

Oracle BI 11g Reports and Dashboards

Drill-Down and Navigation

PEAK
indicators

Drill-Down and Navigation

Agenda

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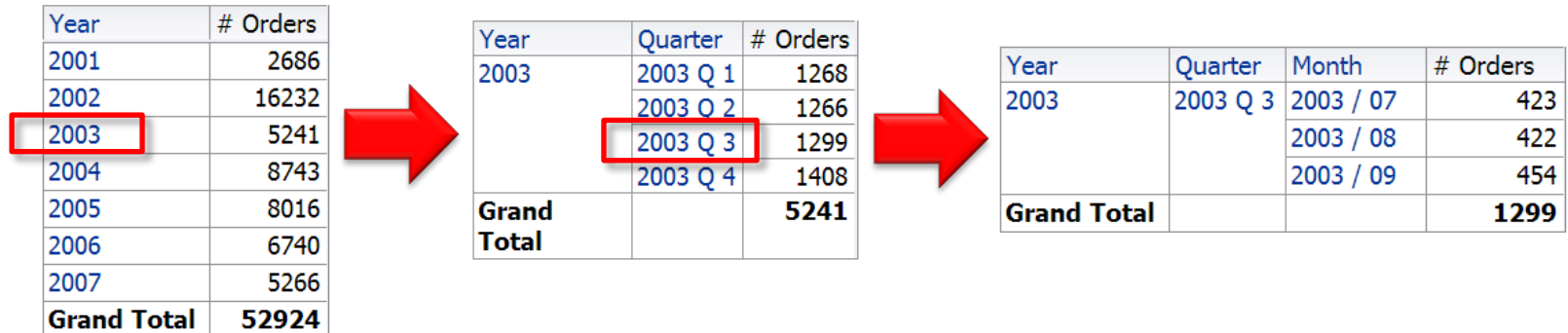
Drill-Down and Navigation

Drill-Down

Drill-Down

Overview

- Certain Dimension columns are configured to allow users to “drill-down” from one hierarchy level to another. A good example of this is with “Time”:
 - Year > Quarter > Month > Date
- The drill-down functionality is implemented by the “BI Development Team” when producing the Subject Areas, this means that no effort is needed from the report developers as the capability exists automatically:



Drill-Down

On Column Headings

- You can also “drill-down” on the column heading, this will have the effect of drilling down to all the child values that occur at the next hierarchy level down:

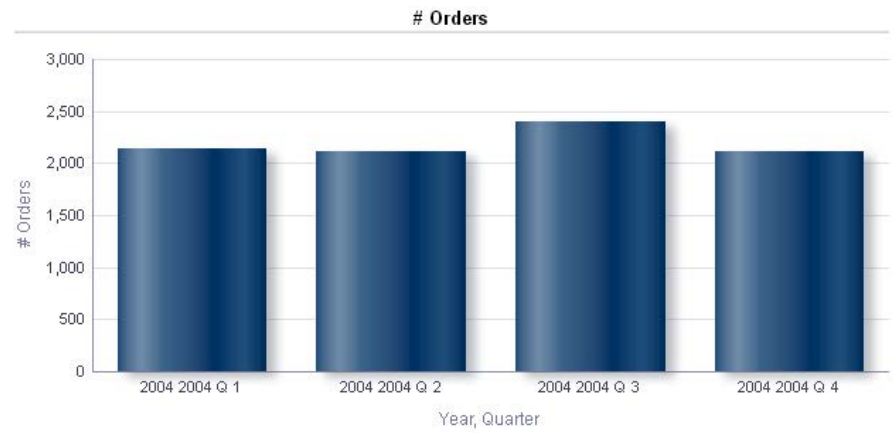
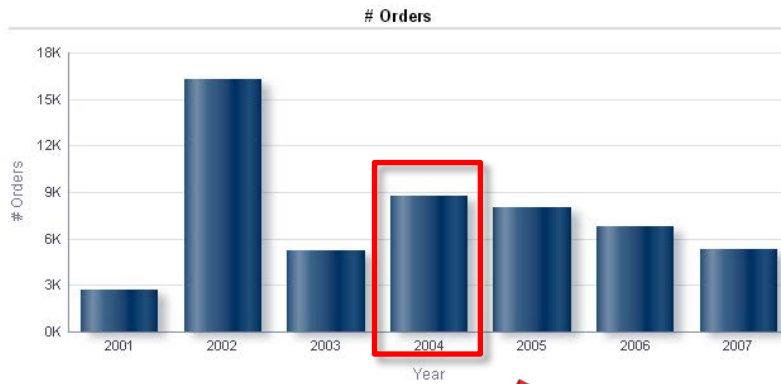
Year	# Orders
2001	2686
2002	16232
2003	5241
2004	8743
2005	8016
2006	6740
2007	5266
Grand Total	52924



Year	Quarter	# Orders
2001	2001 Q 1	1131
	2001 Q 2	1212
	2001 Q 3	28
	2001 Q 4	315
2002	2002 Q 1	1325
	2002 Q 2	7086
	2002 Q 3	6700
	2002 Q 4	1121
2003	2003 Q 1	1268
	2003 Q 2	1266
	2003 Q 3	1299
	2003 Q 4	1408
2004	2004 Q 1	2129
	2004 Q 2	2113
	2004 Q 3	2391
	2004 Q 4	2110
2005	2005 Q 1	2129
	2005 Q 2	1967
	2005 Q 3	1835
	2005 Q 4	2085
2006	2006 Q 1	2000
	2006 Q 2	1856
	2006 Q 3	1456
	2006 Q 4	1428
2007	2007 Q 1	1298
	2007 Q 2	1346

Drill-Down On Graphs

- Drill-downs are automatically enabled on graphs by default too!



