



TRAINING GUIDE

Beginning Crystal

Create a Report



Crystal Reports – Create a Report

This guide is designed to show beginning users how to create a report using Crystal Reports. This guide shows how to collect field information from Lucity to use in the report. Following that it describes how to find out where the reports should be stored. Then it shows how to create a new report using the Standard Report Wizard, or the Blank Report.

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Before starting a report it is important to have a general idea of what fields will be used and what the report will look like.

Follow these directions to create a simple report that will run from the Building module in Facilities and show a list of buildings with the count of the buildings and the sum of the area.

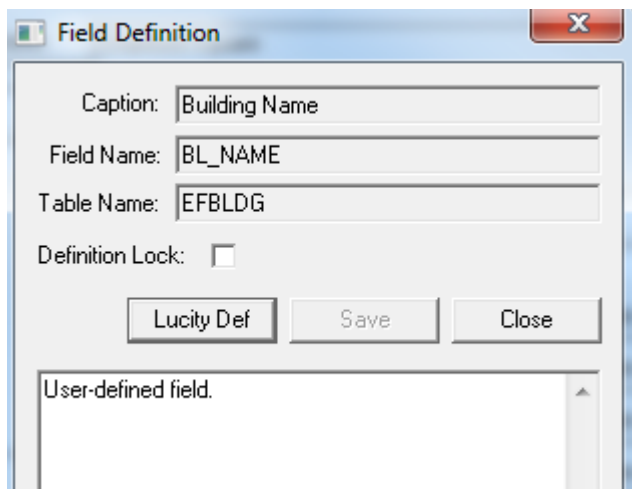
Collecting Field Information

The first thing you need to know is which fields you want and the tables they come from.

Inside of Lucy Desktop open the Building Inventory module.

Find the field you want and ctrl + right click in the field to reveal the options. Choose either Field Definition or Field Properties to show the Field Name and the Table Name.

For the Building Name field the following is shown.



You also want to know Building ID, Building Name, Building Type and Area.

They all come from the EFBLDG table and the Field Names are:

Building ID: BL_NUMBER

Building Name: BL_NAME


Building Type: BL_TYPE_TY

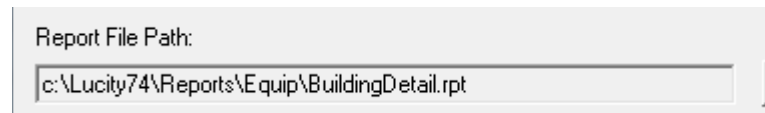
(text field)

Area: BL_AREA

Report Location

It is also important to know where the reports are stored. In the Building module press the report

button . Click on any report for this module and notice the Report File Path at the bottom of the dialog box.



This report is located in the C drive within Lucity74 folder, then the Reports folder, then the Equip folder. The BuildingDetail.rpt is the actual name for a specific report in the Equip folder. The new report being created will have a unique name.

