

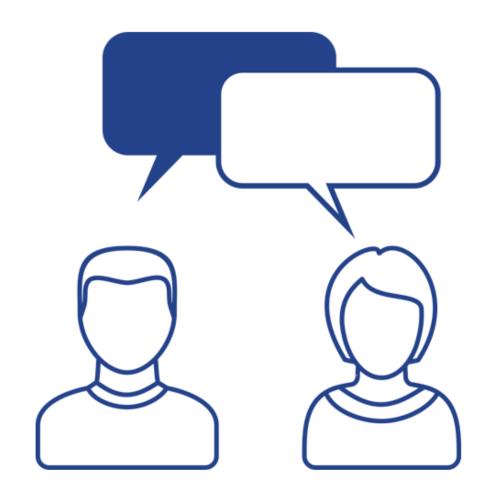
## Introductions

• Take 5 Minutes

Turn to a Person Near You

• Introduce Yourself

Business Cards



## Agenda

- Multi-Dimensional Portlets
  - NSQL Syntax
  - Creating a sample portlet
  - Limitations
  - Common errors and best practices
- Hierarchical Portlets
  - NSQL Syntax
  - Creating a sample portlet
  - Limitations and best practices
- Questions

# Chart Portlets

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## Chart Portlets

- When to use charts
  - Displaying data containing multiple dimensions / metrics
  - Dashboards
  - Summarizing data
- What type of chart to use
  - 11 different chart types
  - Choose a chart that best suits the data you want to visualize
  - Ensure that your data provider contains the minimum number of metrics for the chart type

## Chart Portlets: Types

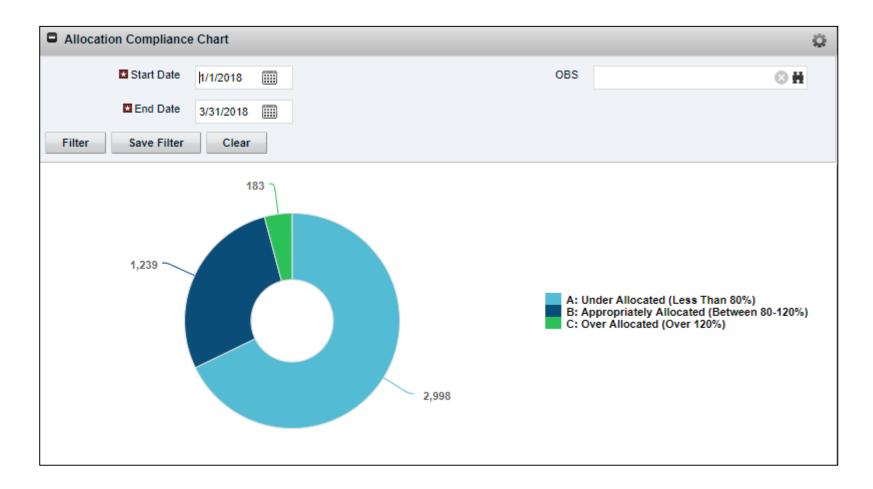
<b>Chart Type</b>	Description	Min Metrics	Max Metrics	Example
Area	Displays data points that are connected by lines along the axes.  Displays different colors to fill in the area below the line.	1/1	Unlimited / 1	Marine Metabolic dama Selection design was a
Bar	Displays each dimension of the data in a horizontal bar.	1/1	Unlimited / Unlimited	2
Bubble	Displays metrics on the horizontal and vertical axes. The size of each bubble represents a third metric.	3 / -	3 / -	(a)
Column	Displays each dimension of the data in a vertical bar.	1/1	Unlimited / Unlimited	
Donut	Displays the data dimension objects in proportional segments, like a pie chart.	1/-	Unlimited / -	5
Funnel	Displays the data dimension objects in proportional rows in a funnel shape similar to a pie chart.	1/-	Unlimited / -	6

