Steps to Creating a Custom report in Identity Governance

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# Prerequisites

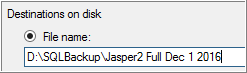
Jasper Studio – Installed and Connected to the DB

ETL Run in IG for the test Dataset

# Backup the Jasper database

Backup the Jasper database before making any changes.

Backup





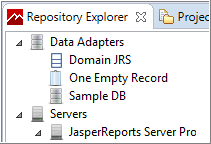
# Create the scenario dataset for the report you are writing

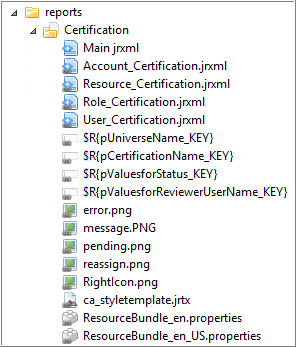
For example, if you want to write a report to show only service accounts, create a certification that has some activity for service accounts. Include Approve, Reject, Comment, Reassign, Share my Work in the list of activities.

Once the work has been submitted, run the ETL to extract the data to the report database.

# Review Structure of an OOTB Report







Main jrxml -- This is the only object actually stored in this folder. All of the others are links. This seems to be the expected way to store the report objects as saving the main configuration tries to add linked objects if it thinks they are missing.

“jrxml” – Jasper Reports xml

The jrxml files are the report descriptions.

In the screenshot we have:

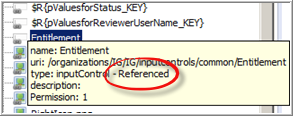
1 Main Report

4 Subreports

Since we are doing resource certifications, we have only modified that one subreport, “Resource\_Certification.jrxml”.

Note that everything about the OOTB report is a link except for the main report.

This can be problematic if you don’t understand that the objects you are editing may be used by multiple reports.



# Copy an OOTB Report that is close to what you want

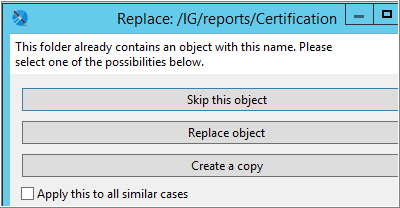
Click on one of the existing reports.

Click “Copy”

Right-Click on the “Reports” folder

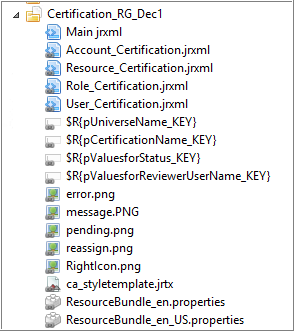
Select “Paste”

Select “Create a copy”



Give the copy a Name

Verify the Copy

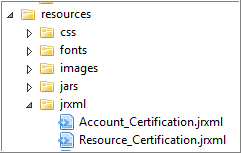


Note Again, that except for the Main.jrxml file, the copied report has links (the grey dash at the lower left of the icon) for all the rest of the report package.

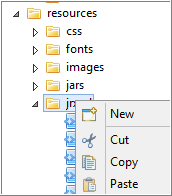
Unless you make your own copy of these, editing them will affect all reports using these linked objects. Also, these base objects would get overwritten if you upgrade to a new version of the product(report set) at some later time.

# Copy any sub report that you want to customize

Navigate to the subreports folder



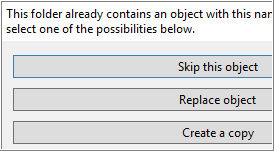
Select the report you want to copy.



Right-Click the subreport, then Copy

Right-Click the jrxml folder, then Paste

Click “Create a Copy”



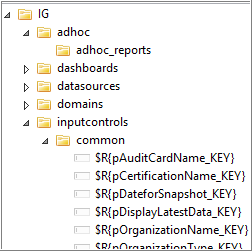
Rename as desired



Click “OK”

# Copy any OOTB input controls you want to customize

Navigate to the OOTB input controls



Make a copy of any controls you want to customize

Right-Click the control, then Copy

Right-Click the common folder, then Paste

Click “Create a Copy”

The OOTB use variables in the name to enable multiple language support. If that is not needed then type the desired name directly.

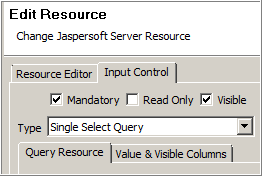
## Customize the Control

If you created a copy, then there is an assumption that you needed it to work differently than the original.

