



regoUniversity 2019

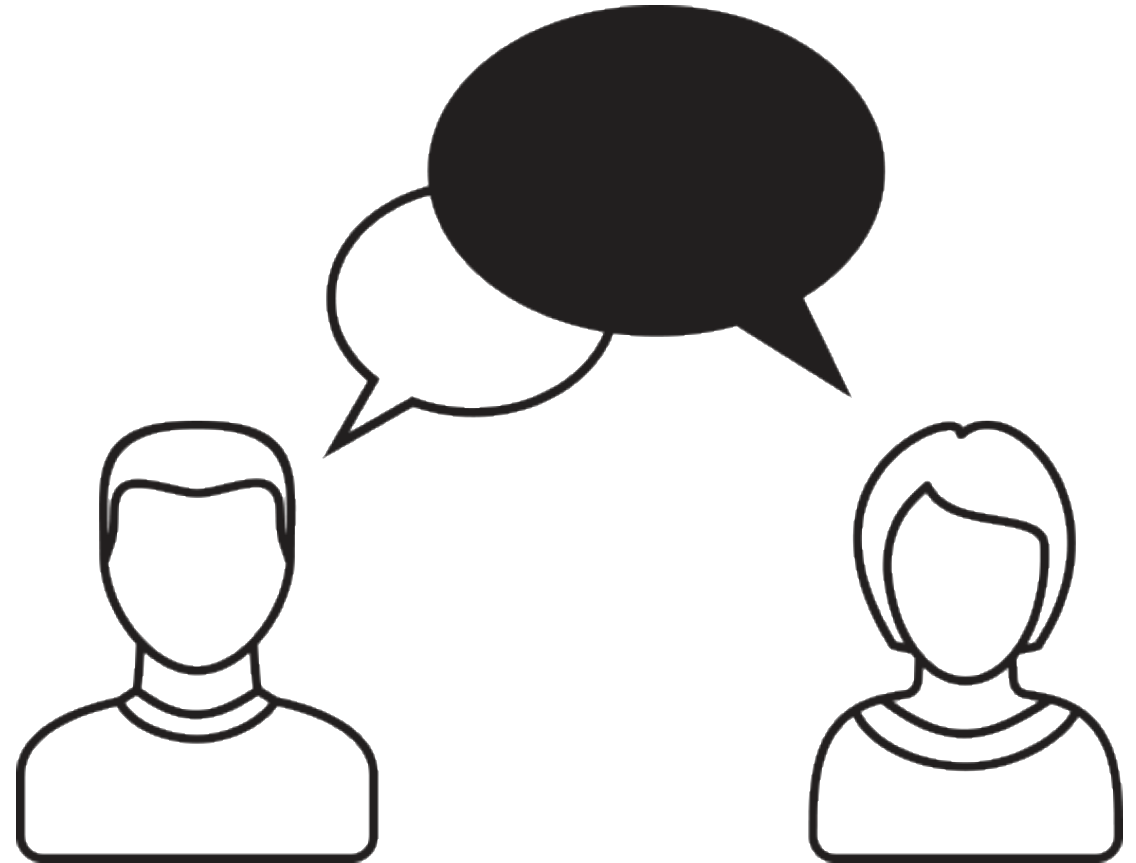
SAN DIEGO

Jaspersoft Studio | Advanced

Your Guides: Robert Newell and Atul Kunkulol

Introductions

- Take 5 Minutes
- Turn to a Person Near You
- Introduce Yourself
- Business Cards



Part I Agenda

- Introduction
- Modifying an Out of the Box Report



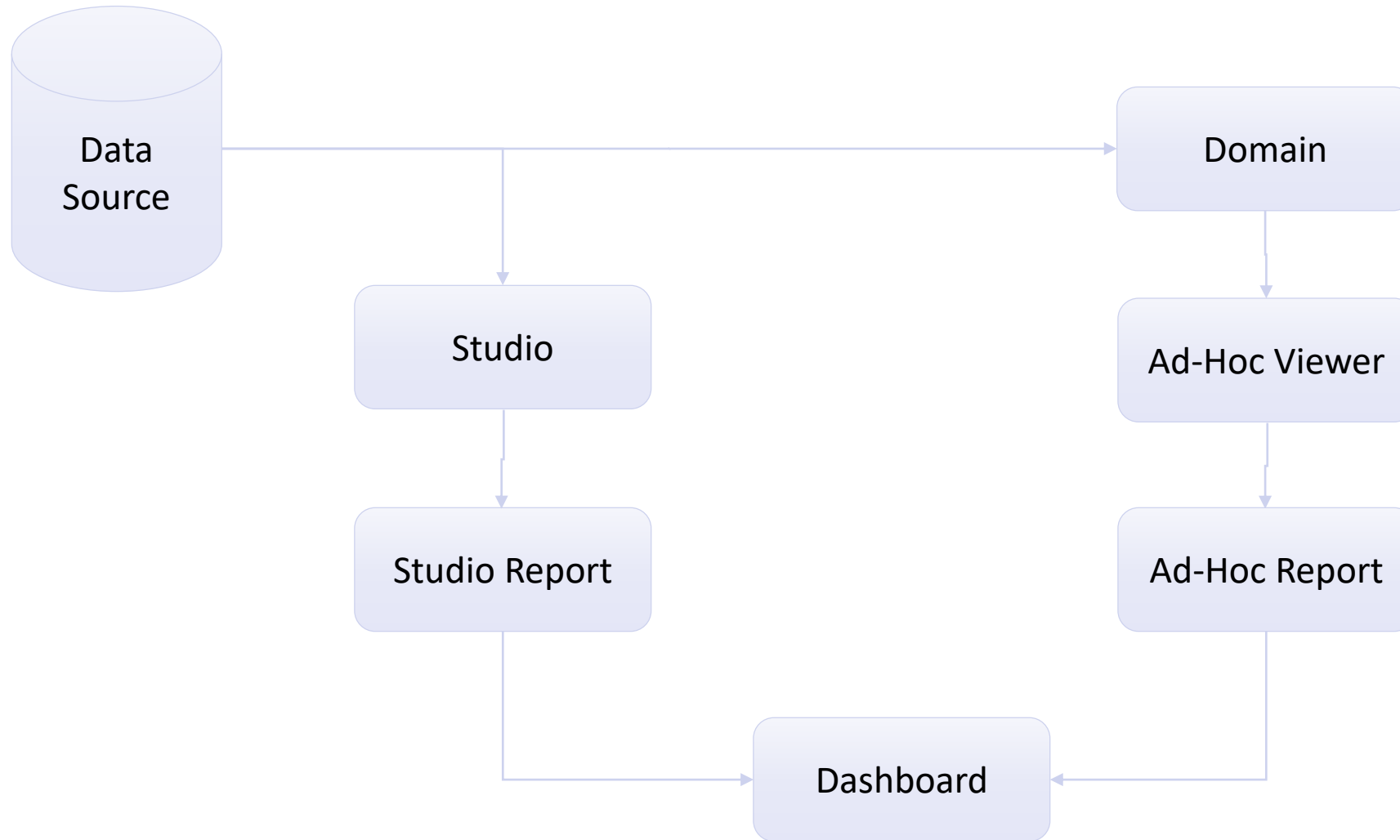
Part I: Introduction

- ✓ Jaspersoft – Overview of the Big Picture

What Is Jaspersoft?

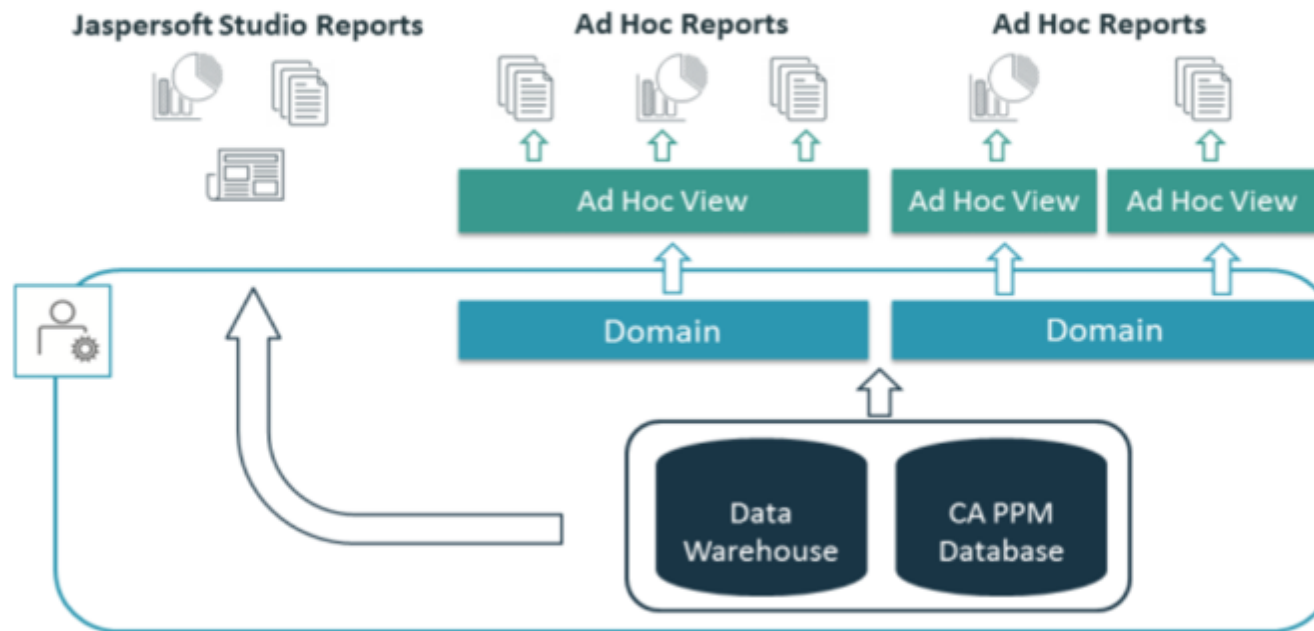
- JasperSoft is a reporting software that takes information from Clarity to provide easy to read, highly interactive reports for users.
- Jaspersoft reporting allows for sorting, filtering, formatting, moving/hiding columns, string searches, zooming in/out which can be saved for future use.
- Jaspersoft comes with pre-formatted Clarity reports or has the ability to do self-service ad-hoc reporting.
- Ad-hoc reports are easy to use with drag and drop capability, crosstab views, tables or charts.
- Reports can be published in PDF, XLS, XLSX, CSV, DOC X, RTF, ODT, ODS, or PPTX

Overview - The Big Picture



CA Jaspersoft Overview

Jaspersoft Overview

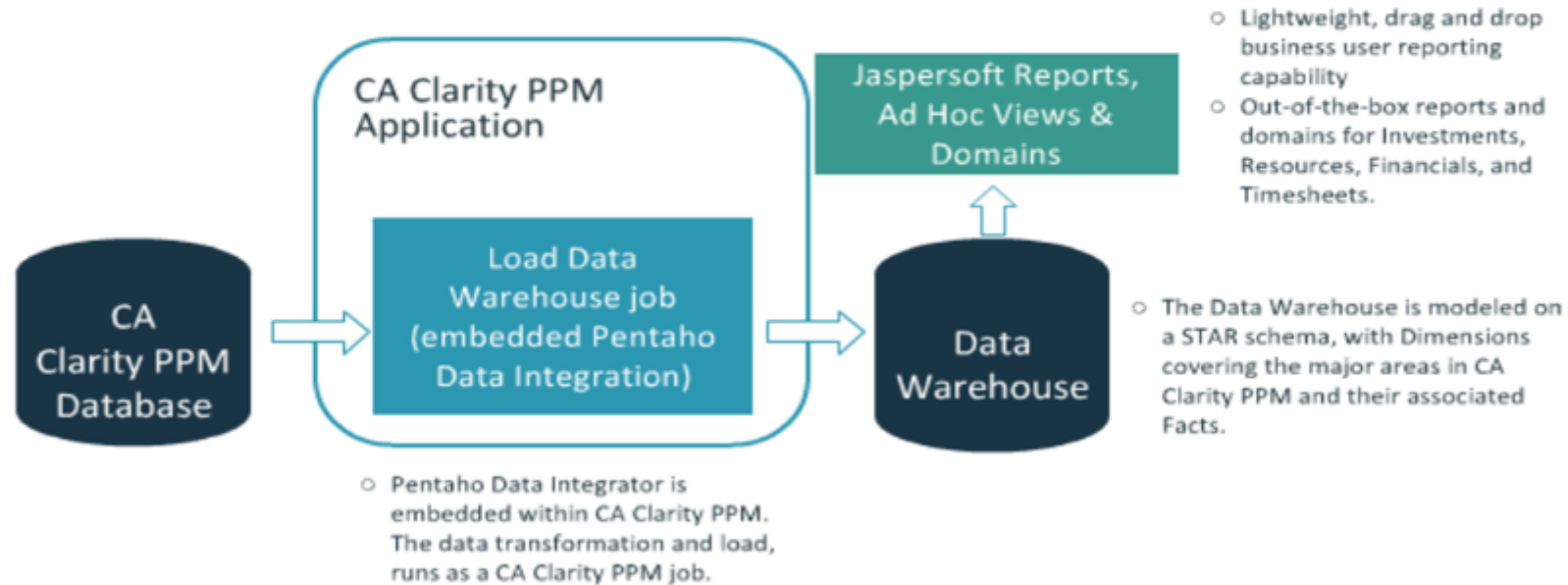


© 2015 CA. All rights reserved.



