



Building Custom Reports with iReport 5.1.0

By

VetView
Jevon D. Maynard

CONTENTS

Downloading iReport 5.1.0.....	2
Jasper Community - SourceForge.....	2
Setting Up The Database	2
Setting the Classpath	2
Establishing Connection	3
Making a New Report.....	3
Choosing a Template	3
Name and Location.....	3
iReport Basics.....	4
Important Windows	4
The Report Inspector Window.....	5
Querying Datasets.....	5
Using Fields and Variables	5
The Palette Window	6
The Report Editor Window	6
The Designer Tab	6
The Preview Tab.....	7
The XML Tab.....	8
iReports and VetView	8
Importing iReports Into VetView	8
Printing iReports in VetView	10

DOWNLOADING IREPORT 5.1.0

Jasper Community - SourceForge

Navigate your web browser to <http://sourceforge.net/projects/ireport/files/iReport/iReport-5.1.0/>

Windows users should download the iReport-5.1.0-windows-installer.exe file and Mac users will need the iReport-5.1.0.dmg file

Locate and run the installer

SETTING UP THE DATABASE

Setting the Classpath

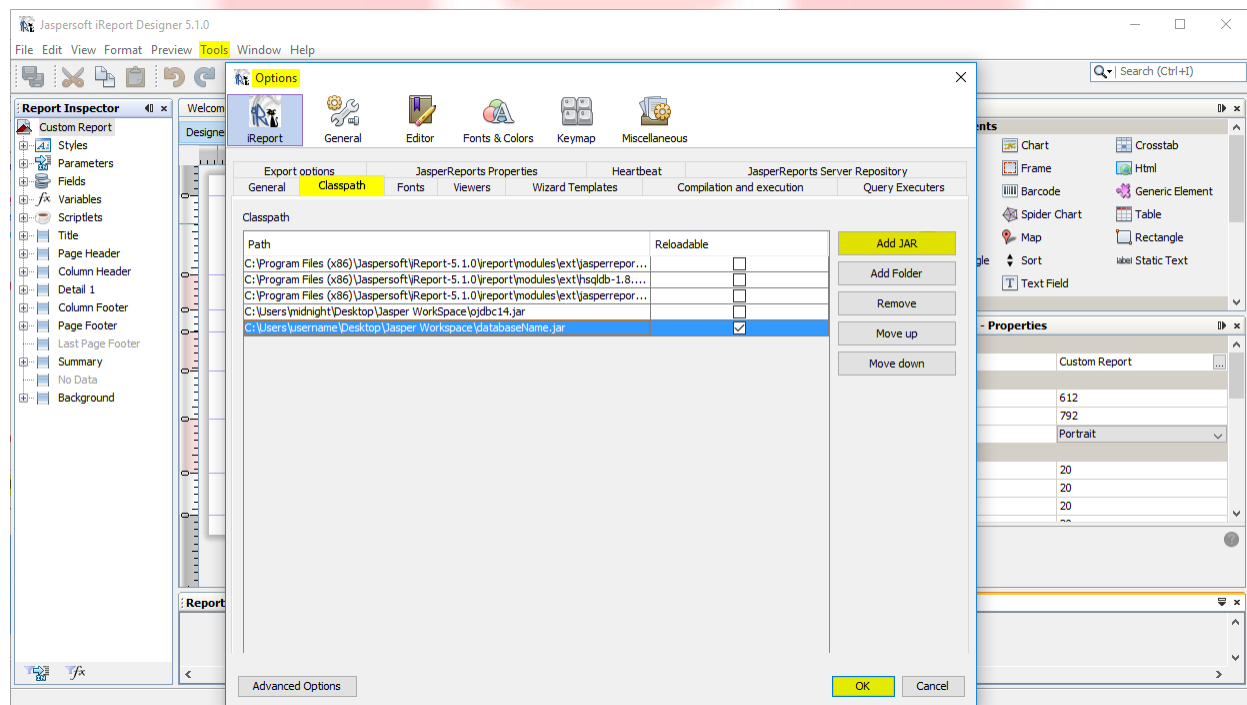
Open iReport and navigate to the Tools/Options/Classpath tab

