



Result: An ad hoc query has been created. See Saving an Ad Hoc query for information on Saving.

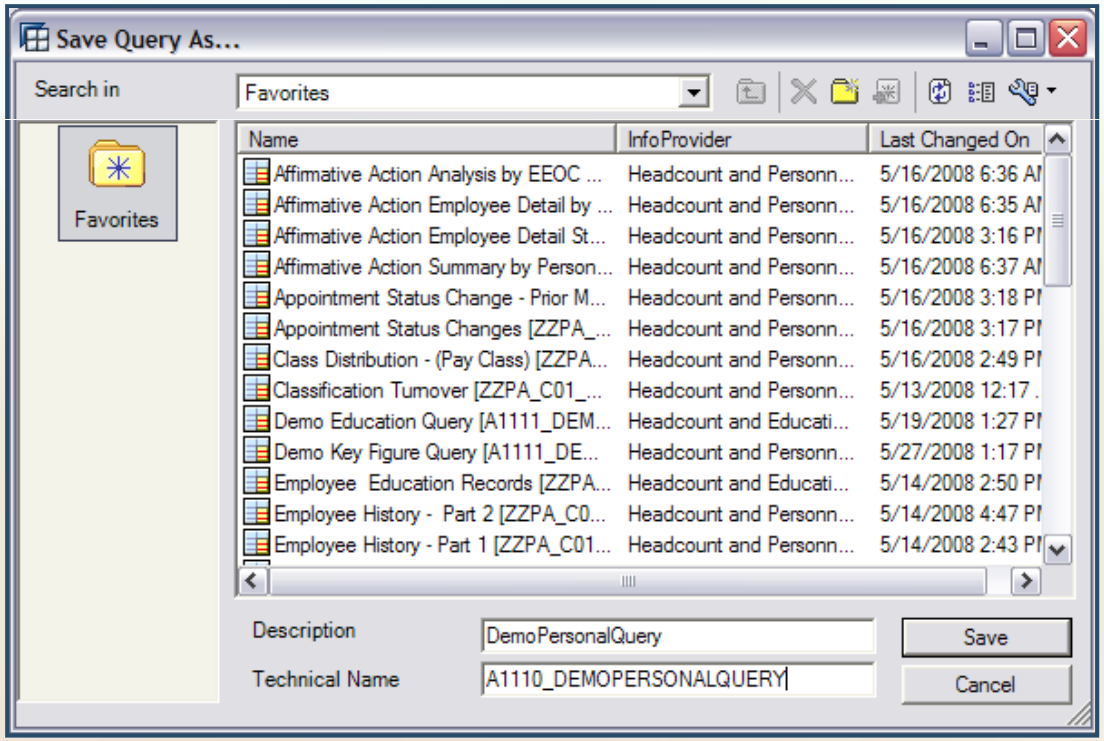
Saving an Ad Hoc Query

BW/BI Power Users have the ability to create an ad hoc query that is visible only to themselves (Personal) or to other BW/BI Power users in their Agency (Agency-specific).

The technical name used when the query is saved determines if it is Personal or Agency-specific.

Ad hoc queries saved as Personal or Agency-specific can only be modified or deleted by the BW/BI Power User who created the query.

The following pages show how to save Personal and Agency-specific ad hoc queries.



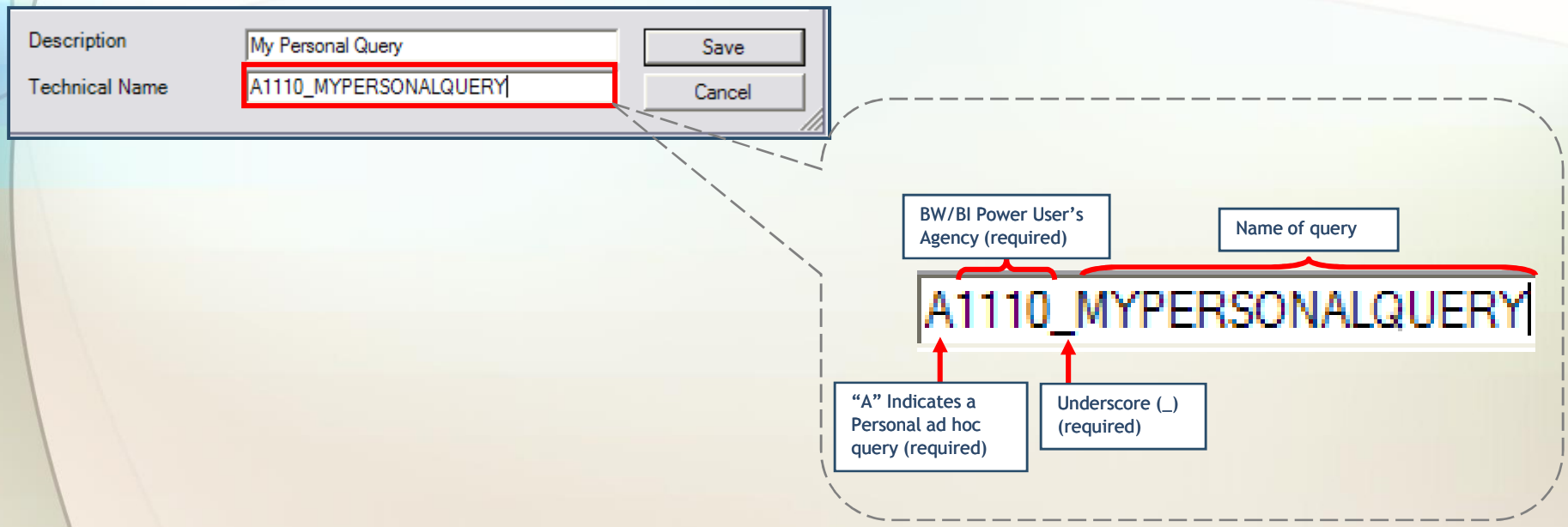
Continued...

Saving an Ad Hoc Query, Cont…

Saving a Personal Ad Hoc Query

To save a Personal ad hoc query, BW/BI Power Users are required to prefix the ad hoc query Technical Name with "A" (indicates a Personal query), followed by the user's agency number with an underscore (_). Any alpha numeric characters can be entered after the required prefix.

The example below shows a sample Personal query for a user who belongs to Agency 1110:



BW/BI Power Users will not be able to save ad hoc queries if the Technical Name prefix requirements have not been added or if the user enters an agency number they are not assigned to.