CA Data Warehouse Overview

Data Warehouse Overview

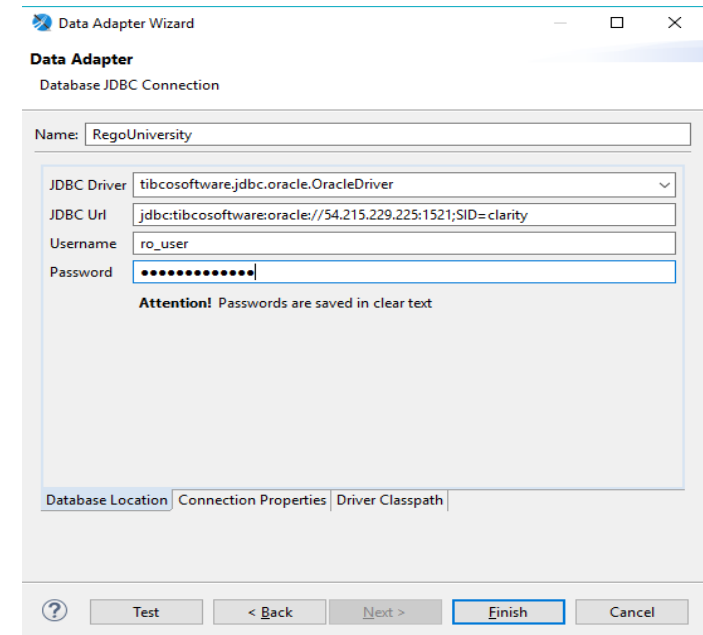
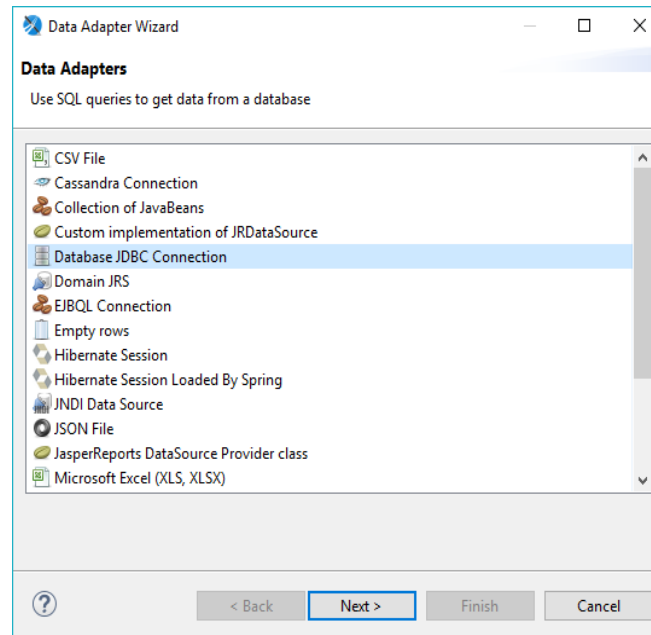


© 2015 CA. All rights reserved.



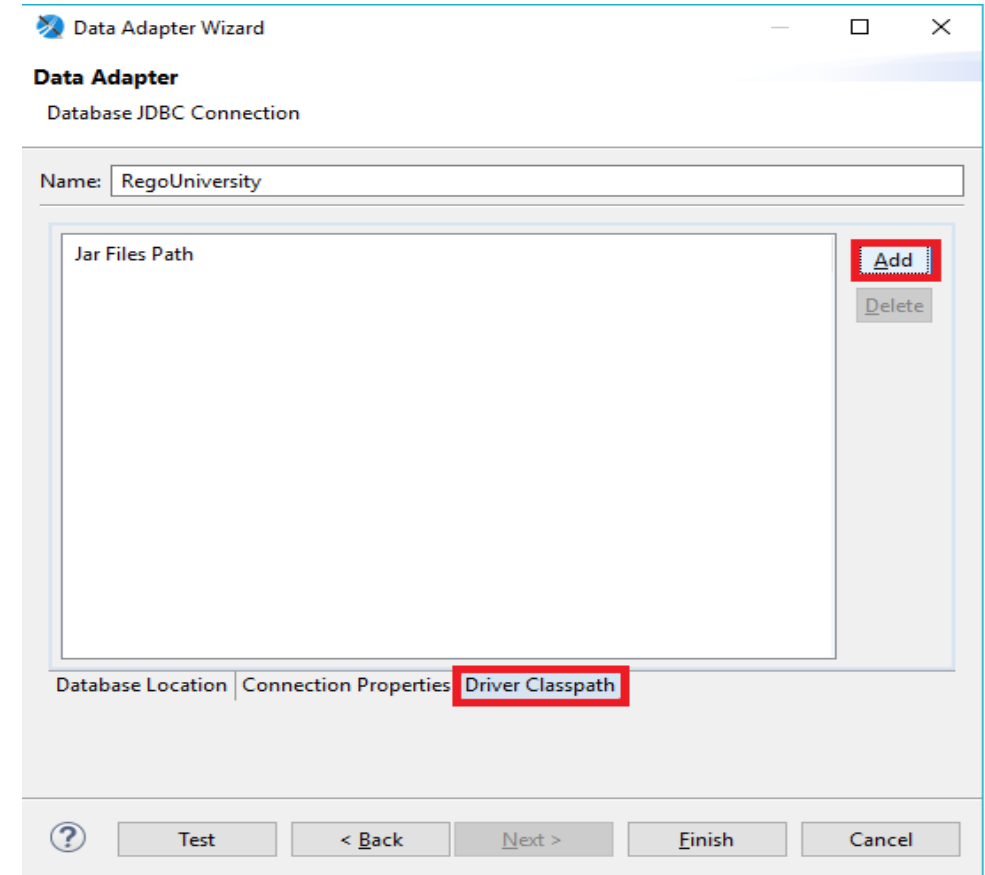
Jaspersoft Studio – Data Adapter

- In this exercise we'll create a new Data Adapter, which we will connect to an existing Clarity 15.x + Oracle instance
- From the **Repository Explorer** right-click on Data Adapters, and select **Create Data Adapter**, then select **Database JDBC Connection**
- Give it a meaningful Name, then select “tibcosoftware.jdbc.oracle.OracleDriver” for the JDBC Driver
- Use the following information for the URL, Username and Password:
- Url: jdbc:tibcosoftware:oracle://54.215.229.225:1521;SID=clarity
- CA PPM DB User: ro_user
- CA PPM DB Pass: dbxistRhTr759
- CA DWH DB User: ro_dwh_user
- CA DWH DB Pass: ghdtGfelmcn67
- Verify using “Test”
- Click “Finish”



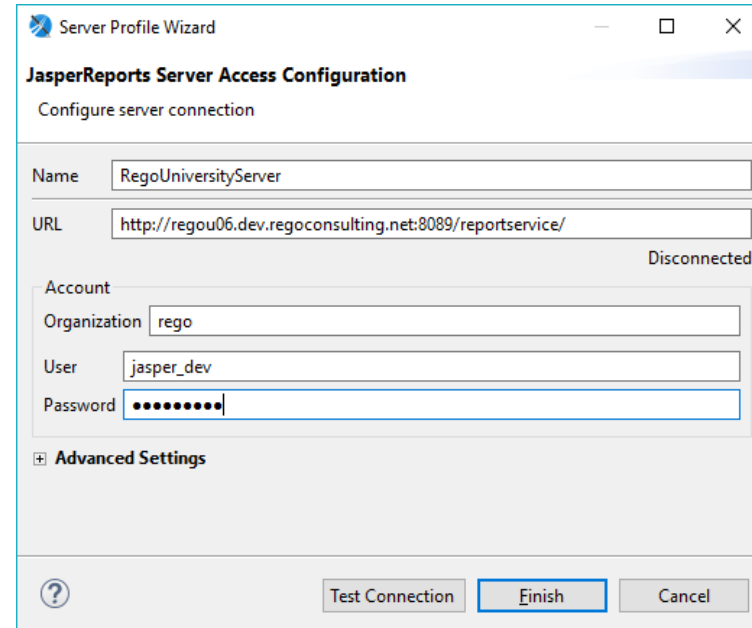
Jaspersoft Studio – Data Adapter (contd.)

- In case you see an driver related error on clicking the **Test** button, add necessary drivers to **Driver Classpath** tab, drivers are available for download at below link
- Driver Classpath Link
- Download the drivers .zip file to your machine.
- Extract .jar driver files from the .zip file.
- On Jaspersoft studio, click **Driver Classpath** tab and click **Add**
- Select the .jar files from browse window and click **Test** and **Finish**



Jaspersoft Studio – Repository Connection

- At this stage, having connected a Data Adapter to a Clarity Database, one can begin development locally
- To validate your locally developed report against the Jaspersoft Server, you must first connect your Studio environment to a Jaspersoft Server
- Within the “Repository Explorer” right-click on “Servers” and select “Create JasperReports Server Connection” and name the connection appropriately
- For this session, we’ll use the following information to connect to Rego development server:
 - URL: <http://regou06.dev.regoconsulting.net:8089/reportservice/>
 - Organization: **rego**
 - Username: **jasper_dev**
 - Password: **Clarity1**



The screenshot shows the "Server Profile Wizard" dialog box, specifically the "JasperReports Server Access Configuration" step. The dialog is titled "Configure server connection". It contains the following fields and settings:

- Name:** RegoUniversityServer
- URL:** <http://regou06.dev.regoconsulting.net:8089/reportservice/>
- Account:**
 - Organization:** rego
 - User:** jasper_dev
 - Password:** [masked with dots]
- Advanced Settings:** (collapsed)
- Status:** Disconnected
- Buttons:** Test Connection, Finish, Cancel

Advanced Reporting - Connection

- In addition to the repository and data adapter connection, we'll need to ensure we have connectivity to the Advanced Reporting section of CA PPM
- The URL to the Rego University CA PPM instance is:
 - <http://regou06.dev.regoconsulting.net:8082/niku/nu>
- 100 users have been created for the purposes of these training classes:
 - User Accounts: jasper_adhoc_01 – jasper_adhoc_100
 - Passwod: niku2000
- Work with your instructor to choose which user account to use, in order to avoid conflicting development with other class members

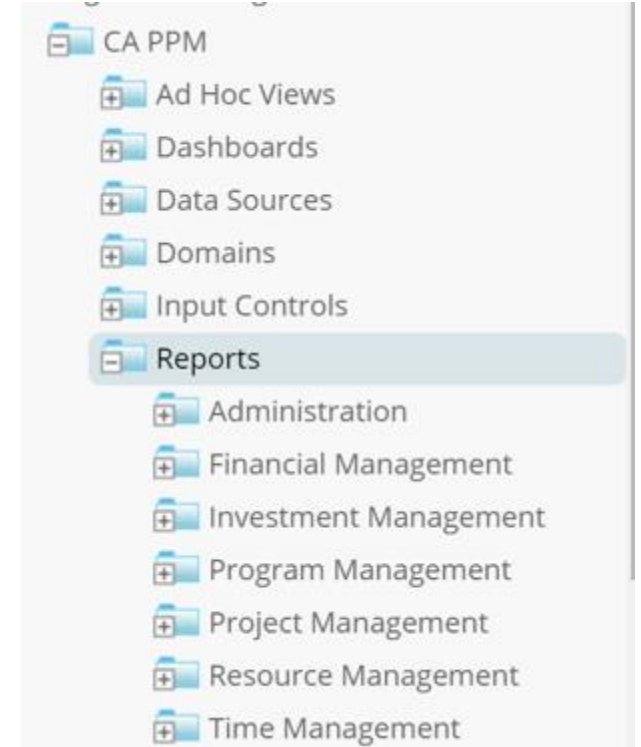
Part I: Copying An Out Of The Box Report

- ✓ Copy the Report
- ✓ Modify the Report
- ✓ Add to the Report

Out Of The Box Reports

CA PPM OOTB Reports

- CA PPM provides a large amount of high quality reports out of the box. These reports are all separated into various categories.
 - Administration
 - Financial Management
 - Investment Management
 - Portfolio Management
 - Program Management
 - Project Management
 - Resource Management
 - Time Management
- These reports are also excellent examples of how to do something in jaspersoft studio. Each report contains functions, frames, sub reports and graphs.
- Reports are located under the CA PPM Folder -> Reports



Key Out Of The Box Reports

Here are some of the key out of box reports for each module:

Project Management:

Report Name	Report Description
KPIs by Project Type (Dashboard)	Displays the key performance indicators of status, schedule, alignment, and risk as gauges, with column charts of these key indicators by project type.
Project Portfolio Summary	Includes three charts displaying the percentage of budget by project type, percentage of budget by work status, and a comparison of budgeted compared to planned cost by grouping option.
Key Task and Milestone Status	Displays the task or milestone status, percent complete, and schedule percent indicators.
Project Storyboard	Displays key aspects of a project that is organized in separate frames. Each frame in the report displays project information such as project dates, project objective, the amount, and cost of resources that are planned and actual, key accomplishments and upcoming activities
Project Status Summary	Displays summary information about a project, including current stage, overall status, key accomplishments, upcoming activities, the cost and amount of resources that are consumed

Financial Management:

Report Name	Report Description
Financial Capitalization by Investment	Displays capital and operating amounts for each investment. These amounts include: budget or planned, actual, remaining cost, and percent spent.
Financial Capitalization Detail	Displays the budget or planned, actual, and remaining amounts by fiscal month and in total for the fiscal year
Financial Budget vs. Forecast by Period	Displays budget or planned cost, which is compared to forecast cost, with variances for each period and in total

Key Out Of The Box Reports contd..

