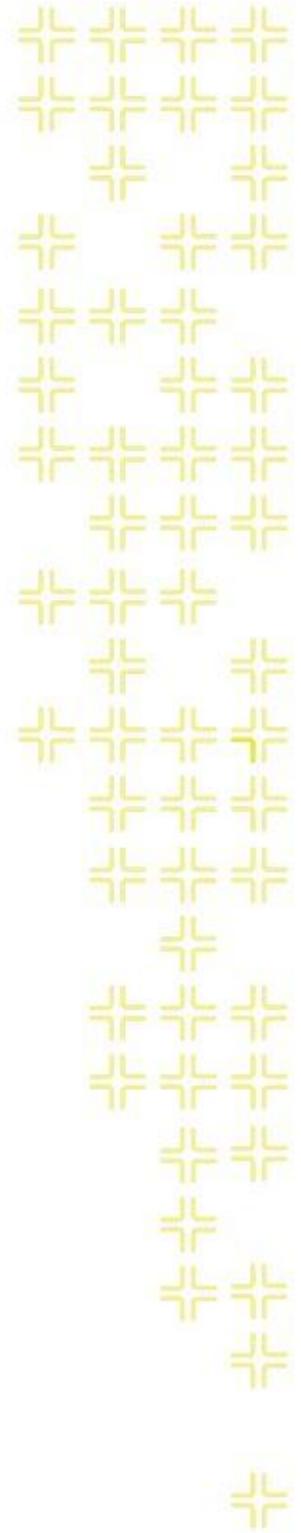




TRAINING GUIDE

Intermediate Crystal 2



Using Crystal Reports with Lucity

Intermediate Examples – 2

The fourth of a seven-part series, this workbook is designed for Crystal Reports® users with some experience. Here, you’ll learn how to add subreports. Specifically, we’ll look at the Work Order Locations subreport and the module’s Comment section. Both the general Comment sections and the Work Order/Request Comment sections will be addressed.

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Subreports

Subreports are simply reports within other reports. They can stand alone or be linked. Lucity typically uses subreports to display information stored in the child records (shown in grids or dialogs), information from other related modules, and the Comments sections. Subreports can vary in size and can be placed wherever you wish. Typically, subreports are inserted into their own Detail section.

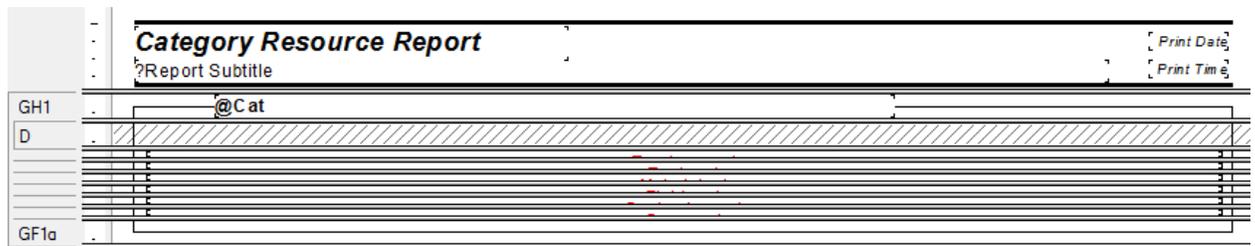
One issue with subreports is the data in a subreport does not receive the filter out in Lucity. If this is required, then try to use grouping as previously discussed.

A second issue with using subreports is that it is not possible to place a subreport within another subreport. Thus, it can be challenging to show the child of a child relationship. Usually this is handled with grouping in a subreport.

Accessing Subreports

A few Detail reports have subreports that may be minimized to a point where you cannot read the titles.

1. In the Reports Work file open the **CatRes.rpt** report.
2. The minimized sections below the Detail section contain subreports.



3. To view the subreport title, place the cursor over a subreport and the name will appear briefly (if the *Tooltips* are turned on). To open the subreport, simply double click on it.
4. It is also possible to navigate to a subreport using the *Report Explorer* . Make sure the *Show/Hide Grids and Subreports* is turned on . Then click on *Expand* . Subreports can be opened from this section or from the subreport itself by right clicking on the subreport name and selecting *Edit Subreport*.

