

# PLANSOURCE<sup>®</sup>

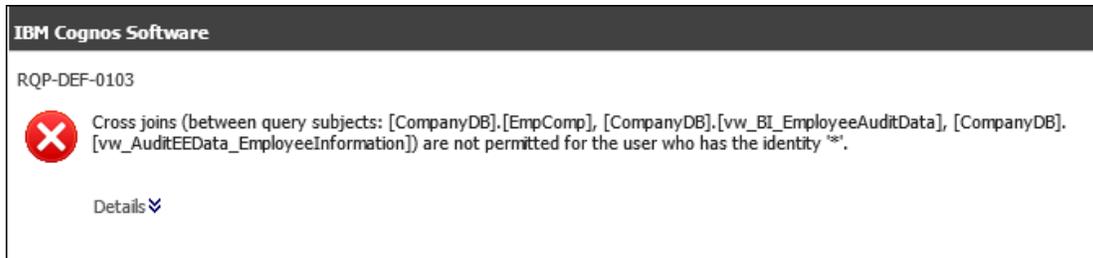
**Student Manual**

**Cognos Analytics**

## Join Queries in Cognos Analytics Reporting

### Cross-Join Error

A join is a relationship between a field in one query and a field of the same data type in another query. If a report includes data items from different Administrator Package folders, for example, and those data items are not joined in the model, a cross-join error results.



To report on PlanSource HCM data in different tables you must:

- Create multiple queries.
- Join the queries through a common data item.
- Link the join query to the report page.

### Join Relationship - Administrator Package Example

This example demonstrates how to report on data items from two Administrator Package folders: Audit Information folder and Employee Information folder.

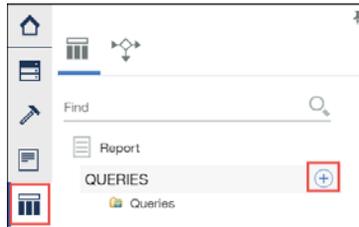
#### Important

The Administrator Package is intended for use only by experienced Business Intelligence users with a knowledge of data modeling.

## Create Multiple Queries

When working with your PlanSource HCM data, you often need to report on information from more than one table. Begin by creating separate queries in Reporting.

1. From the side panel, select the Queries icon, and then select the Add Query icon (+).



2. Right-click Query1, and then from the drop-down list select Rename Query.
3. Rename the query, Employee Query, and then select OK.
4. Double-click the Employee Query icon, and then add data items to the query.
  - a. From the side panel, select the Data icon, and then the Source tab.



- b. Navigate to the Employee Information folder, the Employee query subject.
- c. Add query items to the Data Items pane.

Column Name	Source Type
<b>Company Code</b>	Employee Information > Employee
<b>Location</b>	Employee Information > Employee Locations
<b>Employee Count</b>	Employee Information > Employee
<b>Employee Number</b>	Employee Information > Employee
<b>Employee Name (Last Suffix, First MI)</b>	Employee Information > Employee
<b>Job Code</b>	Employee Information > Employee

5. From the side panel, select the Queries icon, and then select the Add Query icon (+).
6. Right-click Query1, and then from the drop-down list select Rename Query.

7. Rename the query, Audit Information Query, and then select OK.
8. Double-click the Audit Information Query icon, and then add data items to the query.
  - a. From the side panel, select the Data icon, and then the Source tab.
  - b. Navigate to the Audit Information folder, the Employee Audit Information query subject.
  - c. Add query items to the Data Items pane.

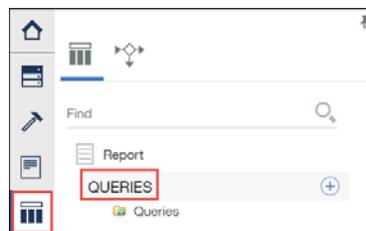
Column Name	Source Type
<b>New Value</b>	Audit Information > Employee Audit Information
<b>Old Value</b>	Audit Information > Employee Audit Information
<b>User Name</b>	Audit Information > Employee Audit Information
<b>Action Taken</b>	Audit Information > Employee Audit Information
<b>Action Taken Date/Time</b>	Audit Information > Employee Audit Information
<b>Field Updated</b>	Audit Information > Employee Audit Information
<b>Employee Number</b>	Audit Information > Employee Audit Information

Next, join the queries by linking a data item common to both.

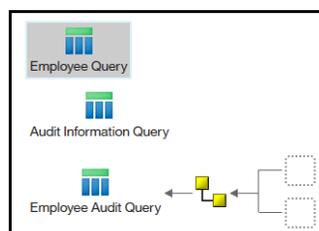
### Join Queries

Combine data from different tables by joining separate queries through a common data item.