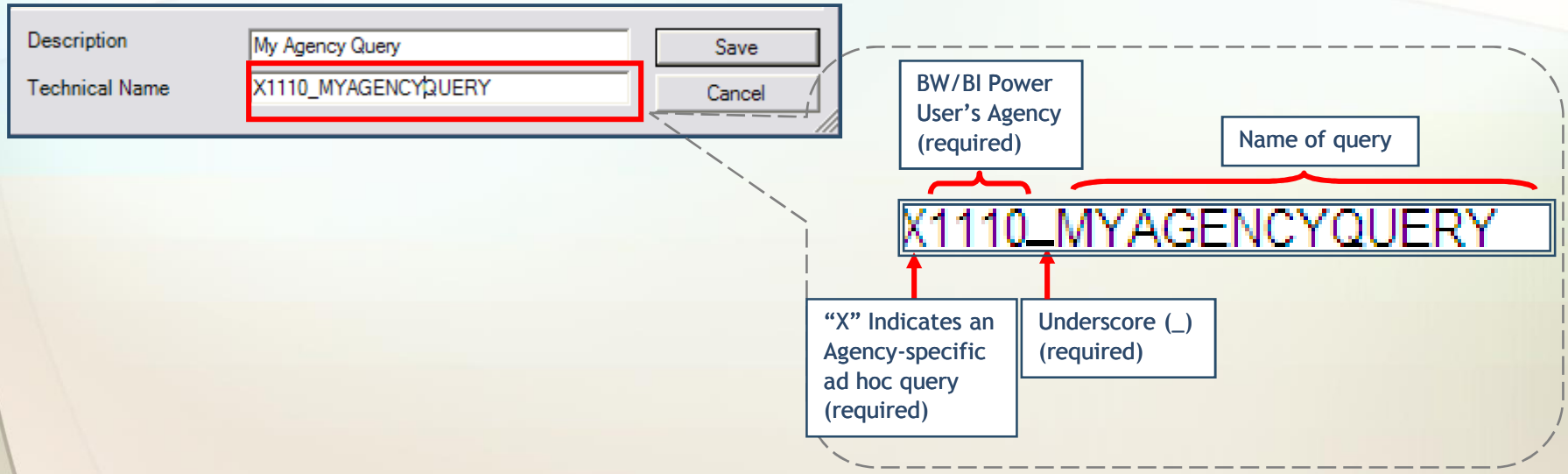
Continued…

Saving an Ad Hoc Query, Cont…

Saving an Agency-specific Ad Hoc Query

To save an Agency-specific ad hoc query, BW/BI Power Users are required to prefix the ad hoc query Technical Name with "X" (indicates an Agency-specific query), followed by the user's agency number with an underscore (_). Any alpha numeric characters can be entered after the required prefix.

The example below shows a sample Agency-specific query for a user who belongs to Agency 1110:



BW/BI Power Users will not be able to save ad hoc queries if the Technical Name prefix requirements have not been added or if the user enters an agency number they are not assigned to.

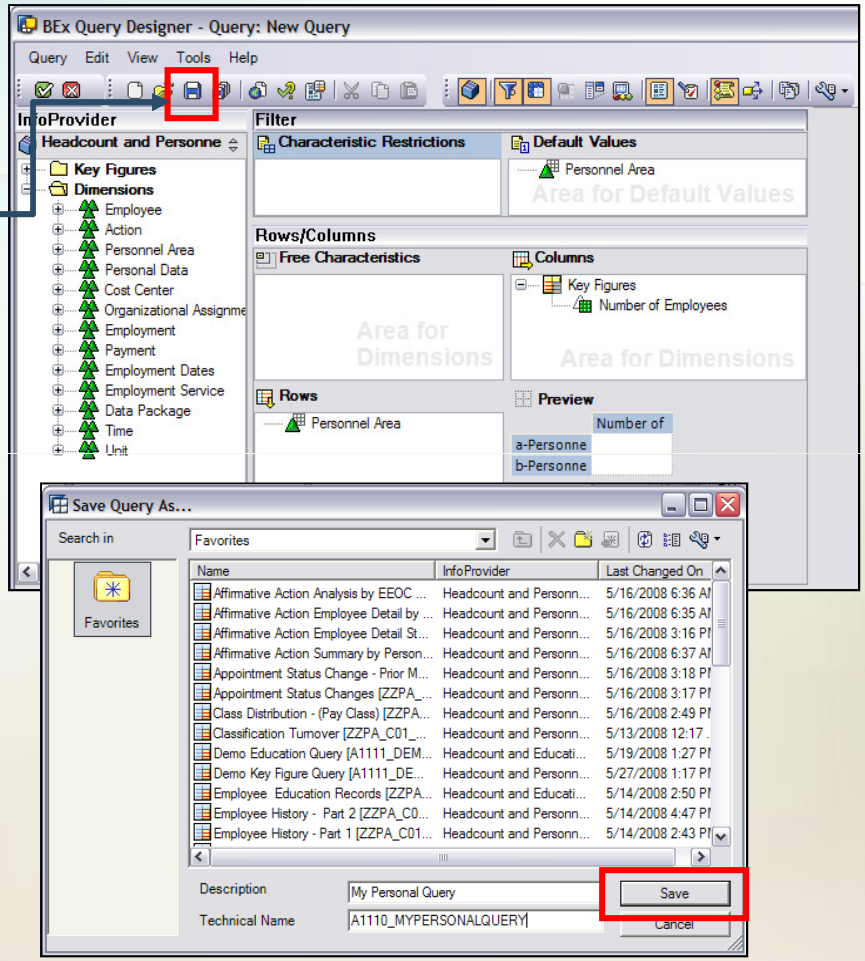
Continued…

Saving an Ad Hoc Query, Cont…

The example below uses a sample query, "My Personal Query", to show how to save a Personal ad hoc query developed in the Headcount InfoProvider for a BW/BI Power User in Agency 1110.

To save a Personal ad hoc query once a query has been created:

1. Click the Save Query icon from the BEx Query Designer toolbar of the ad hoc query to save.



Result: The Save Query screen will be displayed.

2. Enter the query Description in the Description text box: "My Personal Query"

3. Enter the query technical name in the Technical Name text box: "A1110_MYPERSONALQUERY"

4. Click Save.

Result: The ad hoc query is saved.

