



Tip or Technique

Display No Data Content for RAVE visualizations used in IBM Cognos Report Studio

Product(s): IBM Cognos 10.2.2

Area of Interest: Reporting

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Introduction

Purpose of Document

This document describes steps on how to dynamically display No Data Contents text in an IBM Cognos report with RAVE visualizations.

One of the ways to overcome this limitation of displaying no data content for RAVE visualizations in Cognos reports is by embedding the visualization object in List.

Applicability

IBM Cognos 10.2.2 and higher versions.

Assumptions

Target readers should be an IBM Cognos reports author or one with good knowledge on IBM Cognos Report Studio 10.2.2

Creating the “No Data Content” text

When there is no data and just displaying a blank visualization, sometimes with only axis lines, legend items etc. it makes the report page look unappealing. As in case of in-build Cognos objects, when there is no data by default it shows up as “No Data Available”. Or we can use the “No data contents” property to specify a content (customized text) to display when there is no data in database. Whereas the same properties are not available when a visualization object is used in a Cognos report. Nor there is any property to set conditional variable in visualization objects, so that a No Data text can be conditionally shown when visualization is rendered empty.

With this document, report authors will know that how simple it is to avoid showing blank visualization in cognos report when there is no data available in database and showing a meaningful message for the viewers to understand it better.

In this example, Sales namespace under Sales and marketing (analysis) folder of GO Data Warehouse (analysis) package is used.

1. Import the visualizations to Cognos library, in this case one simple Bar chart visualization is used as a sample which is downloaded from Analytics Zone Visualization section (https://www.ibm.com/developerworks/community/groups/service/html/communityview?communityUuid=9685c9a6-3133-4823-85e8-f5f81268267a#fullpageWidgetId=W561990aafebc_4d8b_9af8_7c03c0081265&folder=fa9cc7b3-7307-4a15-abc0-352e43dafb1a).

2. Open IBM Cognos Click OK.
3. Go to the toolbox tab and drag the visualization object to the report page.
4. When the Visualization Gallery window pops up, select the visualization (Bar) from the list and click OK.