# Chart Portlets: Types

<b>Chart Type</b>	Description	Min Metrics	Max Metrics	Example
Heat Map	Displays a primary attribute or metric in a two- dimensional grid with values along the X-axis and Y- axis. The primary attribute values are represented using colors or shades of the same color.	3 / -	3 / -	And Residence of the Second Sec
Line	Displays data points connected by lines along the axes.	1/1	Unlimited / 1	8
Pie	Displays the data dimension objects in proportional slices.	1/-	1/-	9
Scatter	Displays metrics across the X-axis and Y-axis.	2/2	2/2	(Manufacture) (FR) (MR) (MR)
Tree Map	Displays data in a hierarchical tree with branched nodes. Chart values appear in different colors and can include clickable shapes that show the relative size of each subgroup. Tree maps progressively reveal more detailed information in deeper levels. The user can expand each subgroup to reveal the child data points in deeper levels.	3 / -	3 / -	The second secon

## Chart Portlets: Example

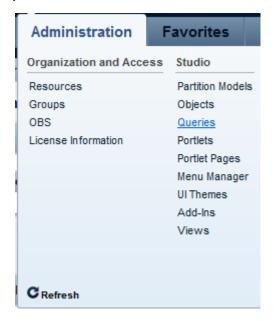
• The next several slides will demonstrate how to build a Donut Chart