Resource Management:

Report Name	Report Description
Capacity vs. Demand by Resource	Displays resource capacity and demand at the resource level across investments. The report gives you visibility into the capacity, demand, and remaining capacity by resource
Over/Under Allocation by Resource	Displays resource remaining capacity amounts by resource. The report displays amounts by week or month, and in total. The amounts can be displayed as hours or FTEs.
Resource Forecasted Utilization	Displays availability, allocation, and assignment amounts by resource across time periods. The chart shows these amounts per period. The report displays amounts by week or month, and in total.
Resource Allocations and Assignments	Displays investment allocation, assignment, and variance amounts by resource across time periods. The chart shows allocation compared to assignment amounts by period
Resource Assignments by Task	Displays actual and estimate effort amounts for investment task assignments, by resource. The report displays amounts by investment task assignment, and in total, for each resource.

Time Management:

Report Name	Report Description
Resource Time Review by Manager	Displays timesheet entries for each resource, grouped by investment manager or resource manager.
Resource Time Summary and Detail	Displays timesheet hours and notes for each resource and time period.
Time Compliance	Displays the timesheet compliance percent, number of timesheets by status and in total for each OBS unit.
Missing Time	Displays resource available hours, timesheet hours entered, and timesheet hours missing by resource and time period.

Part I: Updating An Out Of The Box Report

- ✓ Copy the Report
- ✓ Modify the Report
- ✓ Add a Sub Report
- ✓ Publish the Report

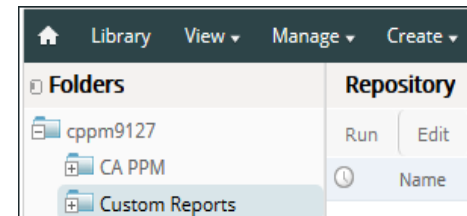
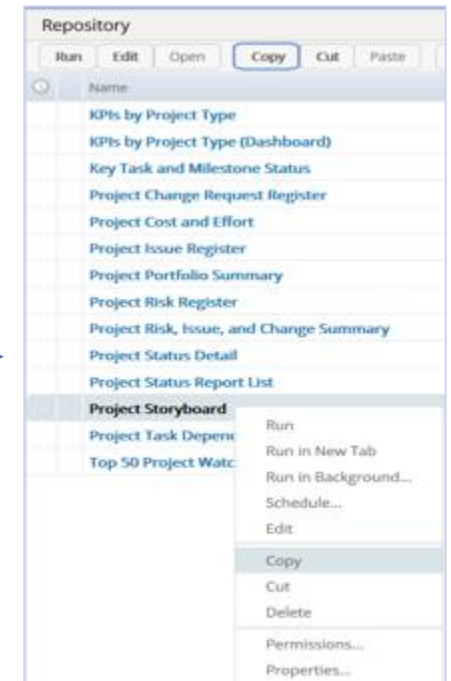
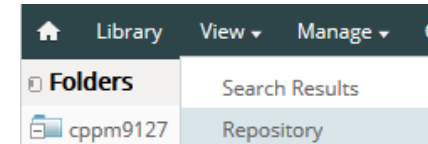
Copy An OOTB Report

When a developer needs to modify or edit an out of the box report it is best practice to copy the report and put it into a folder outside of the CA PPM structure. The reason we do this is because during an upgrade or troubleshooting CA may have to refresh their CA PPM folder, and you will lose your saved reports and items.

- An admin can copy a report by navigating to the Advanced Reporting link in Clarity.
- Click on the **View -> Repository** link.
- Within the repository navigate to the report you want to edit.
- **Right Click** on the report and click the **Copy** function.

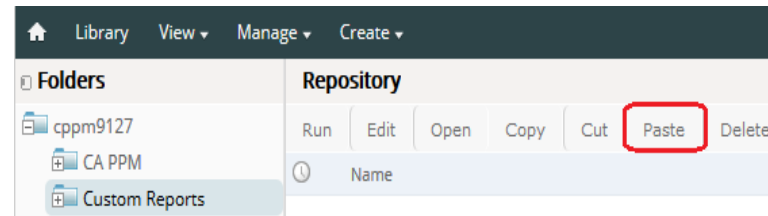
Note: You can select the report and click the **Copy button** on the top toolbar as well.

- Within your Repository, navigate to outside of the CA PPM folder and create a folder for Custom Reports.
- To create a new folder **Right click** on top most folder and select **Add Folder** and name the new folder as **Custom Reports**.

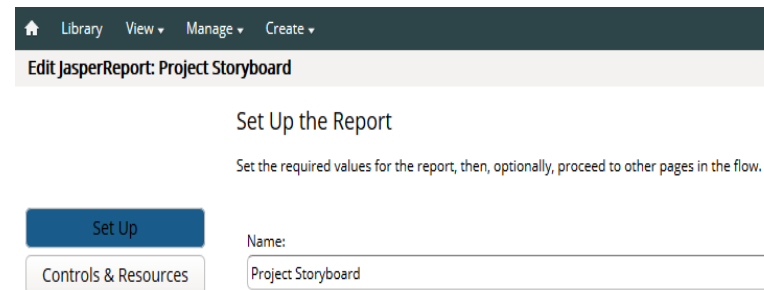
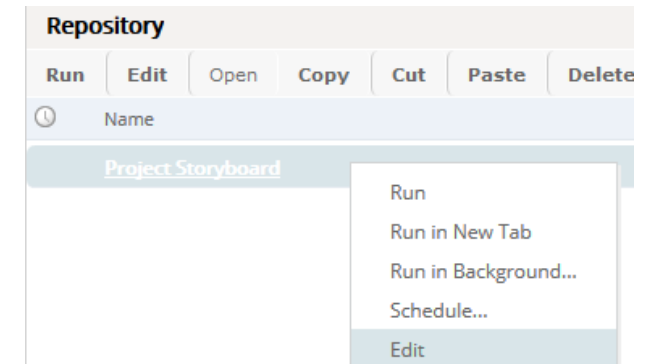


Copy An OOTB Report

- Once the folder is created, navigate inside the custom repots folder and click the button **Paste** on the top toolbar.



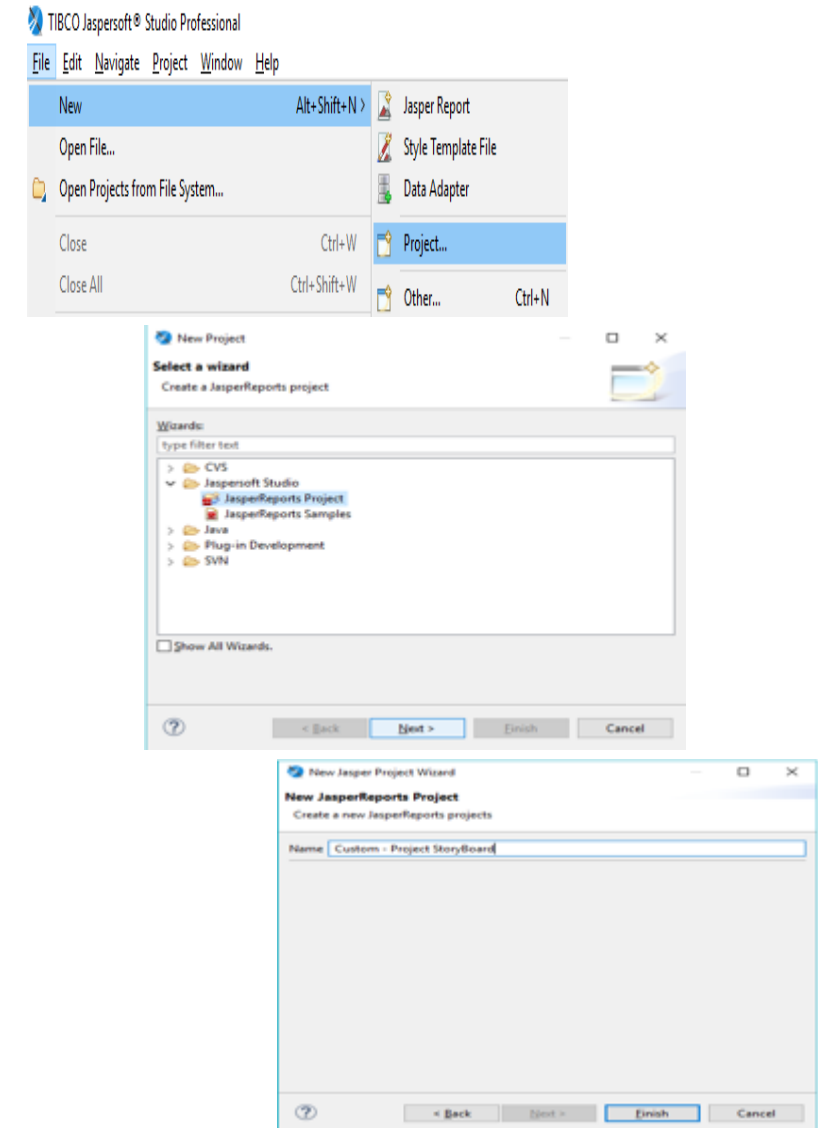
- Change the Report's name to completely remove the internal link between the two reports.
- To **Rename** the report **Right Click** the report in Custom Reports folder and select **Edit**.
- On the next screen change the report **Name** and click **Submit**.

A screenshot of the 'Edit JasperReport: Project Storyboard' screen. The screen has a header with 'Library', 'View', 'Manage', and 'Create' dropdowns. Below the header, there's a section titled 'Set Up the Report' with a subtext: 'Set the required values for the report, then, optionally, proceed to other pages in the flow.' There are two buttons: 'Set Up' and 'Controls & Resources'. At the bottom, there's a 'Name:' label followed by a text input field containing 'Project Storyboard'.

Exercise: Copy an OOTB Report to custom folder and Rename it.