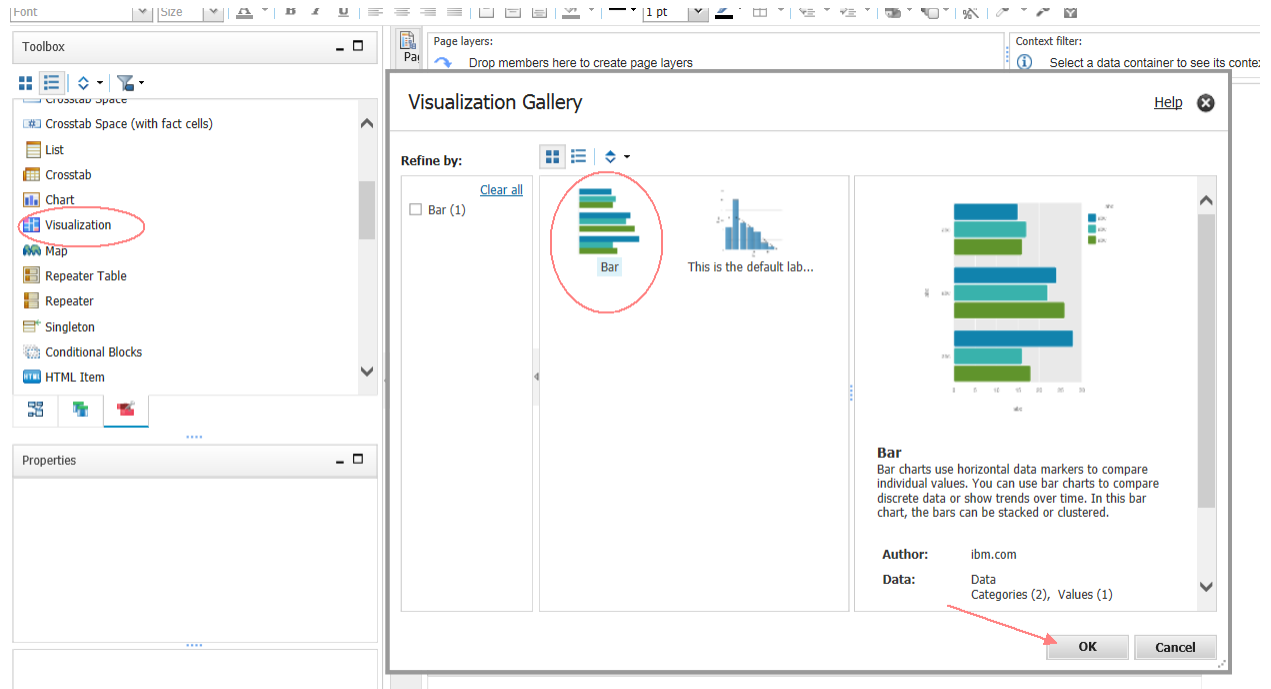


Figure 1 – Visualization Gallery showing the Bar chart visualization in the list which is selected.

5. Click OK in the Object and Query Names box
6. In the Query Explorer, select the visualization query (Query 1). Drag Retailer Name, Month and Revenue from Retailers, Time and Sales fact dimensions respectively of the Sales namespace from Sales and Marketing (analysis) folder.
 - `[go_data_warehouse].[Sales and Marketing (analysis)].[Sales].[Retailers].[Retailers].[Retailer name]`
 - `[go_data_warehouse].[Sales and Marketing (analysis)].[Sales].[Sales fact].[Revenue]`
 - `[go_data_warehouse].[Sales and Marketing (analysis)].[Sales].[Time].[Time].[Month]`

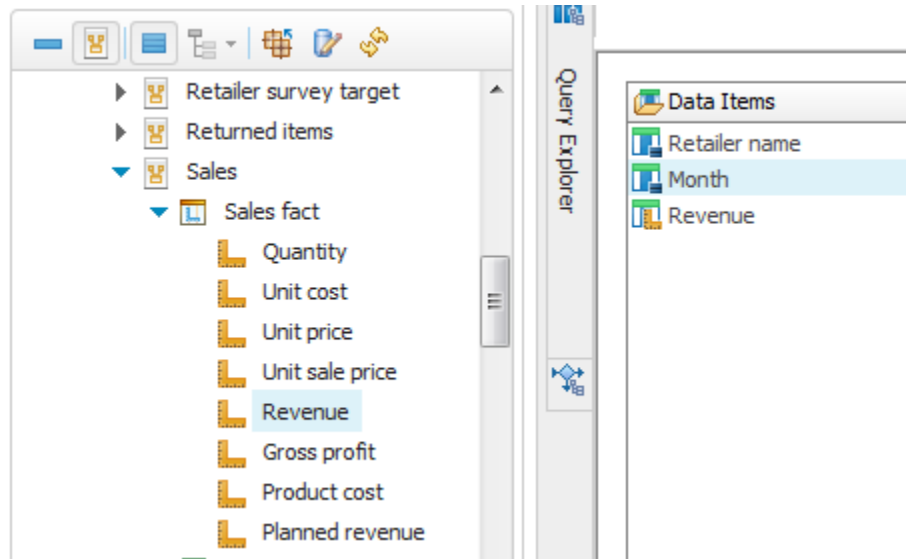


Figure 4 – Retailer Name, Month and Revenue added to Query 1

7. From the toolbox, drag a Data Item and rename it to Revenue2. Add the following expression below then click OK.

```
if ([Revenue]=0) then (0) else ([Revenue])
```

8. From toolbox drag Filters to the Detail Filter section and add the following expression then click OK.

```
[Sales].[Time].[Time].[Month].[Month number] between 13 and 24
```

9. From toolbox drag Filters to the Detail Filter section and add the following expression then click OK.

```
[Revenue2] > 250000
```

10. In the Page Explorer, select Page 1, click on the Data Item tab and place the data items to the visualizations.

- Drag Revenue2 to the Size box,
- Drag Retailer Name to the Categories box
- Drag Month to the Series box.