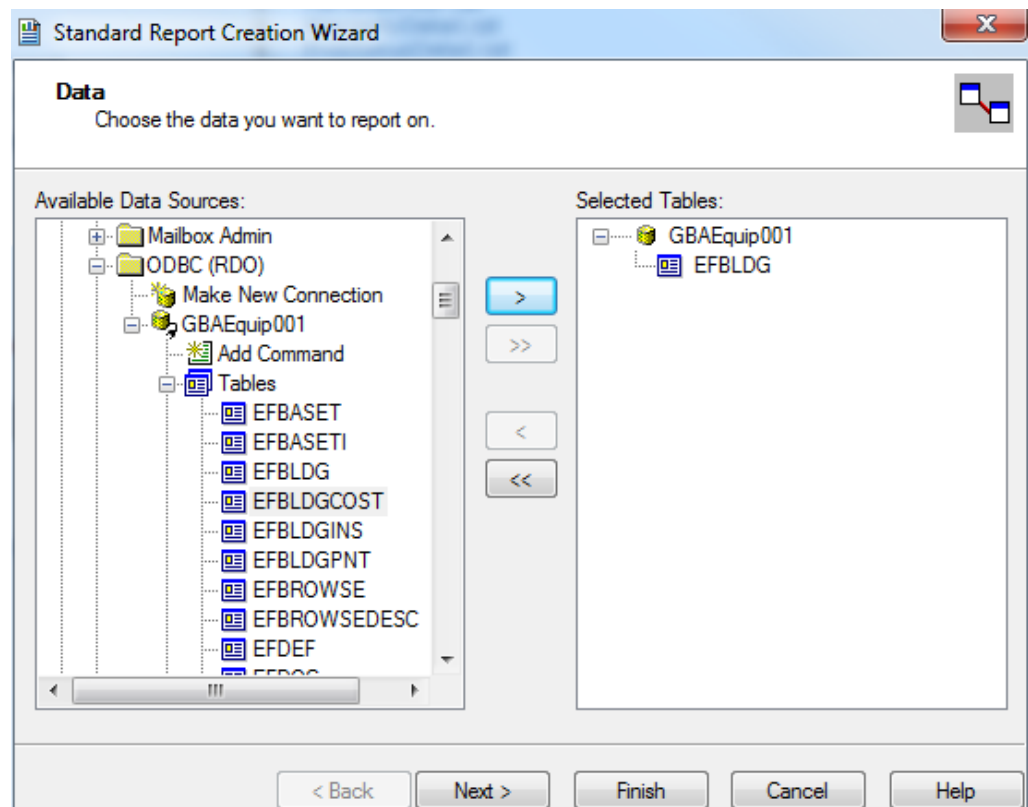
Now it is time to open Crystal Reports. We currently develop reports with Crystal XI. Other versions of Crystal Reports work as well.

Standard Report Wizard

Within Crystal we will start with the Standard Report Wizard.

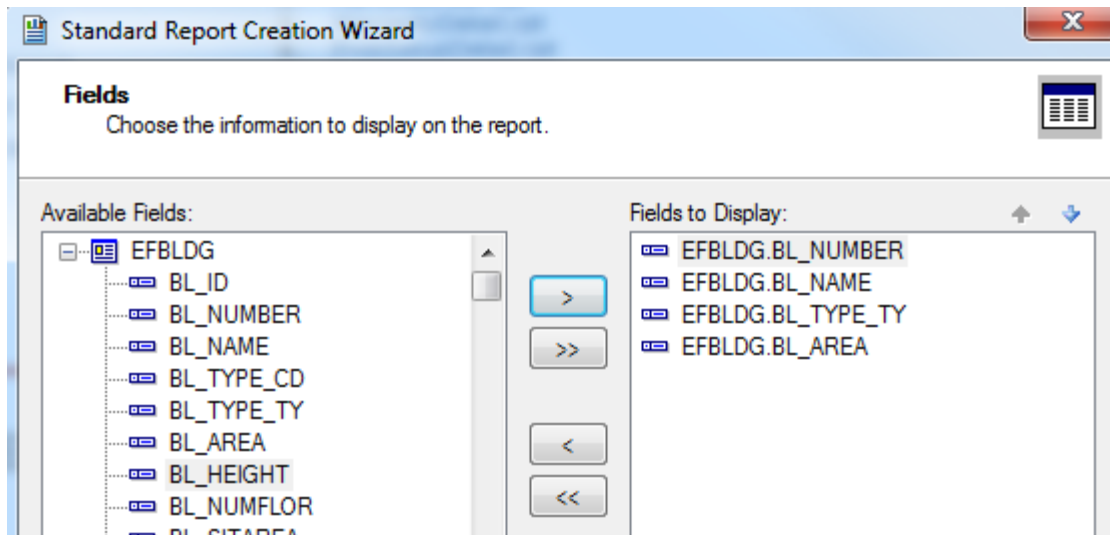
Open ODBC in the Available Data Sources and find the required table. (This might be the most difficult part depending on whether you have access to your tables - talk to your IT department before you start.)

Click on the table and then the arrow moving it to the *Selected Tables* column.



Click Next.

