Washington State Department of
Enterprise Services

SAP Business Warehouse / Business Intelligence Reporting

Exercise 3 - Modifying a Basic Ad Hoc Query (Restricted Key Figures and Formulas)

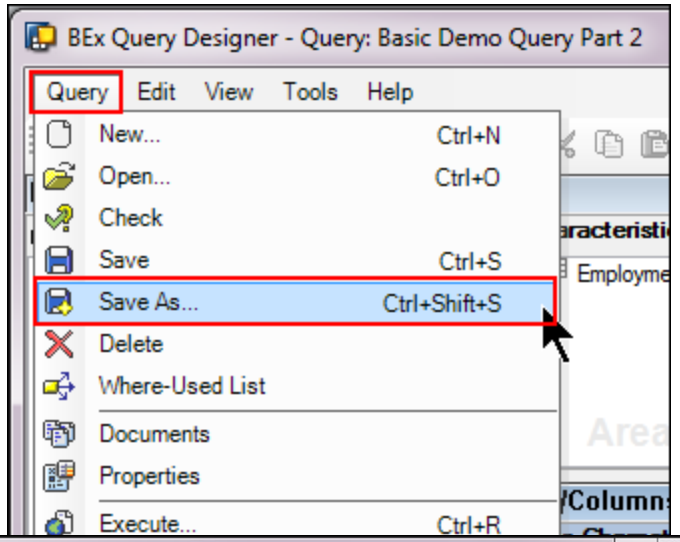
Washington State HRMS Business Warehouse/Business Intelligence (BW/BI)
BW/BI Power User Workshop Materials

General Topics – BW/BI Power Users

Exercise 3 – Modifying a Basic Ad Hoc Query (Restricted Key Figures and Formulas)

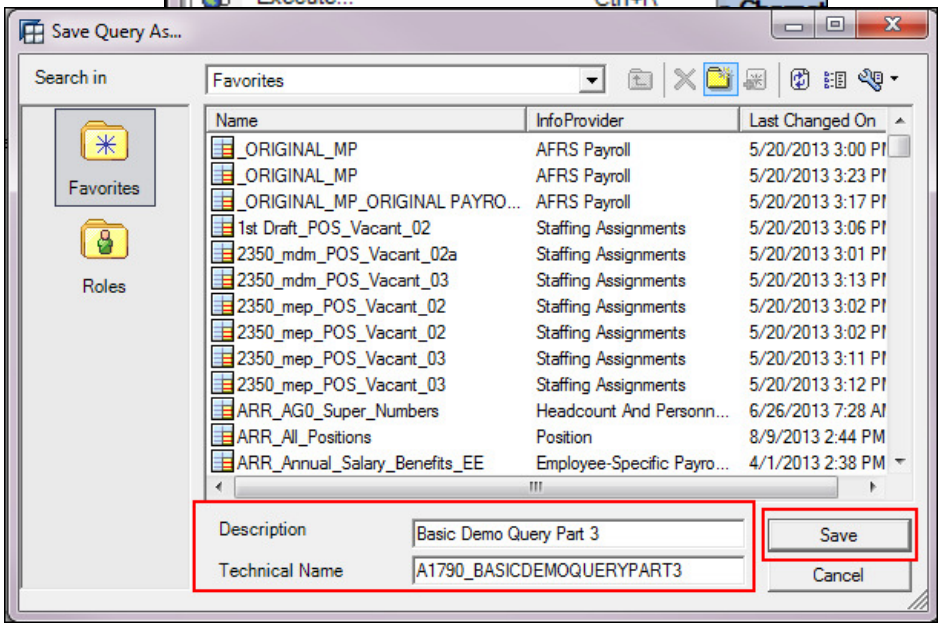
I. Saving a Query as a New Query

1. Open the Demo Basic Query Part 2 in BEx Query Designer.
2. Click the Save Query As… from the Query option on the BEx Query Designer toolbar.



Result: The "Save Query As…" screen will be displayed.

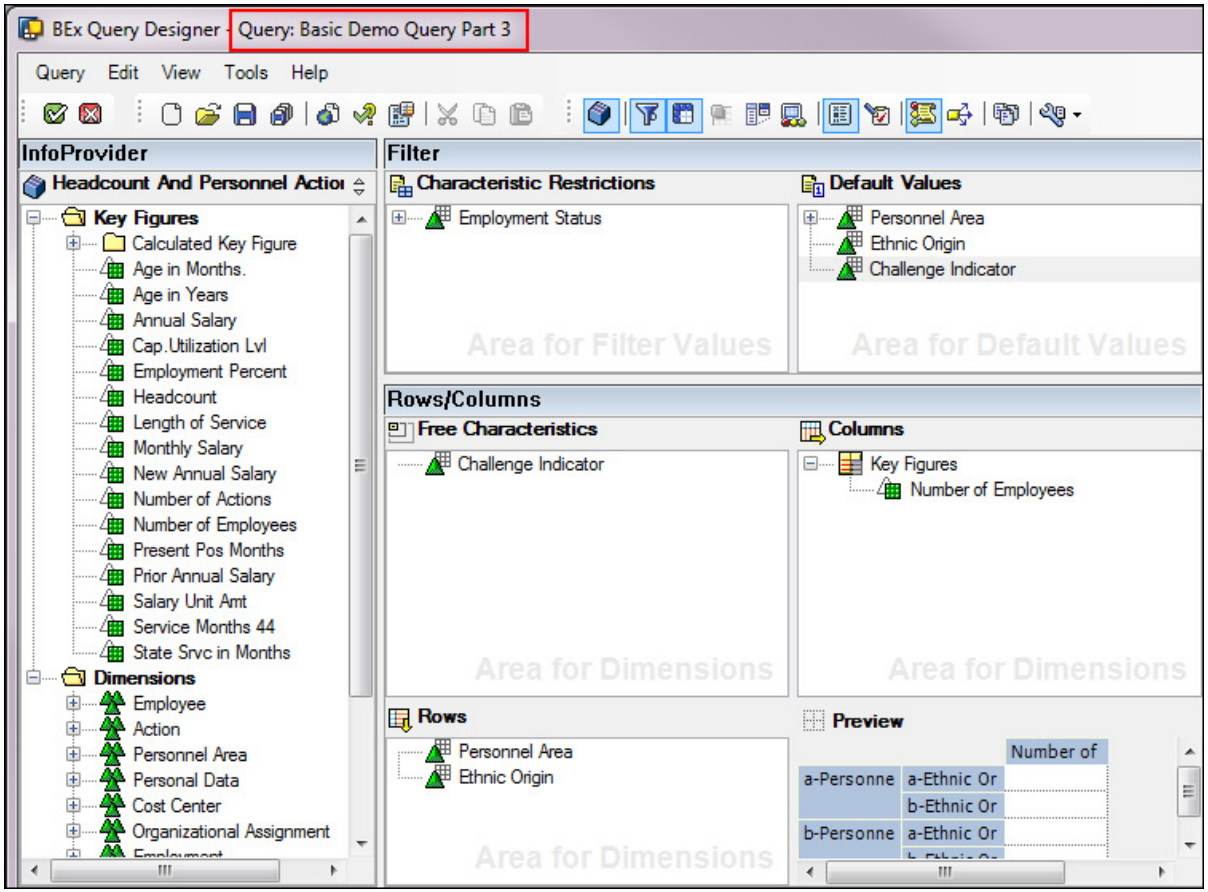
3. Enter "Demo Basic Query Part 3 in the Description text box of the "Save Query As…" screen.
4. Enter "A1790_DEMOBASICQUERYPART3" in the Technical Name.
5. Click Save.



Exercise 3 – Modifying a Basic Ad Hoc Query (Restricted Key Figures and Formulas)

I. Saving a Query as a New Query

Result: A new Ad hoc query will be saved as “Demo Basic Query Part 3” and return the user to BEx Query Designer with the new ad hoc query displayed for modifications.