Drill-Down

Answers Results Tab

- Note that if you drill-down on the Answers “Results” tab, it will actually modify the Analysis!
- For example, here we drill-down on Year = 2003 on the Results tab and the definition of the Analysis has changed:
 - The “Quarter” column has been automatically added to the Analysis
 - The Analysis is now configured to filter for Year = 2003

Year	# Orders
2001	2686
2002	16232
2003	5241
2004	8743
2005	8016
2006	6740
2007	5266
Grand Total	52924



Year	Quarter	# Orders
2003	2003 Q 1	1268
	2003 Q 2	1266
	2003 Q 3	1299
	2003 Q 4	1408
Grand Total		5241

Time	Facts
Year	# Orders

Filters

Add filters to the analysis criteria by clicking on the filter header. Add a saved filter by clicking on the filter icon.

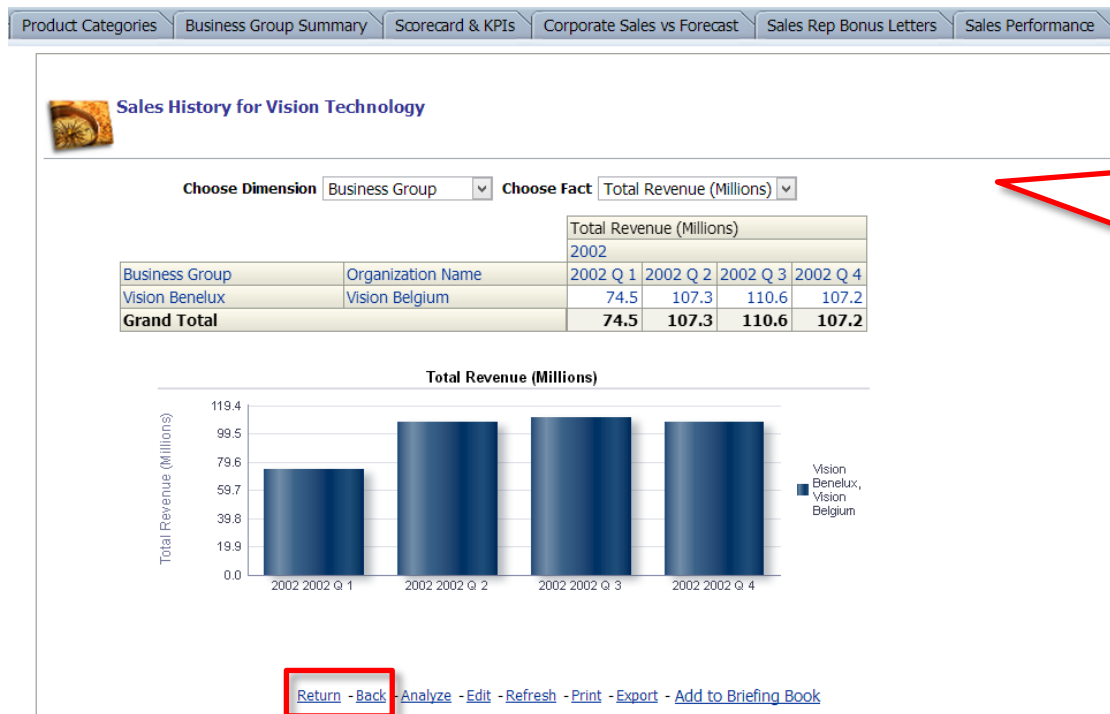
Year is equal to / is in 2003

- NOTE: To prevent this from happening, use the Preview  option to test out your drill-downs!

Drill-Down

Within Dashboards

- When you drill-down within a Dashboard, you will get two links underneath the Analysis to undo the drill-down operations:
 - Return:** To return you all the way back up to the top level
 - Back:** To take you back up one level of drill



If you are performing drill-downs within a Dashboard then remember to set the "Drill in place" option for the Dashboard Section

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Drill-Down and Navigation
Navigate to BI Content

Navigate to BI Content

About Actions

- Oracle BI comes with a powerful feature called “**Action Framework**” which enables users to initiate various “Actions” from their Analyses/Dashboards
 - One of the Actions available is “**Navigate to BI Content**” which allows you to navigate directly from one Analysis to another Analysis or Dashboard Page

Total Revenue (Millions)							
Business Group	▼ Total						
	► 2001	► 2002	► 2003	► 2004	► 2005	► 2006	► 2007
Business Group	2001	2002	2003	2004	2005	2006	2007
Vision Benelux	2736.24	222.51	399.48	415.28	422.36	471.47	387.98
Vision East Europe	594.15	48.77	75.29	98.24	90.99	94.28	92.97
Vision Nordics	1273.03	86.48	57.50	56.67	261.17	267.73	274.76
Vision UK and Ireland	120.13	8.18	74.68	134.83	166.25	75.57	49.48
Vision West Europe	864.03	72.07	309.93	124.83	166.25	75.57	49.48
Grand Total	5587.57	438.02	610.54	956.96	908.50	957.73	850.78


