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TRAINING GUIDE

Beginning Crystal

Create a Report

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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 Lucity 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.

Field Defin	ition
Caption:	Building Name
Field Name:	BL_NAME
Table Name:	EFBLDG
Definition Loc	k:
L	ucity Def Save Close
User-defined	field.

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

Report File Path:	
c:\Lucity74\Reports\Equip\BuildingDetail.rpt	_

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.

Standard Report Creation Wizard				×
Data Choose the data you want to report on				
Available Data Sources: Mailbox Admin Mailbox Admin Make New Connection GBAEquip001 Add Command Tables EFBASET EFBASETI EFBLDG EFBLDG EFBLDGST EFBLDGINS EFBLDGINS EFBLDGPNT EFBROWSE EFBROWSE EFBROWSEDESC EFDEF		Selected Tables:	quip001	
< Back	Next >	Finish	Cancel	Help

Click Next.

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

Standard Report Creation Wizard		×
Fields Choose the information to display on the repor	rt.	
Available Fields:	Fields to Display: Image: EFBLDG.BL_NUMBER Image: EFBLDG.BL_NAME Image: EFBLDG.BL_TYPE_TY Image: EFBLDG.BL_AREA	÷ >

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			
BL NUMBER	BL NAME	BL TYPE TY	BL AREA
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.

Start Page ACTBe	eg1.r	pt ×				
Design Preview						
		· · · · · · · · 1 · 🖯 · · · ·	· 2 · · · · · ·			
Report Header						
Page Header	₽	Print Da		- NAM	BL TYPE	L BL ARE
Details	Ð	BL_NUM	BER BI	_NAME	BL_TYPE_TY	BL_AREA
Report Footer						
Page Footer						
	÷					e Number

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...

tions				 X
Fonts	Smart Ta	g & HTML Preview	Dependency	y Checker
Layout	Database	Formula Editor	Reporting	Fields
Design View VRulers Guidelines Grid VTool Tips Short Sec VShow Hid	-	Preview Rulers Guidel Grid Tool T Section Page I	ines ìps	ages
Grid options: Snap To (Free-Form Grid Size: 0.083		○ Fit V ○ Fit F	Size (100 %) Vidth	
_				
		ОК	Cancel	Help

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.

Fonts Smart Tag & H1	
Layout Database	Formula Editor Reporting Fields
Tables and Fields Show Name Show Description Show Both	 Sort Tables Alphabetically Sort Fields Alphabetically
Data Explorer	
✓ Tables	Table name LIKE:
Views	(%,_)
Synonyms	Owner LIKE:
Stored Procedures	(%,)
A dama of Options	
Advanced Options	
 Use Indexes or Server for Spee Perform Grouping On Server 	
Database Server is Case-Insens	sitive
Select Distinct Data for Browsin	ng
Perform Query Asynchronously	-
Verify On First Refresh	
🔲 Verify Stored Procedures On Fir	rst Refresh
Verify When Database Driver U	
Automatic Smart Linking	
ions	
Fonts Smart Tag & HT	TML Preview Dependency Checker
Layout Database F	Formula Editor Reporting Fields
	,
Text Options	T + 0:
Font	Tab Size:
Font	Tab Size:
Font:	
Font: Courier New	10 🔽 🛛
Font: Courier New I	10 I 4
Font: Courier New	10 🔽 🛛
Font: Courrier New	10 Foreground: Black
Font: Courier New Color Element: Comment Keyword	10 Foreground: Black Background:
Font: Courier New	10 Foreground: Black
Font: Courrier New Color Element: Comment Keyword Text Text Selection	10 Foreground: Black Background:
Font: Courrier New Color Element: Comment Keyword Text Text Selection	10 Foreground: Black Background:
Font: Courier New I Color Element: Comment Keyword Text Text Selection I Use Windows system color	10 Foreground: Black Background:
Font: Courier New	10 Foreground: Black Background:
Font: Courier New Color Element: Comment Keyword Text Text Text Selection Use Windows system color Default Formula Language: Crystal Syntax	10 Foreground: Black Background: White
Font: Courier New Color Element: Comment Keyword Text Text Selection Use Windows system color Default Formula Language: Crystal Syntax Null Treatment:	10 Foreground: Black Background: White UFL Support:
Font: Courier New ▼ 1 Color Element: Comment Keyword Text Text Selection ✓ Use Windows system color Default Formula Language: Crystal Syntax ▼ Null Treatment: Exceptions For Nulls ▼ ample: //A formula that ret	10 Foreground: Black Background: UFL Support: C/COM UFLs Only Curns a String value
Font: Courier New ▼ 1 Color Element: Comment Keyword Text Text Selection ✓ Use Windows system color Default Formula Language: Crystal Syntax ▼ Null Treatment: Exceptions For Nulls ▼ ample: //A formula that ret If {Orders.Order Amo	10 4 Foreground: Black Background: UFL Support: C/COM UFLs Only Curns a String value ount} >= 1000 Then
Font: Courier New ▼ 1 Color Element: Comment Keyword Text Text Selection ✓ Use Windows system color Default Formula Language: Crystal Syntax ▼ Null Treatment: Exceptions For Nulls ▼ ample: //A formula that ret	10 4 Foreground: Black Background: UFL Support: C/COM UFLs Only Curns a String value ount} >= 1000 Then