1. From the side panel, select the Queries icon, and then select Queries.

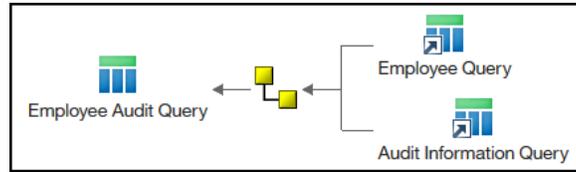


2. From the side panel, select the Toolbox icon, and then drag a Join object to the work area.
3. Right-click Query1, and then from the drop-down list select Rename Query.
4. Rename the query, Employee Audit Query, and then select OK.



Two drop zones appear to the right of the Join object.

5. Drag the Employee Query icon to one drop zone and drag the Job Code Query icon to the other drop zone.

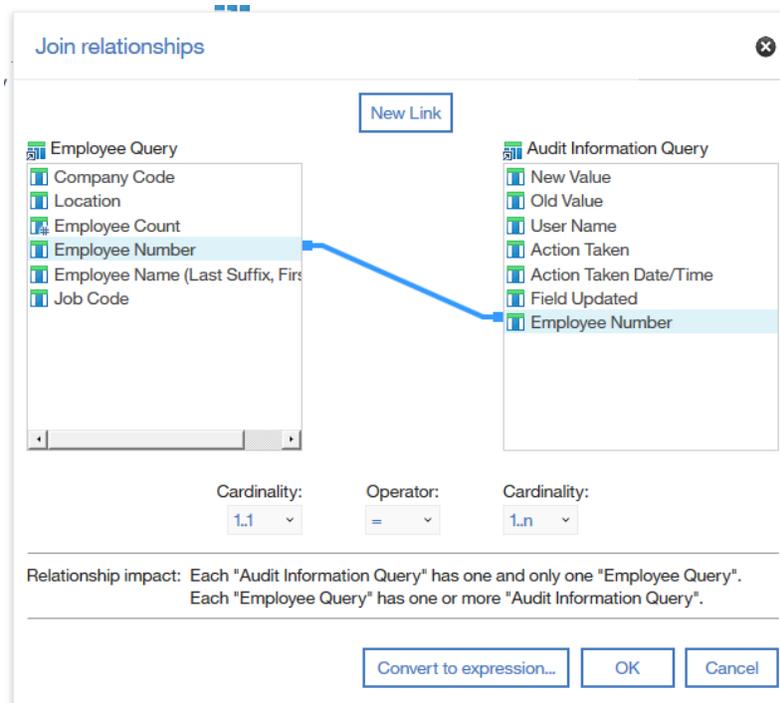


6. Double-click the Join object.



The Join Relationships dialog box appears.

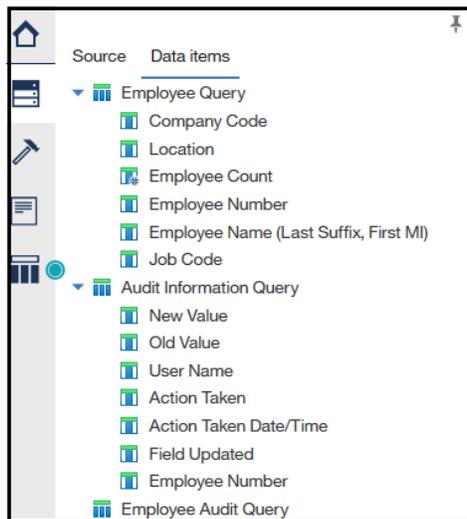
7. Select the New Link button.
8. From the Employee Query pane, select Employee Number, and from the Audit Information Query pane, select Employee Number.
9. From the Cardinality drop-down lists, make a selection.
  - a. Employee Query: 1..1
  - b. Audit Information Query: 1..n



## Note

Cardinality defines the relationship between queries: one-to-one, one-to-many, many-to-one, many-to-many. Cardinality can be changed as needed.

10. Select OK.
11. Double-click the Employee Audit Query icon.
12. From the side panel, select the Data icon and then select the Data Items tab.



13. Drag query items from both the Employee Query and the Job Code Query to the Data Items pane.

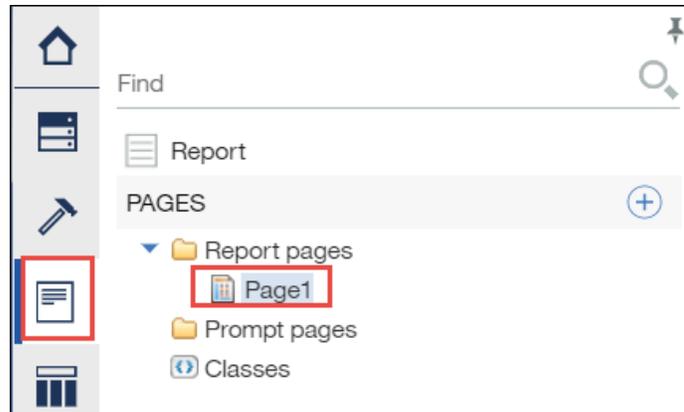
## Note

Only one Employee Number data item is required in the join query.