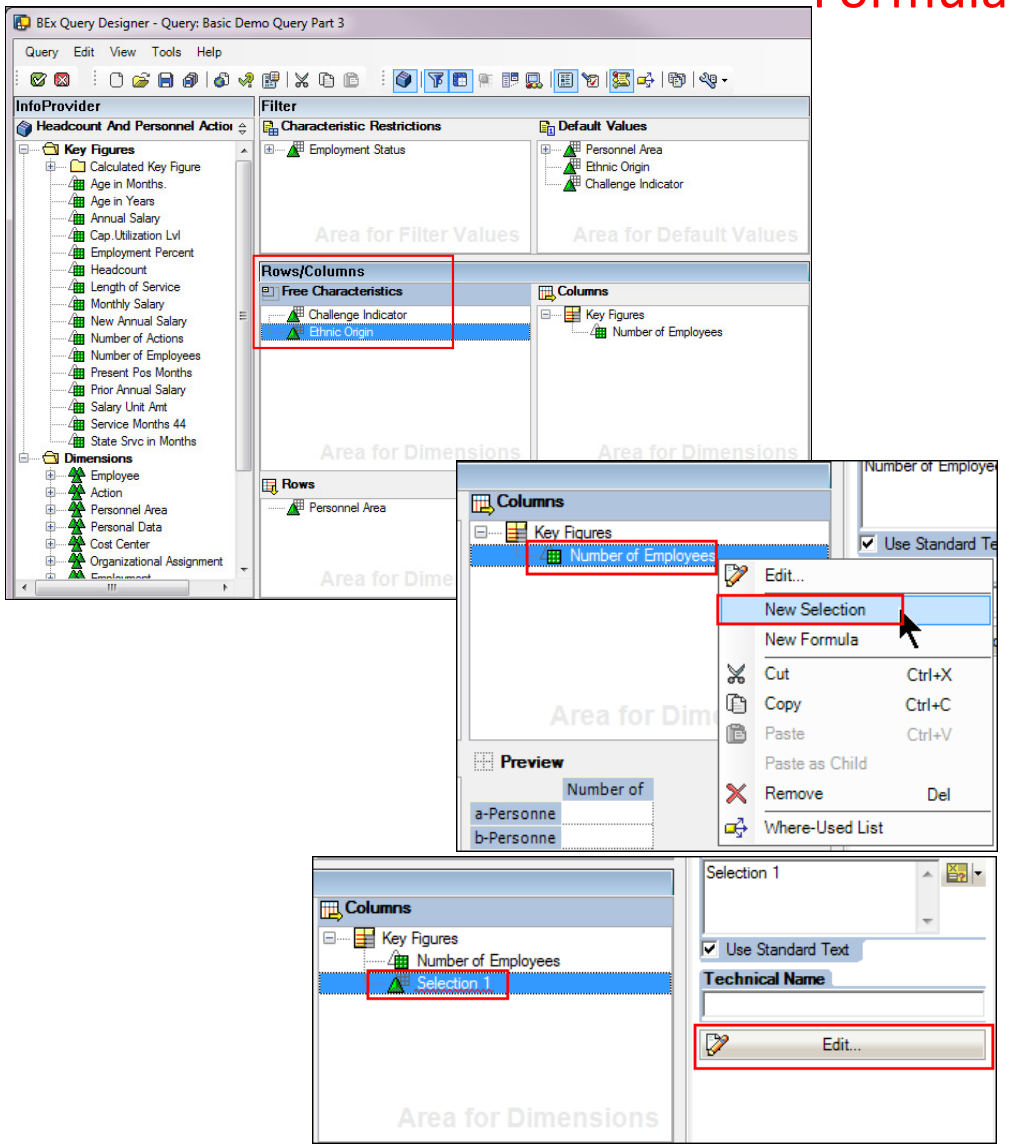
Exercise 3 – Modifying a Basic Ad Hoc Query (Restricted Key Figures and Formulas)

II. Adding a Restricted Key Figure

1. Drag&Drop the Ethnic Origin from the Rows section of the query to the Free Characteristic section.

2. Right mouse-click the Key Figure in the Columns section of the query to open the Context Menu.
3. Select New Selection.
4. Highlight the new selection and click Edit in the Properties pane.

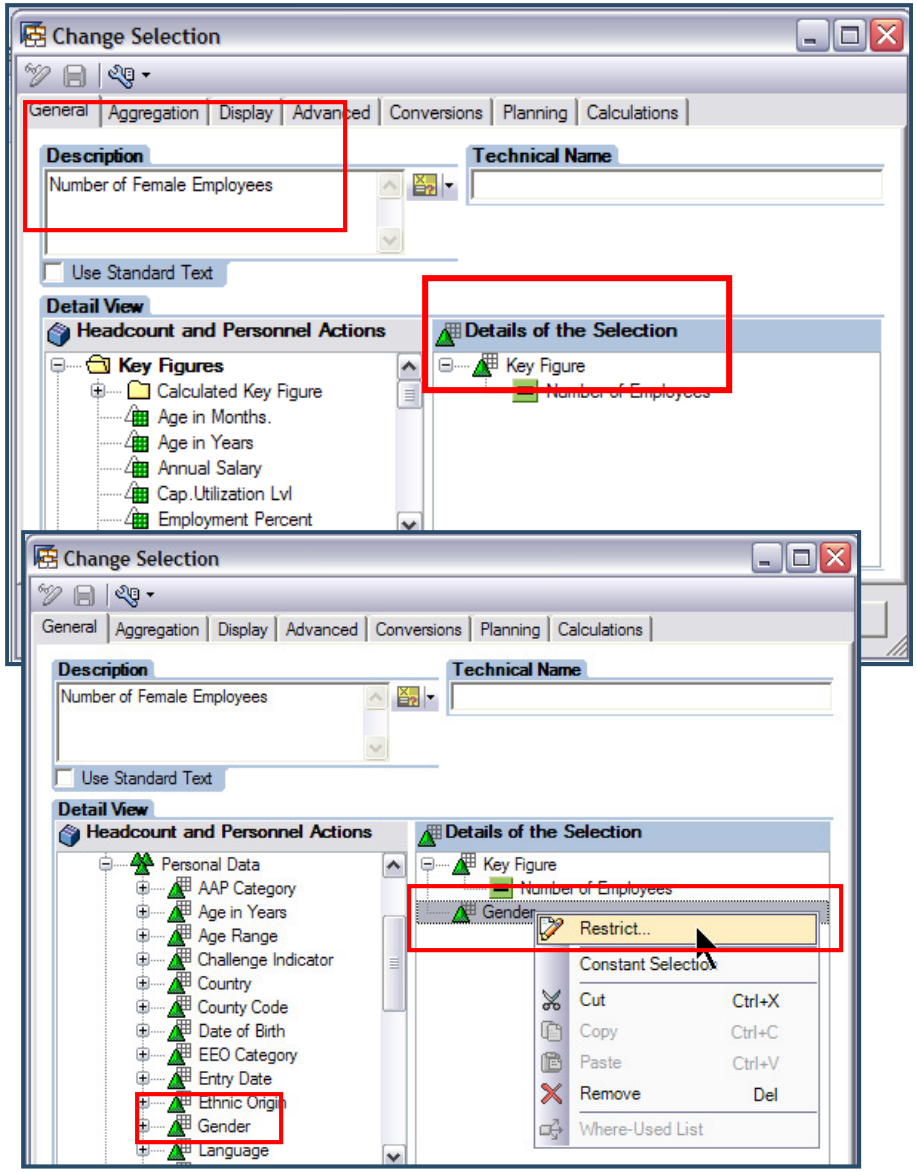
Result: The “Change Selection” screen will be displayed.