tions				
Fonts	Smart Tag	& HTML Preview	Dependency	Checker
Layout	Database	Formula Editor	Reporting	Fields
1	Enterprise Report P	Properties on Save tory Objects on Open		
Reading Da	ta			
Convert I	Database NULL V	alues to Default		
Convert	Other NULL Value	s to Default		
🔲 Always S	ort Locally			
🔲 Save Da	ta With Report			
Discard S	Gaved Data on Op	en		
🔲 Re-impor	t Subreport on Op	en		
C Suppress	Printing if No Red	cords Selected		
🔲 Show All	Headers on Drill D)own		
🗖 Autosave	e Reports After	5	Minutes	
🔽 Display A	lerts on Refresh			
Save Pre	eview Picture			
🗖 Retain O	riginal Image Color	Depth		

ions	
Layout Datab Fonts Sm	ase Formula Editor Reporting Fields art Tag & HTML Preview Dependency Checker
Smart Tag Web Serv	er Options
Web Server Name:	http://localhost
Virtual Directory:	crystalreportviewers11
Viewing Page:	crsmarttag.asp
-HTML Preview Optio HTML Preview is alw BusinessObjects Ente	ays enabled when you are logged on to the
HTML Preview is alw BusinessObjects Ente	ays enabled when you are logged on to the
HTML Preview is alw BusinessObjects Enter	ays enabled when you are logged on to the rprise
HTML Preview is alw BusinessObjects Entr Enable HTML Pre Enterprise	ays enabled when you are logged on to the rprise view when not logged on to the BusinessObjects
HTML Preview is alw BusinessObjects Enter Enable HTML Pre Enterprise Web Server Name:	ays enabled when you are logged on to the rprise view when not logged on to the BusinessObjects localhost COM CIM Java

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.

RH						
PH	Đ					Print Date
	D	BL NUMBER	BL NAME	BL TYPE TY	BL AREA	
D	Ð	BL_NUMBER	BL_NAME	BL_TYPE_TY	BL_AREA	

The title can be brought in as a text field. Click on the Insert Text Object button **ab** 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.

		······································
RH		
PH	:	Building Count and Area F
		BL NUMBER BL NAME
D	Ð	BL_NUMBER BL_NAME
RF		

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		
BL NUMBER	BL NAME	
BL_NUMBER	BL_NAME	

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.

1	Arial	-	14	•	Ą	Ā	В	I	U	I
					- T			—	_	а.

PH .		Building Count and Area Report				Print Da
בת	2	BL NUMBER	BL NAME	BL TYPE TY	BL AREA	
	>	BL_NUMBER	BL_NAME	BL_TYPE_TY	BL_AREA	
F.						
F.						

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	Building Count and Area Report						
	D	Building ID	BL NAME	BL TYPE TY	BL AREA		
D	Ð	BL_NUMBER	BL_NAME	BL_TYPE_TY	BL_AREA		
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.