(query can be displayed/run/edited/deleted by the BW/BI Power User who created the ad hoc query only. To save the query as agency specific, use an X instead of an A)

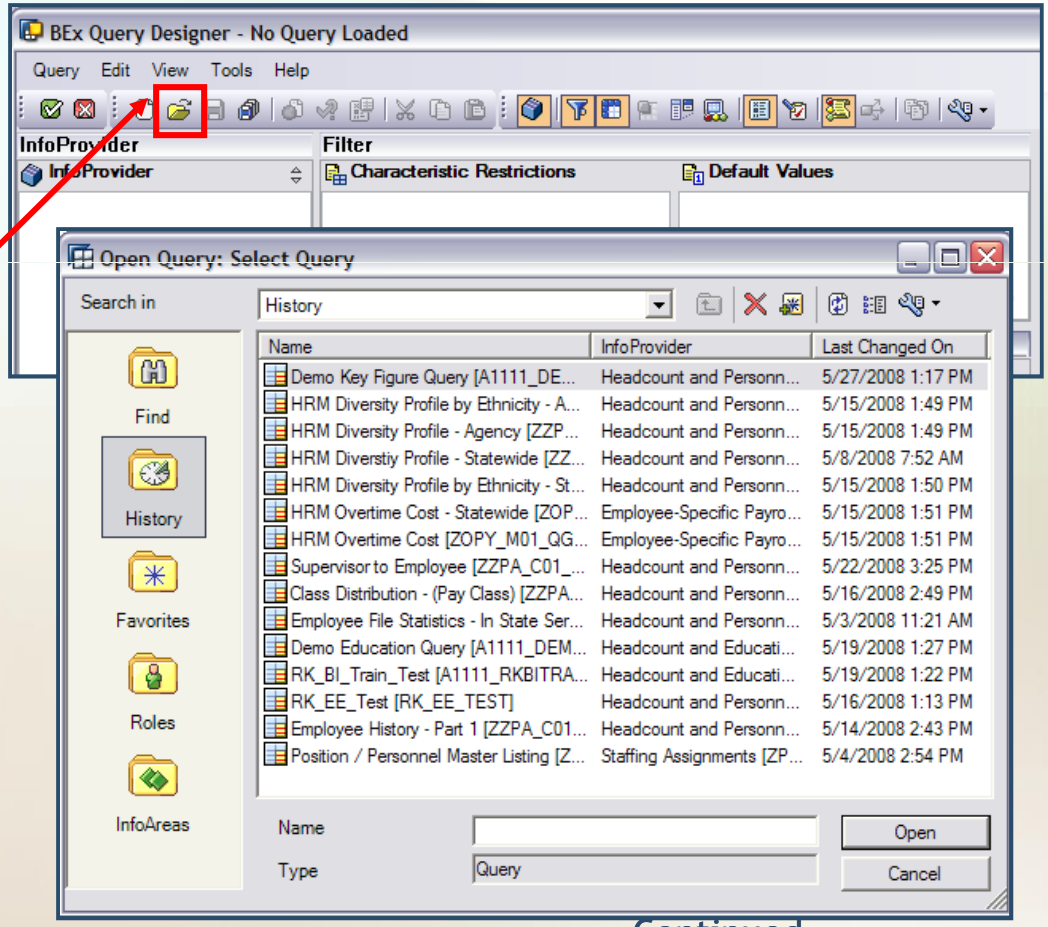
Continued…

Opening/Running an Existing Ad Hoc Query

BW/BI Power Users have the ability to modify and delete ad hoc queries they have created. Ad hoc queries saved as Agency-specific queries can be opened as read-only in BEx Query Designer and run by other BW/BI Power Users in the same agency.

Note: BW/BI Power Users can open and save a read-only ad hoc query created by another BW/BI Power User as a new query.

To open an ad hoc query, click the Open Query icon from BEx Query Designer.



Result: the Open Query screen will be displayed.

The History tab will be selected by default.

Continued...

Opening/Running an Existing Ad Hoc Query, Cont…

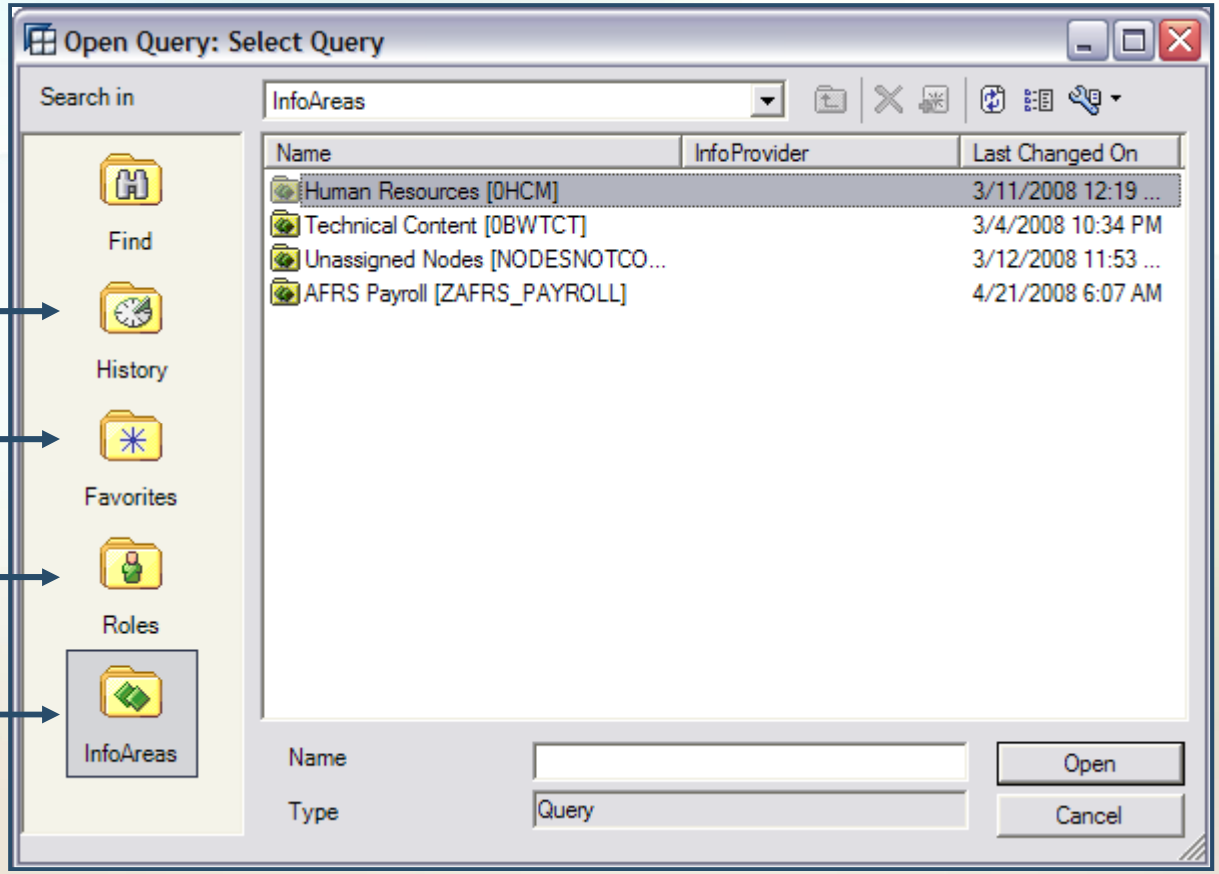
The Open Query screen will default to the History tab. The example below provides an overview of tab options available from the Open Query screen.

History: Displays a list of the most recently run or edited queries

Favorites: Displays a list of the queries created by the user or added to the Favorites folder

Roles: Displays a list of Roles assigned to the user (Roles will not be created for queries in BW/BI).