Then select the fields that you want and move them into the *Fields to Display* column.



Click Next.

For this report there will be no Grouping so click Next.

For this report there will be no Record Selection so click Next.

For this report there will be no special Template used so click Finish.

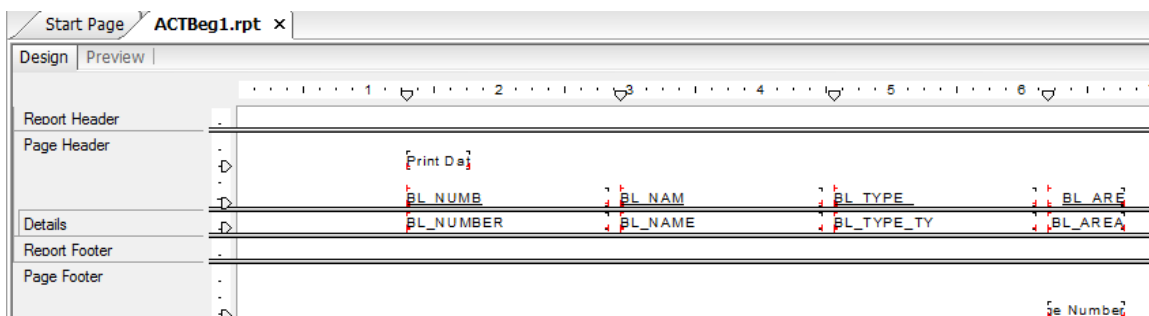
Depending on how your Crystal options are set up you will probably see the following:

8/1/2012

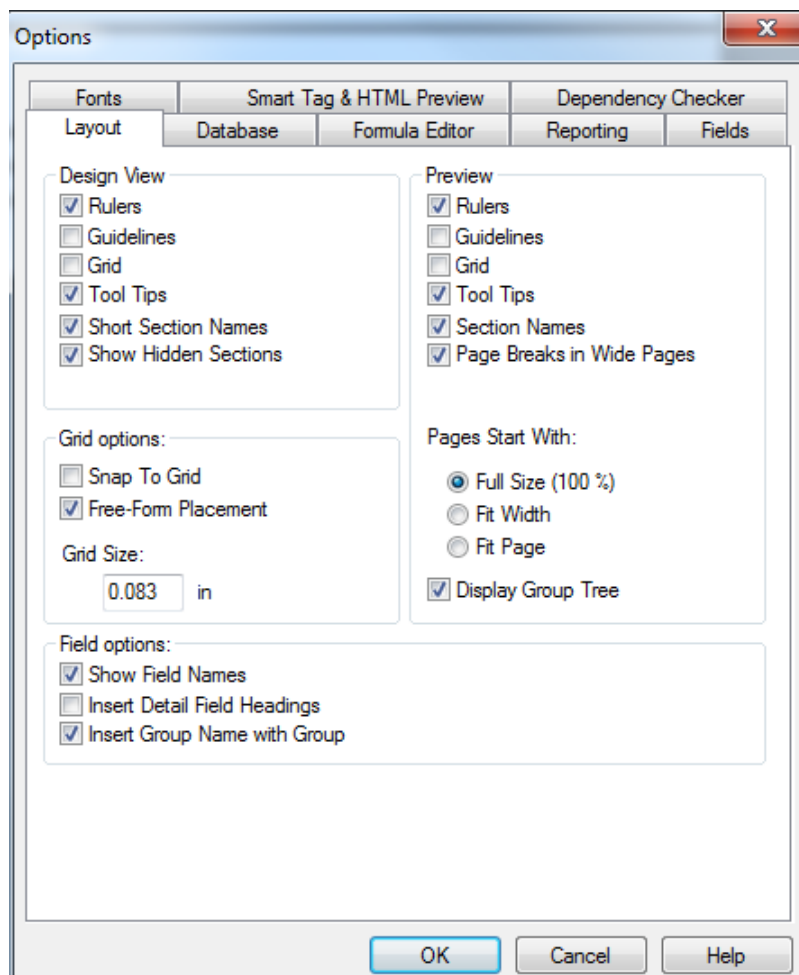
<u>BL NUMBER</u>	<u>BL NAME</u>	<u>BL TYPE TY</u>	<u>BL AREA</u>
HERI	Heritage Annex	Community Center	6,324.43
FIRE	Fire Station	Fire Station	532.15
PUB	Public Safety Center	Public Service	523.26
SOUTH	South Area Service Center	Public Service	523.26

Save the report with some meaningful name (25 characters or less) before making modifications to the report.