## Chart Portlets: Query

Create Query

1) Administration -> Queries



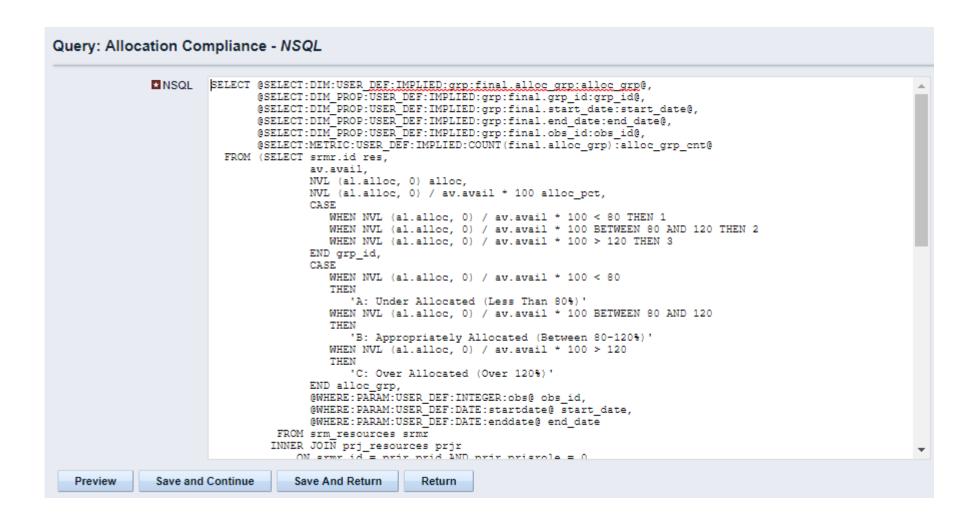


3) Enter Query Name and ID, click Save and Continue



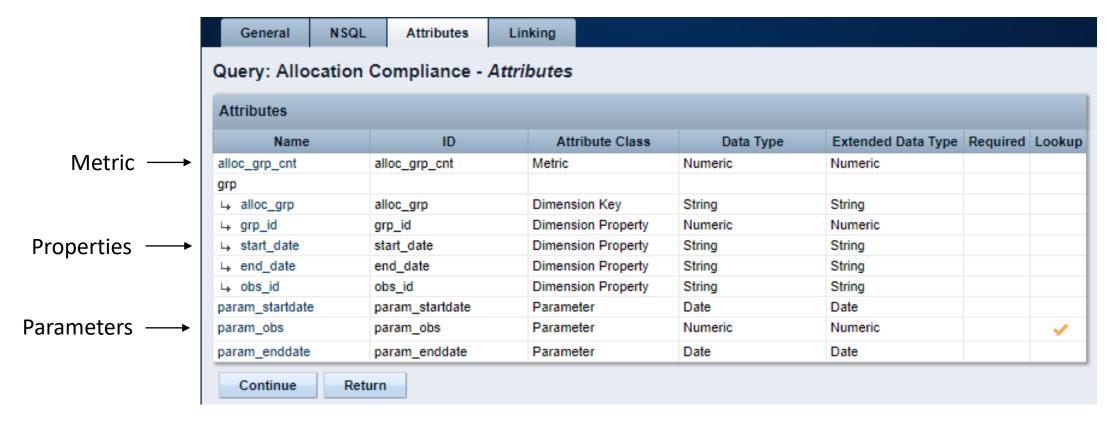
## Chart Portlets: Query

- Remove the default query and paste your query.
- Click Save and Continue



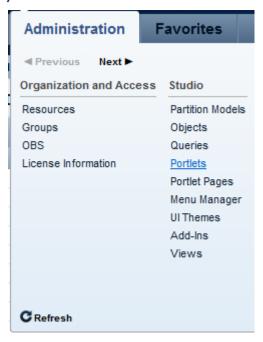
## Chart Portlets: Query

Review Attributes

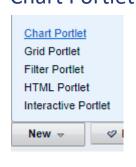


#### Create Portlet

1) Administration -> Portlets



2) Click New -> Chart Portlet



- Enter Portlet Name and ID, browse for NSQL Query as Data Provider
- 4) Click Next, then Finish and Open

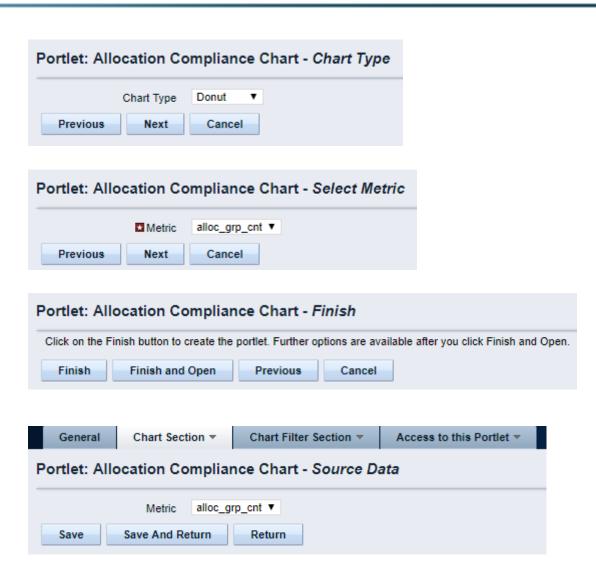


Select Chart Type

Select Metric attribute

Click "Finish and Open"

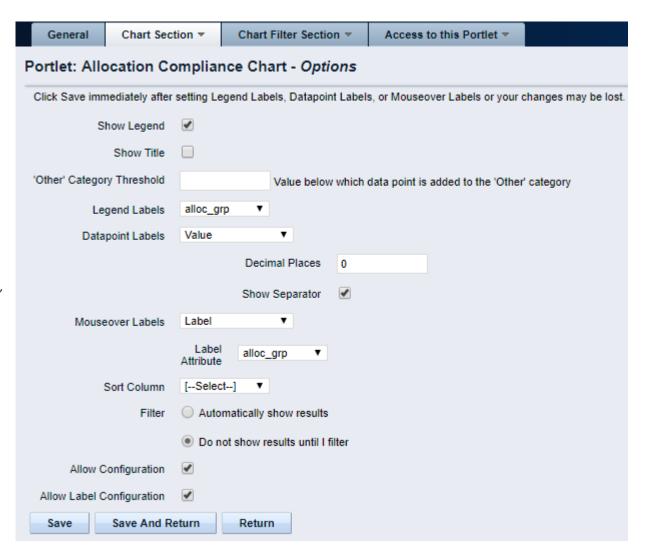
- Chart Section tab
  - Source Data sub-tab options depend on chart type