Exercise 3 – Modifying a Basic Ad Hoc Query (Restricted Key Figures and Formulas)

II. Adding a Restricted Key Figure

4. Rename the Key Figure to “Number of Female Employees” in the Description text box.
5. Drag&Drop the Number of Employees Key Figure to the “Details of the Selection”(it may be necessary to expand the Key Figures column).
6. Drag&Drop the Gender Characteristic from the Personal Data Dimension to the “Details of the Selection”.
7. Right mouse-click the Gender Characteristic in the “Details of the Selection” to open the Context Menu.
8. Select Restrict.

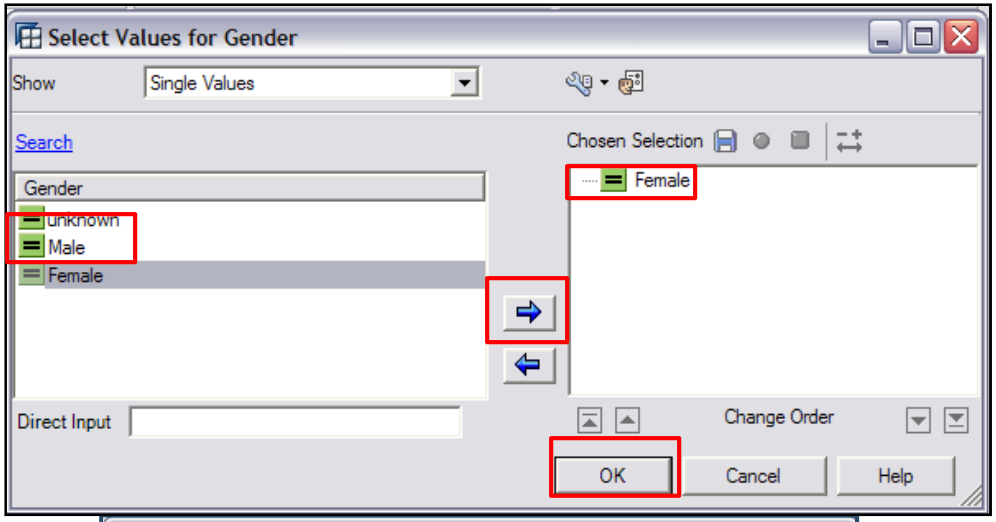


Exercise 3 – Modifying a Basic Ad Hoc Query (Restricted Key Figures and Formulas)

II. Adding a Restricted Key Figure

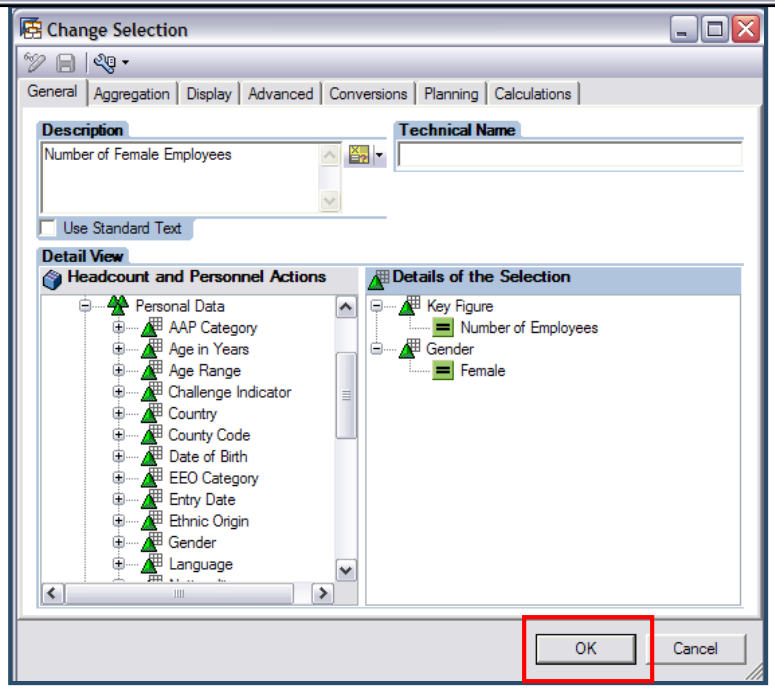
9. Drag&Drop Female from the description column to the Chosen Selection column.

10. Click OK.



Result: The Gender Characteristic restriction has been added to the Number of Female Employees Restricted Key Figure.

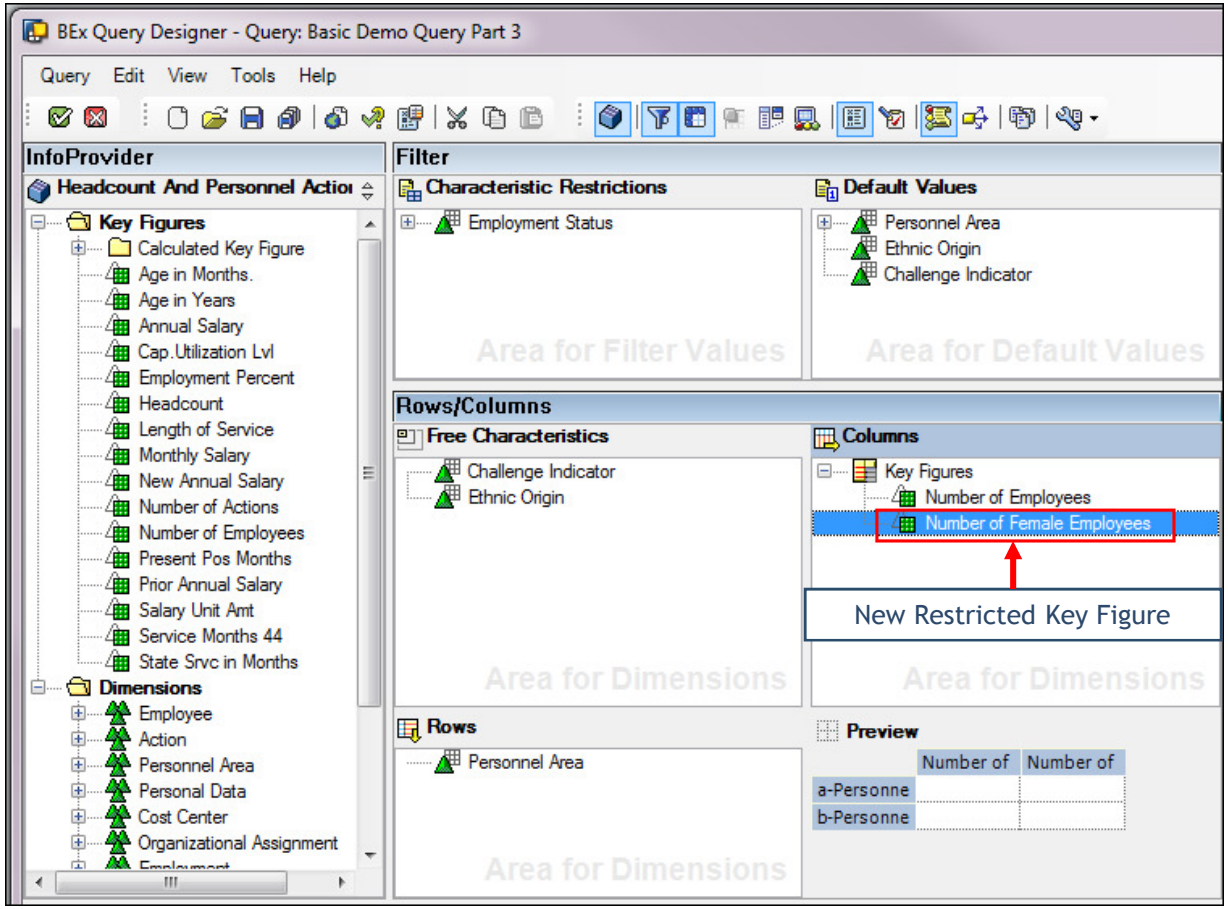
11. Click OK to close the Change Selection screen.