View a Summary of Sales Orders





Navigate to BI Content


“Is Prompted” Filters


- When you perform navigation, you typically wish to pass in filter criteria to the target request. For example, if the user clicks on a sales measure for the Year 2007 then the target report should also filter for the Year 2007
- Passing filters from one Analysis to another in this way only works if:
 - The target Analysis already has a filter for the specific column (in which case the filter criteria will be overridden):

AND  Year **is equal to / is in 2006**


- Or the target Analysis has an “Is Prompted” filter applied. For example:

New Filter  

Column Year 

Operator 

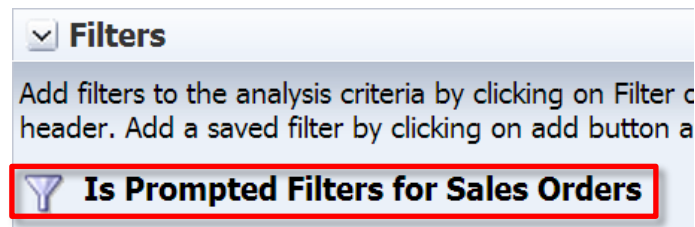


AND  Year **is prompted**

Navigate to BI Content

“Is Prompted” Filters

- As a best practice, it is suggested that you create a “Saved Filter” for each Subject Area which contains the set of “Is Prompted” filters for that Subject Area:

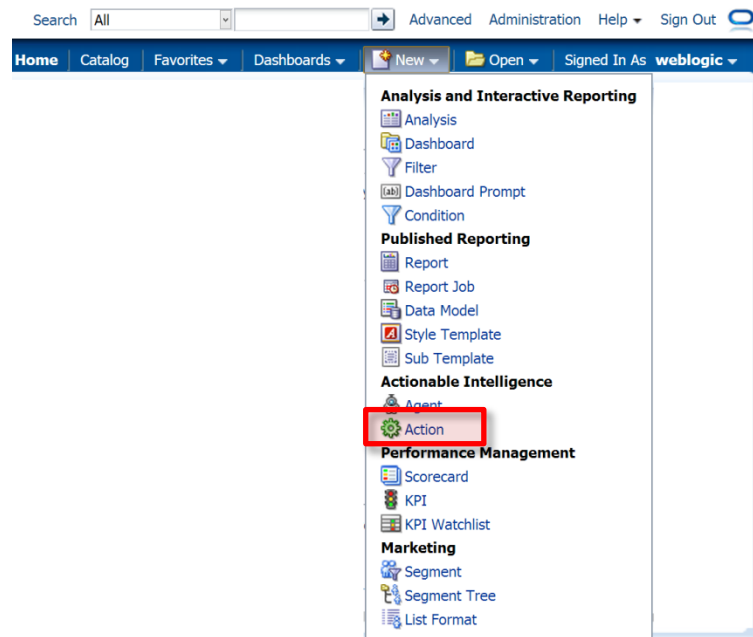


Year is prompted
AND Quarter is prompted
AND Month is prompted
AND Week is prompted
AND Date is prompted
AND Customer Type is prompted
AND Sales Channel Code is prompted
AND Customer Class Code is prompted
AND Business Group is prompted
AND Organization Name is prompted
AND Sales Rep is prompted
AND Customer Name is prompted
AND Total Revenue (Millions) is prompted

- You can then apply this Saved Filter to all your target Analyses, which will save you from having to add loads of individual “Is Prompted” filters to each Analysis
- Having a Saved Filter means that you only have to maintain your “Is Prompted” filters in one place

Creating Actions

- Actions can be created as re-usable objects, referred to as “**named**” Actions:



- Or you can create “**inline**” Actions:
 - If you want to use an Action only once, you can define it directly within an analysis, dashboard page, agent, scorecard objective, scorecard initiative, or KPI. These inline actions are not re-usable

Navigate to BI Content

Example

- Consider this example where will create an “in-line” Action to navigate from an Analysis to view a “Summary of Sales Orders”
 - The users will want to open up the target Analysis by clicking on one of the “Total Revenue (Millions)” values



Order Revenue by Quater

Figures displayed in Millions

Business Group	Total Revenue (Millions)			
	2007 Q 1	2007 Q 2	2007 Q 3	2007 Q 4
Vision Benelux	105.51	99.90	105.80	105.94
Vision East Europe	23.19	24.46	21.12	24.20
Vision Nordics	63.14	67.09	70.62	73.90
Vision UK and Ireland	4.20	3.87	2.62	5.73
Vision West Europe	16.11	10.70	11.20	11.47
Grand Total	212.16	206.01	211.37	221.24

When we click on a Measure value, we need to make sure we pass in the appropriate filters to the target Analysis:

- Business Group
- Quarter

Navigate to BI Content

Step 1

- Make sure the target Analysis has the appropriate “Is Prompted” filters in order to accept the required filter parameters from the source Analysis:

Selected Columns

Double click on column names in the Subject Areas pane to add them to the analysis. Once added, drag-and-drop columns to reorder them. Edit a column's properties, formula and filters, apply sorting, or delete by clicking or hovering over the button next to its name.

