



ZuckerReports iReport Tutorial





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Introduction

This Step-By-Step tutorial shows how to use the free software “iReport” to design, deploy and run a simple report with ZuckerReports and export the result as PDF. iReport is a powerful, intuitive and easy to use visual report designer, suitable for use with ZuckerReports (<http://ireport.sourceforge.net/>). ZuckerReports is an extension module for Sugar Suite, the well-known Open Source Customer Relationship Management software. In short, it provides the following functions:

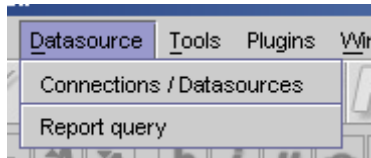
- Management of report definitions and query templates
- Management of parameter selection lists
- Parametrization and execution of report definitions and query templates
- Categorization of executed reports and query results for later use
- Export of executed reports and query results in various formats



iReport Configuration

You have to configure iReport to get access to your Sugar database.

Open menu item “Datasource -> Connections / Datasources” and click on the “New” button to open the “Connections Properties” dialog.



Enter/Select the following values:

Type of connection/datasource -> select “Database JDBC connection”

Name -> enter “sugar”

JDBC Driver -> select “com.mysql.jdbc.Driver”

JDBC URL -> enter “jdbc:mysql://<sugar-mysql-host>/<sugar-mysql-database>”

Note: alternatively you can enter the mysql-host in the field “Server Address” and the mysql-database in the field “Database” in the “JDBC URL Wizard” box and click on the “Wizard” button afterwards.

Username -> enter the mysql username used for Sugar

Password -> enter the mysql password used for Sugar

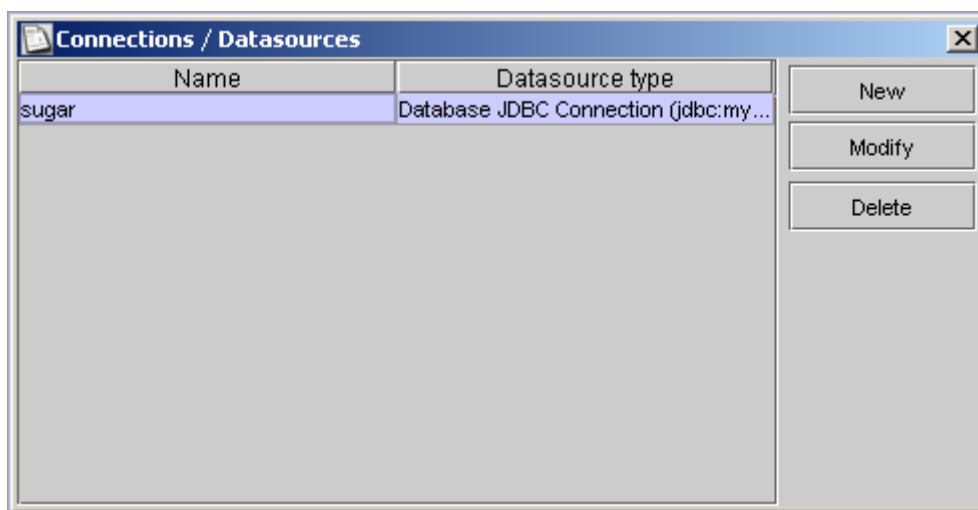
Save Password -> make this box checked if you don’t want to enter the password in future.