Exercise 3 – Modifying a Basic Ad Hoc Query (Restricted Key Figures and Formulas)

II. Adding a Restricted Key Figure

Result: The Number of Female Employees Restricted Key Figure has been added in the Columns section of the query. This Key Figures will display the number of females employees in the query results.



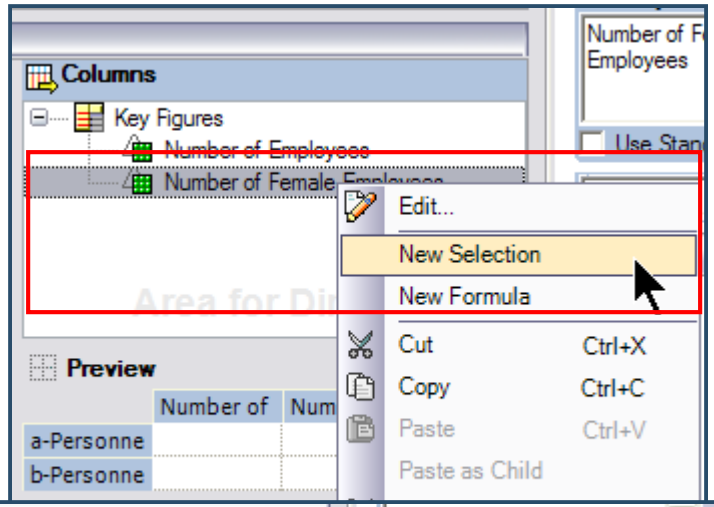
Exercise 3 – Modifying a Basic Ad Hoc Query (Restricted Key Figures and Formulas)

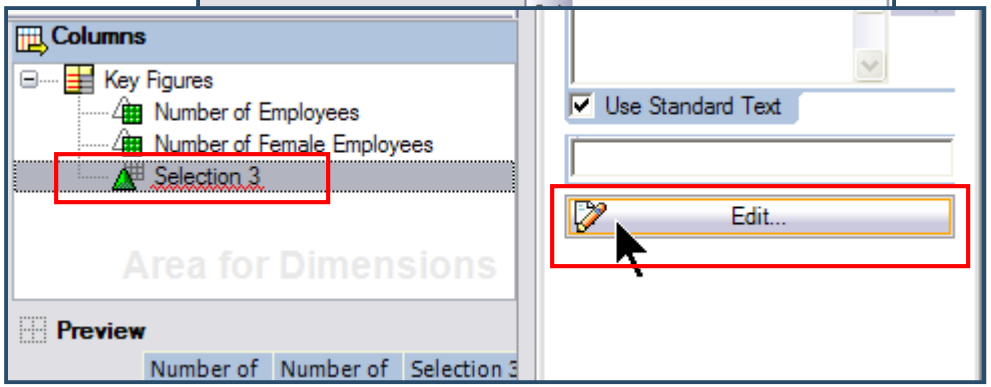
III. Adding a Formula

The demonstration below shows how to create a formula that will calculate the average salary for female employees.

First, create a Restricted Key Figure that includes the Annual salary of Female Employees only:

1. Right mouse-click on a Key Figure of the query to open the Context Menu.
2. Select New Selection.
3. Highlight the new selection and click Edit in the Properties pane.



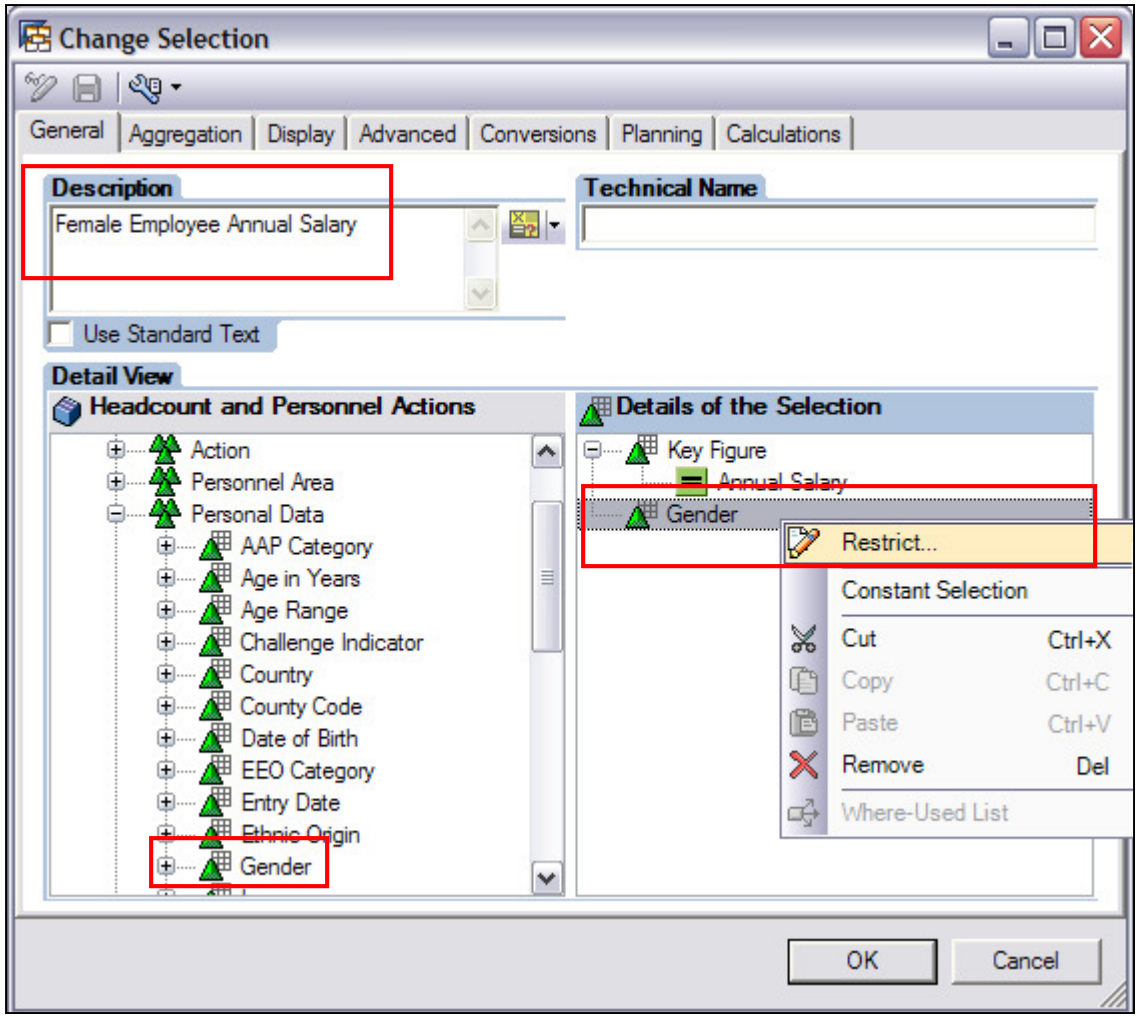


Exercise 3 – Modifying a Basic Ad Hoc Query (Restricted Key Figures and Formulas)

III. Adding a Formula

Result: The Change Selection screen will be displayed.

3. Rename the Key Figure to "Female Employees Annual Salary" in the Description text box.
4. Drag&Drop the Annual Salary Key Figure to the Details of the Selection area.
5. Drag&Drop the Gender Characteristic to the Details of the Selection area.
6. Right mouse-click the Gender Characteristic in the Details of the Selection area to open the Context Menu.
7. Select Restrict.