InfoAreas: Displays the list of InfoAreas to select InfoProviders for new or existing queries



*Roles in BEx Query Designer will be empty since queries are not saved in Roles.

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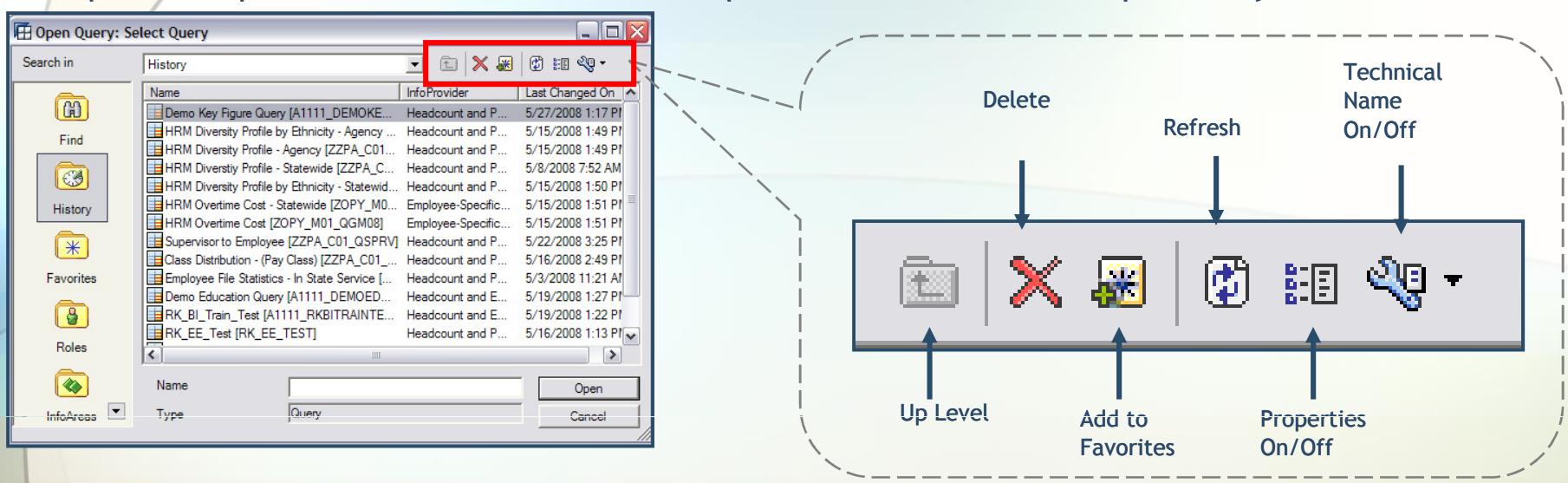
Opening/Running an Existing Ad Hoc Query, Cont…

In addition to the Open Query tab options, the Open Query screen will display toolbar options. The example below provides an overview of toolbar options available from the Open Query screen.



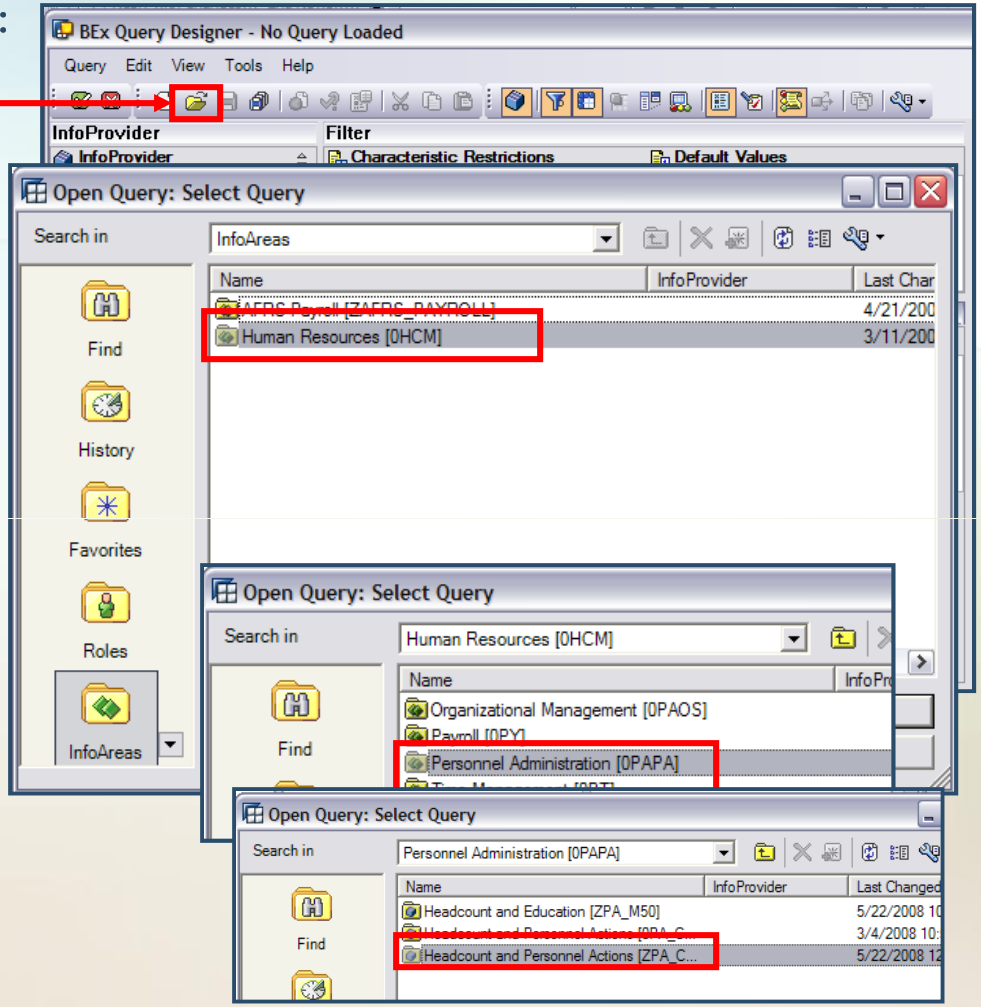
Find	Find an ad hoc query.
Delete	Delete an ad hoc query.
Add to Favorites	Add ad hoc query to the user's Favorites folder.
Up Level	Takes you back to prior level.
Technical Name On/Off	Toggle the InfoArea Technical Names On/Off.
Properties On/Off	Toggle the InfoArea Properties On/Off.

Continued…

Opening/Running an Existing Ad Hoc Query, Cont…

The example below uses a sample ad hoc query from the Headcount InfoProvider to show how to open and run an ad hoc query from BEx Query Designer:

1. From BEx Query Designer, click the Open Query icon .
2. Click on the InfoAreas tab.
3. Expand the Human Resources InfoArea.
4. Expand the Personnel Administration InfoArea.
5. Expand the Headcount and Personnel Actions InfoProvider.
6. Find the query you want to open, select it.
7. Click Open.