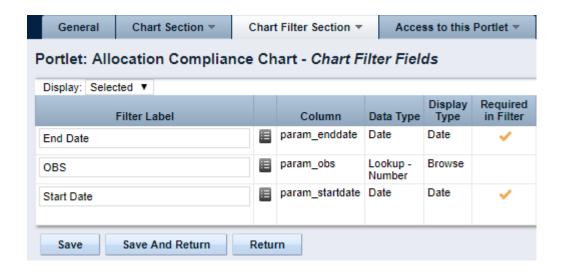
- Chart Section tab (cont)
  - Options sub-tab contents also varies depending on chart type
  - In this example the Legend Labels are a variable (alloc\_grp) whose value is set in the NSQL query:

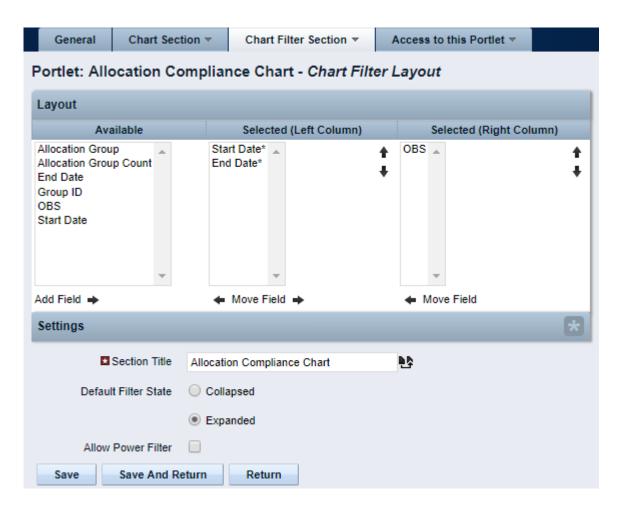
CASE WHEN ... < 80 THEN 'A: Under Allocated (Less Than 80%)'
WHEN ... BETWEEN 80 AND 120 THEN 'B: Appropriately Allocated (Between 80-120%)'
WHEN ... > 120 THEN 'C: Over Allocated (Over 120%)' END alloc grp

 Select "Do not show results until I filter" option for potentially large queries to improve usability and efficiency

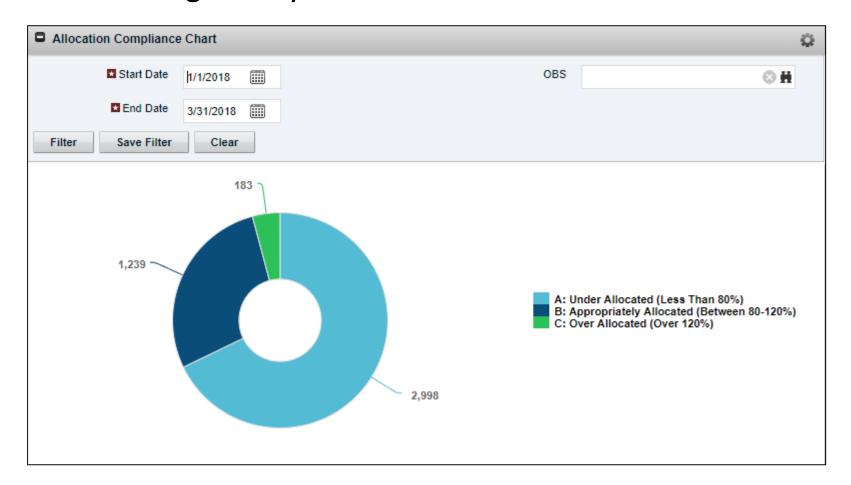


- Chart Filter Section
  - Set filter layout and enter user-friendly labels as desired





Add to a Portlet Page and you're all set!