You are currently in the Preview tab. Click on the Design tab.



Now is a good time to review some of the settings in the Options section. In the top tool bar click File and then Options...



Most of these settings will be personal preference. They can also be changed for each report.

Typically the following are checked.

In the Database tab it is very important to have **Synonyms** checked in order for you to have access to any tables outside of the family of tables that you are creating the report in. This is a report using the Equipment family of tables but if you wanted to bring in Work Order tables to this report then Synonyms would have to be checked.

Don't go any further until this is done!!!

Review the following tabs and the options that are set.

Options

Fonts | Smart Tag & HTML Preview | Dependency Checker
Layout | Database | Formula Editor | Reporting | Fields

Tables and Fields:

☒ Show Name ☒ Sort Tables Alphabetically
☐ Show Description ☐ Sort Fields Alphabetically
☐ Show Both

Data Explorer:

☒ Tables Table name LIKE: (%)
☒ Views Owner LIKE: (%)
☒ System Tables
☒ Synonyms
☒ Stored Procedures

Advanced Options:

☒ Use Indexes or Server for Speed
☐ Perform Grouping On Server
☒ Database Server is Case-Insensitive
☒ Select Distinct Data for Browsing
☐ Perform Query Asynchronously
☒ Verify On First Refresh
☐ Verify Stored Procedures On First Refresh
☒ Verify When Database Driver Upgraded
☐ Automatic Smart Linking

Options

Fonts | Smart Tag & HTML Preview | Dependency Checker
Layout | Database | Formula Editor | Reporting | Fields

Text Options:

Font: Tab Size:

Color:

Element: Foreground:

 Background:
☒ Use Windows system color

Default Formula Language:

Null Treatment: UFL Support:

Sample:

```
//A formula that returns a String value
If {Orders.Order Amount} >= 1000 Then
    "Insured shipping"
```

Reset All

Options [X]

Fonts	Smart Tag & HTML Preview	Dependency Checker
Layout	Database	Formula Editor
	Reporting	Fields

Enterprise Settings

- ☒ Update Enterprise Report Properties on Save
- ☐ Update Connected Repository Objects on Open

Reading Data

- ☐ Convert Database NULL Values to Default
- ☐ Convert Other NULL Values to Default
- ☐ Always Sort Locally

- ☐ Save Data With Report
- ☐ Discard Saved Data on Open
- ☐ Re-import Subreport on Open
- ☐ Suppress Printing if No Records Selected
- ☐ Show All Headers on Drill Down
- ☐ Autosave Reports After Minutes
- ☒ Display Alerts on Refresh
- ☐ Save Preview Picture
- ☐ Retain Original Image Color Depth

Options [X]

Layout	Database	Formula Editor	Reporting	Fields
Fonts	Smart Tag & HTML Preview	Dependency Checker		

Smart Tag Web Server Options

Web Server Name:

Virtual Directory:

Viewing Page:

HTML Preview Options

HTML Preview is always enabled when you are logged on to the BusinessObjects Enterprise