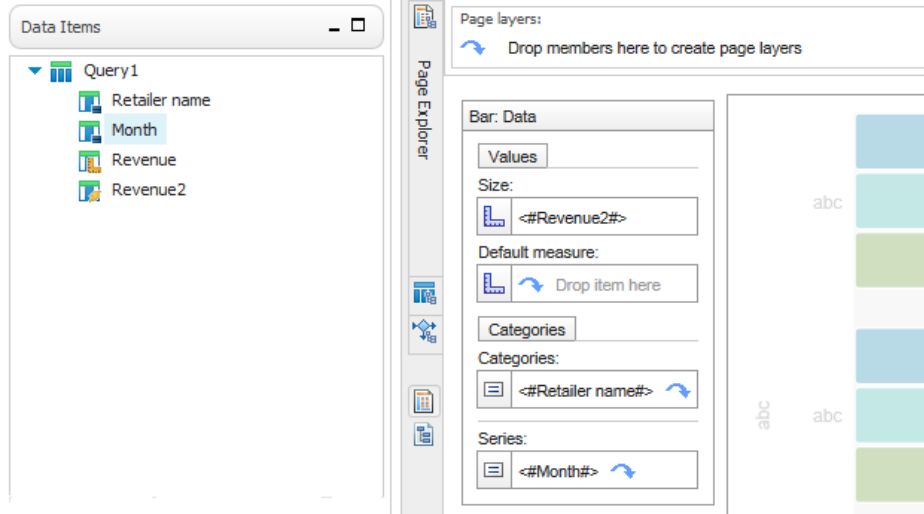


Figure 5 – Shows visualization on the report page with data items filled in the container.

If we execute this report now we will get a bar chart which will look like as below.

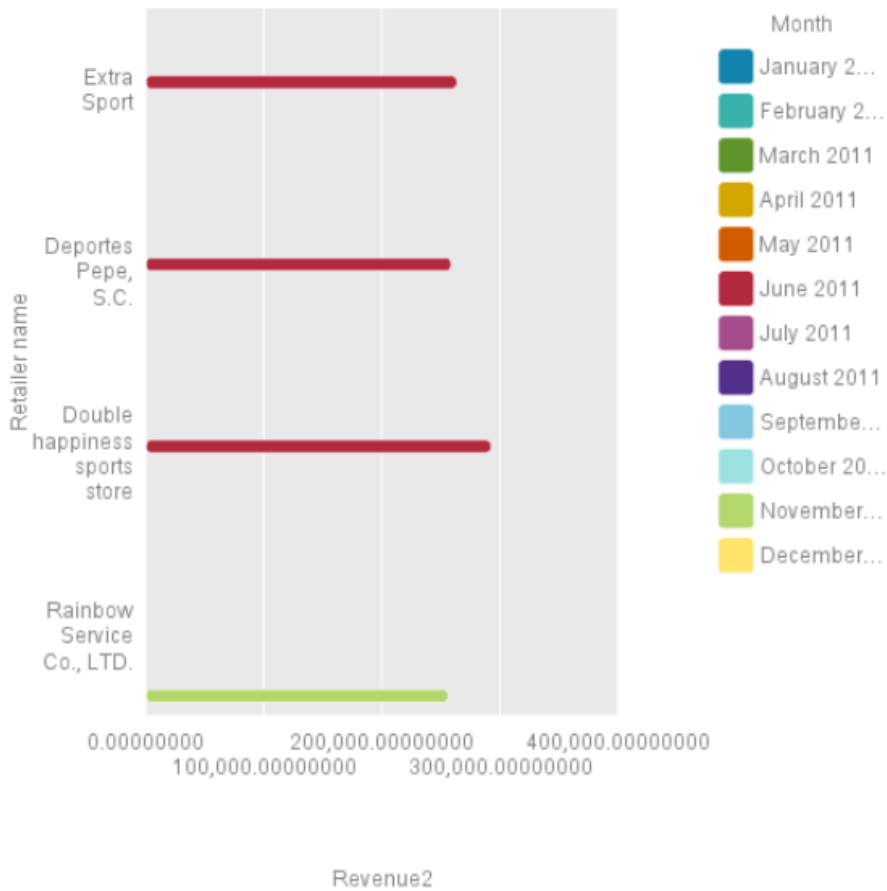


Figure 6– Report output shows the bar chart for the data items used in the visualization.

But let's think of cases when some conditions the query finds no matching records in database in such case the visualization will be blank. A similar example is shown below.