### Chart Portlets: Limitations

- Take into account metric and dimensional limits
- Consistent Colors can be used, but it's a system general setting and is limited.
  - Improved in 15.1 by allowing RGB colors, transparency and improved borders.
- Other limitations to portlets apply like the NSQL governors.

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- More complex but a nice usability enhancement
- Several examples available on regoXchange
- Key components
  - Two portlets
  - Linking
  - XPATH construct
  - Portlet pages (one or two)
  - Filtering



- What is a Drilldown Portlet?
  - A portlet that provides summary data and links to detailed information in another portlet
  - Examples
    - Pie Chart linking to a grid portlet that shows the details
    - Grid portlet showing summarized data linked to another grid that shows the detailed info

- High Level Implementation Steps:
  - Create Portlet Page with link parameter(s)
  - Create Query for Summary Portlet with link to the Portlet Page
  - Create Portlet based on Summary Query
  - Create Query for detail Portlet that utilizes the parameter(s) from the portlet page
  - Create Portlet based on Detail Query
  - Place Detail Portlet on the Portlet Page created above
  - Add Summary Portlet to a portlet page

## Drilldown Portlets: Portlet Page and Link

- Create Portlet Page with a link parameter
- 1) Create a new Portlet Page



2) Check the Linkable box and Click Save and Continue



3) Create a Link Parameter (make sure the ID is all lowercase)

Page: Sample Drilldown Page - Link Parameter

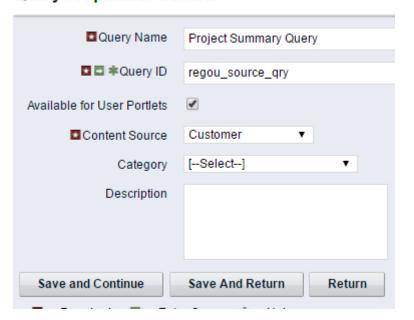
■Parameter Name	Paris at latera at UD				
■Parameter Name	Project Internal ID				
	( The parameter label that the administrator will see when linkin				
■ □ *Parameter ID	prjid				
	( This ID will be used in the URL when calling this page )				
Save And Return	Return				
■ = Required ■ = Enter Once * = Unique					

## Drilldown Portlets: Source Portlet Query

Create Query for summary portlet (continued on next slide)

#### 1) Enter Query Name and ID

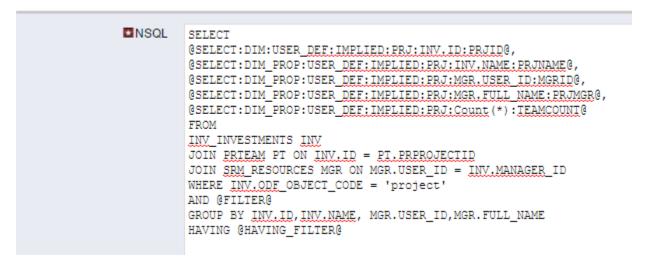
**Query Properties: General** 





#### 2) Remove default NSQL and paste new query

Query: Project Summary Query - NSQL

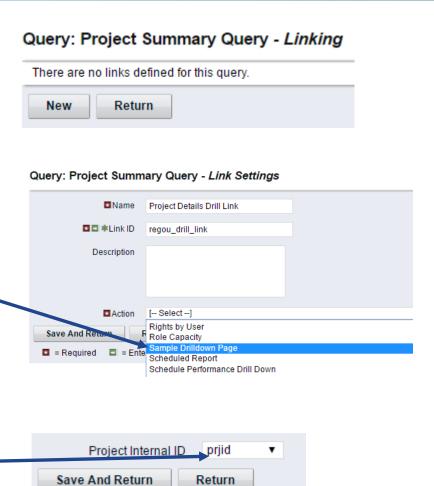


## Drilldown Portlets: Source Portlet Query

Go to Linking tab and click New

• Select "Sample Drill Down Page"