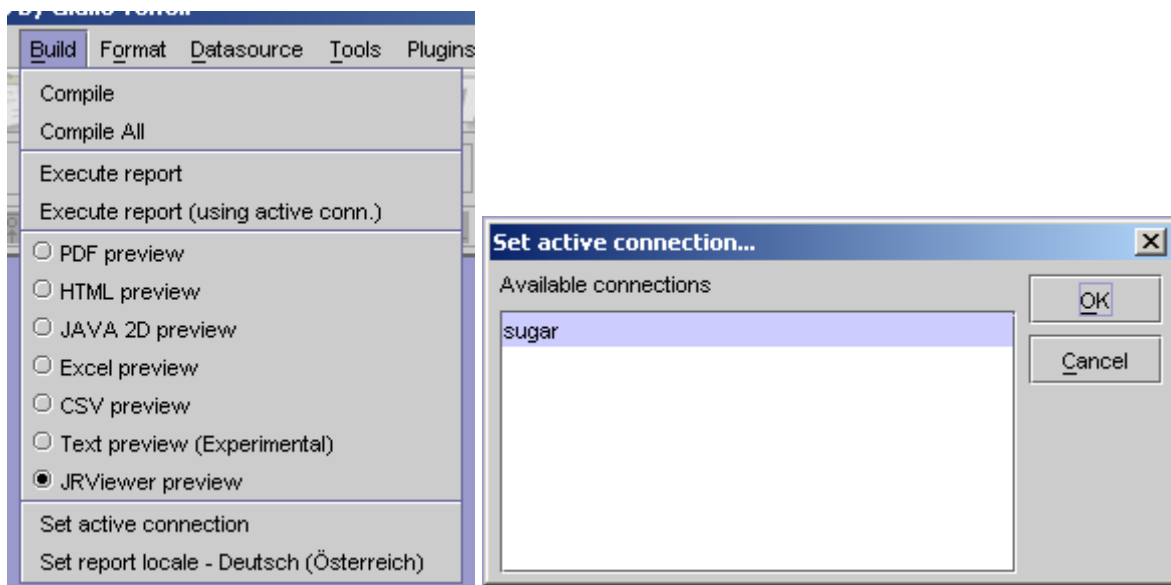
Click the “Test” button to do a connection test and afterwards click the “Save” button.



The “Connections / Datasources” dialog now shows the sugar mysql connection.



Close this dialog, open menu item “Build -> Set active connection” and ensure that “sugar” is the currently selected connection in the “Set active connection” dialog.

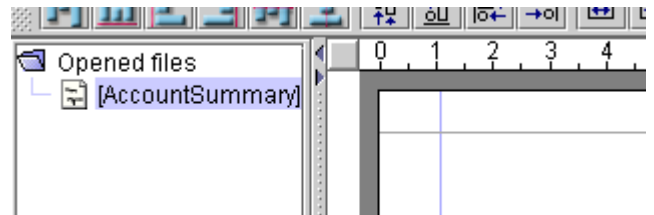
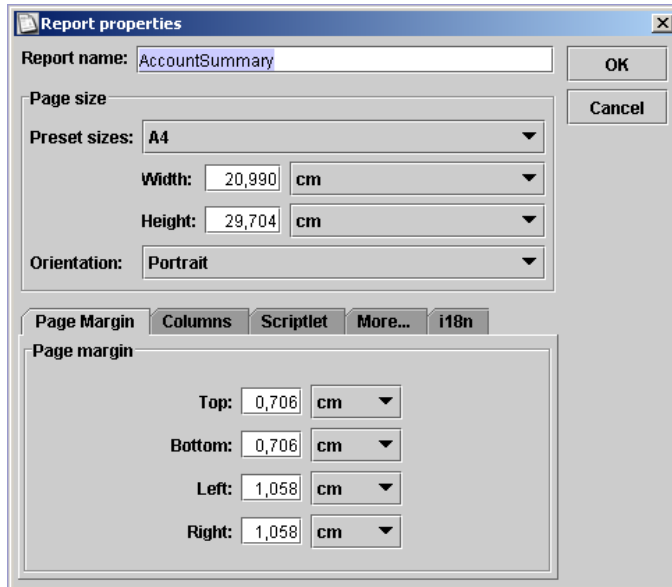




Start a new Report

Select menu item “File -> New Document” to open the “Report properties” dialog. In the “Report name” field enter “AccountSummary” and click the “OK” button to open a blank report design.

Note: Please be sure to not use blanks in the “Report name” field.