Organization	Sales Rep	Customer	Time	Facts	
Business Group	Organization Name	Sales Rep	Customer Class Code	Quarter	Total Revenue (Millions)

Filters

Add filters to the analysis criteria by clicking on Filter option for the specific column in the Selected Columns pane, or by clicking on the filter button in the Filter pane header. Add a saved filter by clicking on add button after selecting its name in the catalog pane.

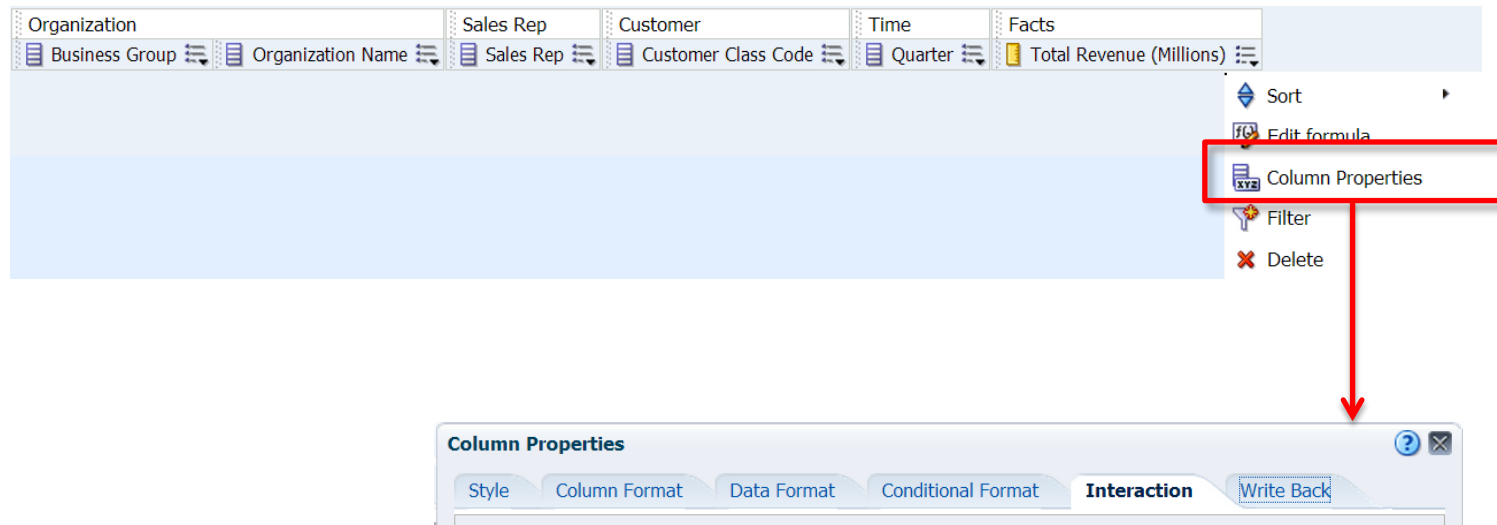
Quarter **is prompted**
AND Year **is prompted**
AND Business Group **is prompted**

This is the target Analysis, which is configured to accept filter criteria on Year, Quarter and Business Group coming from the source Analysis

Navigate to BI Content

Step 2

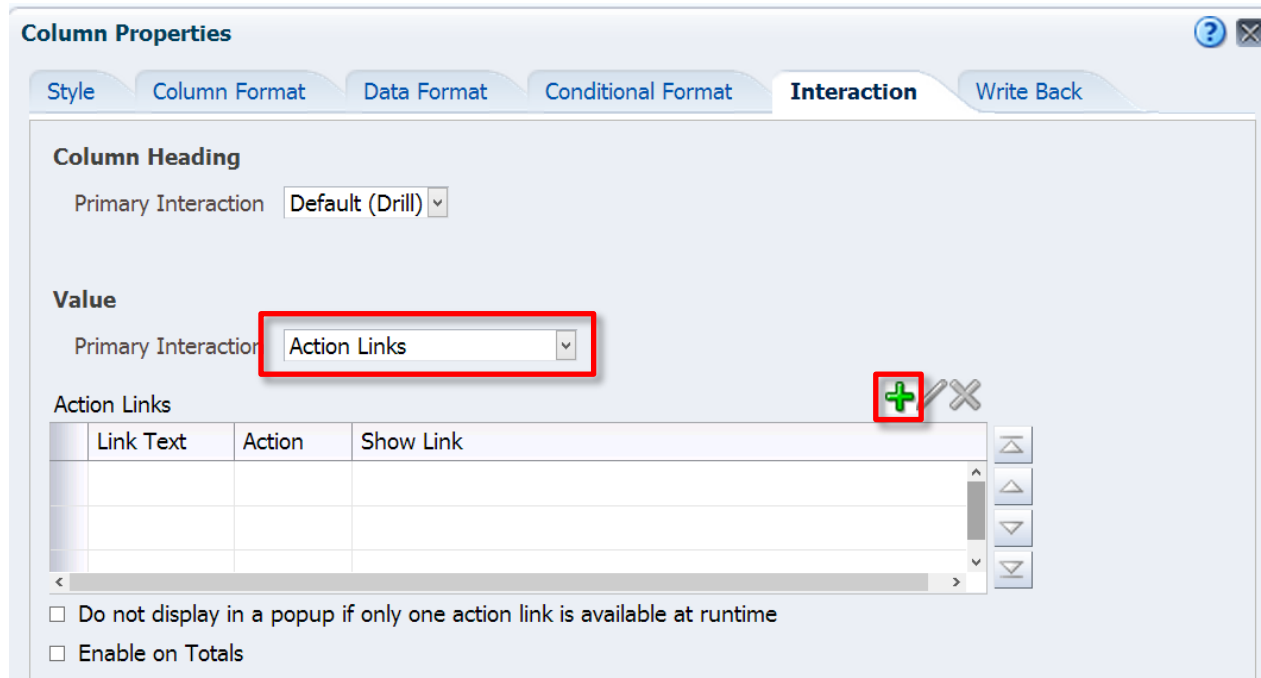
- On the source Analysis open up the “Column Properties” for the column which is to be used for the navigation
- Go to the “Interaction” tab