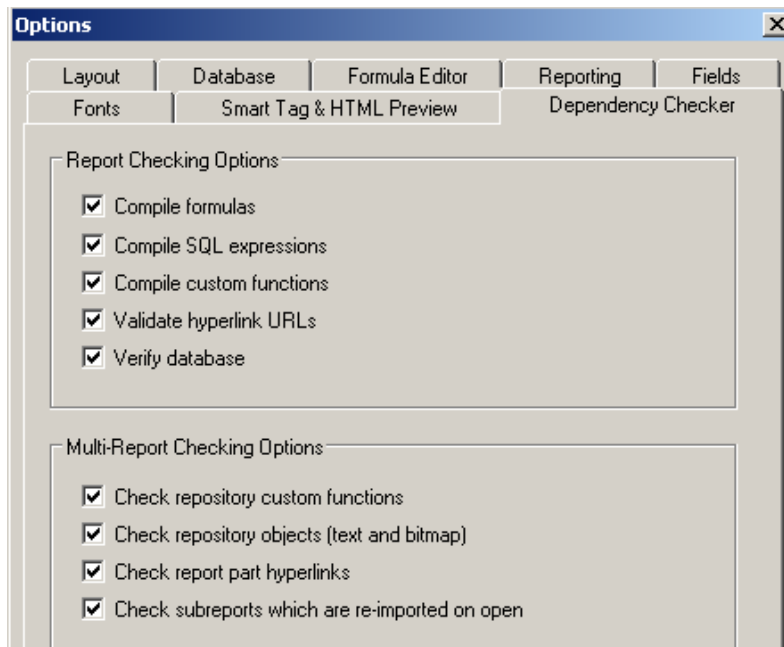
☐ Enable HTML Preview when not logged on to the BusinessObjects Enterprise

Web Server Name:

Platform: ☒ COM ☐ Java ☐ .Net

URL:


RAS Server Name:



When complete click Ok.

The Print Date was automatically brought in by Crystal. You can leave it where it is, click on it and press Delete to remove it, or to move a field, click on it and drag it to the new location.

[illegible]

The title can be brought in as a text field. Click on the Insert Text Object button  or use the tool bar Insert. A cross will appear. Move the cross to the location of where you want the text to be then click. An empty box with a flashing cursor appears. Type in the box and click out of the box to set what was typed.

	1	2	3	4
RH				
PH	Building Count and Area R			
D		BL_NUMBER	BL_NAME	
RE		BL_NUMBER	BL_NAME	

The text is longer than the box provided. To resize the box, make sure it is highlighted and has the darker dots on each side. Place the cursor over the dot for the side you wish to increase, a line with an arrow on each end should appear, click and drag the box to the desired size.

Building Count and Area Report			
<u>BL NUMBER</u>	<u>BL NAME</u>		
<u>BL_NUMBER</u>	<u>BL_NAME</u>		

To format the Title, make sure the box is highlighted and use the options in the Tool bar to increase the size and italicize. Further resizing of the text box may be required.




PH		<i>Building Count and Area Report</i>				[Print Date]
		<u>BL NUMBER</u>	<u>BL NAME</u>	<u>BL TYPE TY</u>	<u>BL AREA</u>	
D		<u>BL_NUMBER</u>	<u>BL_NAME</u>	<u>BL_TYPE_TY</u>	<u>BL_AREA</u>	
RF						
PF						


Crystal automatically adds Column titles using the field name. These would probably never be used in a report. To change these Field Headings, double click in the box, click and drag over the text to highlight, then type in the appropriate Column title.

PH		<i>Building Count and Area Report</i>				
		<u>Building ID</u>	<u>BL NAME</u>	<u>BL TYPE TY</u>	<u>BL AREA</u>	
D		<u>BL_NUMBER</u>	<u>BL_NAME</u>	<u>BL_TYPE_TY</u>	<u>BL_AREA</u>	
RF						
PF						

Crystal also added underlines to the Headings which can be removed with the formatting tool bar if desired. Making the Headings bold helps them to stand out.

		<i>Building Count and Area Report</i>				[Print Date]
		<u>Building ID</u>	<u>Building Name</u>	<u>Building Type</u>	<u>Area</u>	
		<u>BL_NUMBER</u>	<u>BL_NAME</u>	<u>BL_TYPE_TY</u>	<u>BL_AREA</u>	

To sum the number of buildings, click on the BL_NUMBER field so that it is highlighted. Click on the Sum button  or select Insert Summary in the tool bar. Under *Calculate this summary*: select Count. The Summary location will automatically put the summary in the report footer. There are no options for location because there is no grouping in this report. Click OK. The Count field comes in right

aligned. To change the alignment, click on the field and use the tool bar option .