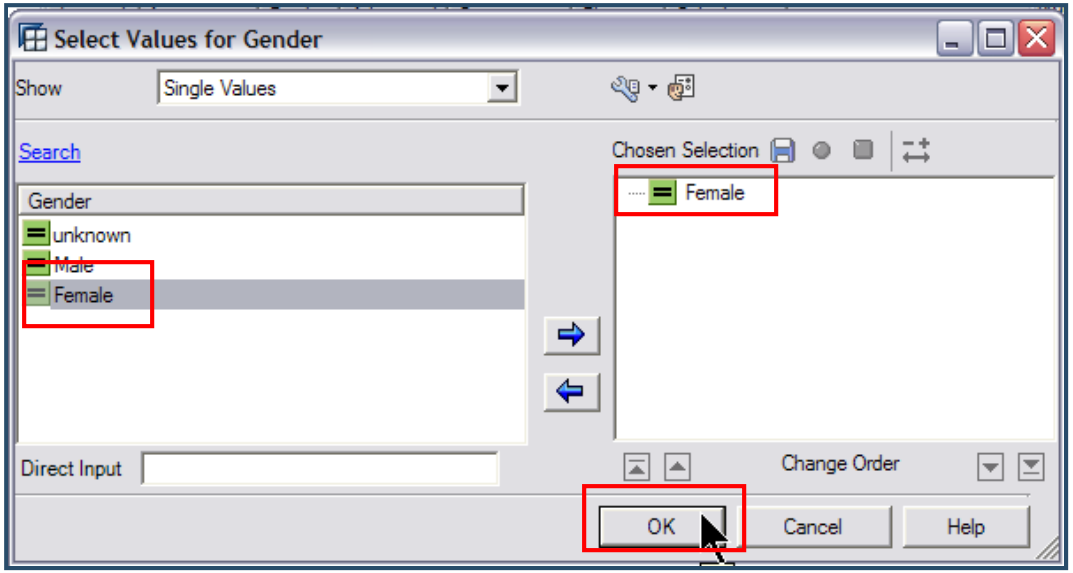


Exercise 3 – Modifying a Basic Ad Hoc Query (Restricted Key Figures and Formulas)

III. Adding a Formula

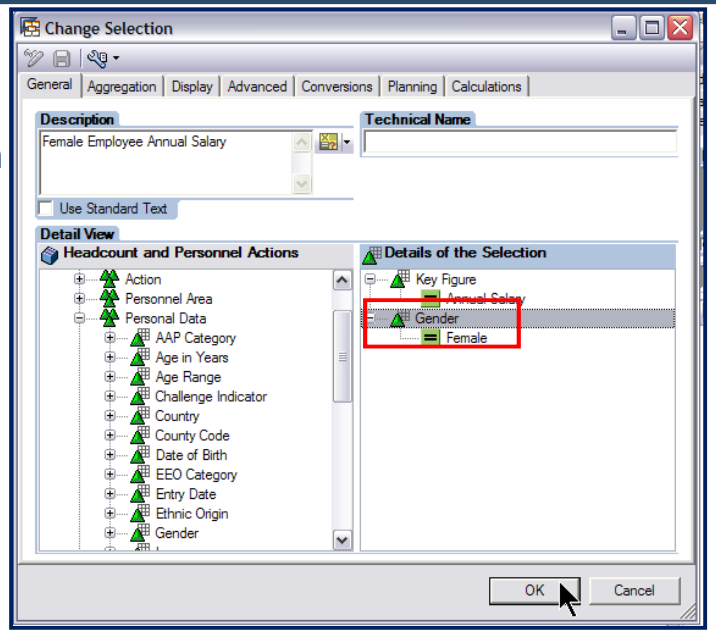
8. Drag&Drop Female from the Description column to the Details of the Selection area.

9. Click OK.



Result: The Gender Characteristic restriction has been added to the Female Employees Annual Salary Restricted Key Figure.

10. Click OK to close Change Selection screen.

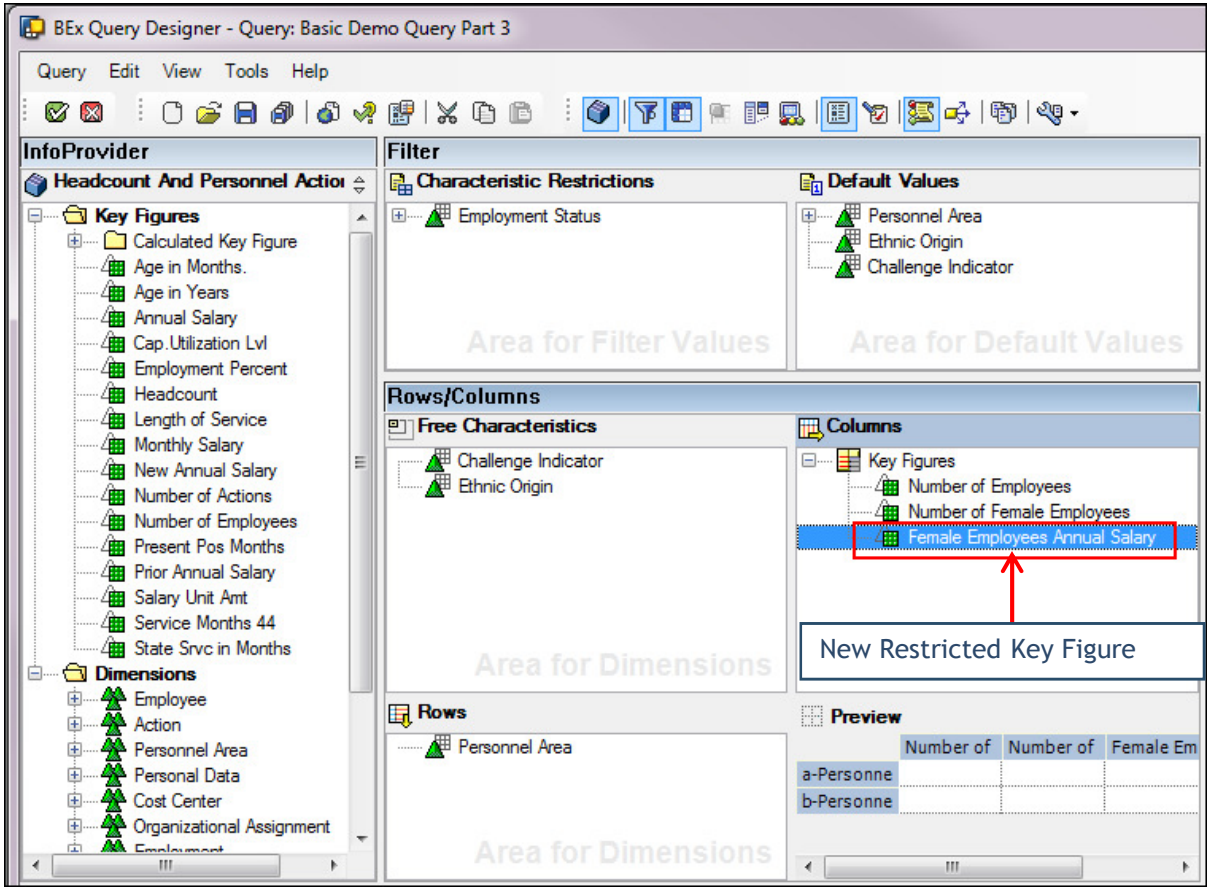


Exercise 3 – Modifying a Basic Ad Hoc Query (Restricted Key Figures and Formulas)

III. Adding a Formula

Result: The Female Employees Annual Salary Restricted Key Figure has been created in the Columns section of the query.

This Key Figure will be hidden from the query results in the next steps. It will be used to calculate the Average Salary of Female Employees only.