Click the Add JAR button located towards the right side of the window

Locate the library file that you want to import and click the Open button (optionally mark the library file as reloadable) then click the OK button to close the Options Window

*Suggested File Path: C:\Users\username\Desktop\Jasper Workspace\databaseName.jar

iReport – Setting The Classpath



Establishing Connection

Click the Connections Setup button located to the right of the Undo/Redo buttons on the toolbar

Click the New button to setup a new connection

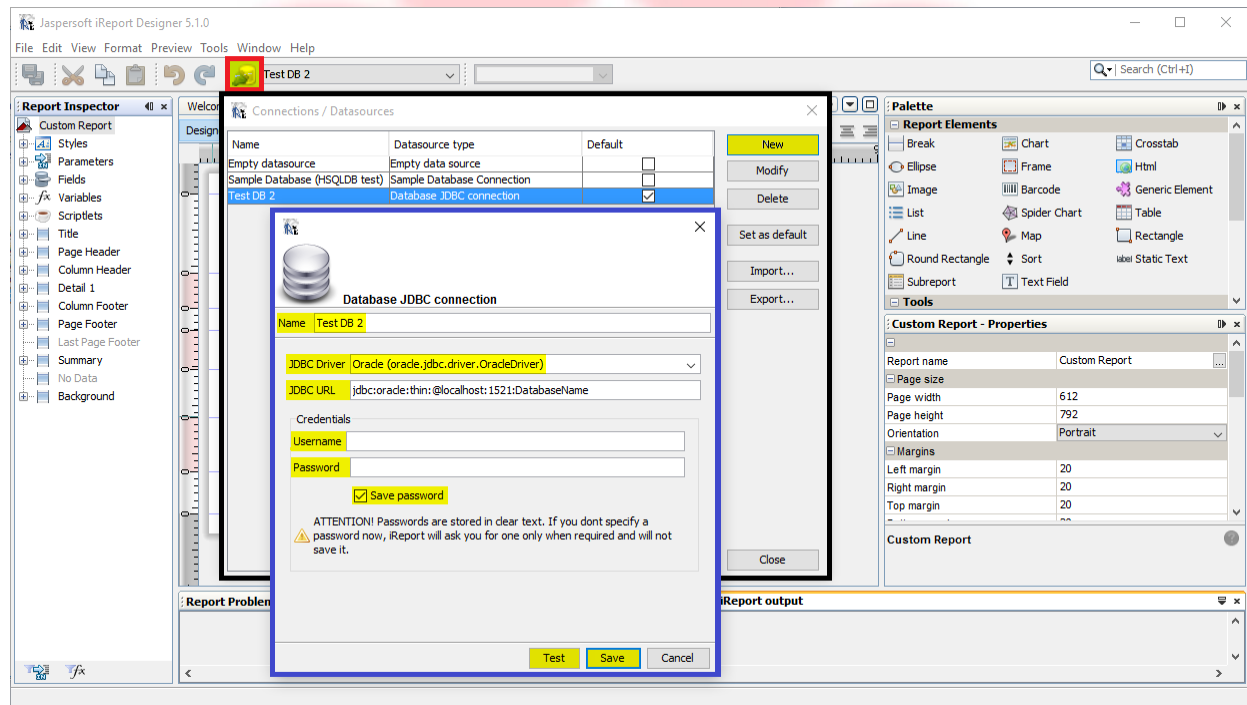
Select the type of connection you would like to add [Database JDBC connection] and press the Next button

Name your connection, select the JDBC Driver type [Oracle (oracle.jdbc.driver.OracleDriver)], and enter the corresponding JDBC URL

Enter in appropriate credentials to access the database (choose whether or not you want to save your password)