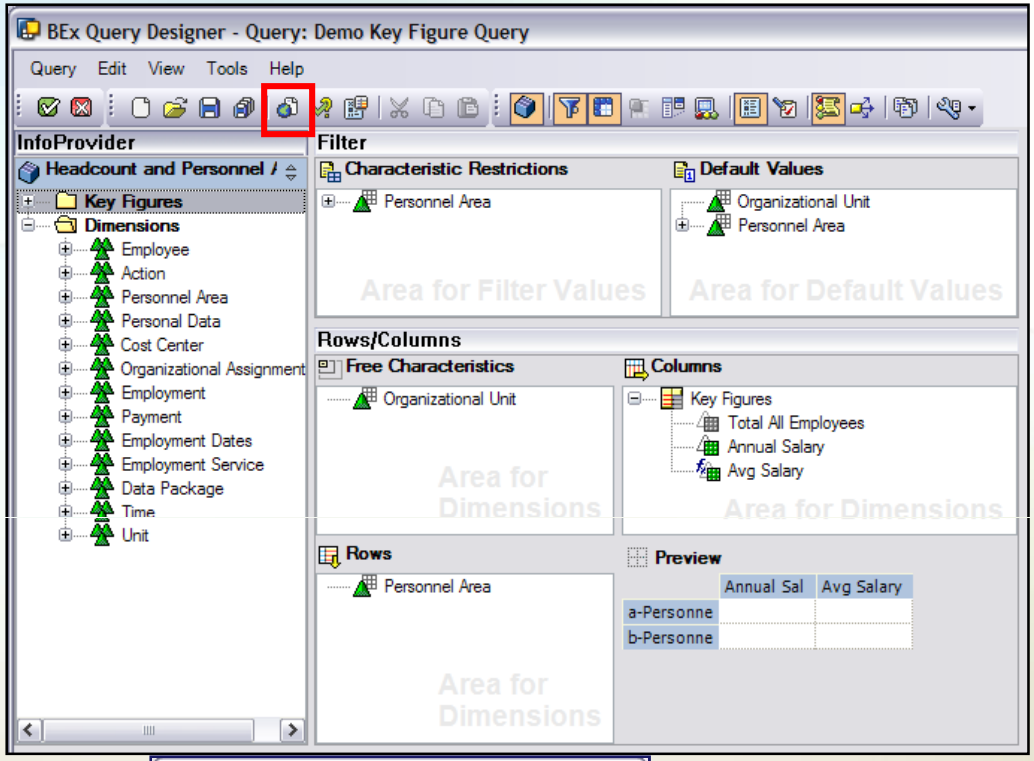
Continued…

Opening/Running an Existing Ad Hoc Query, Cont…

Result: The sample ad hoc query ("Demo Open Query") has been opened in BEx Query Designer.

To run the ad hoc query:

1. Click the "Execute Query on the Web…" icon.

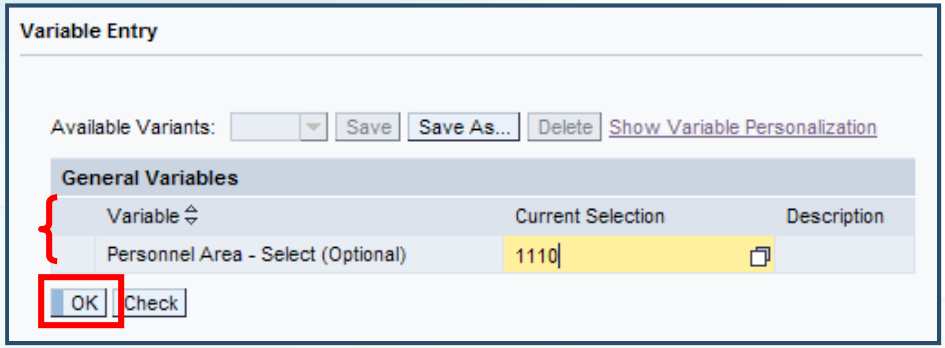


Note: If you get the userid and password prompt, click **Cancel**. The Portal log on screen will display. That is where you need to enter your userid and password.