Add a Text field (like the Title) that clarifies the count.

PH	-	Building Count and Area Report			
	-				
	D	Building ID	Building Name	Building Type	Area
	D	BL_NUMBER	BL_NAME	BL_TYPE_TY	BL_AREA
RF	-	Building Count:	Count of EFBLDG.BL_NU		

To find the total area, click on the BL_AREA field. Once again click on the summary button but this time for *Calculate this summary*: select Sum.

Add a text field that clarifies the sum.

PH	-	Building Count and Area Report				Print Date
	-					
	D	Building ID	Building Name	Building Type	Area	
D	-	BL_NUMBER	BL_NAME	BL_TYPE_TY	BL_AREA	
RF	-	Building Count	Count of EFBLDG.BL_NU	Total Area	BL_AREA	

The final product will look like this when it is run.

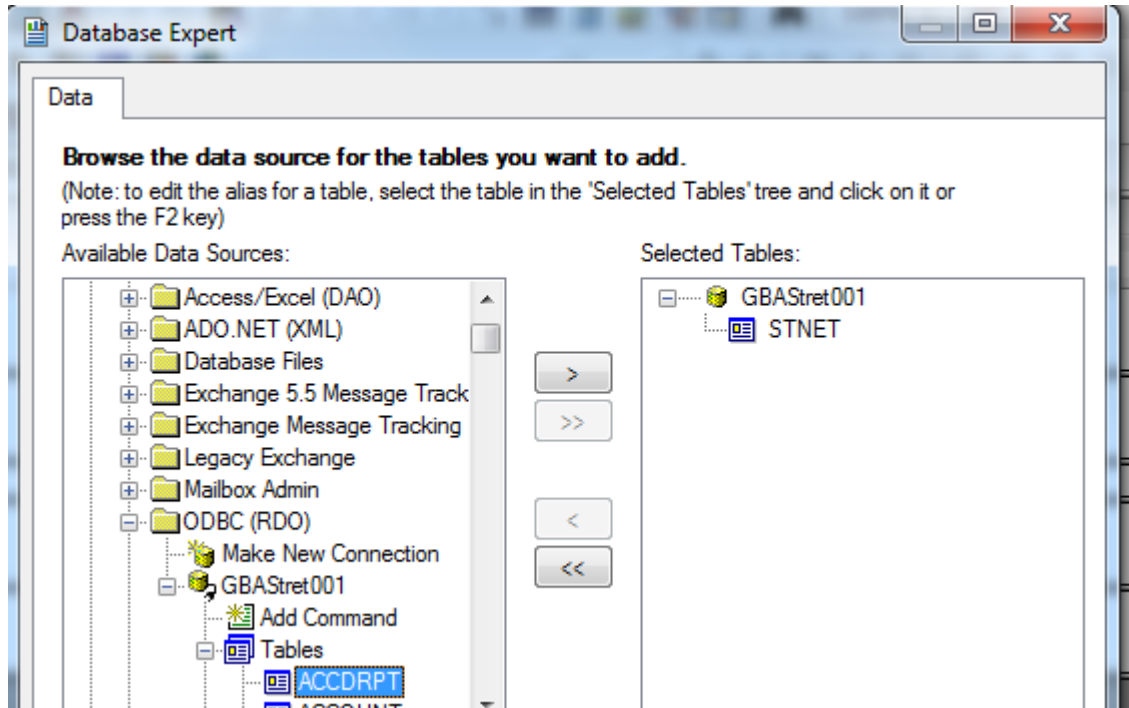
Building Count and Area Report				8/3/2012
<u>Building ID</u>	<u>Building Name</u>	<u>Building Type</u>	<u>Area</u>	
HERI	Heritage Annex	Community Center	6,324.43	
FIRE	Fire Station	Fire Station	532.15	
PUB	Public Safety Center	Public Service	523.26	
SOUTH	South Area Service Center	Public Service	523.26	
FMAIN	Facilities Maintenance	Public Service	263.26	
PUBW	Public Works Facility	Public Service	634.34	
CHAL	City Hall	Public Service	30,607.00	
HART1	Hartford Public Services Co	Public Service		
HART2	Hartford Civic Center	Civic Center		
HART3	Hartford Community Center	Community Center		
Residence	Smith Residence	N/A		
MUNI	Municipal Center	Civic Center		
MUNI2	Municipal Office 2	Public Service		
EPS	Library	Library		
Building Count:	14	Total Area:	39,407.70	