 Map the Project Internal ID to prjid from the NSQL



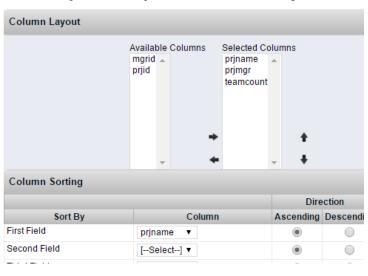
## Drilldown Portlets: Source Portlet

- Create Summary Portlet
  - 1) Provide Portlet Name and ID
  - 2) Browse for Data Provider

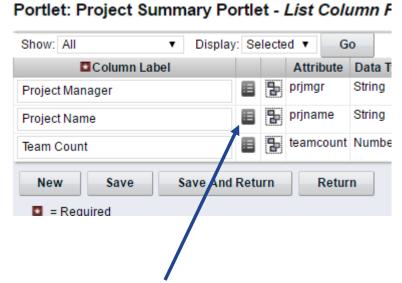


- 3) Click on List Columns-> Layout
- 4) Configure the Layout

Portlet: Project Summary Portlet - List Column Layout



5) Update the Labels



6) Click "Project Name" properties icon

## Drilldown Portlets: Source Portlet

- Select the Link that we created
  - Link = Project Details Drill Link
- Select "Team Count" in Disable Link Attribute
  - This will disable the link if there are NO Team members on the project.
- Hit Save And Return

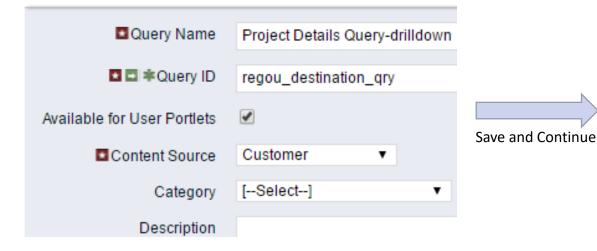


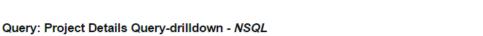
## Drilldown Portlets: Destination Portlet Query

Create Query for detail portlet

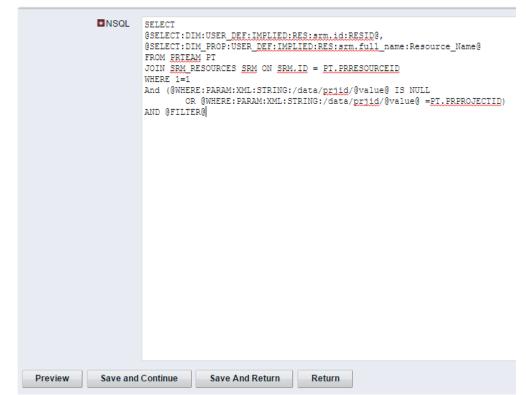
1) Enter Query Name and ID

**Query Properties: General** 





2) Remove default NSQL and paste new query



## Drilldown Portlets: Destination Portlet Query

#### XPATH (XML Parameter) Construct

Enables a portlet to retrieve a name-value pair from the XML page URL to a user-defined portlet.

#### Format:

@WHERE:PARAM:XML:STRING:/data/prjid/@value@
Case sensitive (Best Practice – all lowercase IDs)

This construct can only be used on a specific portlet instance type, not the *General* portlet instance type.

This construct expects the internal ID value to come from the URL that is displaying the page that contains the portlet.

#### **SELECT**

@SELECT:DIM:USER\_DEF:IMPLIED:RES:srm.id:RESID@,
 @SELECT:DIM\_PROP:USER\_DEF:IMPLIED:RES:srm.full\_name:Resource\_Name@
FROM PRTEAM PT
JOIN SRM\_RESOURCES SRM ON SRM.ID = PT.PRRESOURCEID
WHERE 1=1