Navigate to BI Content

Step 3

- Modify the Value “Primary Interaction” setting to “**Action Links**”
- Click the  button to add a new Action Link



The screenshot shows the 'Column Properties' dialog box with the 'Interaction' tab selected. The 'Column Heading' section has 'Primary Interaction' set to 'Default (Drill)'. The 'Value' section has 'Primary Interaction' set to 'Action Links'. Below this is a table for 'Action Links' with columns 'Link Text', 'Action', and 'Show Link'. A green plus button is highlighted next to the table. At the bottom, there are two checkboxes: 'Do not display in a popup if only one action link is available at runtime' and 'Enable on Totals'.

Column Properties

Style Column Format Data Format Conditional Format **Interaction** Write Back

Column Heading

Primary Interaction Default (Drill)

Value

Primary Interaction Action Links

Action Links


Link Text	Action	Show Link

☐ Do not display in a popup if only one action link is available at runtime

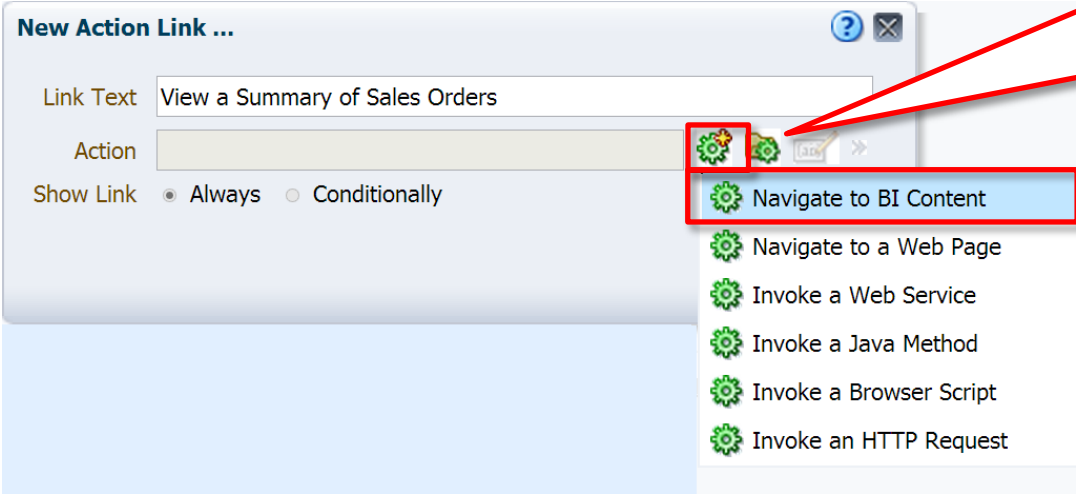
☐ Enable on Totals

Navigate to BI Content

Step 4

- In the “Link Text” field, enter a short piece of text to display to the user when the Action Link is invoked
- Click on the  button to create a new “in-line” Action, and select the “Navigate to BI Content” option

NOTE: If we instead wanted to use an existing “named” Action then we would use this button to select it from the Catalog









New Action Link ...

Link Text: View a Summary of Sales Orders

Action:

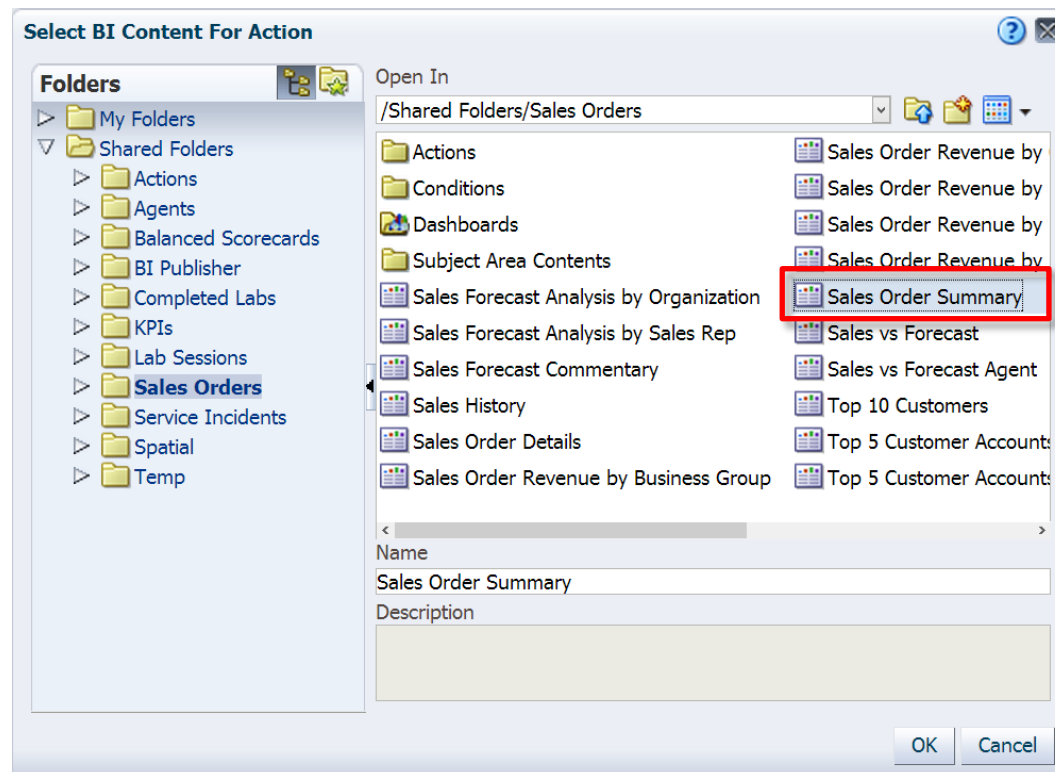
Show Link: ☒ Always ☐ Conditionally

-  **Navigate to BI Content**
-  Navigate to a Web Page
-  Invoke a Web Service
-  Invoke a Java Method
-  Invoke a Browser Script
-  Invoke an HTTP Request

Navigate to BI Content

Step 5

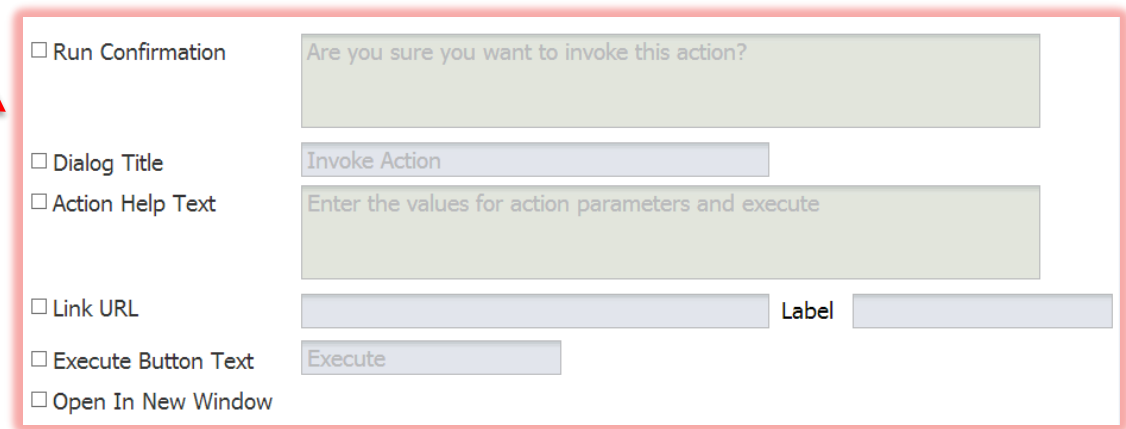
- Browse for and select the target Analysis from the Catalog:
 - The target could also be a Dashboard Page (even one which is “hidden”)



Navigate to BI Content

Step 6

- If you wish, you can apply some further “Options” such as popping up a confirmation message to the user:



Navigate to BI Content

Step 7

- That's it! Our Action Link has been configured

Column Properties ? ✕

Style Column Format Data Format Conditional Format **Interaction** Write Back

Column Heading

Primary Interaction Default (Drill) ▾

Value

Primary Interaction Action Links ▾

Action Links + ✎ ✕

Link Text	Action	Show Link
View a Summary of Sales Orders	View a Summary of Sales Orders	Always Enabled

☐ Do not display in a popup if only one action link is available at runtime

☐ Enable on Totals

Navigate to BI Content

Step 8

- It is now time to test out the Action Link! When running the Analysis the Measure values are now hyperlinked:



Order Revenue by Quarter for 2007

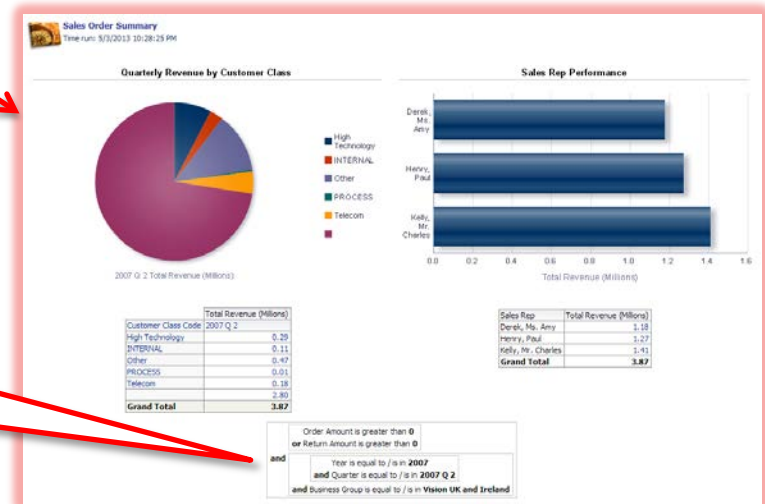
Figures displayed in millions

Business Group	Total Revenue (Millions)			
	2007 Q 1	2007 Q 2	2007 Q 3	2007 Q 4
Vision Benelux	105.51	99.90	105.80	105.94
Vision East Europe	23.19	24.46	21.12	24.20
Vision Nordics	63.14	67.09	70.62	73.90
Vision UK and Ireland	4.20	3.87	2.62	5.73
Vision West Europe	16.11	10.11	10.11	10.11
Grand Total	212.16	206.01	211.37	221.24

 View a Summary of Sales Orders

Our target Analysis has correctly filtered for:

- Quarter = 2007 Q 2
- Business Group = "Vision UK and Ireland"



Navigate to BI Content

Conditions

- Action Links can also be configured to be enabled “Conditionally”
 - In the example below, we have added a second Action Link which has been enabled conditionally to appear only if there are less than 500 Orders
 - The aim in this case is to prevent users from navigating to a detail report that will return more than 500 records

Action Links			
Link Text	Action	Show Link	
View a Summary of Sales Orders	Sales Order Summary	Always Enabled	
View Sales Order Details	Sales Order Details	Always Enabled	

Edit Action Link

Link Text: View Sales Order Details

Action: Sales Order Details

Show Link: ☐ Always ☒ Conditionally

Conditions

Orders is less than 500

OK Cancel

Navigate to BI Content

Multiple Action Links, with Conditions

- Depending on which Measure value the user clicks on, the set of Action Links will be different:

Total Revenue (Millions)								
▽ Total								
	▷ 2001	▷ 2002	▷ 2003	▷ 2004	▷ 2005	▷ 2006	▷ 2007	
Business Group	2001	2002	2003	2004	2005	2006	2007	
Vision Benelux	2736.24	222.51	399.48	415.28	422.36	471.47	387.98	417.15
Vision East Europe	594.15	48.77	75.29	98.24	90.99	93.59	94.28	92.97
Vision Nordics	1273.03	86.48	57.50	56.67	261.17	268.71	267.73	274.76
Vision UK and Ireland	120.13	8.18						
Vision West Europe	864.03	72.07	74.08	369.93	116.65	106.25	75.57	49.48
Grand Total	5587.57	438.02	610.54	956.96	908.50	957.73	865.02	850.78

There are more than 500 Orders that make up the Total Revenue figure of 56.7 Million.

This exceeds the limits of the Condition applied to the second Action Link, so it does not display

Total Revenue (Millions)								
▽ Total								
	▷ 2001	▷ 2002	▷ 2003	▷ 2004	▷ 2005	▷ 2006	▷ 2007	
Business Group	2001	2002	2003	2004	2005	2006	2007	
Vision Benelux	2736.24	222.51	399.48	415.28	422.36	471.47	387.98	417.15
Vision East Europe	594.15	48.77	75.29	98.24	90.99	93.59	94.28	92.97
Vision Nordics	1273.03	86.48	57.50	56.67	261.17	268.71	267.73	274.76
Vision UK and Ireland	120.13	8.18	4					
Vision West Europe	864.03	72.07	74					
Grand Total	5587.57	438.02	610.54	956.96	908.50	957.73	865.02	850.78

The second Action Link appears when the user choose to navigate on a much smaller Total Revenue figure (as there will be less than 500 underlying Orders)

Navigate to BI Content

With Confirmation Messages

- Note that the second conditional Action was also configured to display a warning to the user before the new Analysis was invoked:

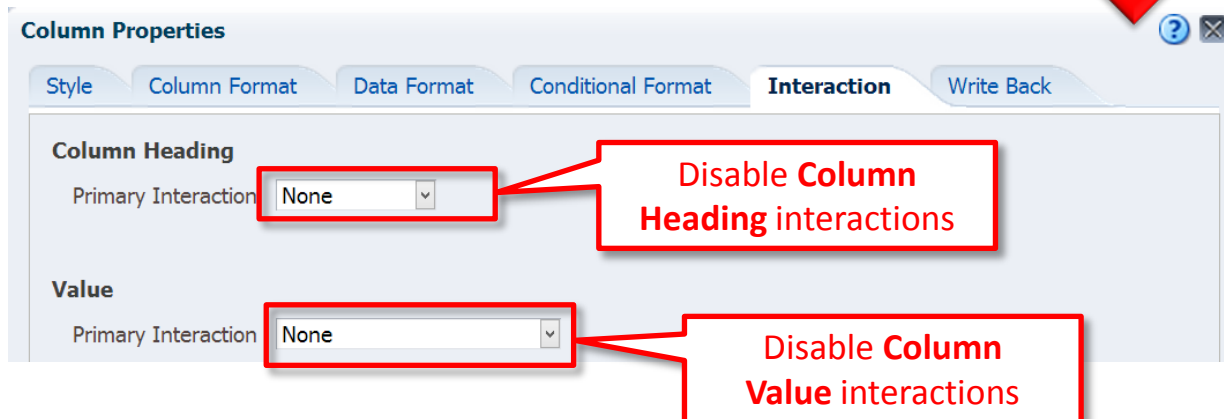
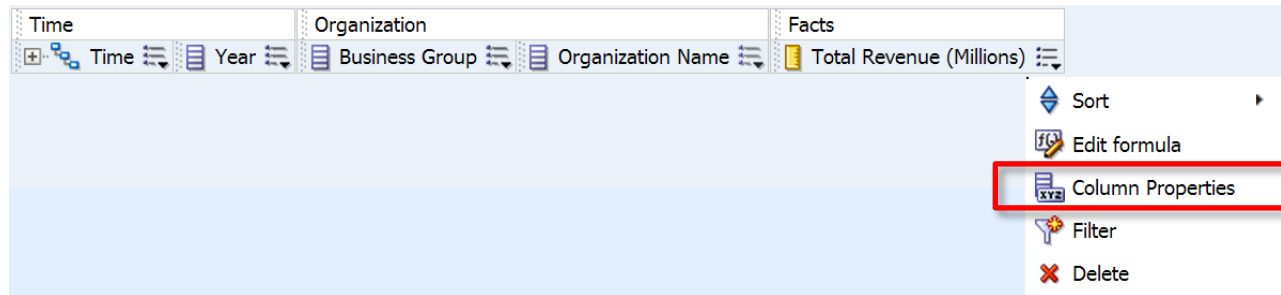




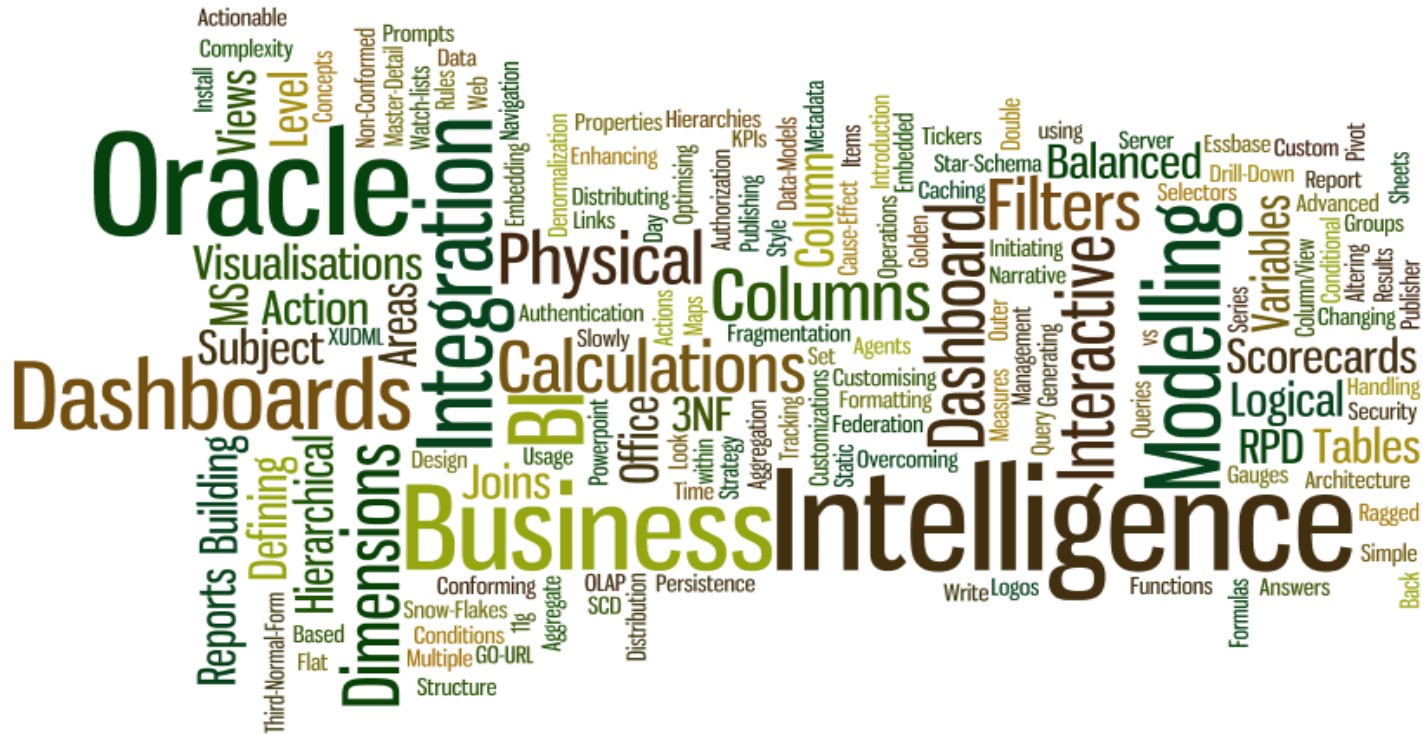
Drill-Down and Navigation **Disabling Interactions**

Disabling Interactions

- You can disable all interactions for a column by going to “Column Properties” and setting the “Primary Interaction” to “None”



Questions?



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