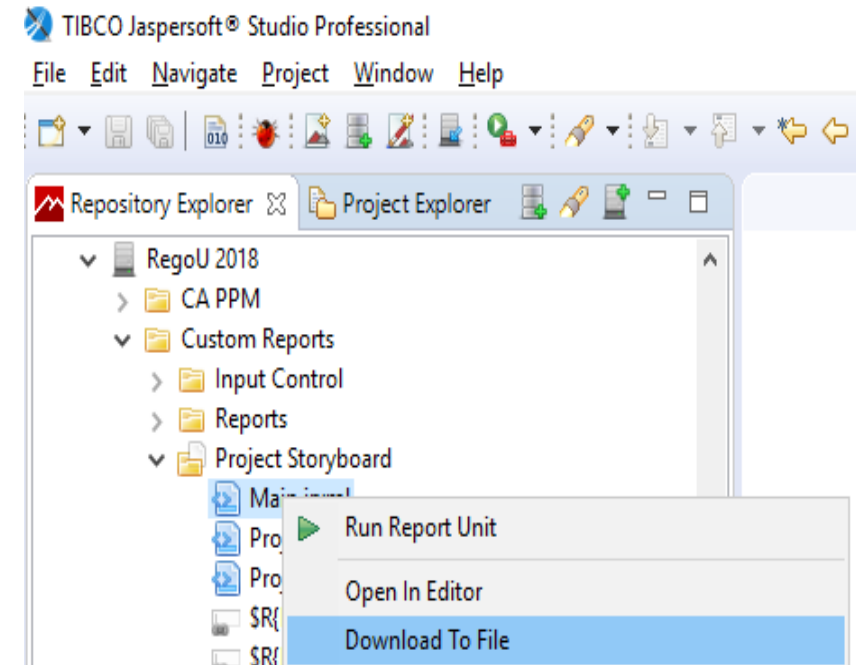
Open The OOTB Report In Studio

- Now that the report has been copied over and is located outside of the CA PPM folder we can edit it in Jaspersoft studio.
- First we have to create a project in Jaspersoft studio to hold the JRXML from the OOTB report.
- To Create a new project in Jaspersoft Studio, Right Click on **File** and select **Project**.
- On the next screen select **Jaspersoft Studio** → **JasperReports Project** and **Next**
- Give your project a **Name** and click **Finish**



Open The OOTB Report In Studio

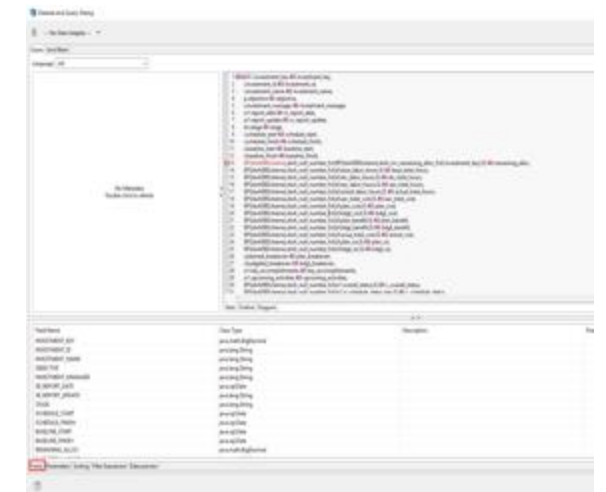
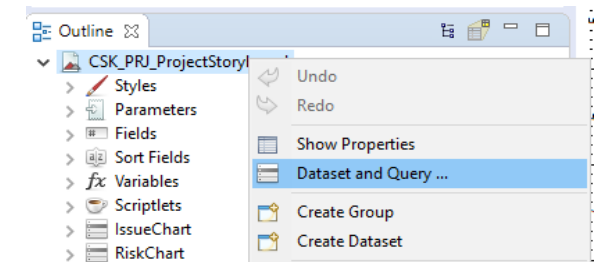
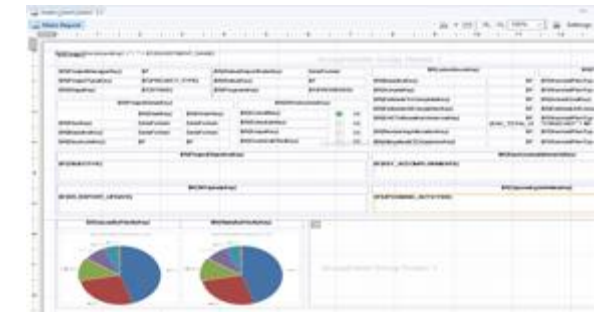
- Once the project has been made, navigate to the repository in and find the new report folder with the copied report.
- **Right Click** on the main JRXML and click **Download To File**.
- Select the project we recently created to hold the report files.



Exercise: Download and Open the OOTB Report in Studio.

Modify The OOTB Report In Studio

- The report JRXML is open in Studio and available to edit. You can modify, delete, any object on the report.
 - To delete an element select the element and press **Delete** button
 - To add a new element to the report, select the element from **Palette** and drag-drop it on the report design
- The user also has access to the Data Set and Query that is being used in the report. As long as you know how to modify the query without testing it you can.
 - To modify the query, right click on the report name from **Outline section** and select **Dataset and Query...**
 - Make required changes to the code and Add/Delete/Update the affected fields in the **Fields** section and click **OK**

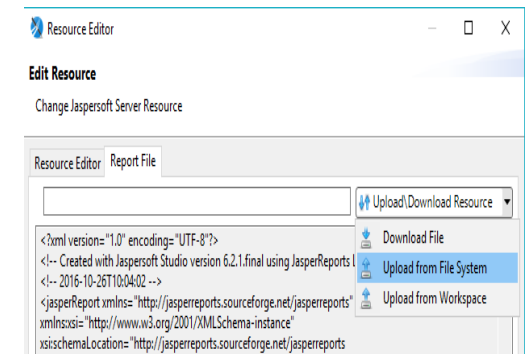
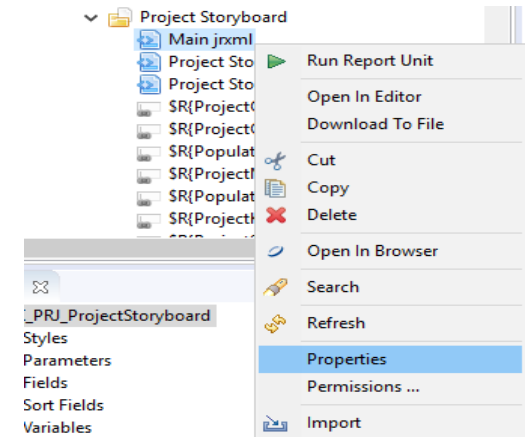


Modify The OOTB Report In Studio

- Out of the Box reports cannot be previewed via Studio even when the environment is On Premise. These reports utilize the parameters of logged in users and other various input controls stored on the sever. It also uses functions for formatting that cannot be interpreted without being ran from jaspersoft server.
- Exercise: Modify the report's object. Remove Frames and Graphs as you please.
- Extra Credit: Modify the sql and add a new custom field to the report.

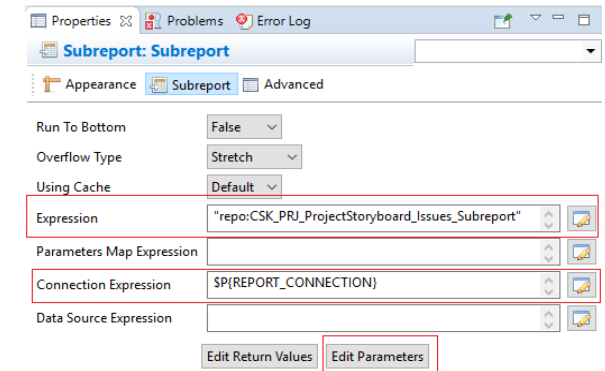
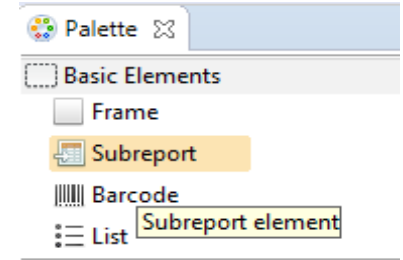
Replace code in JRXML

- The report can also be deployed onto the server by replacing the code in the jrxml file.
- To do this, traverse to the report location in repository explorer, **Right click** on it and open **Properties**.
- On the report tab, select **Upload from File System** and select the file to upload click **Open**
- Once we click finish the report is uploaded to the server.



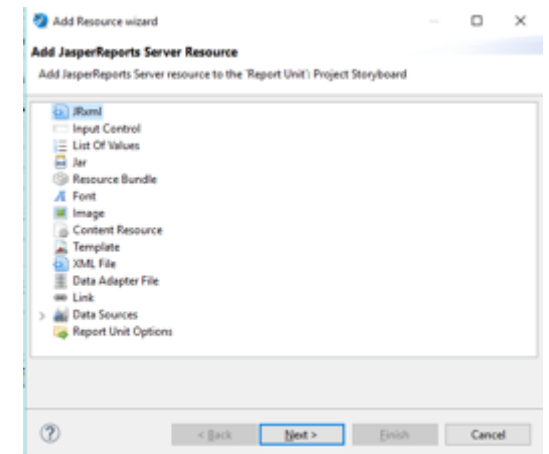
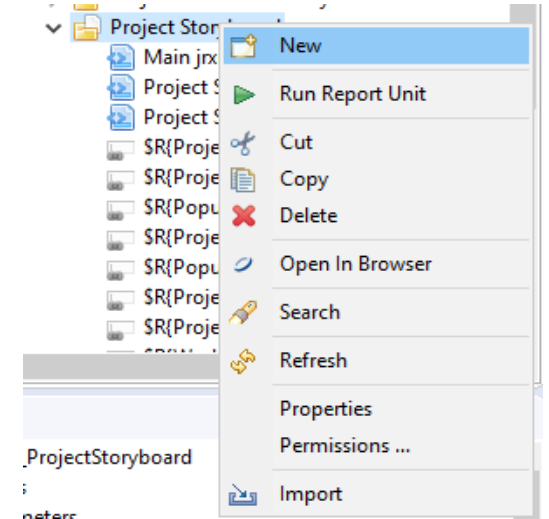
Adding new Sub report to OOTB Report

- If you wanted to use a sub report from one OOTB report and add it into another, you can do that as well. Just make sure the expression for the sub report points to the new one in the report.
- To add the subreport, download the sub report file by navigating to Repository from studio.
- **Right click** on the sub-report file and click **Download to file**. Save the subreport file in your Studio project folder.
- Now in Studio, open the report where you would like to add this subreport.
- Drag and drop a **Subreport** element from **Palette** on your report file.
 - Ensure that the width of the subreport element is same as the width of your subreport.
- Click on the subreport element and update following fields on the **Properties** section.
 - Expression = "repo:<REPORT NAME>"
 - Connection Expression = \$P{REPORT_CONNECTION}
- Also update the subreport **Parameters** to ensure necessary parameters are passed from main report to sub report.
- Exercise: Add a sub report from another OOTB report into your current one.



Adding new Sub report to OOTB Report

- After updating the main report publish the main report by following the steps mentioned in section **Replace code in JRXML**.
- Also add the subreport jrxml to the report folder in Repository.
- To add the subreport, navigate to the Repository from Studio and drill down to the report folder, then **Right click** on the folder and select **New → Jrxml**
- Upload the sub report file with the same name <REPORT NAME>“ that you defined earlier in the main report. Expression = "repo:<**REPORT NAME**>“
- Exercise: Add a sub report from another OOTB report into your current one.



Part I:
Conclusion – Interface Live Demo

Questions?

Part II Agenda

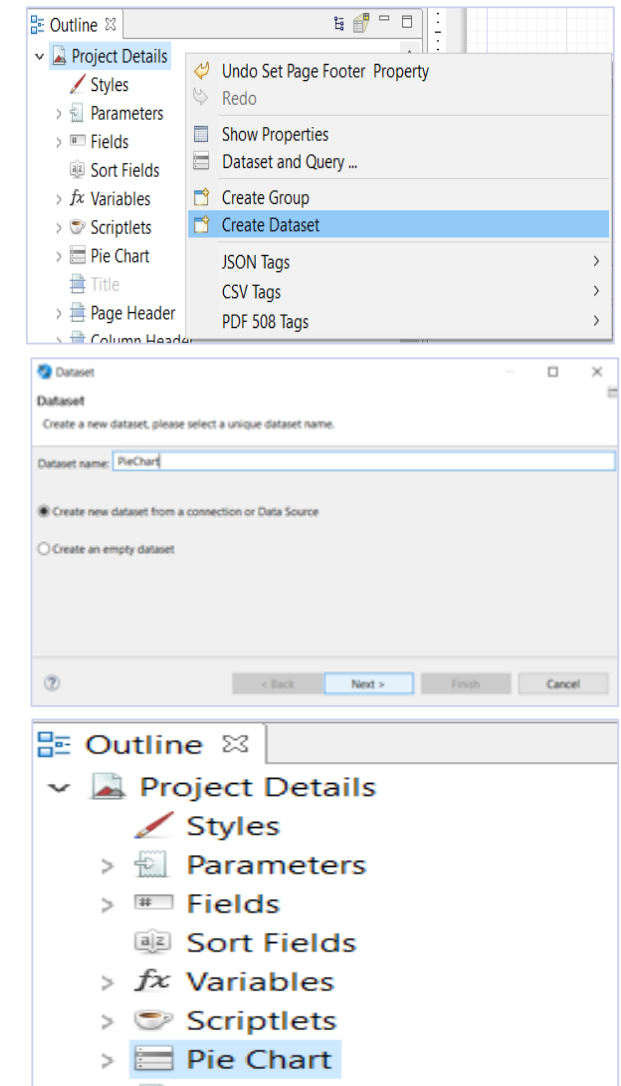
- Secondary Data Sets
- Setting Colors on Charts
- Using Domain as the Data Source
 - Cross Tabs

Part II: Secondary Data Sets

- ✓ Create a Secondary Data Set
- ✓ Filter the secondary data set based on a value from the main report