The most common, and easy, change is to make the control optional.

Double-Click the control to edit it.

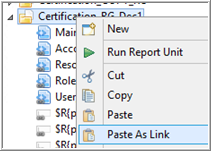
Uncheck “Mandatory”



With “Mandatory” unchecked, if the end user does not select anything for the inputcontrol, then no filtering will be done on that variable.

# Add new Subreports and Input Controls into the report

Copy and Paste the control or subreport into the new reports folder.



Make sure to choose “Paste As Link”

If the original report had a different version of the same control, delete that version.

# Set up Parameters to be passed on the main report

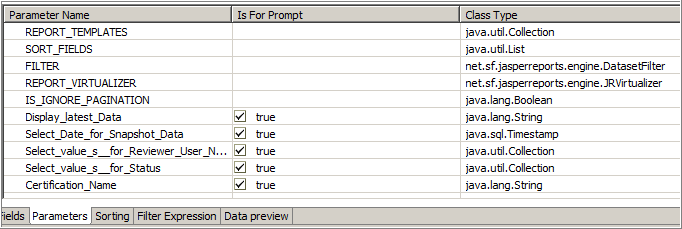
Double-Click “Main.jrxml”

Note if it doesn’t open, try “Build All” from the Menu bar.



Open the Dataset and Query Editor





There needs to be a parameter for each input control

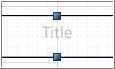
If changing to query to allow multiple certification in one report, the main query needs to be adjusted.

**select** I2\_CAMPAIGN\_SCD.TYPE **from** I2\_CAMPAIGN\_SCD

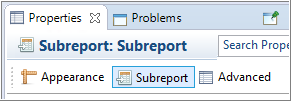
**where** $X{IN,I2\_CAMPAIGN\_SCD.NAME,Certification\_Name\_Multi}

# Set up the sub reports

Click “Title”



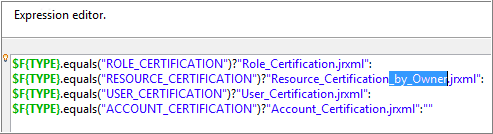
Click “Subreport”



Click the Expression Editor icon



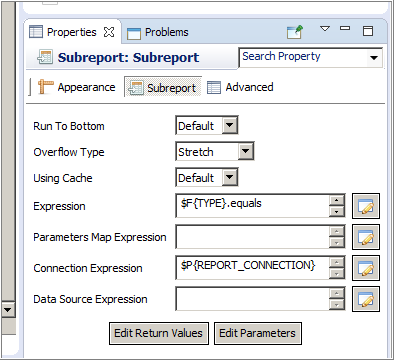
Change the subreport name to match the custom subreport name



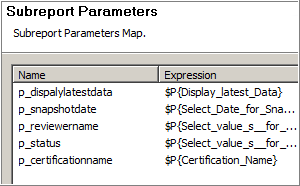
# Edit the Subreport Parameters

In the Main report click the title.

In the “Prepoerties” tab, click the “Subreport” subtab.



Click “Edit Parameters”



If you have customized the variable created by an input control or added new input control, add those here.

The convention is to name the parameter with a “p\_”, but this is optional.

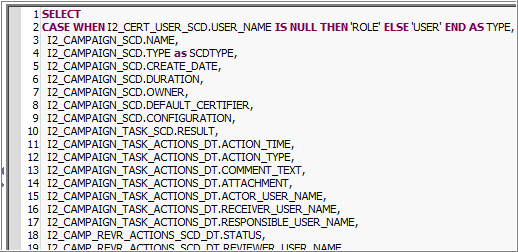
# Edit the Subreport Query

Note Reference to Parameters in the Main report

Edit Resource\_Certification\_by\_Owner.jrxml



Click “Dataset and Query Editor” icon. 

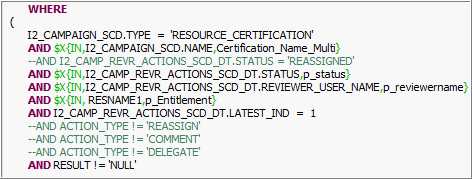


Edit the query as desired.

You will likely need to copy the query to Microsoft SQL Server Management Studio or other query writing tool if you are making major changes.

For the most part, useful reports can be created by simply modifying the where clause.