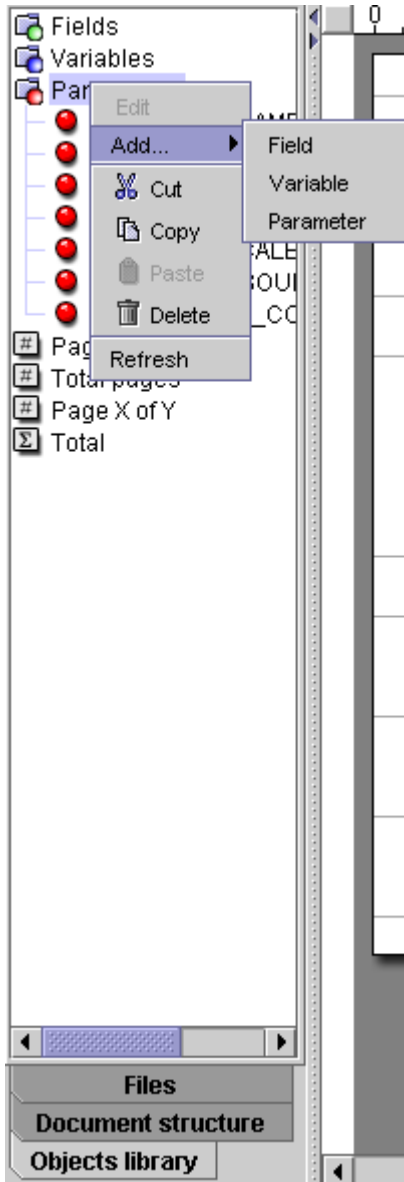




Enter the Report Query

Now it is time to tell the report which data to show. In this tutorial we will build a report which allows the user to select an account, the report will show some account details and a list of contacts for this account.

First we have to define a so-called "Report Parameter" named "ACCOUNT_ID", which is given to the report for filtering data for the user-selected account.



In the "Project Browser" tree view on the left side of the screen, select the "Objects library" tab at the bottom. Right-click on "Parameters" and select popup menu "Add -> Parameter".

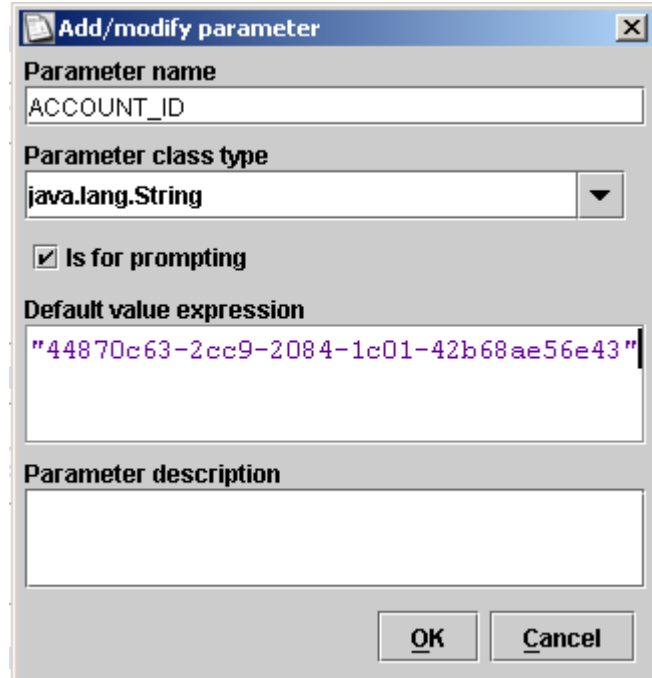
In the "Add/modify parameter" dialog enter/select the following values and click the "OK" button afterwards.

Parameter Name -> enter "ACCOUNT_ID"

Parameter class type -> select "java.lang.String"

Is for prompting -> make this box checked

Default value expression -> enter the Sugar ID of an account in your sugar database (see note below), don't forget the double quotes.

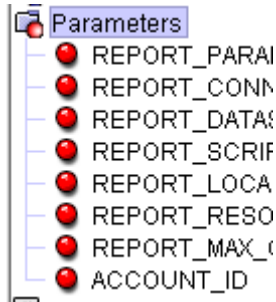


Note on *ACCOUNT_ID*: a valid Sugar ID of an account is needed for this purpose to allow iReport to make a preview of what the report will look like, which is a great help when designing a report. For getting the Sugar ID of an account, open the detail view of the account in Sugar and copy the string following "record=" from the address field of your browser.

ts&record=44870c63-2cc9-2084-1c01-42b68ae56e43



You can now see the “ACCOUNT_ID” in the list of Parameters in the “Project Browser”.