Creating A Secondary Data Set

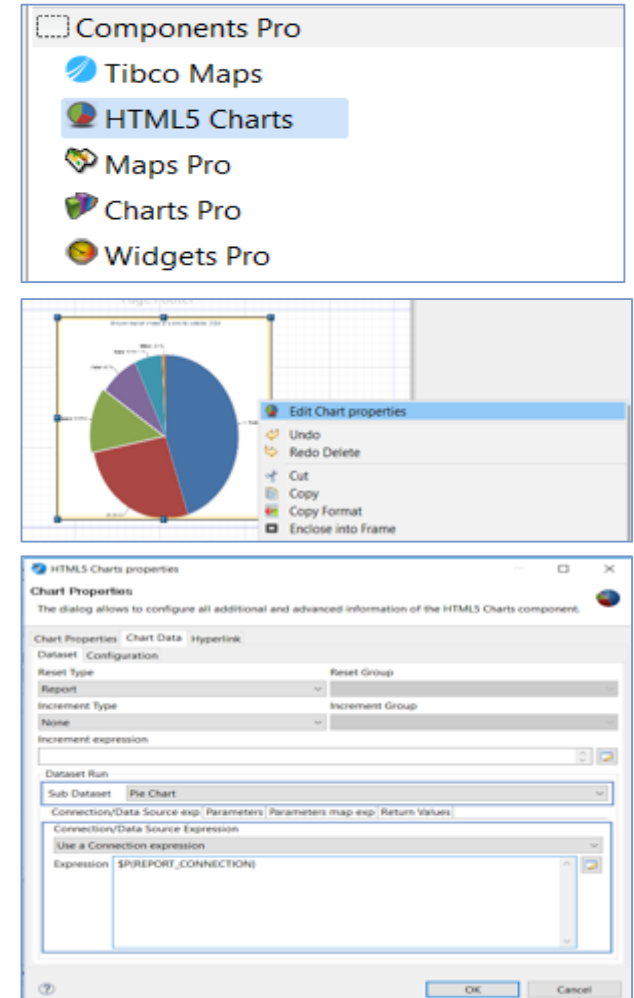
- Creating a secondary data set allows a user to get values that a chart or table can use outside of the main report's query.
- Charts and Tables can utilize other data sets.
- Filter a secondary data set based on the first is also possible.
- To create a secondary data set follow the steps below.
 1. Navigate to the outline tab in studio.
 2. **Right Click** on the Report name.
 3. Select Create **Dataset**
 4. Name the Data Set and click Finish.
 5. In the Outline you should now see the secondary data set with the name given. Treat this as you treat the query and set you use in the main report.



Using A Secondary Data Set

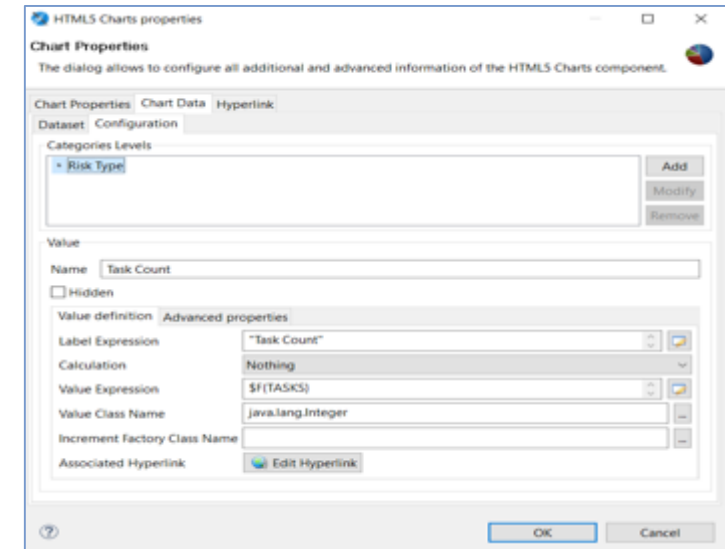
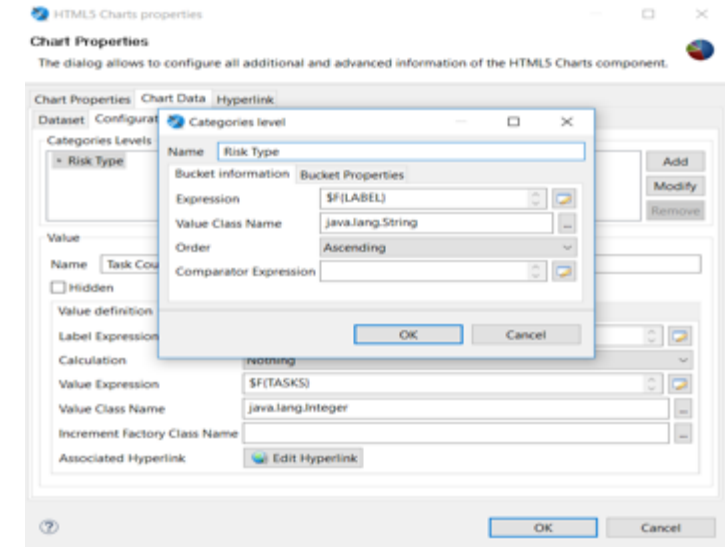
Charts and tables can have a different data source chosen when creating. This allows for the user to get summary data using a sub query that may contain additional rules or data.

1. In the report, bring over the Chart object.
2. Select the chart type and click Next.
3. Next, Right-click on the chart and edit the chart properties
4. On the Chart Data tab, select our new Dataset from the “Sub Dataset” menu
5. Next, Select “Use a Connection expression”, which should default to the report connection: `$P{REPORT_CONNECTION}`



Using A Secondary Data Set – Cont'd

- Next, we will configure the chart to display the data from the query
- On the Chart Data tab, open the “Configuration” sub-tab
- Select the “Level1” category – Click “Modify”
- Change Name to “Risk Type”
- Change Expression to `$(LABEL)`
- Leave Value Class Name “`java.lang.String`”
- Click “Ok”
- Back in the Configuration tab, adjust the Value:
- Change Name to “Task Count”
- Change Label Expression to “Task Count” (With quotes)
- Change Calculation to “Nothing”
- Change Value Expression to `$(TASKS)`
- Leave Value Class Name “`java.lang.Integer`”
- Click “Ok”
- Preview your report to validate



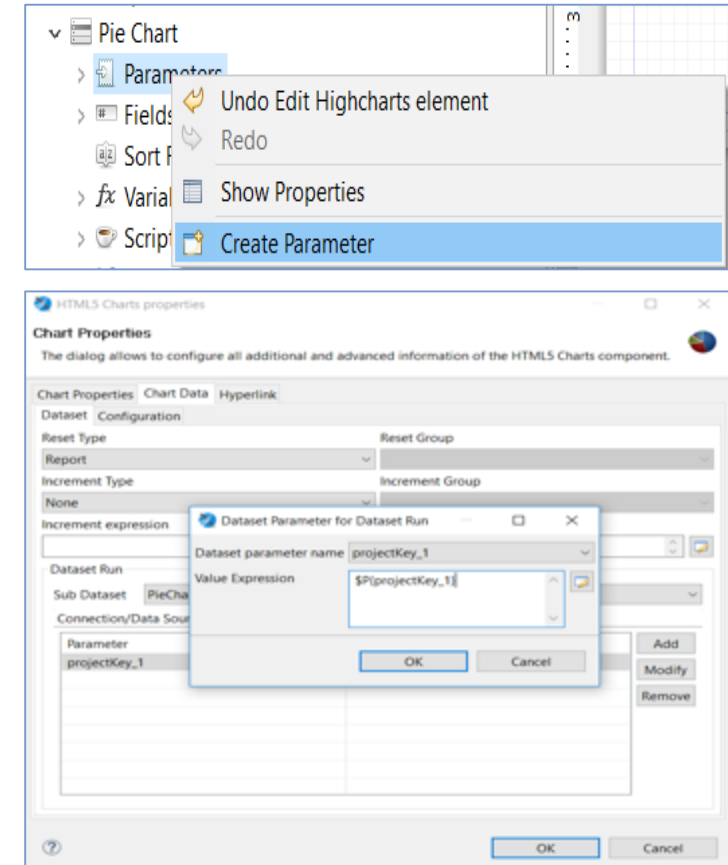
Filtering The Secondary Set

The secondary set can take a value from the master report and use that as a parameter to filter on. This can be useful when doing subsets of data for charts and tables.

- Example: Late Tasks Risk

The following steps are for using a secondary data source with a chart.

1. In the outline find the secondary data source and create a parameter to be used.
2. Navigate back to the outline and select the chart on the report.
3. Double click to get the chart wizard to reappear.
Note: If you have not added a chart or table already, please add one to get to this wizard.
4. Next to the dataset is the Parameters and Parameters Map.
5. Select the Parameters link.
6. In the list, click the Add button.
7. Find the parameter from the secondary set that will be used to connect to the master report.
8. Next in the expression editor choose the field or parameter to link to.
9. Click Ok.



Setting Colors On Charts

Setting the colors based on the category value must be done via the advanced properties bucket. Follow the steps below.

1. Edit Chart Properties
2. Click on Chart Data tab
3. Click on Configuration tab
4. Click on Category Level
5. Click Modify button
6. Go to Bucket Properties tab.
7. Click Add.
8. Name the property color and give it an expression to define the color of the slice. Example below.

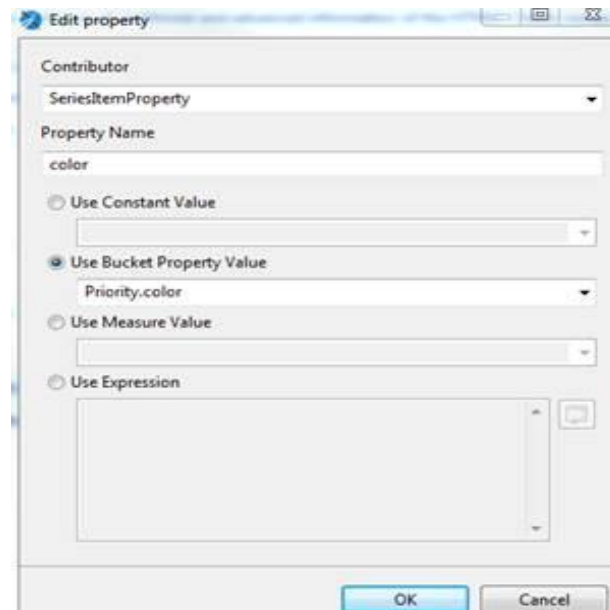
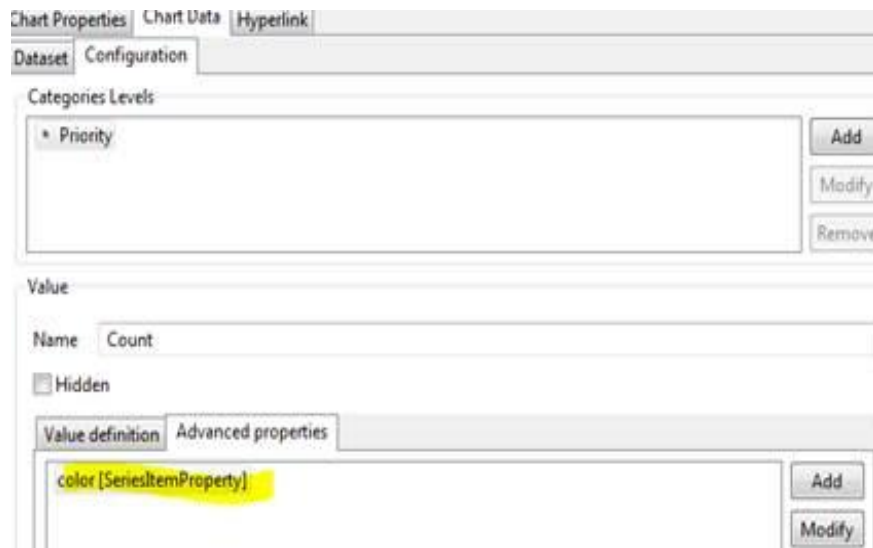
```
$F{LABEL}.equals("LOW RISK") ? "#9CCB19" : $F{LABEL}.equals("MEDIUM RISK") ? "#FCB514" :  
$F{LABEL}.equals("HIGH RISK") ? "#B22222" : "#E8EBF2"
```

9. Navigate to the Advanced Properties on the Configuration tab.
10. Click Add.

Setting Colors On Charts

Once the bucket property has been created.

1. Navigate to the advanced properties for the configuration
2. Click Add
3. Set contributor to "SetSeriesItemProperty".
4. Name the property Name "color".
5. Check the Use Bucket Property Value radio button
6. Select the Color Bucket property that we setup in the previous slide.



Highcharts API

Once the chart is created you can add various custom properties to control the look and feel of the HTML5 Chart.