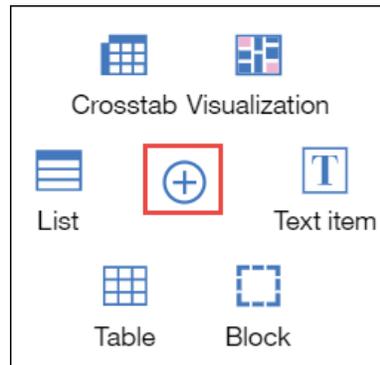
## Associate a Query with a Report Container

In order for data items in a query to render on a report page, the query must be linked to a container on the report layout.

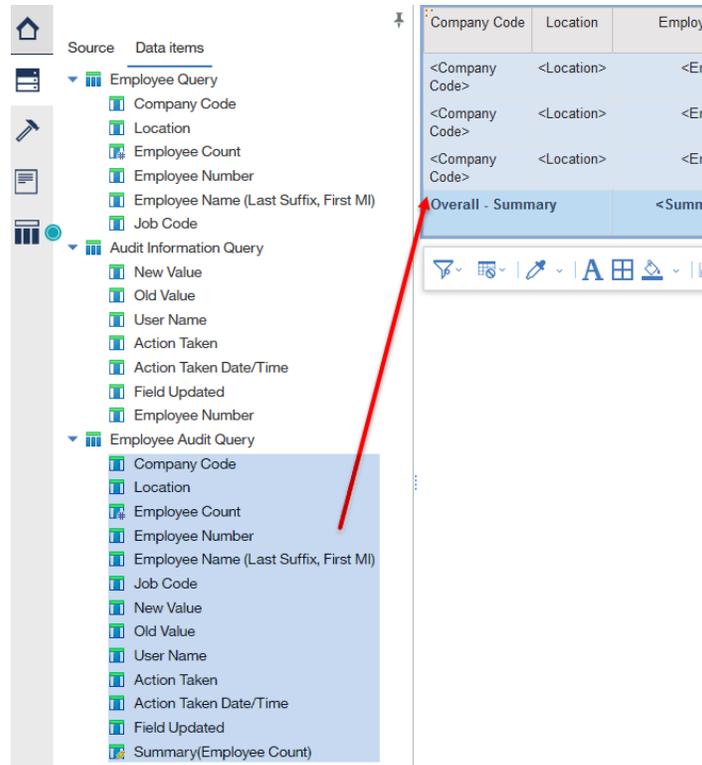
1. From the side panel, select the Pages icon, and then select Page1.



2. In the report work area, select the + icon, and then select a report layout.



3. From the Object and Query Name dialog box, select the Query Name drop-down list.
4. From the drop-down list, select the Employee Audit Query, and then select OK. The join query is now associated with the report container.
5. From the side panel, select the Data icon, and then the Data Items tab.
6. Move data items from the join query to the report page.



7. Format and filter the report as needed.
8. Save, and then run the report.

### Adding a Visualization

1. Select Toolbox from the left pane, double click on Visualization under Pinned.
2. Select Clustered Column then click OK.
3. From the Object and Query Names window switch Query Name to Employee Audit Query.

#### HINT

Ensure the whole page is selected rather than the list or an individual column.

Your graph will appear on your page.

4. To move the graph from below the list to above the list highlight just the list by clicking on the three dots in the left top hand corner of the first column. Then, drag and drop the report list to the right of the graph.
5. Click on the graph, the clustered column: Tabular Data set window appears.

6. From the source pane, click on the second tab for Data Items.

<b>Values</b> (Must be a number or date)	Employee Count
<b>X Axis</b>	User Name
<b>Color</b>	Action Taken

### Adding a Date Prompt

1. Select the Action Taken Date/Time column, and then from the on-demand toolbar, select Filters.
2. From the drop-down list, select Edit Filters.
3. From the filters dialog box, select Add.
4. From the Create Filter dialog box, select the Advanced radio button, and then select OK.
5. From the Detail Filter Expression dialog box, select the Data Items tab.
6. Move a data item from the Available Components pane to the Expression Definition pane.
  - a. **Data Item: Action Taken Date/Time**
7. In the Expression Definition pane, complete the expression.
  - a. **Type the following to the right of the data item: between ?Date1? and ?Date2?**

You can easily add a prompt to a report by enclosing the name in question marks. Reporting automatically selects a prompt type based on the type of data item selected.

8. Select the validate icons.  
A prompt dialog box appears.
9. Make a selection and then select OK.
  - a. **Provide a Value: Date Range**
10. Select OK two times.
11. Run the report in HTML format.
12. From the report viewer, select the Run icon.  
The Prompt Page appears again.
13. Choose a different selection or keep the same selection.
14. Click OK.
15. Close the report viewer.
16. Save the Report as desired.