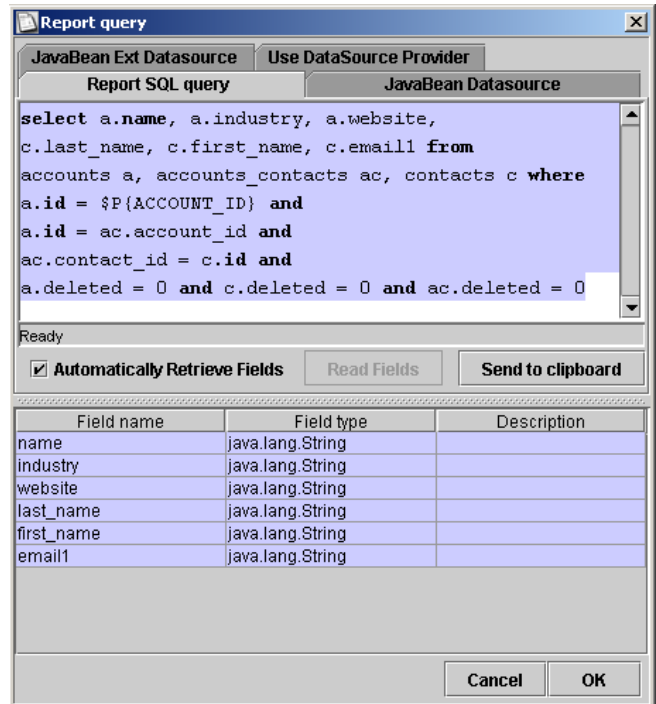


Now let’s enter the SQL for the query.

Open menu item “Datasource -> Report query” to open the “Report query” dialog, where you can enter an SQL-query to use. Select the “Report SQL query” tab, make sure that the “Automatically Retrieve Fields” checkbox is checked and enter the following query into the textbox:

```
select a.name, a.industry,  
c.last_name, c.first_name, c.email1  
from  
accounts a, accounts_contacts ac,  
contacts c where  
a.id = ${ACCOUNT_ID} and  
a.id = ac.account_id and  
ac.contact_id = c.id and  
a.deleted = 0 and c.deleted = 0 and  
ac.deleted = 0
```

Please note that we refer to the previously defined parameter by restricting search to `${ACCOUNT_ID}` within the SQL query. All of the selected columns are shown in the field listing. Click the “OK” button to close the dialog.



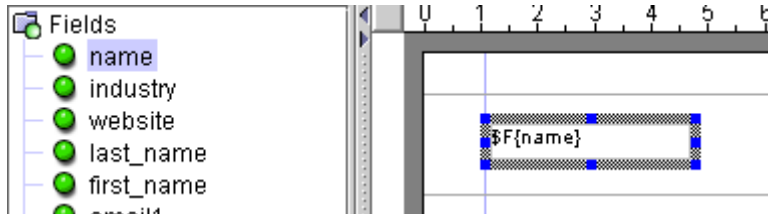
You can now see all the query result fields in the “Fields” section of the “Project Browser”.