1. Navigate to the Chart Properties
2. Click Show Advanced Properties
3. Click Add
4. Open the Highmarks API website: <http://api.highcharts.com/highcharts>
5. To identify the property to name, go down the hierarchy and the property name becomes the property identified path.
6. Property value is whatever value is expected.

Show Advanced Properties

Property name

plotOptions.column.dataLabels.enabled

Default Context specific		
Property	Value	
chart.zoomType	"xy"	
credits.enabled	false	
credits.href	""	
credits.text	""	
plotOptions.column.dataLabels.enabled	true	
title.text	""	
yAxis.title.text	""	

Add

Modify

Remove

```
plotOptions: {  
  area: { ... }  
  arearange: { ... }  
  areaspline: { ... }  
  areasplinerange: { ... }  
  bar: { ... }  
  boxplot: { ... }  
  bubble: { ... }  
  column: {  
    allowPointSelect: false  
    animation: true  
    animationLimit:  
    borderColor: "#FFFFFF"  
    borderRadius: 0  
    borderWidth: 1  
    color: undefined  
    colorByPoint: false  
    colors:  
    cropThreshold: 50  
    cursor: undefined  
    dataLabels: {
```

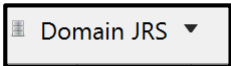
Part II: Using Domain As The Data Source

- ✓ Using A Domain as the Data Source

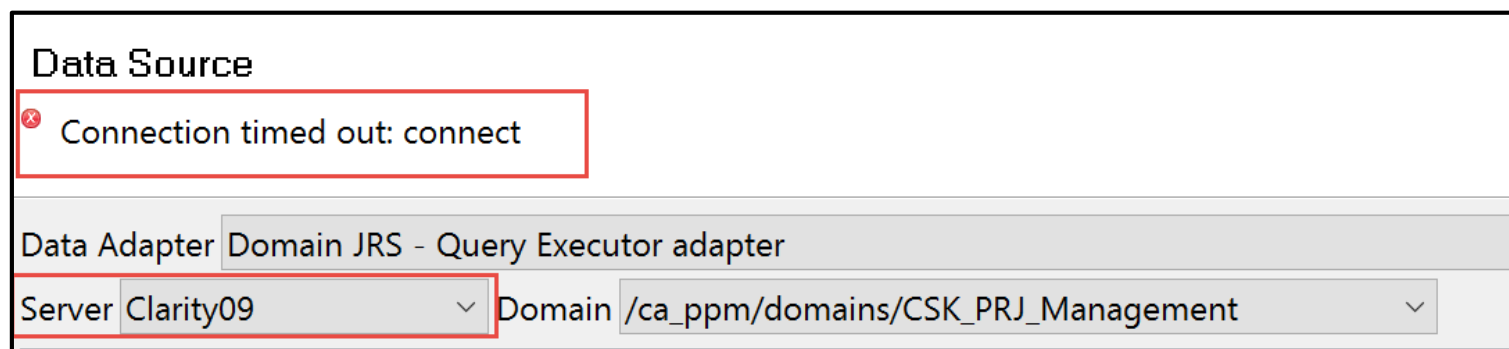
Selecting The Domain

Using a domain allows the user to have the ability to select the fields available in the domain as their data set. This can be an easy solution to using the direct query in the data set but limits the user from controlling the query and the filtering.

Follow the steps below to use a query as a data source

1. When creating a new Jaspersoft Report click “Domain JRS” 
2. Next let the developer try to connect to an open repository.
3. If it can't connect, the next interface will appear allowing you to choose another server to use.
4. In the Domain section, select the domain you will be pulling the fields you want to bring into your report.

Note: You will have to bring over ID's to use in the filter expression instead of filtering the query.



Data Source

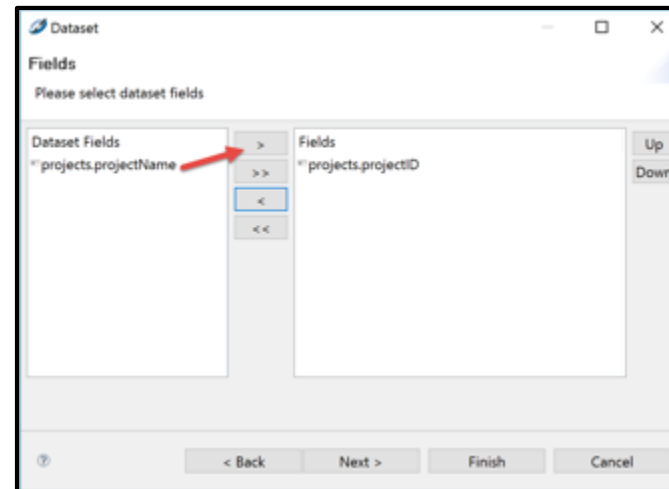
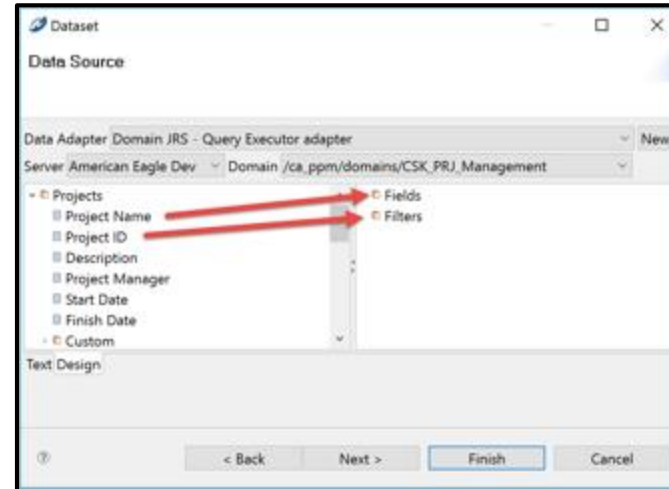
✖ Connection timed out: connect

Data Adapter Domain JRS - Query Executor adapter

Server Clarity09 Domain /ca_ppm/domains/CSK_PRJ_Management

Selecting The Domain

5. In the left explorer, expand the sets to populate the fields.
6. Click and drag the field to either the Fields of Filter folder on the right explorer
7. Click Next
8. Move the fields you want to bring into your report to the right explorer.
9. Click Next
10. Move the fields you want to group your data by in the report to the right explorer
11. Click Finish



Part II: Creating A Crosstab

- ✓ How to create a crosstab

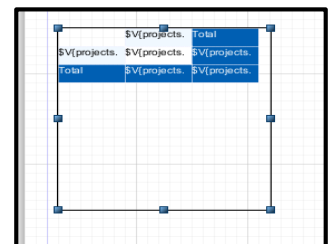
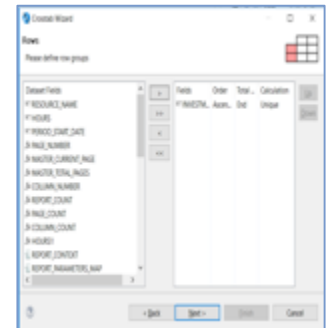
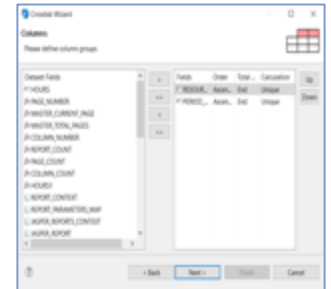
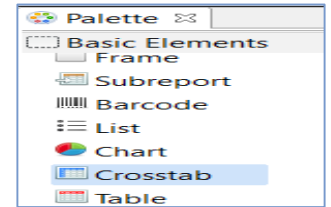
Creating A Crosstab

Crosstabs allow the report designer to create a table that will expand based on the quantity they want their measure to populate from. A common example is Time by Month for a project.

Follow the steps below to create a crosstab

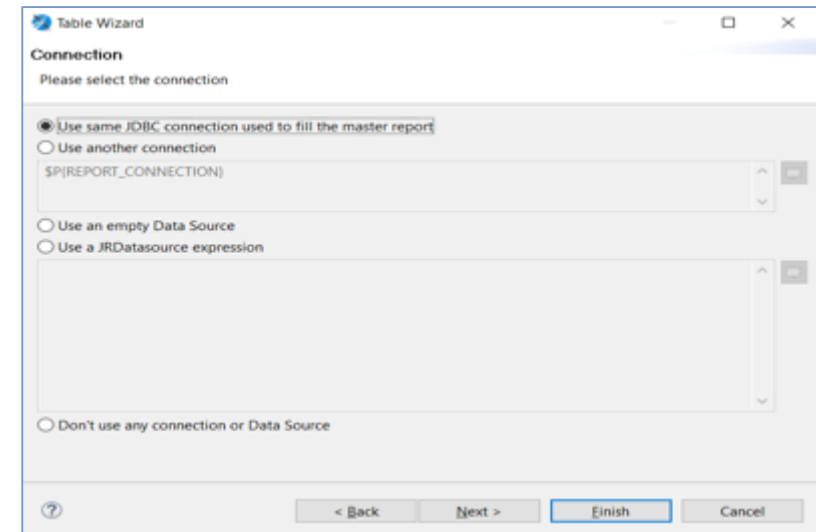
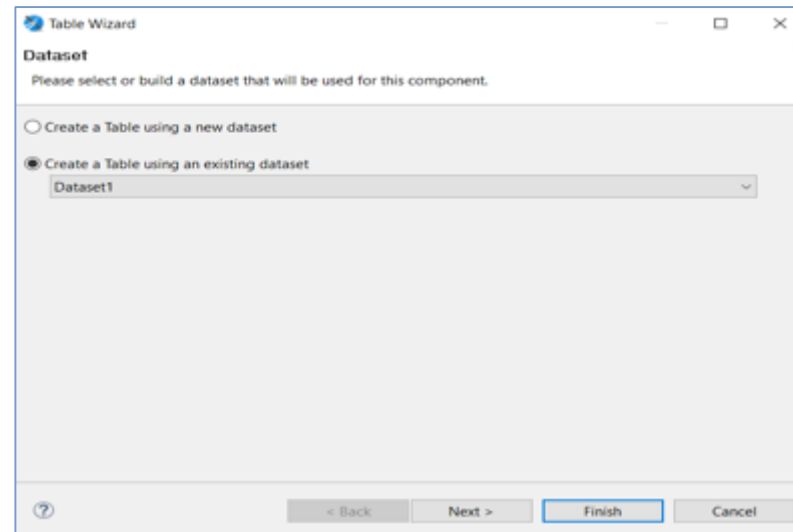
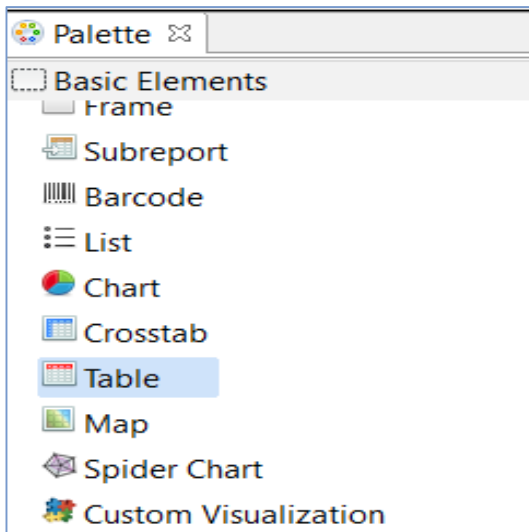
1. From the palette , drag over the Crosstab element
2. Select the dataset that the crosstab will use to be populated
3. Click Next
4. Select the column attribute(s) and bring the field(s) over to the right section
5. Click Next
6. Select the row attribute(s) and bring the field(s) over to the right section
7. Click Next
8. Select the measure attribute) and bring the field(s) over to the right section
9. Click Finish

Query: http://jaspersoft.regoconsulting.com/2018/Advanced_Queries.txt



Creating a Table

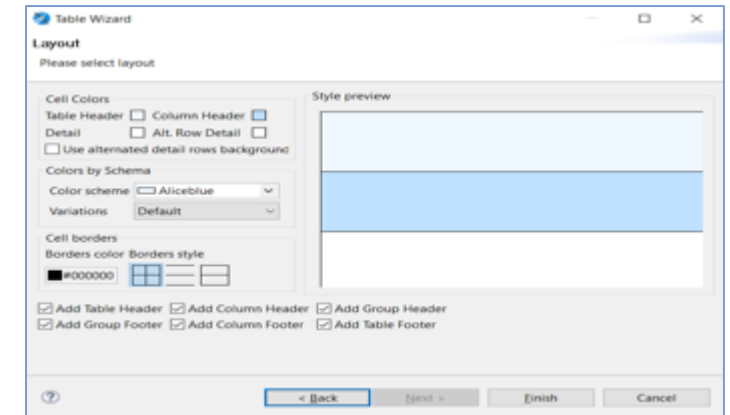
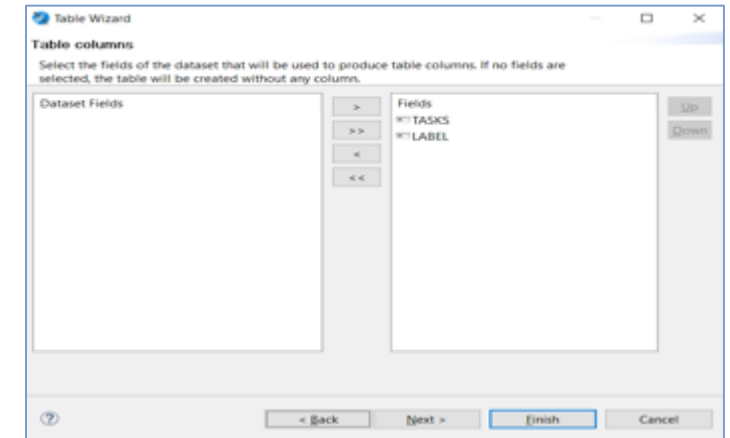
- Tables can be used to show the summary of the report in table format. For Tables we can choose the report summary, because it is printed at end of the report and can be used to easily view aggregated data.
- Follow the steps to create a Table
 1. From the palette , drag over the Table element
 2. Select the dataset that the crosstab will use to be populated
 3. Click Next
 4. Select 'Use Same JDBC connection used to fill master Report' to set data source for the Table



Creating a Table

1. Select the Table Column Fields attribute(s) and bring the field(s) over to the right
2. Click Next
3. Select the layout Color
4. Click Finish

TASKS	LABEL
\$F{TASKS}	\$F{LABEL}



Part II: Conclusion – Interface Live Demo

✓ Questions?