Click the Test button, if Connection Test is successful click the Save button and Close the Connection Setup window

iReport - Establishing Connection



MAKING A NEW REPORT

Choosing a Template

Navigate to File/New

Select the desired report template from the choices available and click the Open this Template button

Name and Location

Name your report, select the location where you want to store your reports, and click the Next button then click the Finish button to generate your new report **Suggested File Path: C:\Users\username\Desktop\Jasper Workspace\iReports\reportName.jrxml

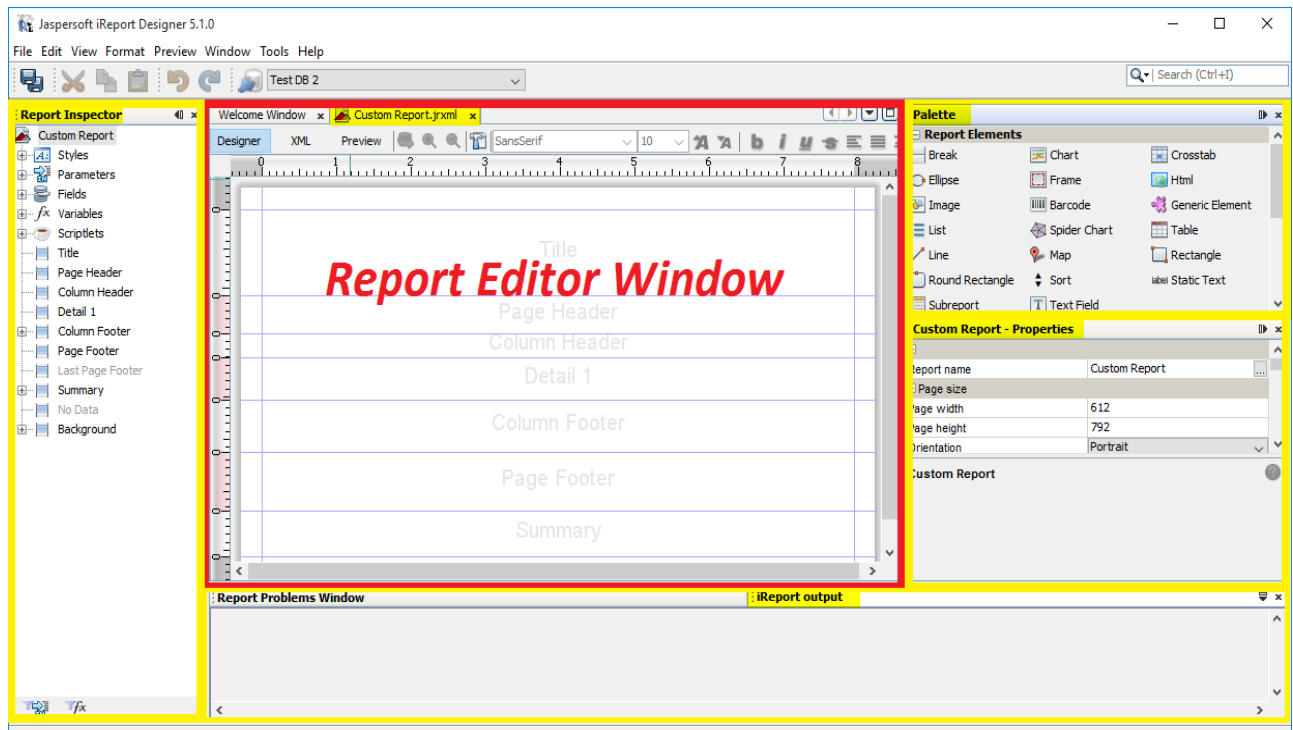
IREPORT BASICS

Important Windows

The Report Editor window is the center window, make sure that the following additional windows are viewable: Report Inspector, Palette, Properties, and iReport output

If any of the windows are missing, or you want additional windows, you can add them to the screen by accessing the Windows tab and selecting desired windows to view (window size/location are customizable)

iReport – Important Windows



THE REPORT INSPECTOR WINDOW

Querying Datasets

Right-click the name of your report in the Report Inspector window and select Edit Query to query your database for desired datasets