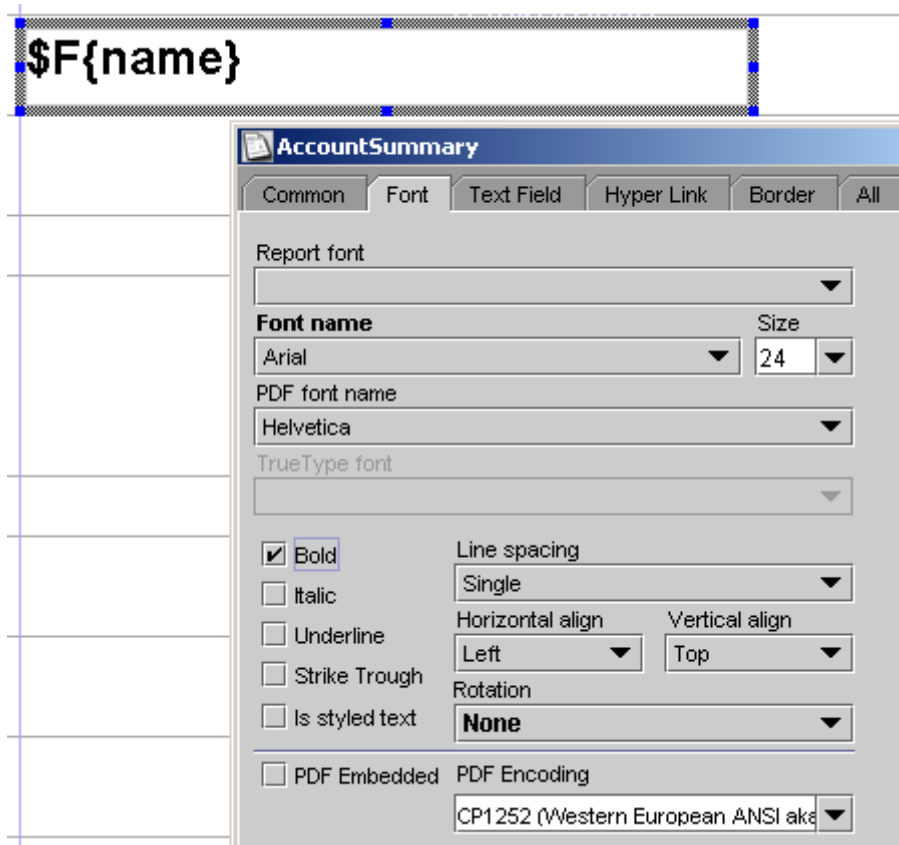


Design the Report

Now it is time to tell the report where to show which information!
Drag&Drop the “name”-field onto the section on the report called “title”.



You can make the “name” field larger by dragging it with the mouse. Double-Clicking it opens a dialog box where you can change font style, size, alignment and others. Give the field a larger font by changing the “Size” field in the “Font” tab.



Now let’s add the detail information for the account. Drag & Drop the “industry” and “website” field onto the section called “columnHeader”. We have to give some textual information on these fields, so select the “T” button in the toolbar to activate the “Static text tool”.

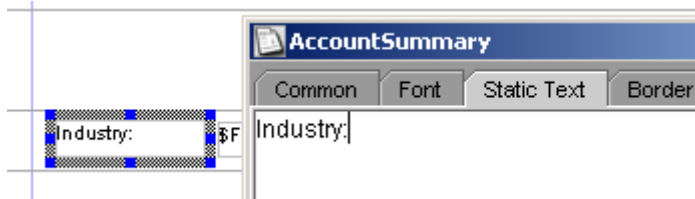




With the mouse, paint a query in front of the “industry”-field.



Double-clicking it open a dialog box, where you can select the “Static Text” tab and enter “Industry:” for setting the text for this field. Do the same to add a label for the “website”-field.

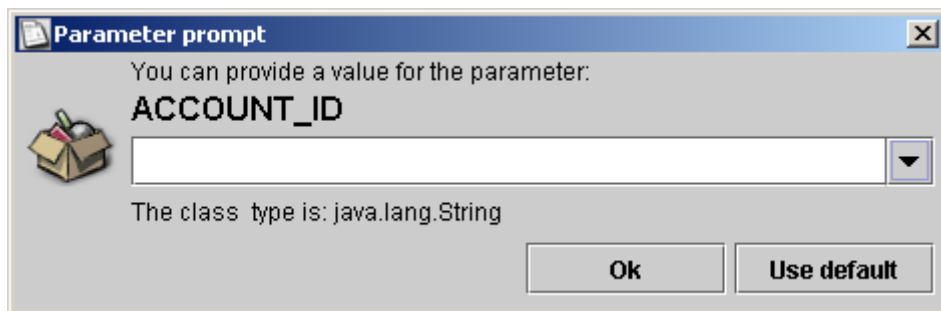


Now it’s the time to execute the report for the first time to check the layout. Save the report design (“File -> Save as ...”).

Click on “Build -> Compile” to compile the report design.

Afterwards click on “Build -> Execute report (using active conn.)”

A dialog box opens asking to give a value for the “ACCOUNT_ID”-parameter. Click the “Use default” button.

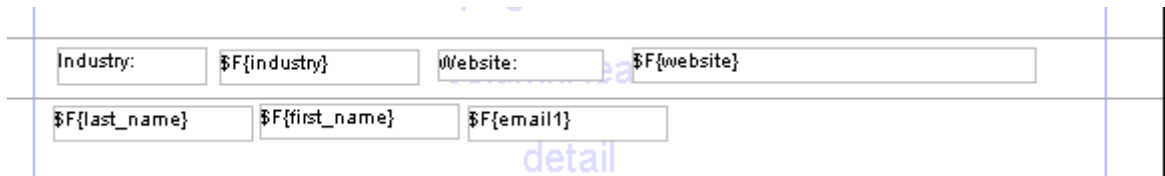


You now see the report you just created with data filled from your database. Success!