Part III Agenda

- Tips and Tricks
 - Markup Language
- How to set Defaults on parameters
 - Add Jaspersoft to an iFrame
- Advanced Properties for Export to Excel/pdf
- Export or Import Advanced Reporting Content

Part III: Markup Language

✓ Demo

Markup Language

Markup is a style choice that allows you to apply style inside the expression.

Ex: <http://community.jaspersoft.com/questions/534014/use-style-text-expression>

To do this follow the steps.

- Navigate to the properties of the textfield
- Make sure to select the markup language to use.



Font

SansSerif

I

Markup styled

- Once this is applied you can apply the selected markup in your textfield expression.
 1. Example: I want my field "name" to be bold. I am using the markup "Styled".
- `"<style isBold='true'>" + $F{NAME} + "</style>" + " - " + ($F{SR_UPDATE} != null ? $F{SR_UPDATE} : "No Update")`

Part III: How To Set Defaults On Parameters

✓ Demo

How To Set Defaults On Parameters

Defaults on parameters will auto-fill a value in a particular parameter. Setting up parameters with defaults requires knowing the data values being passed to the report.

How to set up a single and multi-select value(s) default

1. Navigate to the outline
2. Expand the Parameters list
3. Right click on the parameter
4. Click Show Properties
5. Click the expression edit for the Default Value Expression
6. In the expression for a single value fill out the **value** for the default. This **value** should be the back end value that is being passed from the parameter.
 - Ex. Resource_key vs Resource_name
7. In the expression for a multi value convert the values into an array list. To do this follow the template below.
 - `new ArrayList(Arrays.asList(VALUE1,VALUE2))`

How to use Relative Dates in Jasper report

Relative dates parameter provides you the ability to filter results between a date range. It prevents the usage of two parameters such as Start Date and End Date. Here is how you create relative dates parameter

1. Create a parameter of type “net.sf.jasperreports.types.date.DateRange” . Default expression for this parameter (for ex: parameter1) can be defined as:

```
<![CDATA[newnet.sf.jasperreports.types.date.DateRangeBuilder.DateRangeBuilder("YEAR").toDateRange()]]>
```

2. This parameter can be used in query with \$X clause. Sample query can be defined as:

```
SELECT order id, customer_name FROM public.orders WHERE $X{LESS, order_date, Parameter1}
```

- Above query filters for orders whose order date is in the current year
- First argument in the \$X{} clause is the filtering section. Values can be LESS, GREATER, EQUAL, NOTEQUAL, IN, NOTIN & BETWEEN
- Second argument is the column name in database. Third & Fourth columns can be Parameters

3. Once you have the parameter and ran the report locally, you will be prompted for a value. You can put either the actual date (1/1/2018, 2/10/2018) or the relative date (YEAR-1, MONTH+6).

- Other values for relative dates can be DAY, WEEK, MONTH, QUARTER, SEMI & YEAR
- You can add + or – to the relative dates ex: YEAR-5, MONTH+2
- Similar to the Relative dates functionality in Adhoc designer

4. On the server, Create a input control that is Single Value selection, Date type and has same id as Parameter. When you run the report on the server, you will see calendar for the input control. You can select the dates or put in the relative date keyword.

Part III: How To Add Jaspersoft To An Iframe

✓ Demo

How To Setup An Iframe With Jaspersoft

Setting up an Iframe to contain Jaspersoft allows for the user to create visible view for a Jaspersoft report in a tab on an object or page in clarity.

1. Extracting the link parameter (This all goes in an HTML portlet). This method only pulls one parameter, if you need multiple, it would be an easy change:

```
<script>
var str = window.location.href;
var key = "";

vars = str.split("&");
for (var i=0;i<vars.length;i++) {
    var pair = vars[i].split("=");
    if (pair[0] == "id") {
        key = pair[1];
    }
}
</script>
```

2. We can now add the following line inside the “script” tags, after the above code, to update the iFrame source location. In this example, we’re linking to a quick project list report, passing the parameter projectKey_1 and updating the iFrame with id “HTMLID”:

```
document.getElementById('projectList').src = 'https://cppm1080-
dev.ondemand.ca.com/reportservice/flow.html?_flowId=viewReportFlow&standAlone=true&decorate=no&ParentFolderUri=/users/regocon
sulting/reports&reportUnit=/users/regoconsulting/reports/ProjectList&projectKey_1=' + key;
```

3. The iFrame line for the HTML Portlet:

```
<iframe id="HTMLID" width="1024" height="600" src=""></iframe>
```

Note: Not hard coding the iframe size results in poor sizing for the report

Advanced Properties for Export to Excel

- When you export data to excel, you look for certain features to be available in excel. These can be implemented by adding Properties (*Report -> Advanced -> Properties*) to the Jasper report.
- “Value” for these properties by default is “true” unless mentioned something else.

Feature	Property
Display every page of report on a separate sheet	net.sf.jasperreports.export.xls.one.page.per.sheet
Remove empty space between rows	net.sf.jasperreports.export.xls.remove.empty.space.between.rows
Remove empty space between columns	net.sf.jasperreports.export.xls.remove.empty.space.between.columns
Display excel grid lines	net.sf.jasperreports.export.xls.remove.empty.space.between.columns (value=“false”)
Treat dates as dates, numbers as numbers, instead of all being treated as text when data is exported	net.sf.jasperreports.export.xls.detect.cell.type
Do not delete any graphic upon export	net.sf.jasperreports.export.xls.ignore.graphics (value=“false”)
Name the tabs in the exported spreadsheet as Data, Footnotes	net.sf.jasperreports.export.xls.sheet.names.all (value=“Data/Footnotes”)
Freeze top n rows	net.sf.jasperreports.export.xls.freeze.row (value=“3”) - Freezes top two rows
Wrap data in excel upon export	net.sf.jasperreports.print.keep.full.text
Remove Page header and Page footer	net.sf.jasperreports.export.xls.exclude.origin.band.1 (value=“pageHeader”) net.sf.jasperreports.export.xls.exclude.origin.band.2 (value=“pageFooter”)
Allow cell to span Multiple rows	net.sf.jasperreports.export.xls.collapse.row.span (value=“false”)

Advanced Properties for Export to PDF

- When you export data to pdf, you look for certain features to be available in pdf. These can be implemented by adding Properties (*Report -> Advanced -> Properties*) to the Jasper report.
- “Value” for these properties by default is “true” unless mentioned something else.

Feature	Property
Compress pdf upon export. Very useful when exporting huge amounts of data	net.sf.jasperreports.export.pdf.compressed
Specify horizontal margins for even and odd pages	net.sf.jasperreports.export.pdf.odd.page.offset.x net.sf.jasperreports.export.pdf.even.page.offset.x
Specify vertical margins for even and odd pages	net.sf.jasperreports.export.pdf.odd.page.offset.y net.sf.jasperreports.export.pdf.even.page.offset.y
Encrypt the pdf document	net.sf.jasperreports.export.pdf.encrypted
User password for encrypted document	net.sf.jasperreports.export.pdf.user.password (default value =“N/A”)
Justify the letter spacing in the exported pdf	net.sf.jasperreports.export.pdf.justified.letter.spacing
Increase the page size to accommodate its content	net.sf.jasperreports.export.pdf.size.page.to.content

Export or Import Advanced Reporting Content

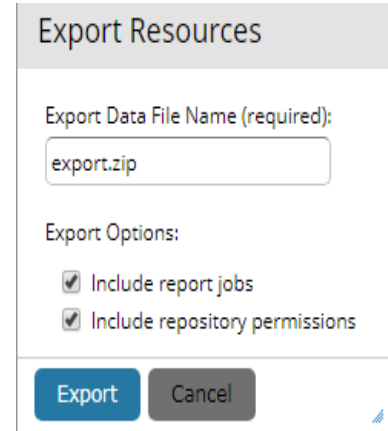
You can easily export and import content (report, input controls) from Jasper server. Here is how you do it.

Export Content:

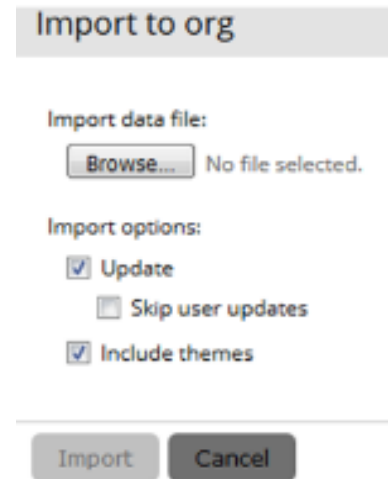
1. Log in to CA Clarity PPM. Go to *Home->Personal->Advanced Reporting*
2. Click on *View ->Repository*.
3. Go to the resource that you want to export
4. Right click on the resource (file/folder) and select Export. It provides you the two options
 - Include report jobs: Includes any scheduled jobs associated with it
 - Include repository permissions: Includes any explicit permissions on the resource
5. You can change the default file name. Click on Export to download the zip file
6. If you have to export multiple resources, use Ctrl key to select multiple resources

Import Content:

1. Log in to CA Clarity PPM. Go to *Home->Personal->Advanced Reporting*
2. Click on *Manage ->Organizations*.
3. Right click on the organization in the left panel and select Import. It provides you the three options
 - Update: Imports resources that are new to current organization
 - Skip user updates: skips any changes to existing user definitions
 - Include Themes: Imports any themes that exist in current organization
4. Choose the file to be imported (Accepts only zip files) and Click on Import.
5. Server loads the zip file and imports its contents. If there are any broken dependencies, server provides you the option of Skip (skip content), Include (with broken dependencies) and Cancel Import.



The 'Export Resources' dialog box is shown. It has a title bar 'Export Resources'. Below it, there is a label 'Export Data File Name (required):' followed by a text input field containing 'export.zip'. Underneath is a section 'Export Options:' with two checked checkboxes: 'Include report jobs' and 'Include repository permissions'. At the bottom are two buttons: 'Export' (highlighted in blue) and 'Cancel'.



The 'Import to org' dialog box is shown. It has a title bar 'Import to org'. Below it, there is a label 'Import data file:' followed by a 'Browse...' button and the text 'No file selected.'. Underneath is a section 'Import options:' with three checkboxes: 'Update' (checked), 'Skip user updates' (unchecked), and 'Include themes' (checked). At the bottom are two buttons: 'Import' and 'Cancel'.

Schedule a Report

You can easily schedule a report/dashboard and send the output directly to user. Here is how you do it.

1. Log in to CA Clarity PPM. Go to *Home->Personal->Advanced Reporting*
2. Click on *View -> Repository*
3. Go to the resource that you want to schedule.
4. Right click on the resource and select Schedule. Schedule page opens up
5. Click on Create Schedule. New Schedule page opens up. Choose the following values and Save
 - Start Date: Run Immediately or run on Specific date
 - Time zone: time zone in which the schedule report should run. Default value is server time zone
 - Recurrence Type:
 - None: Runs the job only once
 - Simple: Schedule the job to recur at a regular interval, specified in minutes, hours, days, or weeks.
 - Calendar: Schedule the job to recur on days of the week, days of the month, specific dates, or date ranges.
6. If your report/dashboard requires any input controls, click on Parameters tab to fill in the required values.