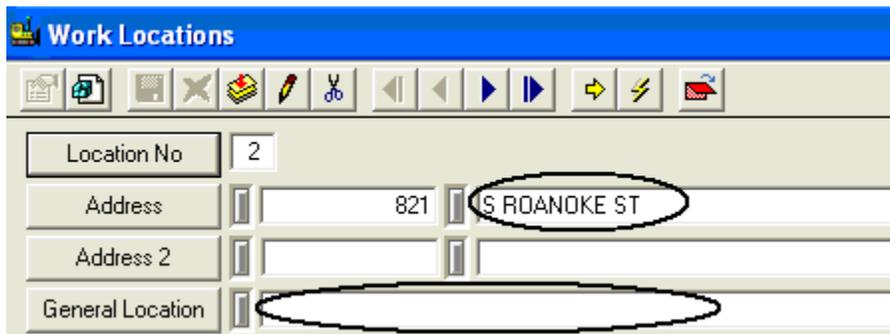
Inserting a Work Order Locations Subreport

The data in many of the grids in the Lucity modules can be connected to the parent report. In the following example, we'll demonstrate how information from the *Work Order Location* grid in the *Work Orders* module can be connected to the *Aging Work Order Report*.

Finding Tables and Fields

1. In the **Work Order** module open a record in the *Work Order Location* grid to find field definitions.
 - o Open the **Work>>Work Orders>>Standard** module and click on the *Location* tab.
 - o Open an existing record in the *Work Order Location* grid (right click - *View Record*) or right click in the grid and select *Add Record*.

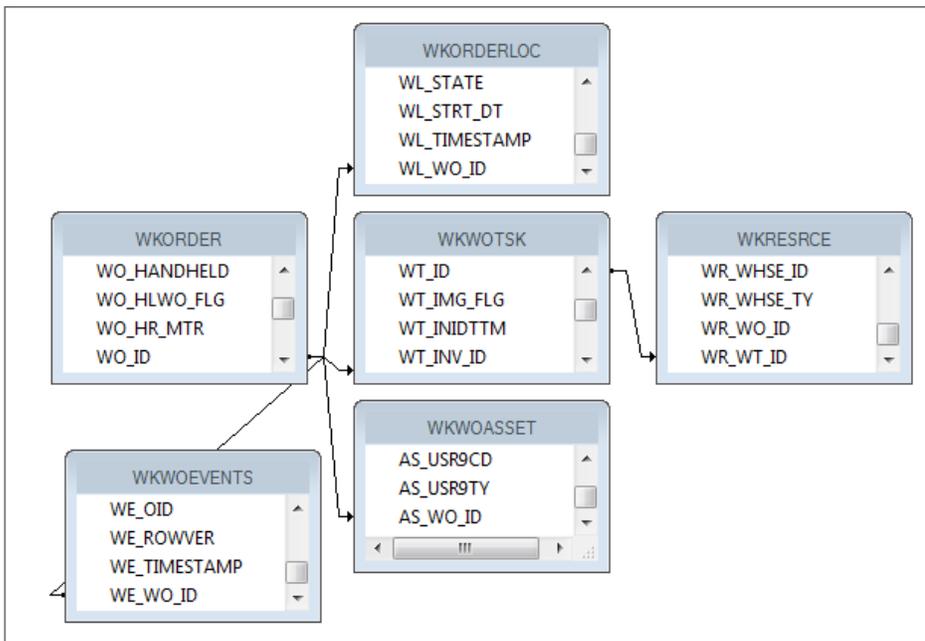
- Find the field definition of the *General Location* field by pressing Ctrl and right clicking on the field and selecting *Field Definition* or *Field Properties*. There, you'll see the following:
 - The table name is **WKORDERLOC**.
 - The field name is **WL_GENLOC**.
- If you do the same thing to the second field of the Address, the field name will show up as **WL_ADR_DIR**. This is not the correct field name for the information in the box. It is only one of the fields that are joined to create the address in this box. Thus, a formula is needed to address all the fields in a concatenated formula. Not all of the modules use this special address that pulls from the General Address module, some allow you to manually type in the address and store it in a single field.



2. From the Work module export the **Aging Work Order Report (WOsAging.rpt)** and rename it **LC_WOsAgingLoc.rpt**.
3. Open the new report and delete the **WO_CAT_TY** field.
4. Delete the **WO_PROB_TY** field.
5. Change the **Category** column header to **Address**.
6. Change the **Problem** column header to **General Location**.
7. Click the *Database Expert* button .