Example 1



Example 2

**WHERE**

(

I2\_CAMPAIGN\_SCD.TYPE = 'RESOURCE\_CERTIFICATION'

**AND** $X{IN,I2\_CAMPAIGN\_SCD.NAME,Certification\_Name\_Multi}

**AND** $X{IN,I2\_CAMP\_REVR\_ACTIONS\_SCD\_DT.STATUS,p\_status}

**AND** $X{IN,I2\_CAMP\_REVR\_ACTIONS\_SCD\_DT.REVIEWER\_USER\_NAME,p\_reviewername}

**AND** $X{IN, RESNAME1,p\_Entitlement}

**AND** I2\_CAMP\_REVR\_ACTIONS\_SCD\_DT.LATEST\_IND = 1

--AND RESULT != 'NULL'

--AND I2\_CAMP\_REVR\_ACTIONS\_SCD\_DT.STATUS != 'REASSIGNED'

--AND ACTION\_TYPE not in ('REASSIGN','COMMENT','DELEGATE')

--AND RECEIVER\_USER\_NAME is null

**AND** I2\_CERT\_USER\_SCD.PERSON\_ID **like** 'Empty\_Group%'

)

Note: The $X function is specific to Jasper and will not run in SQL Server. The report engine writes the proper SQL dynamically. This add flexibility in passing parameters to the query.

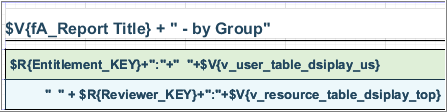
EQUAL – parameter must be of type “java.lang.String”

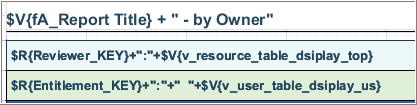
IN – parameter must be of type “java.util.Collection”

## More Examples

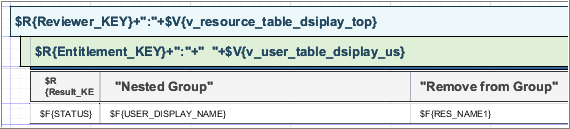
By Group vs By Owner

Just switched the grouping order and associated formatting. Otherwise the same report.









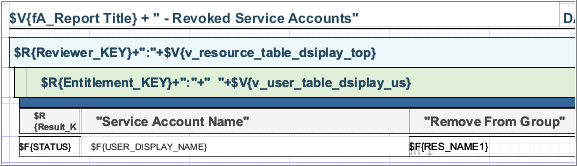
**AND** I2\_CERT\_USER\_SCD.DISPLAY\_NAME **like** 'Group: %'

**AND** RESULT = 'result.certification.reject'

**AND** (ACTION\_TYPE = 'REJECT' /\*OR ACTION\_TYPE = 'COMMENT' \*/)

**AND** I2\_CAMP\_REVR\_ACTIONS\_SCD\_DT.STATUS = 'REJECTED'

**AND** RECEIVER\_USER\_NAME **is null**

****

**AND** I2\_CERT\_USER\_SCD.DISPLAY\_NAME **like** '% (Service)'

**AND** RESULT = 'result.certification.reject'

**AND** (ACTION\_TYPE = 'REJECT' /\*OR ACTION\_TYPE = 'COMMENT' \*/)

**AND** I2\_CAMP\_REVR\_ACTIONS\_SCD\_DT.STATUS = 'REJECTED'

**AND** RECEIVER\_USER\_NAME **is null**

# Format the Report Body

See Palette on the right

Note: The body elements are encapsulated in “Frames”. Try to edit the whole frame as much as possible instead of individual objects.

Edit the container, not the individual objects



Compare format of



Note csv version has a much simpler layout so that if saved to csv, there are no format breaks in the data.