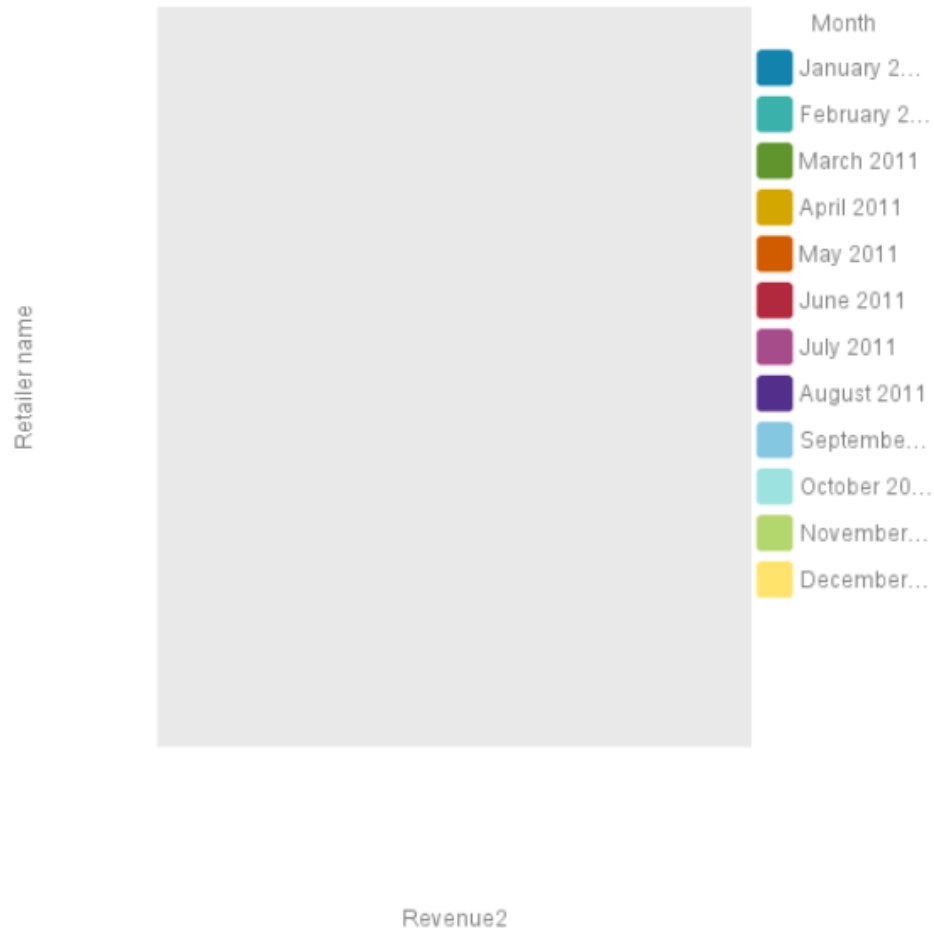


Figure 7 – Report output when there is no data for the visualization to display the chart.

11. So when below filter is added to the visualization query's Detail Filter section, no matching data is found in the database. Thus the report output displayed a blank visualization.

[Revenue]=0

When there is no data available just displaying blank visualization, sometimes with only axis lines, legend items etc. makes the report page look unappealing.

With no 'No Data Content' property available for visualization objects in Cognos, it becomes a limitation to get rid of the blank visualization. To overcome it, one of the ways is embed it inside a list.

12. From the toolbox tab, drag in a List and assign it to query 1, the one the visualization I s based off of.
13. Drag Revenue2 data item, from the data item tab, to the list.
14. Select the List Column Body and set the Box Type property to None, as we don't want it to be shown in report output.
15. Unlock the list. Select the visualization and drag it to the List Column Title and place it inside the list header section.

