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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	< 🔲
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: Available Data Sources: Mailbox Admin GBAEquip001 Add Command GBAEquip001 Add Command GBAEquip001 Command		Selected Tables:	quip001 BLDG	
< 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 rep	ort.	
Available Fields:	Fields to Display: Fields to Display: EFBLDG.BL_NUMBER EFBLDG.BL_NAME EFBLDG.BL_TYPE_TY 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						
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Report Header						
Page Header	₽	Print Da	в ја	- 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	s tion Names den Sections	Preview Rulers Guidel Grid Tool T Section Page I	ines ìps n Names Breaks in Wide Pa	ages
Grid options: Snap To (Free-Form Grid Size: 0.083	Grid Placement in	Pages Sta Full Fit V Fit P Tisplay	art With: Size (100 %) Vidth ^v age y Group Tree	
Field options: Show Fiel Insert Det Insert Gro	d Names ail Field Headings up Name with Gro	hup		

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 & HTM	L Preview	Depender	ncy Checker
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E Perform Quer	y Asynchronously			
🔽 Verify On Firs	t Refresh			
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Fonts Layout E Text Options Font: Courier New Color Element: Comment Keyword Text Text Selection ✓ Use Window Default Formula L Crystal Syntax Null Treatment: Exceptions For N ample: // A formu If {Order ″ Insu	Smart Tag & HTM Database For ID ID S system color .anguage: In that retu s.Order Amou red shipping	L Preview rmula Editor Tab S 4 Foregu Backg UFL S C/CO rns a Str nt) >= 10 7	Dependen Reporting ize: round: Black ground: White White MUFLs Only ing value 00 Then	cy Checker Fields

otions				
Fonts	Smart Tag	& HTML Preview	Dependency	Checker
Layout	Database	Formula Editor	Reporting	Fields
Enterprise S	ettings			
🔽 Update B	Enterprise Report F	Properties on Save		
🔲 Update (Connected Reposi	tory Objects on Open		
⊢Reading Da	ta			
Convert I	Database NULL V	alues to Default		
Convert	Other NULL Value	s to Default		
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🗖 Save Da	ta With Report			
🔲 Discard 9	Gaved Data on Op	en		
🗖 Re-impor	t Subreport on Op	en		
D Suppress	Printing if No Rea	cords Selected		
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🔽 Display A	lerts on Refresh	,		
Save Pre	eview Picture			
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ons	
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
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HTML Preview Optio HTML Preview is alw BusinessObjects Entr Enable HTML Pre Enterprise Web Server Name: Platform:	ns ays enabled when you are logged on to the rprise view when not logged on to the BusinessObjects localhost COM Java Java Intp://localhost/crystalreportviewers11/preview

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						Print Date
	12					
	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 R
	_D	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.

Arial	-	14	-	A	A	B	Ι	U
1 1 1 1 1 1		- · ·		-	_		-	<u> </u>

:	Building Count and Area Report	
>		
Ð	BL_NUMBER BL_NAME	BL_TYPE_TY BL_ARE

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					
		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	J]			

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 A	rea Report			Print Date]
D	D	Building ID	Building Name	Building Type	BI AREA	
RF	- [- [Building Count; Count of EFBLDO	.BL_NU]	Tota	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	
	MUN12	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 wa	Int to add.
(Note: to edit the alias for a table, select the table in the press the F2 key)	e '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 Access/Excel (DAO) GEAstret001 GBAStret001 Add Command GEAstret01 Access/Excel (DAO) Add Command GEAstret01 Access/Excel (DAO) Access/Excel (D	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	φ ×
🖳 🖾 🖉 🔍 🕾	
Database Fields Database Fields	A
SN_ID SN_COM_ID SN_ST_SID SN_ST1_SID	

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

		₩ 1
RH	•	
	<u> </u>	
PH	:	Street Classification Counts
	·	Segment ID:
D		SN_COM_ID
	_	

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
13625		Arterial
13382		Arterial
13824		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						
OK 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:______

Field Explorer	ąχ
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🕀 🐨 🞯 Database Fields	
🗄 🔀 Formula Fields	
🗄 🖓 Parameter Fields	
🖻 📲 Special Fields	
Content Locale	
Current CE User ID	
Current CE User Nam	e
Current CE User Time	Zone
Data Date	
Data Time	
🚥 Data Time Zone	
File Creation Date	
File Path and Name	
Group Number	
Group Selection Form	ula
Horizontal Page Numb	ber
Modification Date	
Modification Time	
Page N of M	
Page Number	
Print Date	
Print Time	
Print Time Zone	
Record Number	
Record Selection For	nula
Report Comments	
Report Hue	
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:______