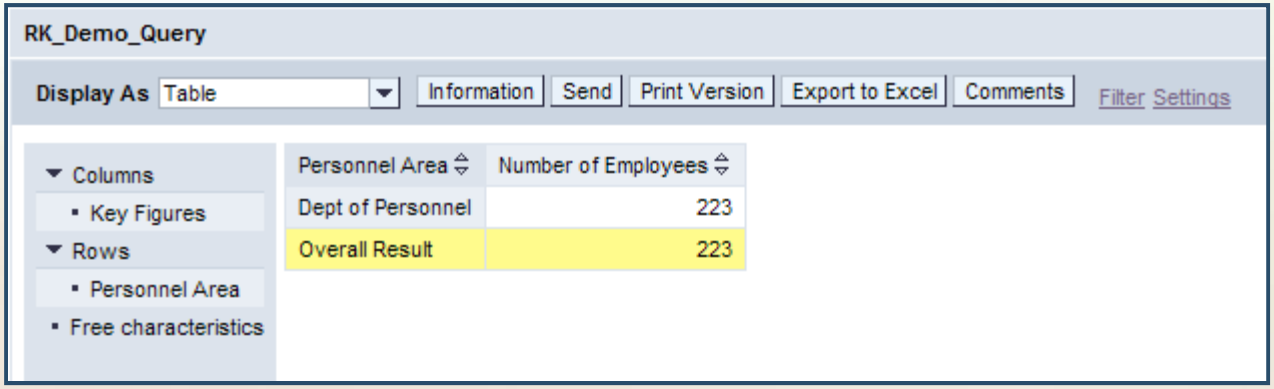
Continued…

Opening/Running an Existing Ad Hoc Query, Cont…

2. Enter Variable values, if applicable.
3. Click OK.



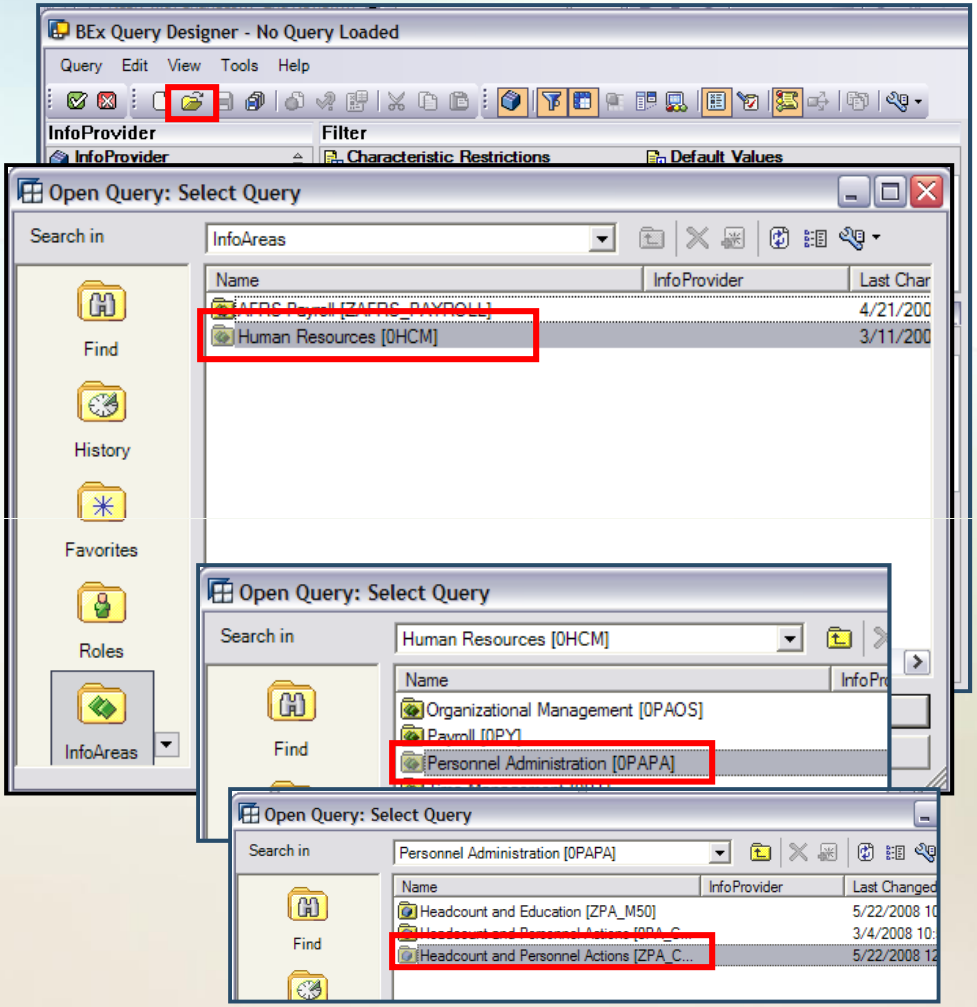
Result: The sample ad hoc query ("Demo Open Query") is displayed on the web.



Modifying an Existing Ad Hoc Query, Cont…

The example below uses a sample ad hoc query from the Headcount and Personnel Actions InfoProvider to show how to open and run an ad hoc query from BEx Query Designer:

1. From BEx Query Designer, click the Open Query icon .
2. Click on the InfoAreas tab.
3. Expand the Human Resources InfoArea.
4. Expand the Personnel Administration InfoArea.
5. Expand the Headcount and Personnel Actions InfoProvider.
6. Find the query you want to open, select it.
7. Click Open.



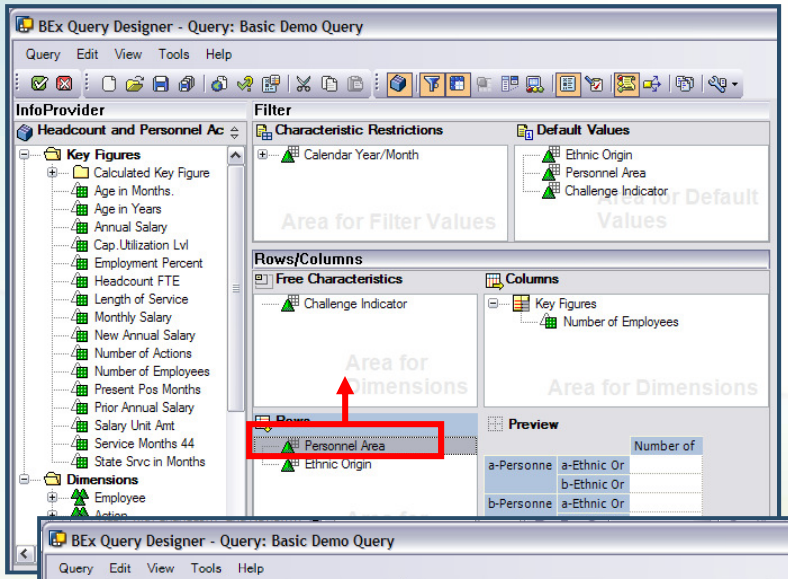
Continued…

Modifying an Existing Ad Hoc Query, Cont…

Result: The Basic Demo Query is ready for modifications.

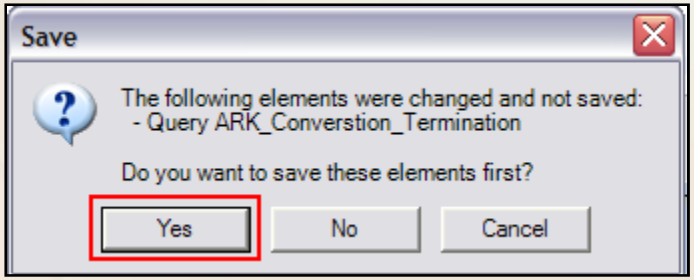
To modify the ad hoc query:

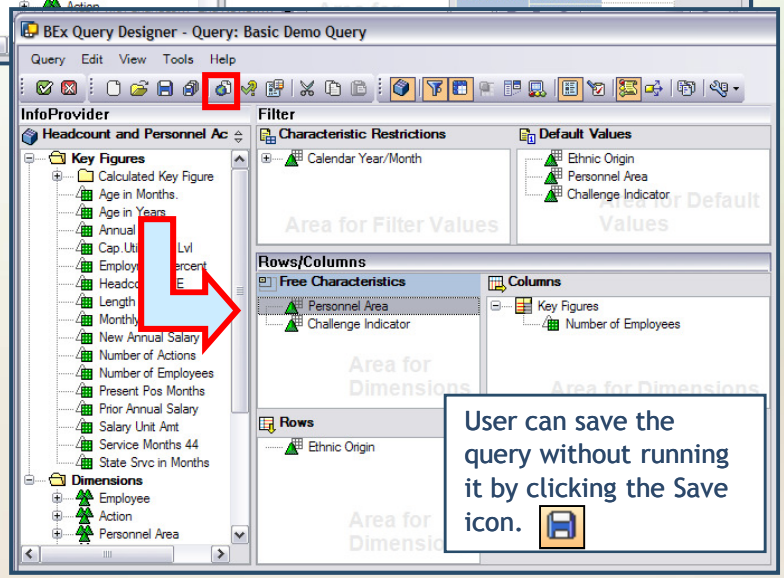
1. Drag&Drop the Personnel Area Characteristic from the Rows section of the query to the Free Characteristics section of the query.