New Schedule

Schedule Parameters Output C

Schedule For: /Custom/Custom_Reports/Monthly_Signoff_Sheet

Schedule Start

Start Date:

☒ Immediately

☐ On Specific Date:

Time Zone:

Recurrence:

Recurrence Type:

New Schedule

Schedule **Parameters** Outp

Schedule For: /Custom/Custom_Reports/Monthly_Signoff_Sheet

Report Month

Schedule a Report contd..

7. Click on the Output options and choose the name of the output file, its description, formats in which you require output and destination folder for the output (if you wish to save the output file)
8. Click on Notifications tab to configure sections in the email notification that will be sent to user.
 - Email recipients: To, CC & BCC
 - Subject and Message in the email
 - Output accessed by recipients (as attachments, zip files , link in email etc)
9. Administrators can also receive success or failure of the schedule job by configuring the job status notifications section.

The screenshot shows the 'New Schedule' form with the 'Output Options' tab selected. The 'Schedule For' field is set to '/Custom/Custom_Reports/Monthly_Signoff_Sheet'. Under 'Output File Options', the 'File name (required)' is 'Monthly_Signoff_Sheet', the 'Description' is empty, the 'Time Zone' is set to 'UTC', and the 'Output Locale' is 'en_US - English (United States)'.

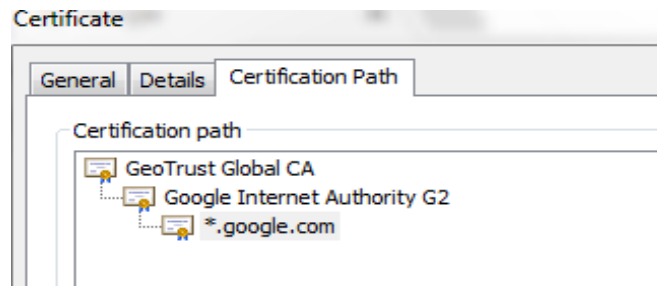
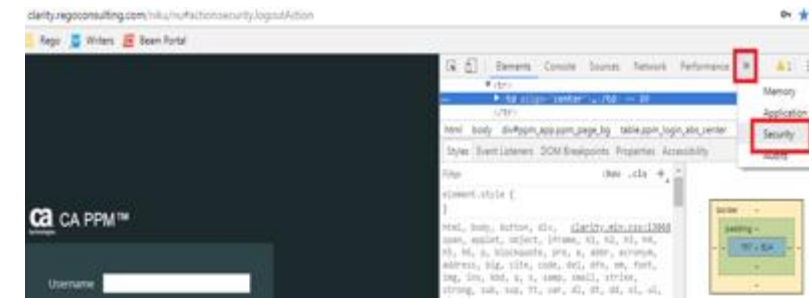
The screenshot shows the 'New Schedule' form with the 'Notifications' tab selected. The 'Schedule For' field is set to '/Custom/Custom_Reports/Monthly_Signoff_Sheet'. Under 'Email Notification', there are two columns: 'Send report when scheduler runs' and 'Send job status notifications'. The 'To' field for the first column is empty, and the 'To' field for the second column is empty. The 'CC' field for the first column is empty, and the 'Subject' field for the second column is empty. The 'BCC' field for the first column is empty, and the 'Send success notification' checkbox is checked. The 'Success Message' field is empty.

Jaspersoft Studio – Connect to SSL enabled Server

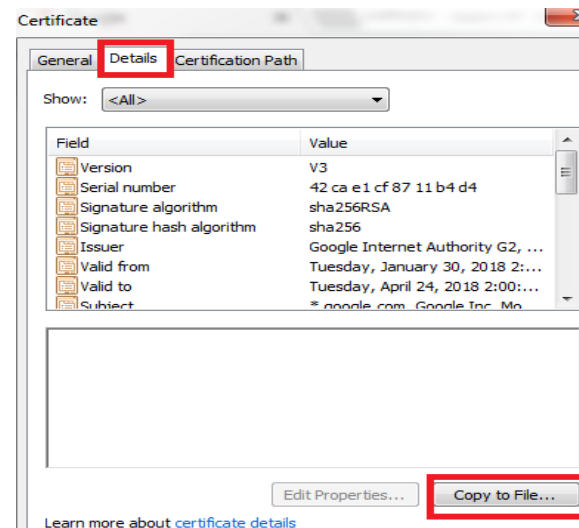
- You cannot directly connect Jaspersoft Studio to SSL enabled Jaspersoft Server until you import the SSL Certificates into your studio installation directory.

Here is how you do it:

- Download the certificates from the client website.
 - Connect to Client CA PPM website in chrome
 - Right click on the page and click on inspect
 - Select Security from the options
 - Click on View Certificate and navigate to certification path to view all the required certificates required for your website
 - Download the certificate by clicking Copy to File



* screenshot shows certificates available for <https://www.google.com>



- Close any Studio instance that is open and running

Jaspersoft Studio – Connect to SSL enabled Server contd..

- Open the studio installation directory in command prompt (folder similar to <local jaspersoft installation directory>\features\jre.win32.win32.x86_64.feature_1.8.0.u74\jre\bin)
- Run the following command

```
keytool -import -alias <aliasname> -keystore "<local jaspersoft installation directory>\features\jre.win32.win32.x86_64.feature_1.8.0.u74\jre\lib\security\cacerts" -file <path of the certificate>\abc.cer
```

<aliasname>: Any name that you want to give for the certificate

<path of the certificate> : Location where your certificates are saved on your desktop

abc.cer: Name of the certificate
- Enter password as “changeit”
- Run the above command for all the certificates
- Open Studio and connect to Jasper Server

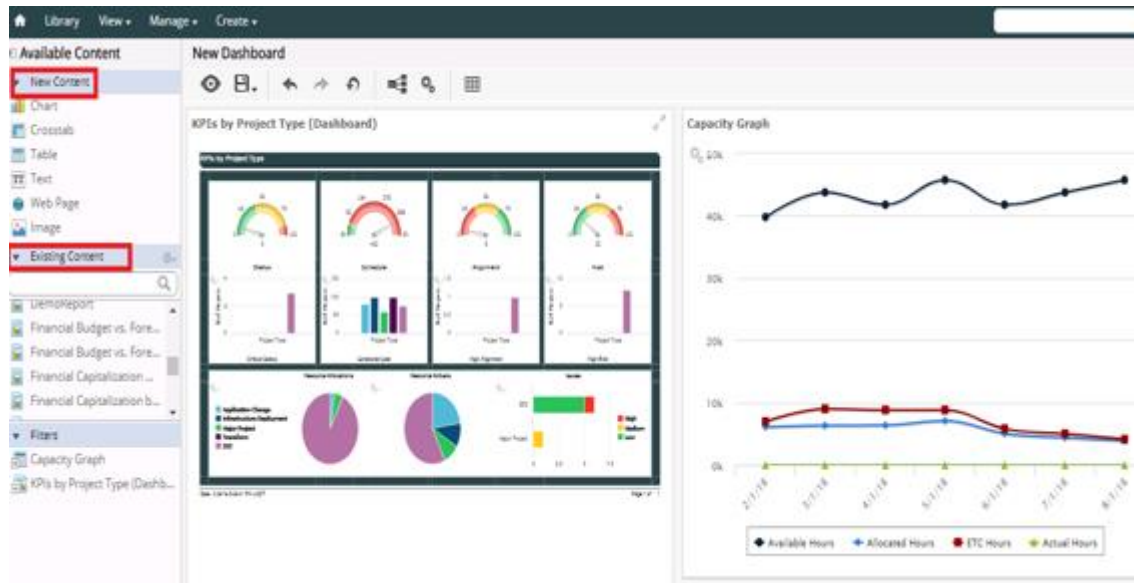
Part IV Agenda

- Tips and Tricks
- Ad-hoc Dashboards
- Ad-hoc Report
- Mobile Demo

Create a Dashboard

Here are the steps to create a dashboard.

1. Log in to CA Clarity PPM. Go to *Home->Personal->Advanced Reporting*.
2. Click on *Create->Dashboard*. Dashboard designer page opens up.
3. In the left panel, you can view Existing Content (*Reports/Dashboards*) and New Content.
4. Drag the required content from the left panel onto the canvas .
5. Resize the content to improve the appearance of the dashboard.
6. You can change the refresh settings of the content by editing its properties (*right click -> properties*)
7. Save the Dashboard to the destination Folder



Dashlet Properties

Basic

Hyperlinks

Dashlet Name:

Capacity Graph

Resource ID:

Capacity_Graph

Source Ad Hoc View:

/users/robertnewell/Capacity_Graph

Show/Hide Dashlet Elements:

☒ Show title bar

☐ Show refresh button

☒ Show maximize button

Refresh Settings:

☐ Auto-refresh dashlet contents

Refresh Interval:

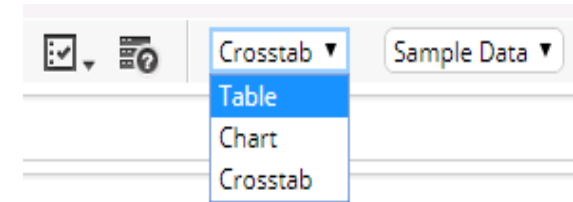
5

Minutes

Create a Adhoc Report

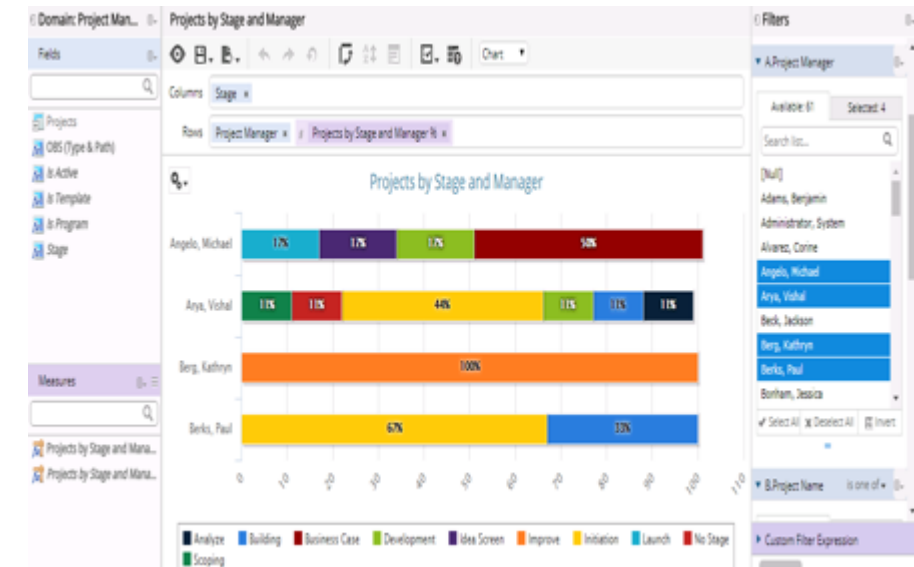
Here are the steps to create a Adhoc Report

1. Log in to CA Clarity PPM. Go to *Home->Personal->Advanced Reporting*.
2. Click on *Create->Ad hoc View*. Select the required Domain and click Choose Data
3. Move the required fields from Source to Selected Fields.
4. Use the pre-filters tab to set any predefined filters and display tab to change the Field names
5. Click Ok to open the Adhoc view
6. Drag the required fields from left panel to Columns and Rows to design the view
7. View type can be changed from Crosstab to Table or Chart
8. Add Filters to view by right click on Available fields and select Create Filter
9. Save the View to destination folder after all changes are completed.



Choose Data

To move items in or out of selected fields, double-click them, drag them, or use the direction buttons.



Connecting To Jaspersoft Mobile

To connect to the Jaspersoft Mobile app follow the steps

1. Tap the TIBCO JasperMobile icon.
2. Complete the following information and tap Login
3. Username
The username to log in to CA PPM.
4. Password
The password to log in to CA PPM.
5. Server URL
The server url that is used to log in to TIBCO JasperMobile.
Example: `https://<PPM Hostname>/ppm/mobile`
6. Click the "+" button in Server Profiles to add an account in the mobile app to connect to the CA PPM server.
Complete the following information and click Save
7. Profile name
Specify the name of your profile. You can specify any profile name that you want.
8. Server address
9. Organization ID
(Not Required) CA PPM automatically identifies this value based on the Server URL, Username, and Password provided.
10. Automatically extend the session
11. Select the added profile and click Login.



Questions?



*rego*University 2019
SAN DIEGO

Let Rego be your guide.

Thank You For Attending regoUniversity

Instructions for PMI credits

- Access your account at pmi.org
- 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**



Let us know how we can improve!
Don't forget to fill out the class survey.



Phone

888.813.0444



Email

info@regouniversity.com



Website

www.regouniversity.com