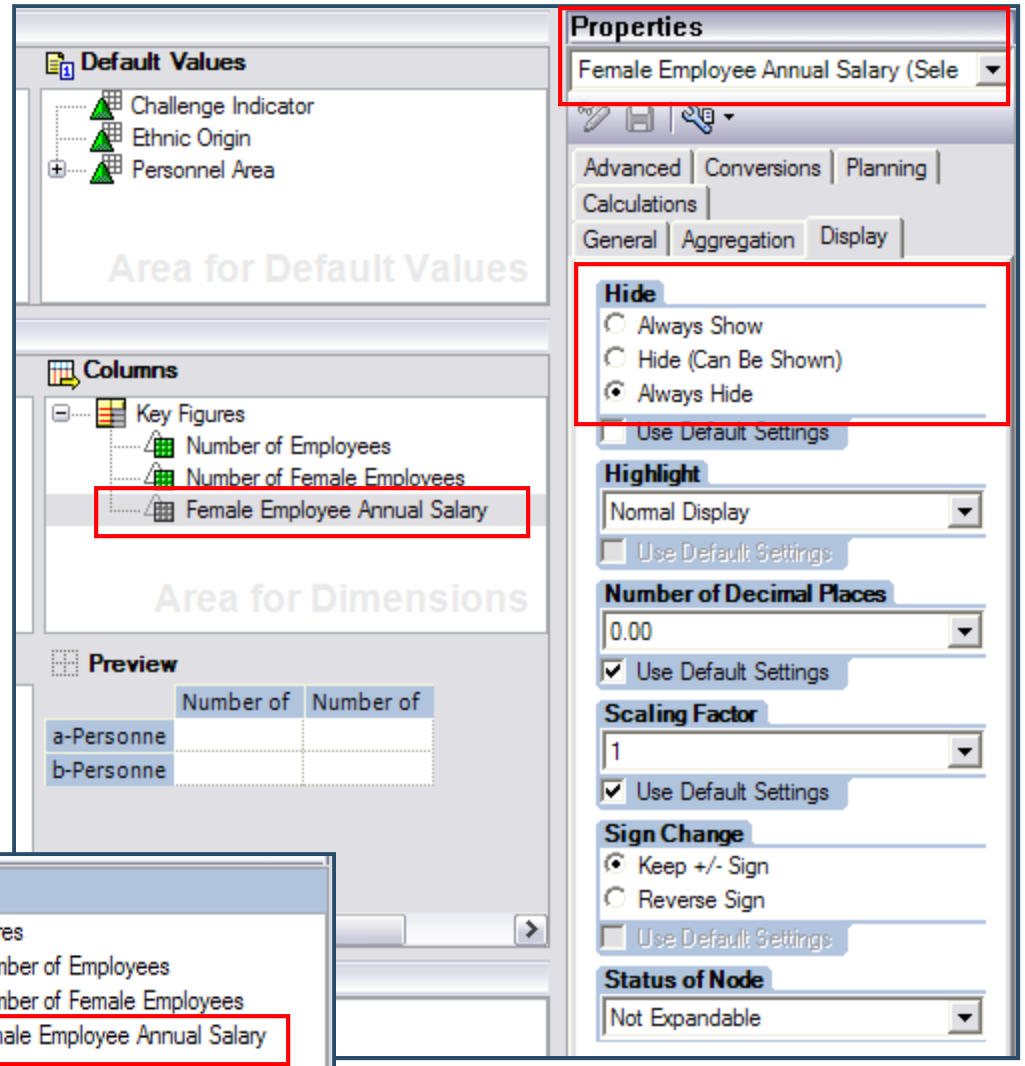
Exercise 3 – Modifying a Basic Ad Hoc Query (Restricted Key Figures and Formulas)

III. Adding a Formula

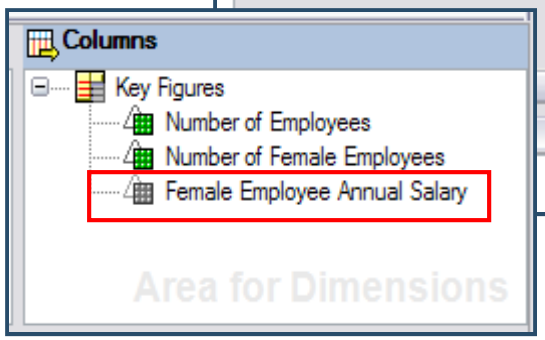
To hide the Female Employees Annual Salary Restricted Key Figure:

11. Select the Female Employees Annual Salary Restricted Key Figure to access it in the Properties pane..

12. Select the option “Always Hide”.



Key Figures that are hidden, change color.

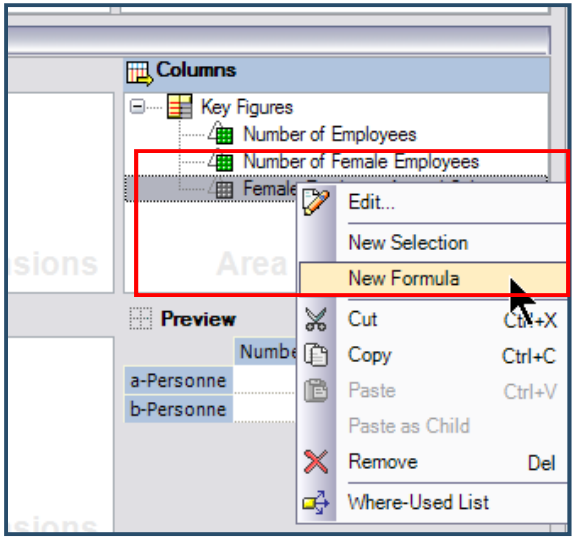


Exercise 3 – Modifying a Basic Ad Hoc Query (Restricted Key Figures and Formulas)

III. Adding a Formula

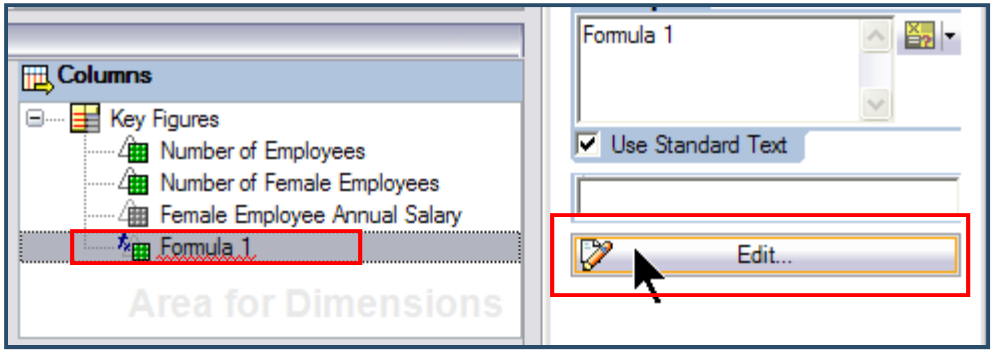
Next, create the Formula that will calculate the Average salary of Female Employees:

15. Right mouse-click Key Figures to open the Context Menu.



16. Select New Formula.

17. Select the new formula added to the columns and click Edit.



Result: The Change Formula screen will be displayed.