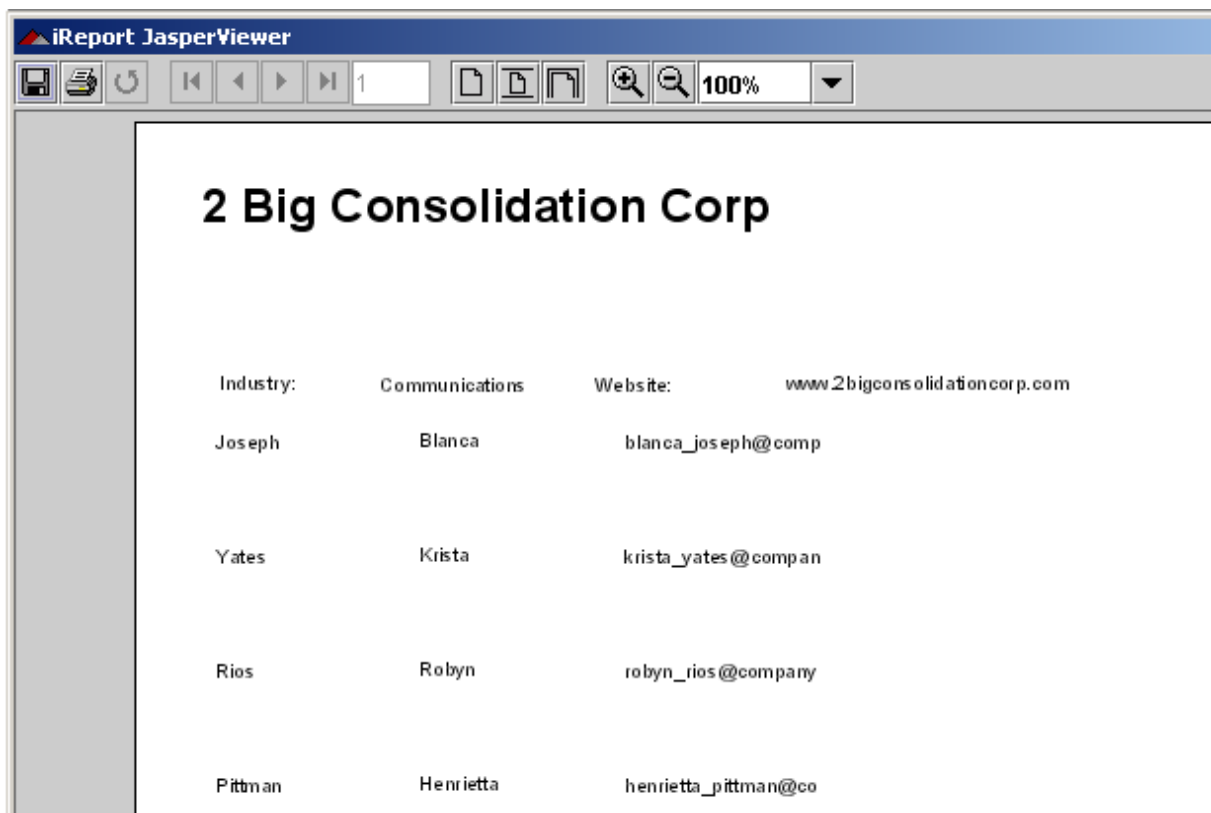




Now let's add the contacts for the account to the report. Drag&Drop the "last_name", "first_name" and "email1" fields from the "Project Browser" to the section named "detail". Save the report, compile it and execute it as before.



You now see the list of contacts on the generated report. Checking the menu item "Build -> PDF preview" will generate a PDF-file you can open in Acrobat Reader, for example.



This report is rather ugly, but now that you know the basics, is rather easy to change the report design. Just play around with all the dialogs in iReport to reach amazing results! Here is a list of what you can do with it:

- Include your company logo and other pictures
- Group data and do group calculations
- Use subreports to build more complex reports
- Include charts generated on the fly with data from the specified SQL query
- Use iReport for doing mass mailings
- Include hyperlinks for linking to your Sugar items from the reports, enabling "Drill-Down"



Deploy this report to ZuckerReports

The next step is to deploy the report to ZuckerReports to make it available to other Sugar users. ZuckerReports allows easy-to-use parameter selection, so you can choose the account to execute this report for from a select box.

Login to Sugar as “admin” and open the “ZuckerReports” module

Note that the ZuckerReports distribution comes with a Parameter suitable for selecting the account for this report, so we don’t have to configure it ourselves.

)) ZuckerReports: ACCOUNT_ID

Save Delete Cancel

Friendly Name * Account

Default Name * ACCOUNT_ID

Default Value

Description

Selection User-Defined Query

User-Defined Query select id, name from accounts where deleted = 0 order by name

Test SQL-Query

Select menu item “Report and Query Templates” and select the “New Report Template” button.