2. Click the "Display Query on the Web" icon.

3. At the Save screen, click Yes to save and run ad hoc query.





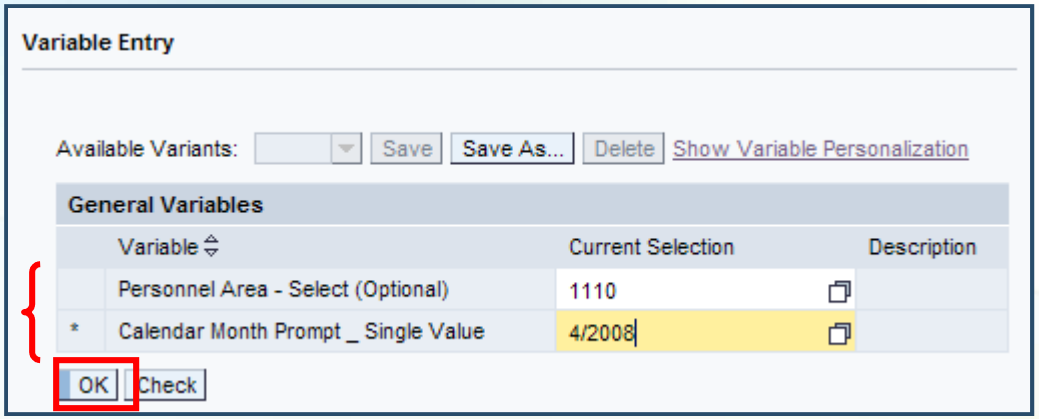
User can save the query without running it by clicking the Save icon.

Note: Power Users will only be able to modify queries they created (Personal or Agency-specific)

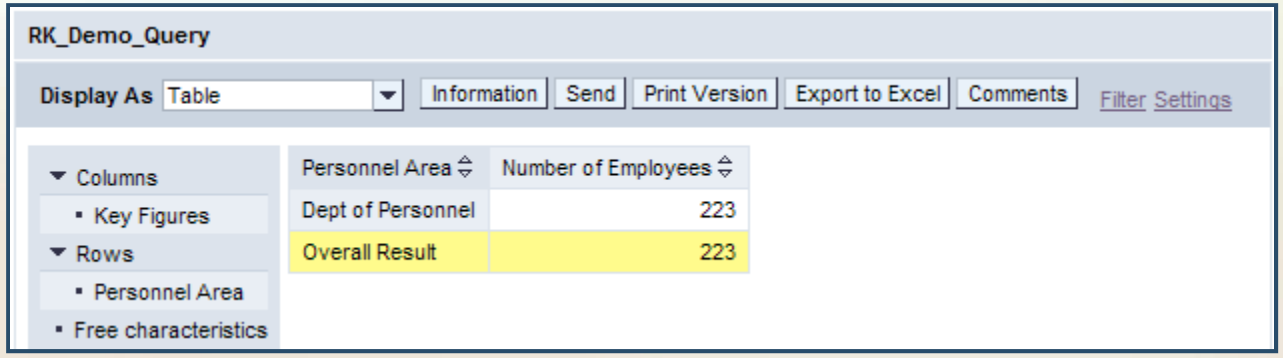
Modifying an Existing Ad Hoc Query, Cont…

Result: The Variables screen is displayed.

4. Enter query Variables.
5. Click the OK icon.



Result: The modified ad hoc query will be displayed on the Web



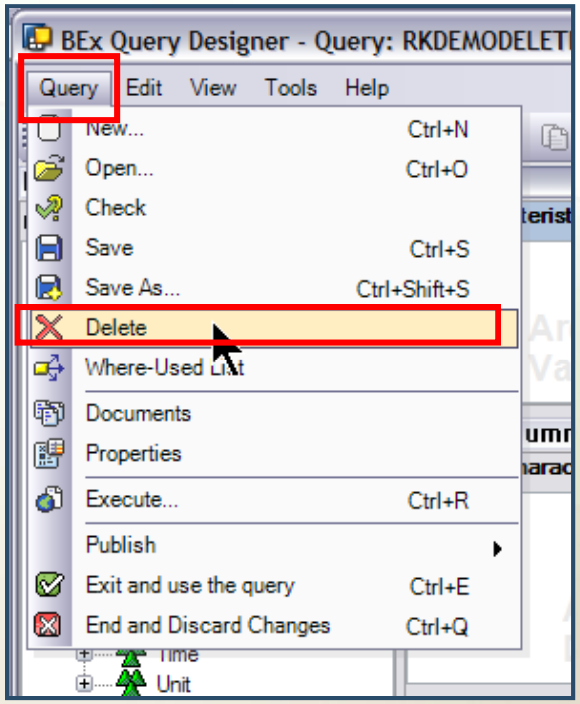
Deleting an Existing Ad Hoc Query

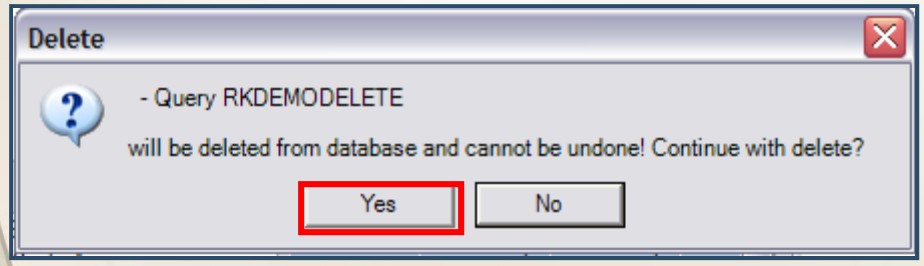
It is important BW/BI Power Users manage the number of ad hoc queries they have created. Ad hoc queries that are no longer being used need to be deleted by the BW/BI Power User who created them.

The example below uses a sample ad hoc query ("RKDEMODELETE") to show how to delete an ad hoc query.

To delete an ad hoc query that has been opened in BEx Query Designer:

1. Click the Query options from the BEx Query Designer toolbar.
2. At the prompt, "Query [Query Name] will be deleted….?", click Yes.