Exercise 3 – Modifying a Basic Ad Hoc Query (Restricted Key Figures and Formulas)

III. Adding a Formula

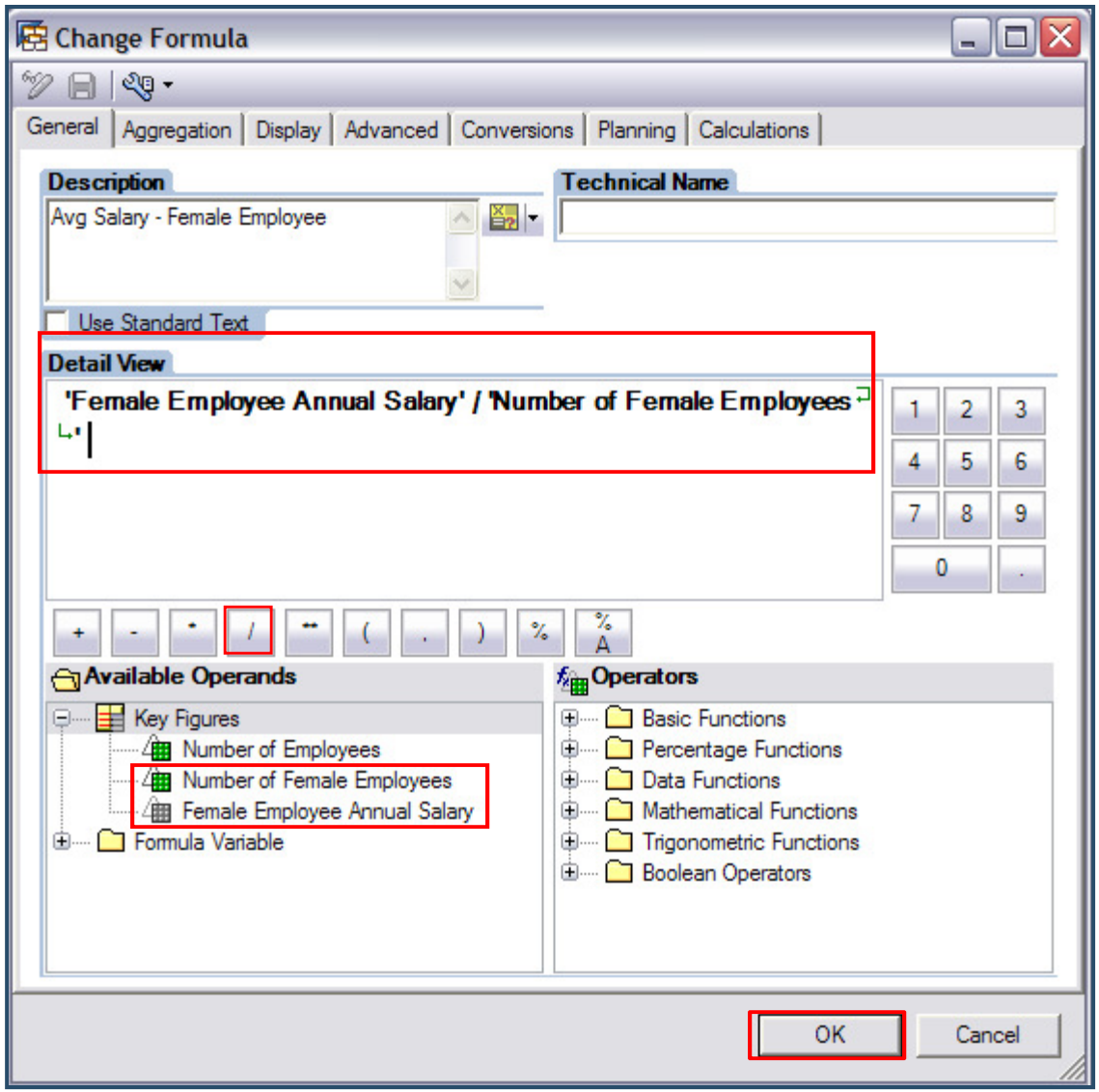
18. Position the cursor in the Formula field (Detail View).

19. Double-click the Female Employees Annual Salary in the Structure Elements of the Operands list.
    The Key Figure will be added to the Formula field.

20. Click the Divided by symbol (/).
    The Divided by symbol will be added to the Formula field.

21. Double-click the Number of Female Employees Key Figure in the Structure Elements of the Operands list.
    The Key Figure will be added to the Formula field.

22. Click OK.

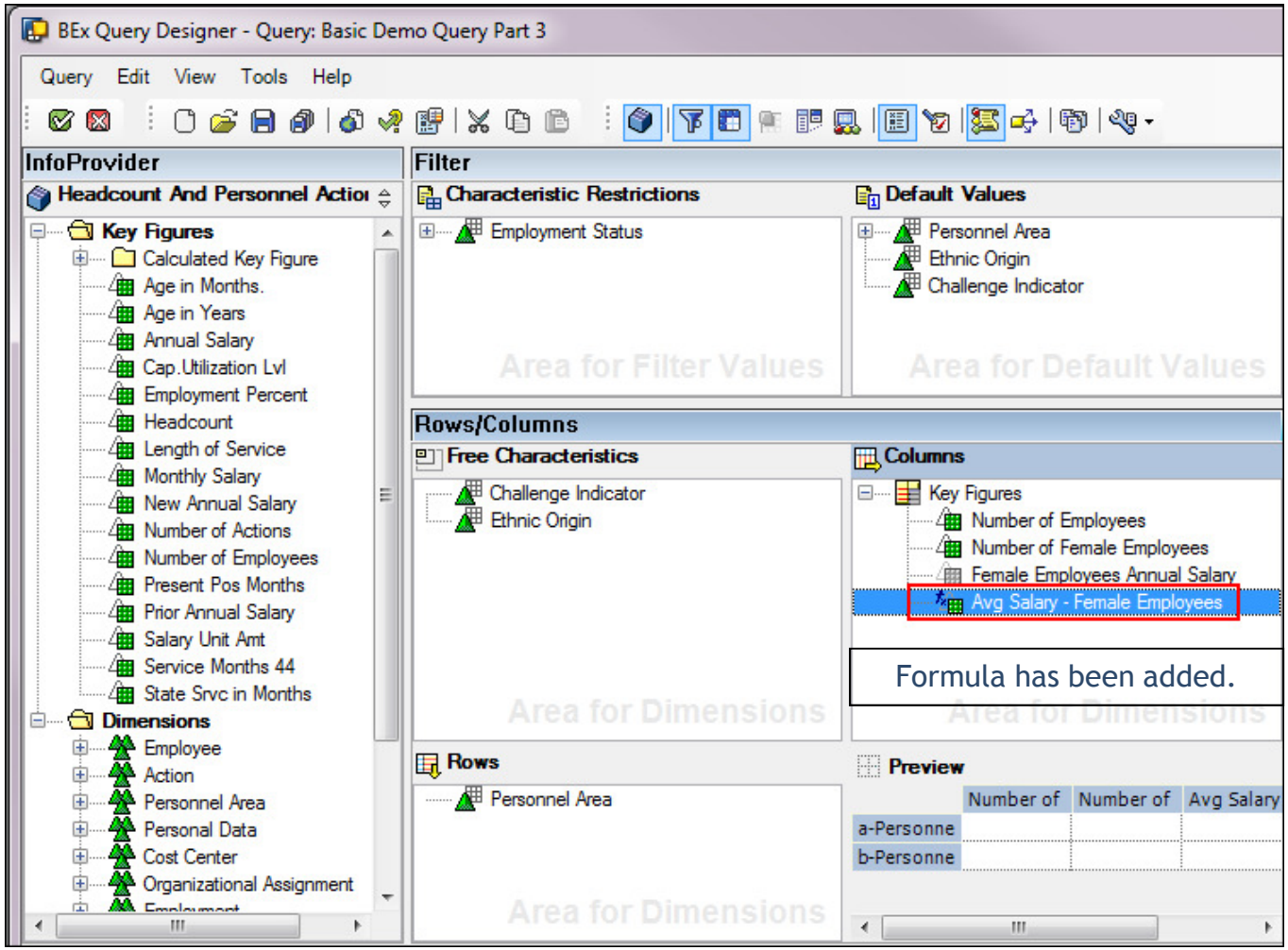


Exercise 3 – Modifying a Basic Ad Hoc Query (Restricted Key Figures and Formulas)

III. Adding a Formula

Result: The Avg Salary - Female Employees Formula has been added to the columns section of the query.