Shortcuts

- On-Demand Reporting
- Report Archive
- Report and Query Templates
- Report and Query Parameters
- About us

)) ZuckerReports: Home

Template List

New Report Template New Query Template

Name	Type	Description
Meeting Printout	Report	
Disabling Deletion Status	Report	



Enter “Account Summary” in the “Template Name” field, and select the “AccountSummary.jrxml” file you saved the report from iReport using the “Browse...” button as “Template File”.

For the “Allowed Formats”, check the “*Adobe PDF (*.pdf)*” box to enable PDF export. Click the “Save” button to apply changes.

» New Report Template

Save Cancel

Template Name * Account Summary

Template File C:\AccountSummary.jrxml Browse...

Description

Allowed Formats

- Adobe PDF (*.pdf)
- Excel (*.xls)
- Comma Separated Values (*.csv)
- HTML (*.html)

Now you are in the detail view for this report template. In the “Parameter Selection” section on the bottom select the “Account”-Parameter and click the “Attach” button to configure this report to use the “Account”-Parameter for execution.

» ZuckerReports: Account Summary

Edit Delete Run Report

Template Name Account Summary

Description

Allowed Formats Adobe PDF (*.pdf)

» Parameters

Friendly Name	Parameter Name	Selection
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» Parameter Selection

Attach

Parameter Account (User-Defined Query) ▾

Parameter Name * ACCOUNT_ID

Default Value



You can see the “Account”-Parameter in the “Parameters”-list afterwards.

▾ **Parameters**

Friendly Name	Parameter Name	Selection
Account	ACCOUNT_ID	User-Defined Query

Now click the “Run Report” to open the “On-Demand Reporting” panel. Select the Account you want to run the report for and click the “Run Report” button at the bottom.

)) On-Demand Reporting: Account Summary

▾ **Report Selection**

Report	Account Summary	<input type="button" value="Change"/>
Attach Report To	--None--	<input type="button" value="Change"/>

▾ **Format Preferences**

Format	Adobe PDF (*.pdf)
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▾ **Parameters**

Account	2 Big Consolidation Corp
<input type="button" value="Run Report"/>	2 Big Consolidation Corp 2 Tall Stores 24/7 Couriers 360 Vacations 3rd Round Funding

You now have the report generated within Sugar as PDF. Clicking on the “Filename” link will open it in your browser.

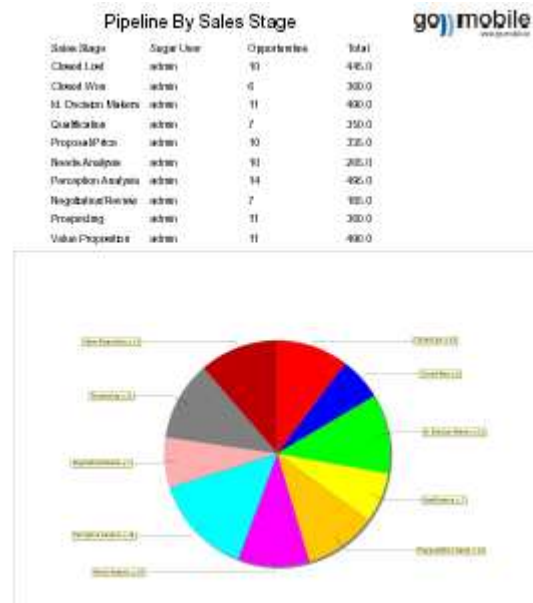
)) ZuckerReports: 050701_185811_accountssummary.jasper.pdf

<input type="button" value="Up"/>	<input type="button" value="Publish Report"/>	<input type="button" value="Delete"/>
Filename	050701_185811_accountssummary.jasper.pdf	
	Not Published	
Description	loading jasper design modules/ZuckerReports/resources/AccountSummary.jasper getParameterValue(REPORT_PARAMETERS_MAP, java.util.Map) => null getParameterValue(REPORT_CONNECTION, java.sql.Connection) => null getParameterValue	



Conclusion

It is very easy to design and deploy reports with iReport as design tool and ZuckerReports as runtime tool integrated into Sugar. This “First Steps” tutorial only covered a very basic report, whereas it is possible to design colorful, amazingly looking reports with huge complexity with these tools.



Contact

For licensing questions please contact us at sales@go-mobile.at
For support questions please contact us at support@go-mobile.at
For general questions please contact us at office@go-mobile.at