Reassignments

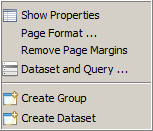
OOTB Report + a focus on the reassign information



## Create a Group

Right Click the very top item in the Report Inspector and choose Add Report Group

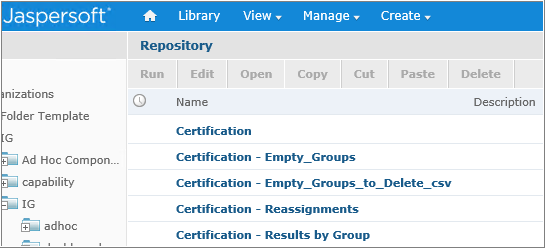
Or click on the space above the Title band or below the Summary band then right click in there for the same thing



# Edit Formulas to Suit

# Save the Report

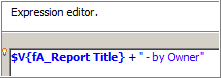
# View the Report in the JasperReports Server Repository



# Test in the IG GUI

Double-Click the Title

Add “ – by Owner” to the title



# Migrate the report to Prod

# Using the Report Wizard to Create a new Report

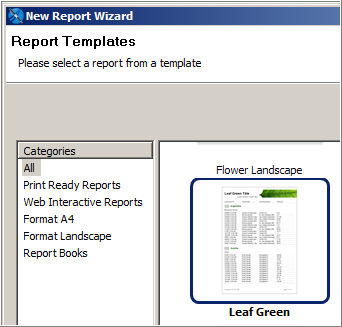
This is beyond the scope of this document, but just for fun…. While easy to create a basic report, you have a lot of work to do to make the report interactive (ie. add input controls).

The following is some testing

Create a Data Source

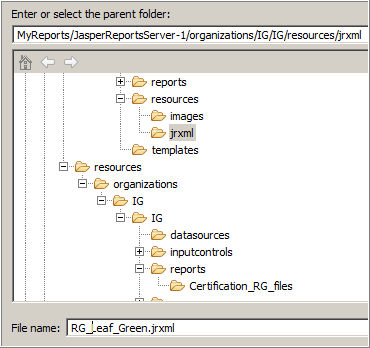
File > New Report

Pick a template



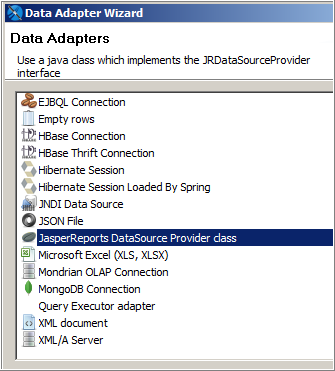
Name the report file

Pick a location to save the report to



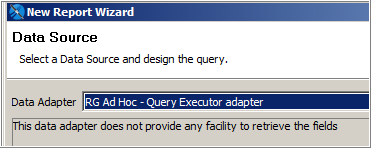
Create a New Data Source

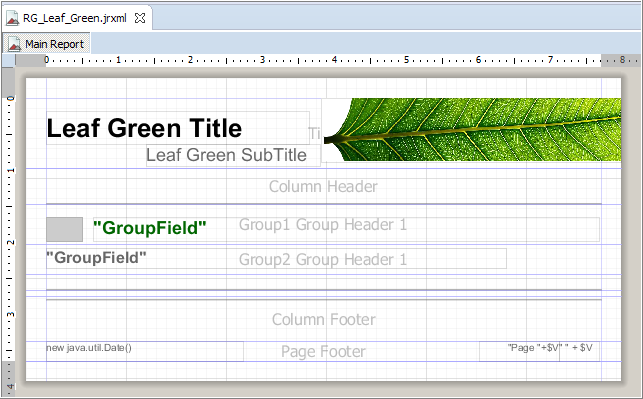




Choose Query Executor Adapter



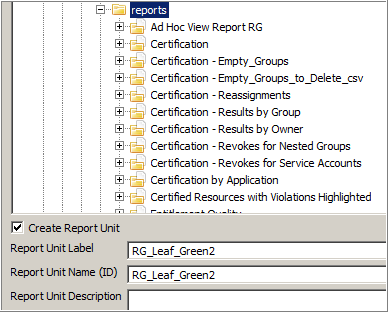


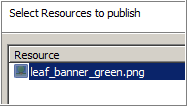


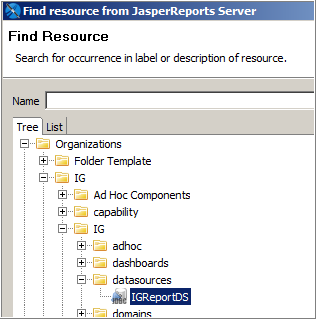
A report has been created empty.

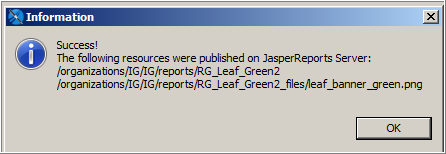
Publish to Report Server











Right-Click on the report folder