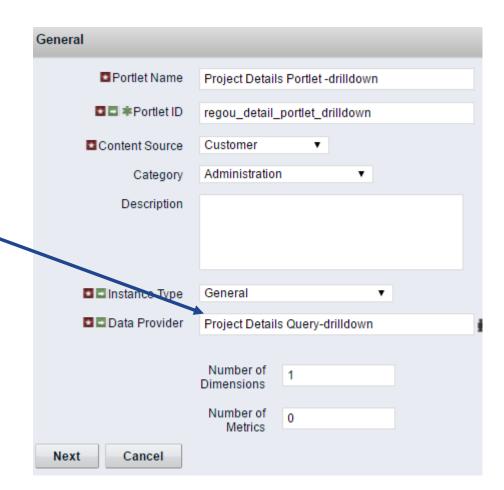
AND (@WHERE:PARAM:XML:STRING:/data/prjid/@value@ IS NULL OR @WHERE:PARAM:XML:STRING:/data/prjid/@value@ =PT.PRPROJECTID)

AND @FILTER@

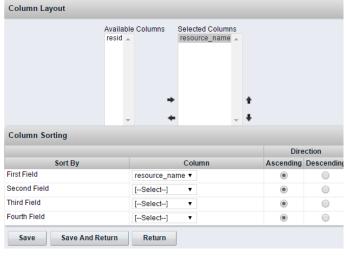
### Drilldown Portlets: Destination Portlet

Create Detail Portlet

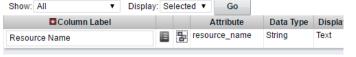
- Input Portlet Name and ID
- Browse for Query.
- Click Next
- Click Finish and Open
- Go to Column Layout
- Update the Layout
- Update Column Sorting
- Update Field Label



#### Portlet: Project Details Portlet -drilldown - List Column Layout



#### Portlet: Project Details Portlet -drilldown - List Column Fields



## Drilldown Portlets: Portlet Page(s)

- Final piece Placing the two Portlets on the Portlet Page(s)
- Requires <u>at least</u> ONE portlet page
- The detail portlet MUST be placed on the page that was created previously.
- The Summary Portlet can be placed on the same page OR another page.
- Add the portlet page that contains the Summary Portlet as a new link on the Menu using Menu Manager.

## Drilldown Portlets: 1 Portlet Page

CASE #1: Placing both portlets on the same portlet page



#### 1) Go Back to Portlet Page -> Link Parameter

Page: Sample Drilldown Page - Link Parameter

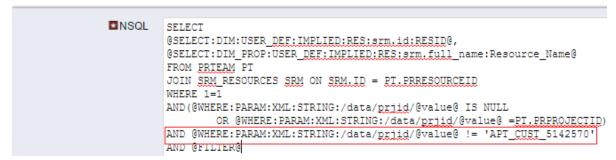


If the drilldown portlet page is added to the menu, then the parameter value will default to the **Parameter Source**.

2) Add the below AND condition to Detail Query:

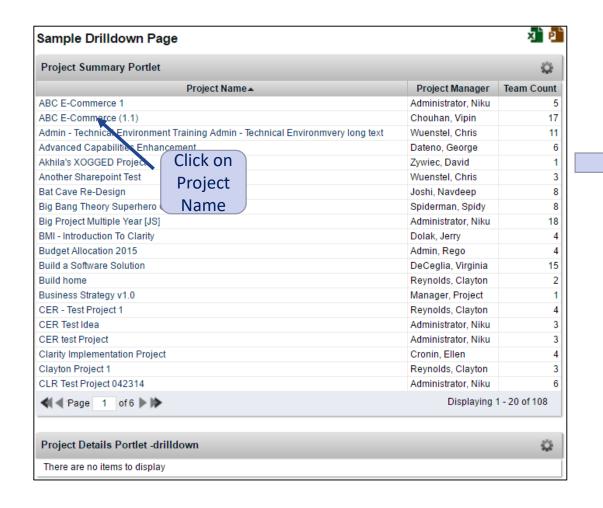
AND @WHERE:PARAM:XML:STRING:/data/prjid/@value@ != 'APT\_CUST\_5142570'