Select your query language [SQL] and enter a desired query into the Query pane, by default iReport 5.1.0 will automatically retrieve fields when a valid query is entered

You can remove undesired fields by selecting and pressing the Delete key on your keyboard, press OK to save your query and desired fields, and return to the main window

Optionally, you can create parameters in the Parameters pane, located on the right-side of the window, that you can drag and drop into the Query pane

When importing your report query into VetView, VetView allows you to reference the parameters you create in iReport so that the intended viewer can pull reports based on the criteria they need

iReport – Querying Datasets

Right Click Report Name Then Select Edit Query

Field name	Field type	Description
REQUEST_ID	java.math.BigDecimal	
VERSION	java.math.BigDecimal	
ACCESSION	java.math.BigDecimal	
CLINIC	java.math.BigDecimal	
EXT_URL	java.lang.String	
QUANTITY	java.math.BigDecimal	

Using Fields and Variables

In the Report Inspector window, you can expand the fields section to see the list of fields you retrieved, select a field to display its details in the Properties window, you can also edit its details from the Properties window (make sure all date fields are of Parameter Class java.util.Date)

Drag and drop desired fields into the Designer tab of the Report Editor window in the location preferred

Similarly you can insert Variables such as Page Number, Column Count, etc., into your report, from the Variables section of the Report Inspector

THE PALETTE WINDOW

You can drag and drop elements from the Palette into the Designer tab of the Report Editor window to use in your report

Certain elements from the Palette are customizable once placed onto your report, just select it in the Designer tab of the Report Editor window and edit accordingly

THE REPORT EDITOR WINDOW

The Designer Tab

The Designer Tab is the main tab of the Report Editor window and is divided into organizational areas called bands

All bands are optional, you can delete bands by right-clicking and selecting Delete Band in the Designer tab directly or from the Report Inspector window, while you can only add bands from the Report Inspector window

Band sizes are fully customizable and can be edited by sliding the blue boundary markings to desired positions (double-click a boundary line to remove all empty\white space above it)

Anything added to the Title band will only appear on the first page of the report, similarly anything placed in the Summary band will only display on the last page

Anything added in Header and Footer bands will display on all pages of the report, and the Detail band houses the actual substance of your report

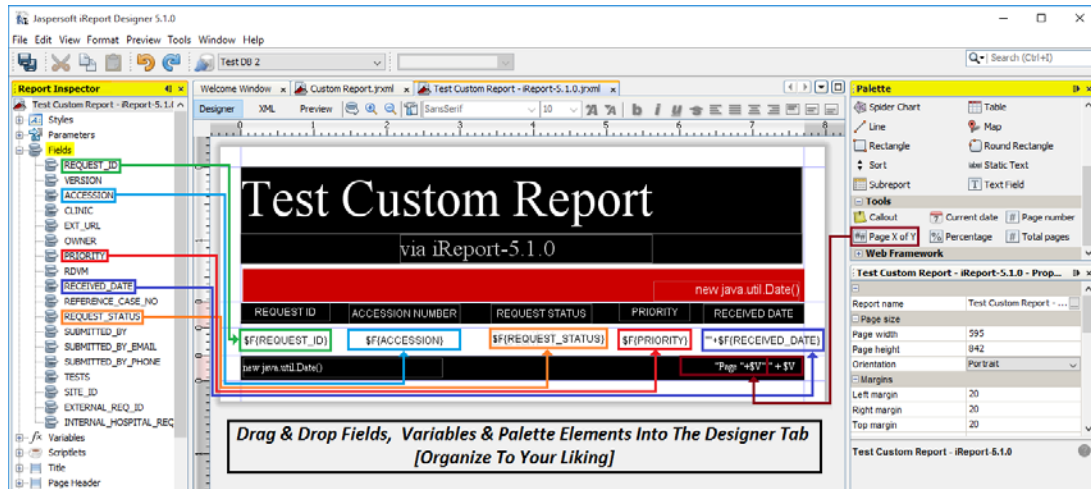
For any field placed in a Detail band iReport will automatically create and place a corresponding label in the Column Header band and if that field would return a list of items as a result of the parameters of your query then iReport would duplicate the Detail band for each item of that field returned on the actual report (this is how you print a list)