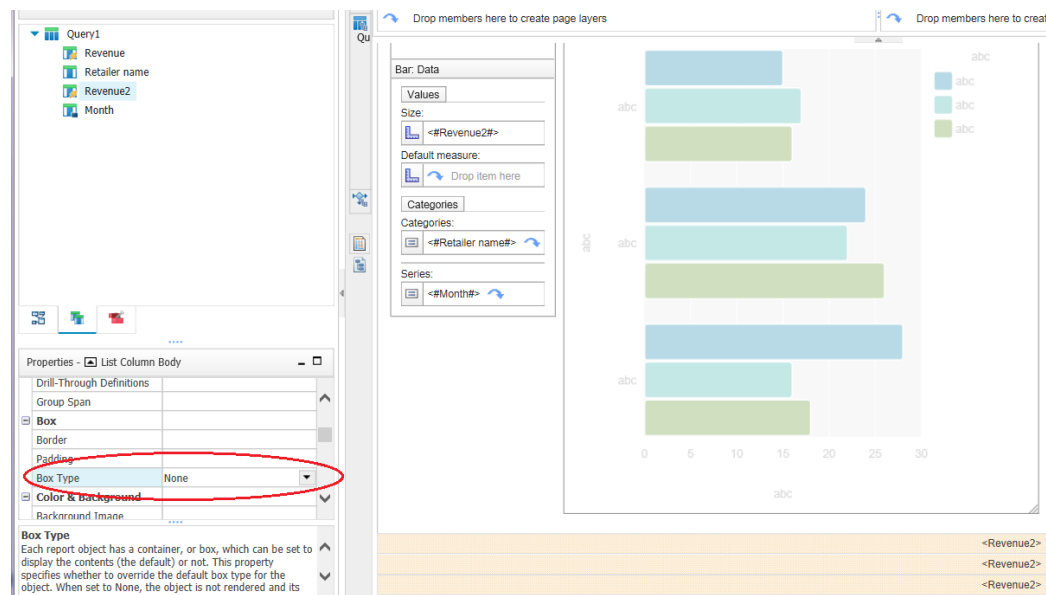


Figure 8 – Box Type property is set to None for List Column Body and visualization object is placed inside the list header section.

The report output will now show, by default "No Data Available" text when there is no data comes back from the query instead of earlier case where it showed a blank visualization.

By selecting the List and using its No Data Contents property, any customized content can also be displayed instead of the default "No Data Available" text. To do that select 'Content specified in the No data tab' option and specify the text that you want to display for no data.

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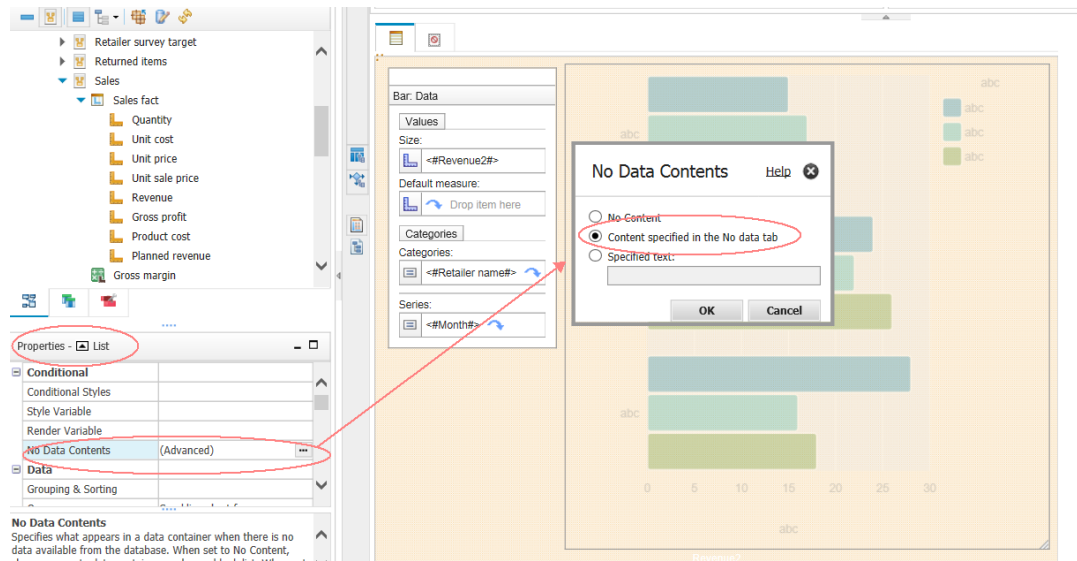
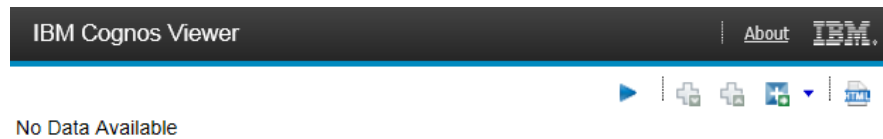


Figure 9 – No Data Contents property to specify customized text.

The report will now display “No Data Available” or the customized text when visualization finds no matching data to display in the database.



Visualization is empty.

Figure 10 – Report output shows the default “No Data Available” text as well as the customized text “Visualization is empty”.