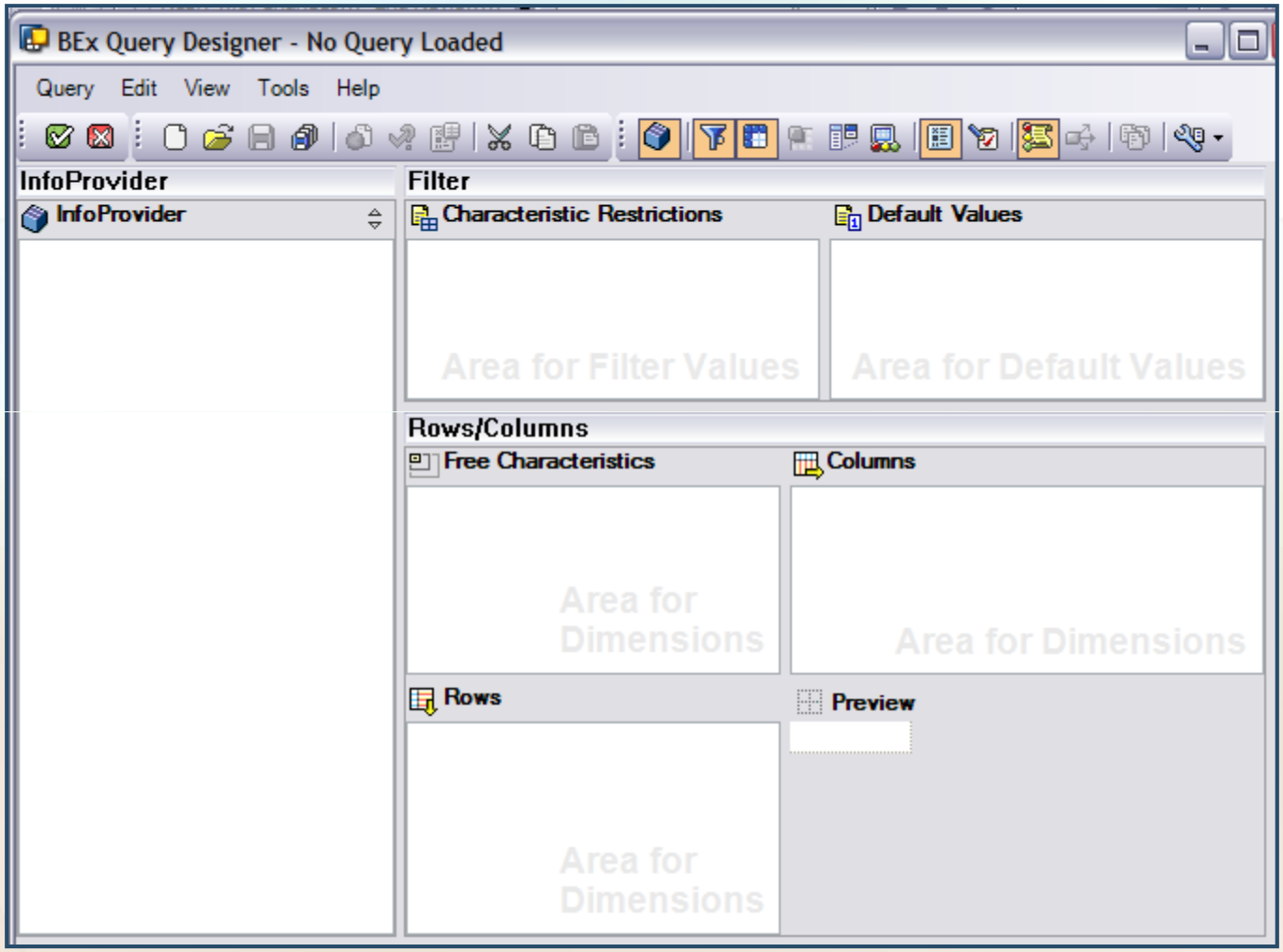


Note: BW/BI Power Users can only Edit or Delete ad hoc queries they created (Personal or Agency-specific)

Continued…

Deleting an Existing Ad Hoc Query, Cont…

Result: The sample ad hoc query, "RKDEMODELETE", is deleted. The BEx Query Designer screen will be blank.



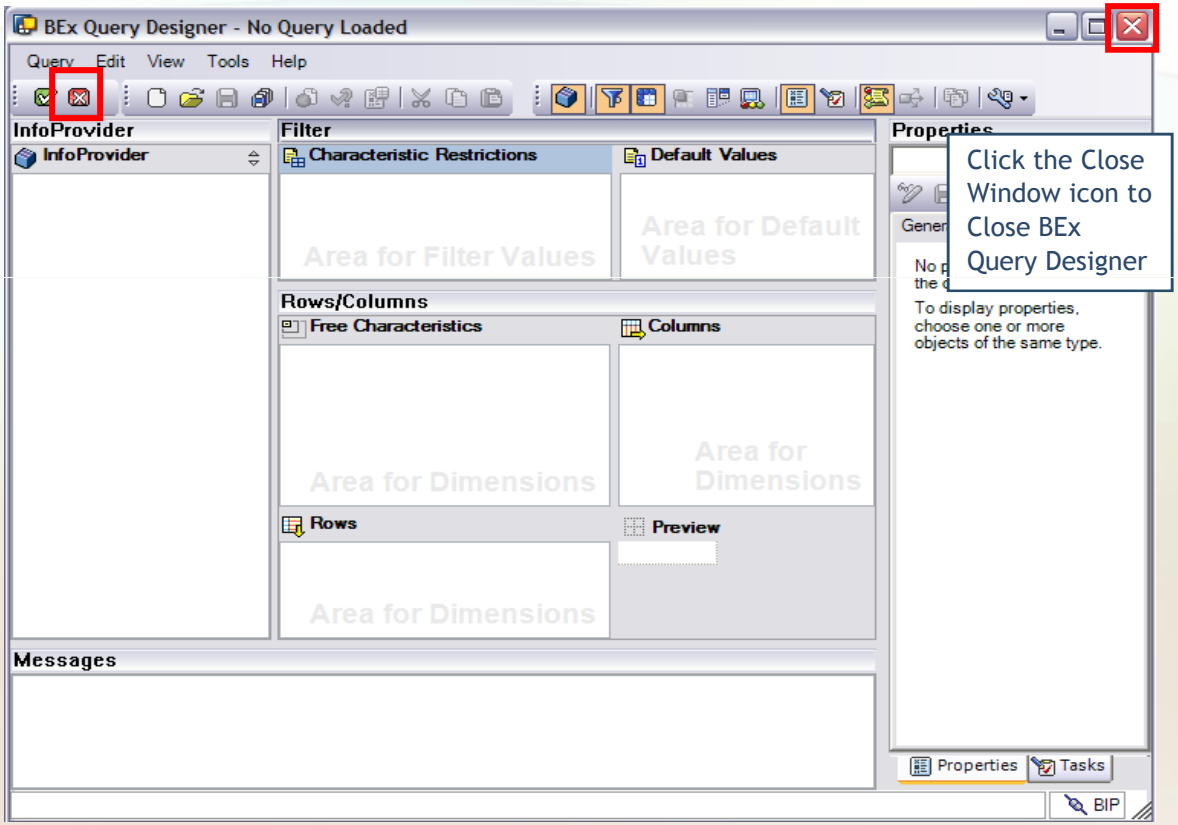
Closing BEx Query Designer

To close BEx Query Designer:

1. Click the Exit Query icon from the toolbar.

OR

1. Click the Close Window icon.



Result: BEx Query Designer is closed.