In the Designer tab you can organize palette elements, fields, and variables to your liking (dragging to desired location\band)

* Drag-selecting, also referred to as click-and-drag, is the process of clicking on a portion of the screen, holding down the mouse button, and dragging the cursor to another location. In the Designer tab the selection area while drag-selecting will be highlighted purple

** Drag-selecting from left to right in the Designer tab will only select the items that are completely inside of the highlighted area, drag-selecting from right to left will select all items that touch the highlighted area

iReport – Editing A Report



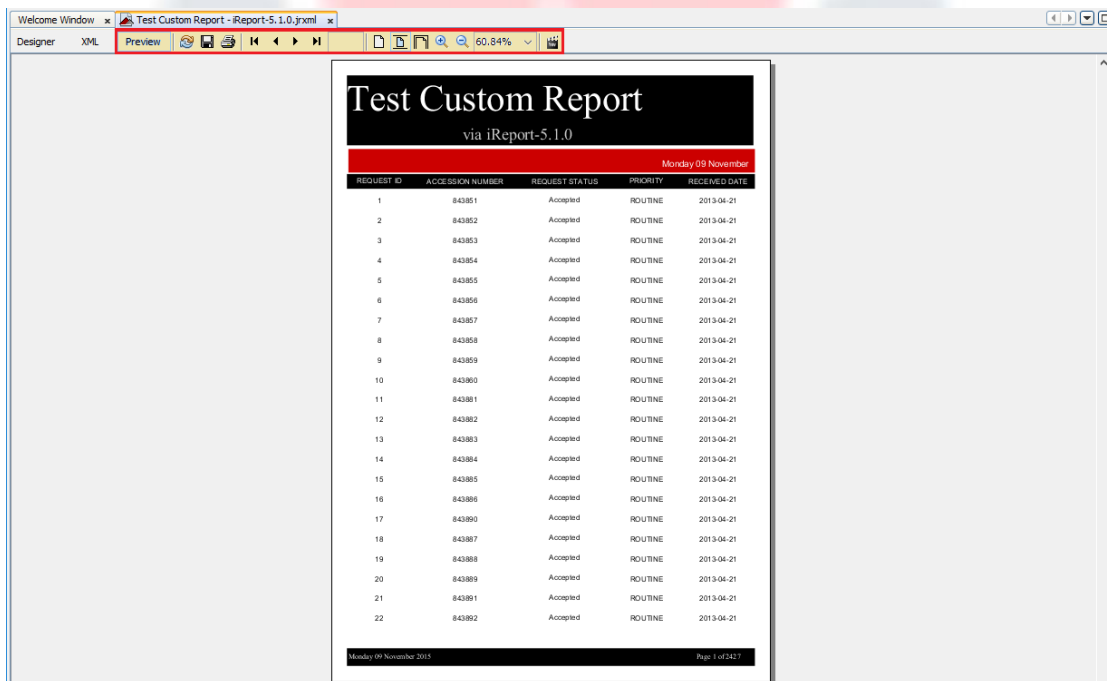
The Preview Tab

Selecting this tab will display a preview of how your report will look to your intended viewers, if parameters are included in your report you will be prompted to assign temporary values and view a sample report specific to those values

You can print the report, save the report or an image of, flip through pages, zoom, and run the preview again (to change parameters) all from this tab

If you get an error or an report with 0 pages then you will need to check the iReport Output window for more information and double check the properties of the fields, variables, palette elements, and parameters included in your report for inconsistencies with field class and other details

iReport – Preview Report



The XML Tab

JasperReport designs are files stored in XML format, The XML tab show the content of this file

The top-level tag of this file is JasperReport, on the next level the detail tags are set:

- Properties and style (default font, font size, etc.)
- The queryString (important: this is the report entry point)
- Report background
- Report title and image
- Reported fields, positioning, layout, etc.