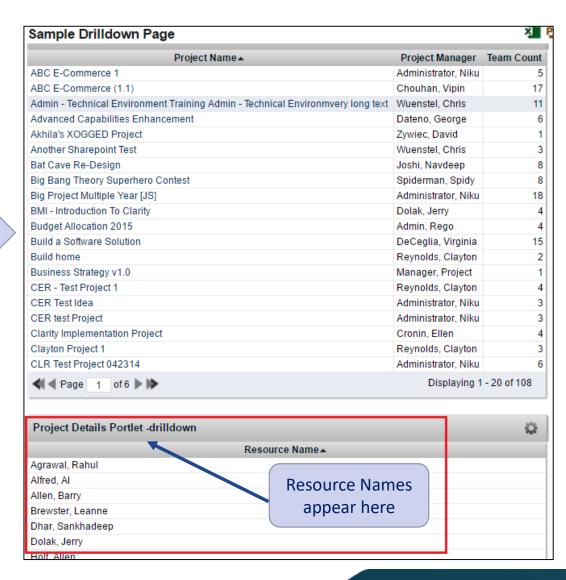
Query: Project Details Query-drilldown - NSQL



## Drilldown Portlets: 1 Portlet Page

#### Click the Menu link





## Drilldown Portlets: 2 Portlet Pages

CASE #2: Placing the Summary portlet on a different portlet page



The additional AND condition is optional.

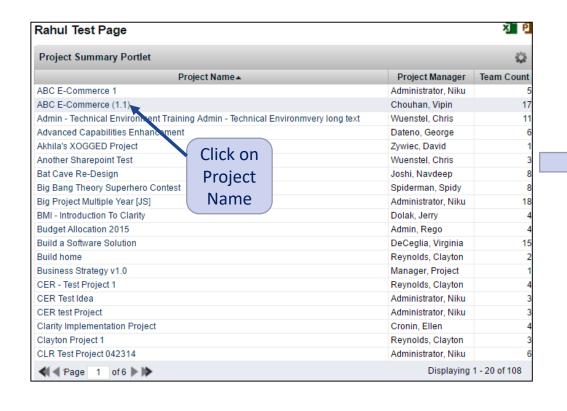


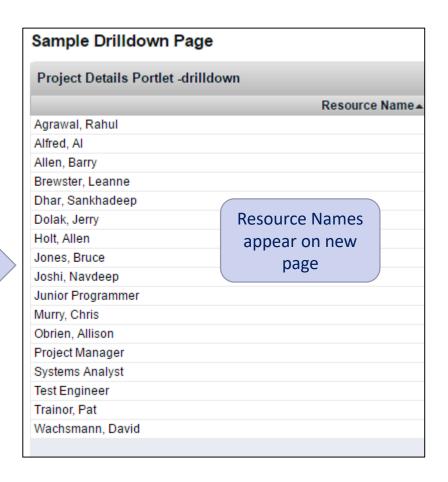
AND @WHERE:PARAM:XML:STRING:/data/prjid/@value@ != 'APT\_CUST\_5142570

Add the test Page as link to Menu

## Drilldown Portlets: 2 Portlet Pages

Click the Menu link







## RegoXchange Portlet References

- regoXchange contains some EXCELLENT drilldown portlets
  - Allocation Compliance Pie Chart Drilldown
  - Project Change Request count w/ Drilldown
  - Project Count by Stage w/ Drilldown
  - Projects by Status Indicator Pie w/ Drilldown
  - Milestone Task Dependency
  - Actuals/ETC/Allocations per Resource
  - Capacity Graph
  - And more...



# Questions?



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- Click on Certifications
- Click on Maintain My Certification
- Click on Visit CCR's button under the Report PDU's
- Click on Report PDU's
- Click on Course or Training
- Class Name = regoUniversity
- Course Number = Session Number
- Date Started = Today's Date
- Date Completed = Today's Date
- Hours Completed = 1 PDU per hour of class time
- Training classes = Technical
- Click on I agree and Submit





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