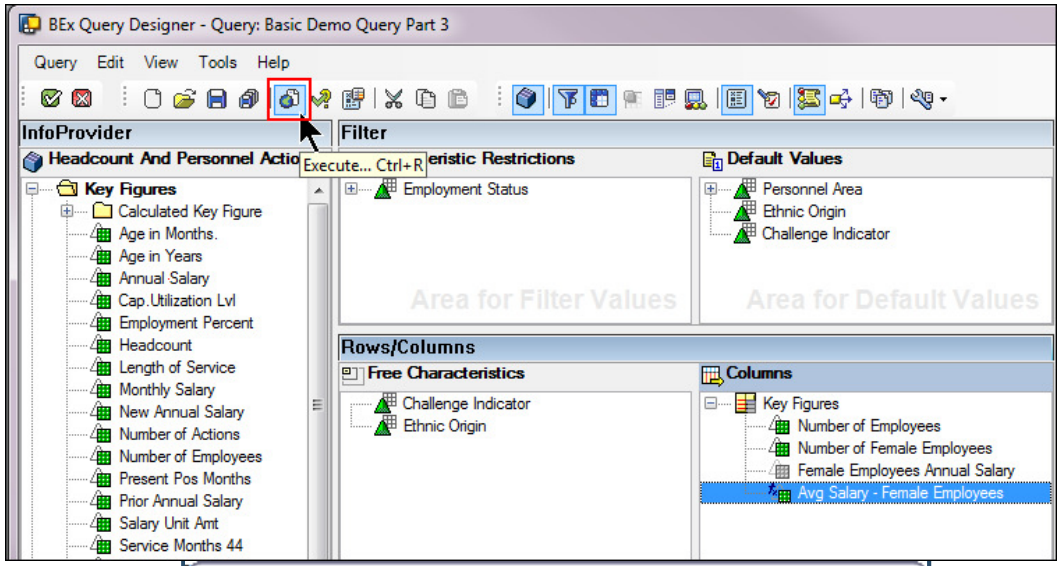
This new Key Figure will calculate the Average Salary of Female Employees in the ad hoc query results.

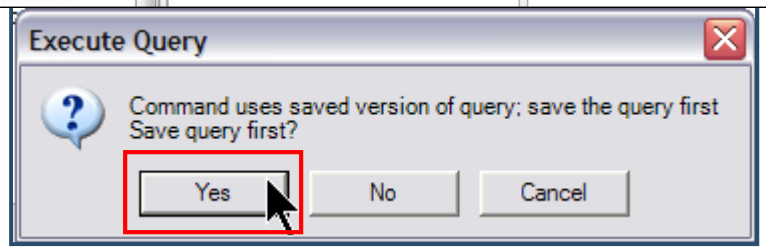


Exercise 3 – Modifying a Basic Ad Hoc Query (Restricted Key Figures and Formulas)

IV. Running the Ad Hoc Query

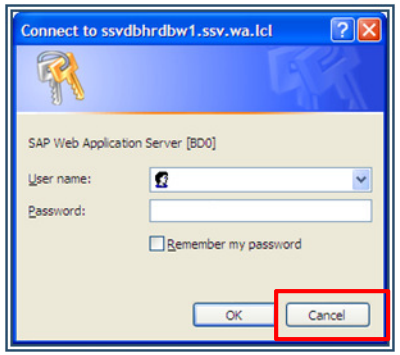
1. Click the Execute Query on the Web icon from the BEx Query Designer toolbar.





If prompted to Save the query, click Yes.

You may be prompted for a userid and password, click **cancel** ~ the Portal log on screen will be displayed and this is where you will enter your userid and password.

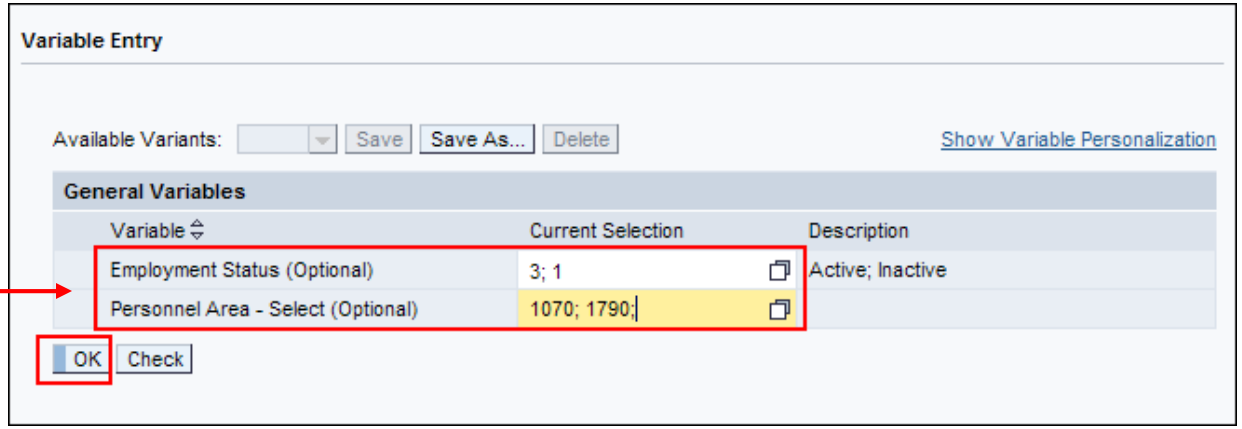


Exercise 3 – Modifying a Basic Ad Hoc Query (Restricted Key Figures and Formulas)

IV. Running the Ad Hoc Query

Results: The Variables Entry screen will be displayed (if the user is running an ad hoc query without variables, this screen will not be displayed)

2. Enter report Variables.
3. Click OK.



Exercise 3 – Modifying a Basic Ad Hoc Query (Restricted Key Figures and Formulas)

V. Ad Hoc Query Results

Basic Demo Query Part 3

Display As Table | Information | Send | Print Version | Export to Excel | Comments

- Columns
  - Key Figures
- Rows
  - Personnel Area
- Free characteristics
  - Challenge Indicator
  - Ethnic Origin

Personnel Area		Number of Employees	Number of Female Employees	Avg Salary - Female Employees
				$
1070	Health Care Authority	952	703	53,333.60
1790	Dept of Enterprise Services	1,059	463	57,409.46
Overall Result		2,011	1,166	54,952.06

Drag and Drop "Ethnic Origin" into your report results:

Basic Demo Query Part 3

Display As Table | Information | Send | Print Version | Export to Excel | Comments

- Columns
  - Key Figures
- Rows
  - Personnel Area
  - Ethnic Origin
- Free characteristics
  - Challenge Indicator

Personnel Area		Ethnic Origin	Number of Employees	Number of Female Employees	Avg Salary - Female Employees
					$
1070	Health Care Authority	10/Not assigned	40	25	40,307.76
		American Indian/Alaskan	17	12	53,617.00
		Asian or Pacific Islander	97	63	54,413.78
		Black/Not Hispanic origin	29	18	44,075.33
		Hispanic	34	25	49,549.92
		White/Not Hispanic origin	735	560	54,254.02
		Result	952	703	53,333.60
1790	Dept of Enterprise Services	10/Not assigned	21	9	50,401.33
		American Indian/Alaskan	22	9	61,760.00
		Asian or Pacific Islander	112	62	47,042.55
		Black/Not Hispanic origin	31	10	52,248.00
		Hispanic	40	21	48,894.86
		White/Not Hispanic origin	833	352	59,958.01
		Result	1,059	463	57,409.46
Overall Result			2,011	1,166	54,952.06