Building Count and Area Report						
Building ID	Building Name	Building Type	Area			
BL_NUMBER	BL_NAME	BL_TYPE_TY	BL_AREA			

To sum the number of buildings, click on the BL_NUMBER field so that it is highlighted. Click on the

Sum button \sum 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					
	Ð	Building ID	Building Name	Building Type	Area		
D	Ð	BL_NUMBER	BL_NAME	BL_TYPE_TY	BL_AREA		
RF	. [Building Count; Count of EFBLDG.BL_N	U]				

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 R	eport				Print Date
	D.	<u>Building ID</u>	Building Name	Building Type		Area	
D	Ð	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

	Building ID	Building Name	Building Type	Area
	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

8/3/2012

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.

Database Expert	
Data	
Browse the data source for the tables you	want to add.
(Note: to edit the alias for a table, select the table i press the F2 key)	n the 'Selected Tables' tree and click on it or
Available Data Sources:	Selected Tables:
Access/Excel (DAO) ADO.NET (XML) Database Files Exchange 5.5 Message Track Exchange Message Tracking Legacy Exchange Mailbox Admin ODBC (RDO) Make New Connection GBAStret001 Add Command Tables	GBAStret001

You now have a "blank slate".



This time Crystal is not guiding you through the process.

Bring in a text field for the title and place it in either the Report Header (to show once at the beginning of the report) or Page Header (to show at the top of each page).

Bring in another text field for the column header - Segment ID.

Make Sure the Field Explorer is open on the right and if it isn't there, click on the Field Explorer button

. Open Database Fields and you will see all of the tables available for this report. STNET was the only table brought in so this is all that is available for the report at this time. Additional tables can be added later if needed. Open the STNET table and all of the fields within the table appear.

Field Explorer	ά×
🖳 🖾 🖉 🖉 💭	
Database Fields Database Fields STNET	•
SN_ID SN_COM_ID SN_ST_SID SN_ST1_SID SN_ST1_SID	

Click on SN_COM_ID and drag it under the Segment ID column header into the Detail section.

		\bigtriangledown · · · · · · 1 · · · · · · · · · 2 · · · ·
RH	•	
	- <u>-</u>	
PH		Street Classification Counts
	•	
		Segment ID:
D		\$N_COM_ID
RF		

Next to the ID field drag in the SN_CLASS_TY (Classification) field. Now click on the Insert Group

button E. Crystal guesses the field that is highlighted is the field that you want to group on, if it isn't, then press the down arrow and click on the field you do want to group on.

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

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.

Insert Summary
Choose the field to summarize:
STNET.SN_COM_ID
Calculate this summary:
Count
Summary location
Insert Group
Options
Show as a percentage of
Grand Total: Count of SN_COM_ID ~
Summarize across hierarchy
OK Cancel Help

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	

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
13825	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
	39

Notes:_____

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

Document Properties						
Summary Statistics						
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:						
Save Preview Picture						
	DK Cancel 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:______

Image: Second	Field Explorer 🛛 📮 🗙
 Formula Fields SQL Expression Fields Parameter Fields Running Total Fields Group Name Fields Special Fields Content Locale Current CE User ID Current CE User Name Current CE User Time Zone Data Date Data Time Data Time File Author File Path and Name Group Number Group Number Group Selection Formula Horizontal Page Number Modification Date Page N of M Page Number Print Date 	♥ ◎ 値 № 巻 🗙 👘
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File Path and Name Group Number Group Selection Formula Horizontal Page Number Modification Date Modification Time Page N of M Page Number Print Date	File Author
Group Number Group Selection Formula Horizontal Page Number Modification Date Modification Time Page N of M Page Number Print Date	
Group Selection Formula Horizontal Page Number Modification Date Modification Time Page N of M Page Number Print Date	
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Modification Time Page N of M Page Number Page Print Date	
Page N of M Page Number Print Date	
Page Number Print Date	
Print Date	-
	-
🚥 Print Time Zone	
Record Number	Record Number
Report Title	•
Total Page Count	Total Page Count

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:______