IREPORTS AND VETVIEW

Importing iReports Into VetView

Navigate to the desired Report Setup Screen (Hospital or Labs) [Navigation button, Report Setup link]

Click the Add button to add a new report [top left of the Report List Tab]

Fill out the Edit Report Setup Screen as desired (make sure Report Type is set to Local Report and the report is marked as Active), clicking save will give you further options

Certain screens inside VetView will automatically pass in specific parameters to a report associated with that screen [refer to <https://vetview.atlassian.net/wiki/display/TECH/Local+Reports> for more information]

Upload the .jrxml file to the Jasper Report Template and the .jasper file to the Jasper Report File then click save to finalize your options

If you used parameters in your Custom Report, and want the intended viewer to be able to pull/print reports based on certain criteria you would need to add them to the Report Parameters tab

Click the Add button on the Report Parameters tab, select a Data Type, Label is what the intended viewer will be asked for in the prompt (ex. Start Date), Name should be set to the same name you used for that parameter in iReport (ex. startDate) Optionally you can enter Default Values that will populate in the prompt but will still be editable

Optionally you can click the Preview button to see a preview of your Custom Report

VetView - Report Setup

Report Setup

Laboratory: Athens Diagnostic Laboratory System Report

Report Name: Test Custom Report - iReport-5.1.0 Active

Header Image File:

Report Type: Local Report Default

Data Source: SQL

Security Role:

Associated Screen: Request

Jasper Files

Jasper Report Template	Test Custom Report - iReport-5.1.0.jasper	<input type="button" value="Upload"/>	<input type="button" value="Download"/>
Jasper Report File	Test Custom Report - iReport-5.1.0.jasper	<input type="button" value="Upload"/>	<input type="button" value="Download"/>

Report Parameters

Type	Label	Name	Value List	Default Value
Date	Start Date	startDate		
Date	End Date	endDate		

VetView - Report Parameters Prompt

Test Custom Report - iReport-5.1.0

Start Date: Jun 1, 2015

End Date: Nov 9, 2015

Printing iReports in VetView

Navigate to the desired Local Reports Screen (Hospital or Labs) [Navigation button, Local Reports link]

Select the Local Report you want to print and click the Print button (you could also double click the desired report)

Enter in desired parameters if prompted, then click the Run Report button

VetView – Print/Preview Report

The screenshot shows a window titled "Test Custom Report - iReport-5.1.0" with a date range from Jan 9, 2015 to Nov 9, 2015. Below this is a smaller window titled "Export to Excel" which displays the report content. The report has a black header with "Test Custom Report" in white, followed by "via iReport-5.1.0". A red bar indicates the date "Monday 09 November". Below this is a table with the following data:

REQUEST ID	ACCESSION NUMBER	REQUEST STATUS	PRIORITY	RECEIVED DATE
44427	962173	Accepted	ROUTINE	2015-01-09
44428	962174	Accepted	ROUTINE	2015-01-09
44458	962198	Accepted	ROUTINE	2015-01-09
44459	962199	Accepted	ROUTINE	2015-01-09
44460	962200	Accepted	ROUTINE	2015-01-09
44429	962175	Accepted	ROUTINE	2015-01-09
44430	962176	Accepted	ROUTINE	2015-01-09
44471	962218	Accepted	ROUTINE	2015-01-09
44461	962220	Accepted	ROUTINE	2015-01-09
44438	962242	Accepted	ROUTINE	2015-01-09
44462	962207	Accepted	ROUTINE	2015-01-09
44463	962208	Accepted	ROUTINE	2015-01-09
44439	962244	Accepted	ROUTINE	2015-01-09

At the bottom of the report window is a toolbar with icons for navigation (up/down arrows), left/right arrows, search (magnifying glass), zoom in (+), zoom out (-), save (floppy disk), and print (printer).