Blank Report

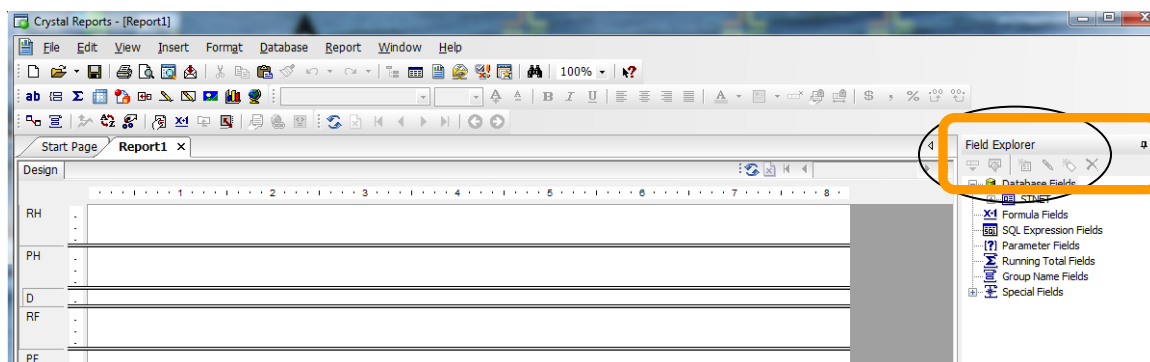
The next report will be created with the Blank Report option in Crystal. This will be a report run from Segment Network within the Transportation modules. We will find out the number of segments within each street classification.

Within Crystal click on the Blank Report option.

In Database Expert find the STNET table and move it into the *Selected Tables* column. Then click OK.



You now have a "blank slate".




This time Crystal is not guiding you through the process.

Additional sections have been added to the report, Group Header 1 and Group Footer 1. You can nest groups within groups. It is important to mention that if a report has any grouping, then the Lucity sort function will not work with the report.

To count the number of Segments within each classification click on the SN_COM_ID field and click the Insert Summary button. Select Count and for location select the Group option instead of the Report Footer.

Do this again but this time select the Report Footer for a grand total.

RH	.		
PH	.	Street Classification Counts	
	.	Segment ID:	
GH1	.	Group #1 Name	
D	.	SN_COM_ID	SN_CLAS_TY
GF1	.	unt of STNET.SN_COM_ID	
RF	.	unt of STNET.SN_COM_ID	

Press the Print Preview key .

Street Classification Counts

Segment ID:

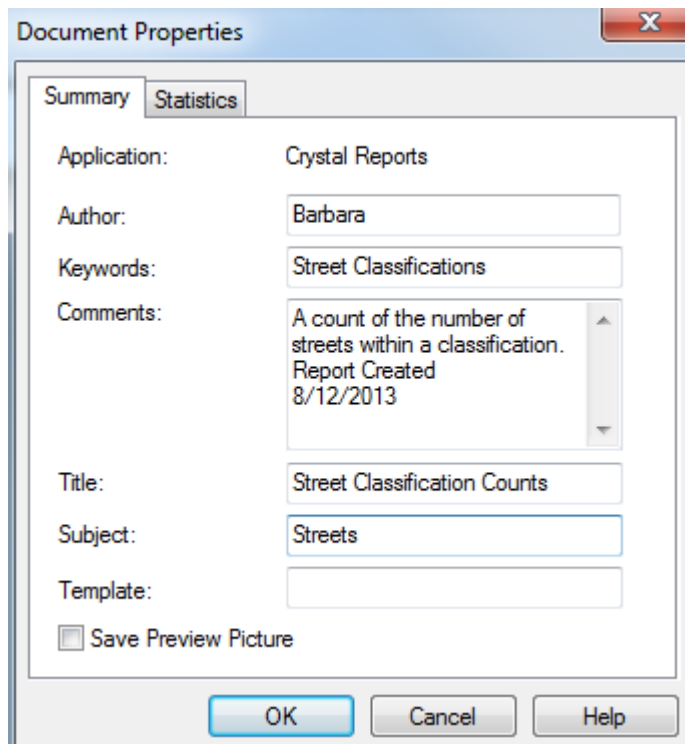
Arterial

1486	Arterial
8521	Arterial
10060	Arterial
2625	Arterial
2626	Arterial
1097	Arterial
1098	Arterial
6526	Arterial
1487	Arterial
6552	Arterial
4291	Arterial
9490	Arterial
12405	Arterial
9488	Arterial
1488	Arterial
6555	Arterial
12255	Arterial
11826	Arterial
6558	Arterial
6742	Arterial
3968	Arterial
5348	Arterial
13626	Arterial
13625	Arterial
13382	Arterial
13624	Arterial
1482	Arterial
13633	Arterial
13632	Arterial
13634	Arterial
6560	Arterial
6557	Arterial
1096	Arterial
6533	Arterial
100169	Arterial
4300	Arterial
6529	Arterial
5091	Arterial
11429	Arterial

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Notes: _____

Another useful Crystal option is found in the tool bar under File > Summary Info...



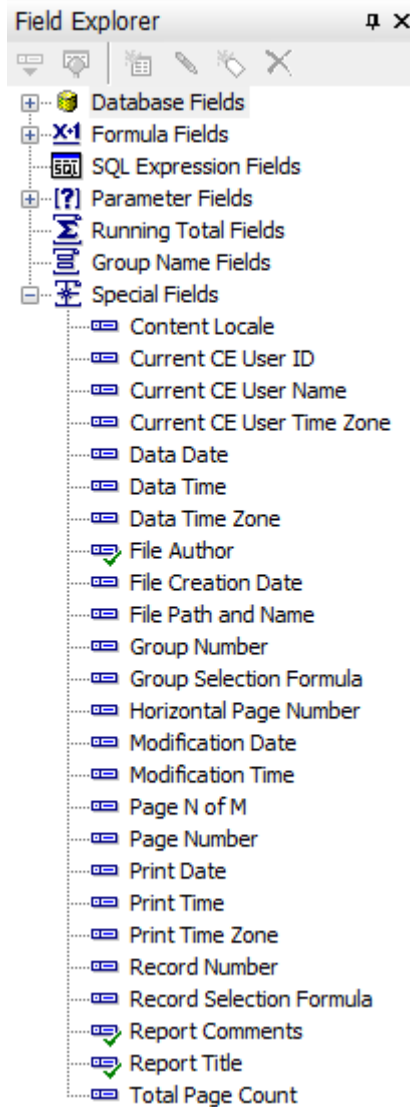
The screenshot shows the 'Document Properties' dialog box with the 'Summary' tab selected. The dialog has a title bar with a close button (X). Inside, there are two tabs: 'Summary' and 'Statistics'. The 'Summary' tab contains the following fields:

- Application: Crystal Reports
- Author: Barbara
- Keywords: Street Classifications
- Comments: A count of the number of streets within a classification. Report Created 8/12/2013
- Title: Street Classification Counts
- Subject: Streets
- Template: (empty)
- ☐ Save Preview Picture

At the bottom of the dialog are three buttons: OK, Cancel, and Help.

This information could help in report documentation. Some of the fields are available to be brought into the report in the Special Fields section listed in Field Explorer.

Notes: _____



Both reports could be further modified to improve their appearance and functionality. Review the other Crystal handouts for additional insight into report creation and modifications.

Notes: _____