Notes: _____

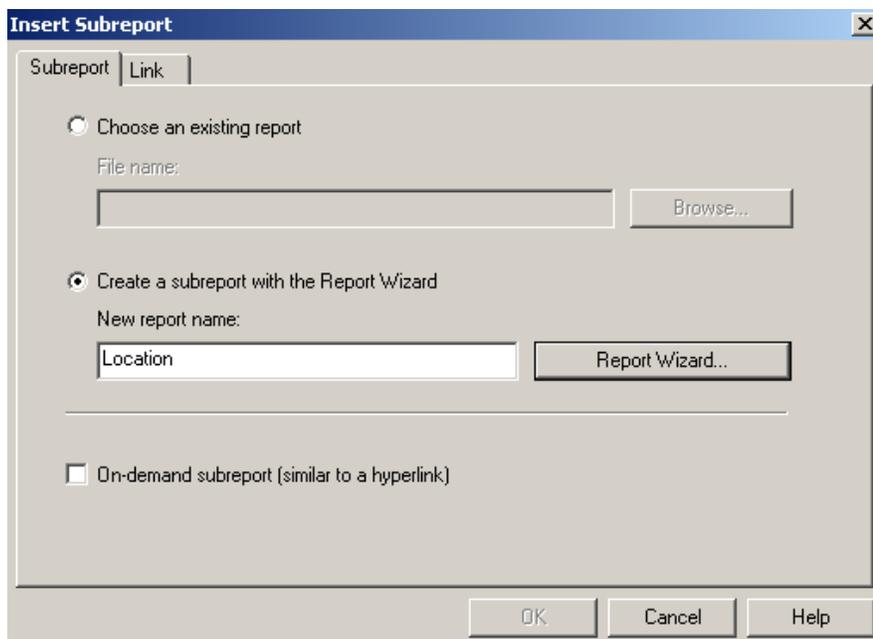
- Open the *Links* tab and note where the “tree” of tables begins; most often it is the top table on the far left side (frequently, this is the table the subreport will link to).
 - For example, this tree starts with the **WKORDER** table.



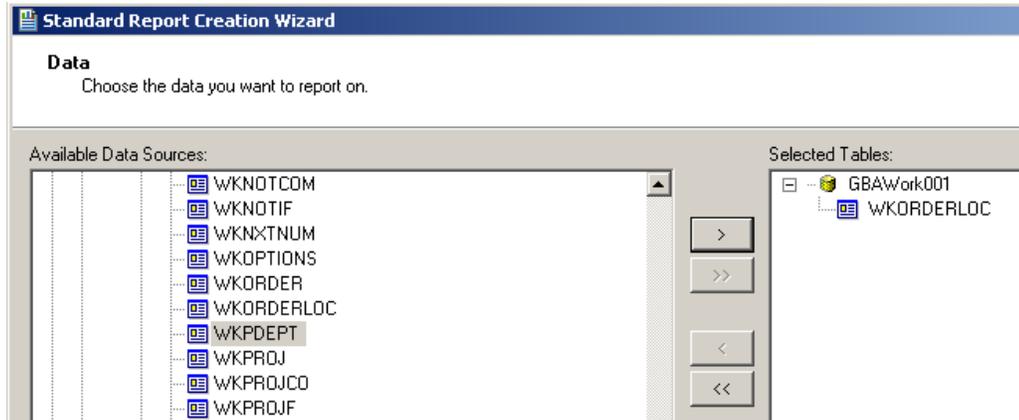
- Close the Database Expert.

Inserting the Subreport

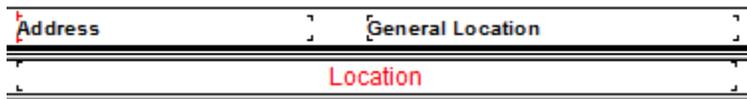
- Click Insert Subreport .
 - You'll need to type in the *New report name*. For example, we've called this subreport, **Location**.



- Then, select the *Report Wizard*.
2. Open *Create New Connection > ODBC (RDO) > GBAWork001 (Finish key) > Tables*.
 - Select the **WKORDERLOC** table and move it to the *Selected Tables* box on the right-hand side of the screen.



- Click *Finish*.
 - Click *OK*.
3. Place the subreport “box” in the *Detail* section with the left edge aligned with the left edge of the Address column header.
 4. Resize the box to fit under the Address and General Location area.

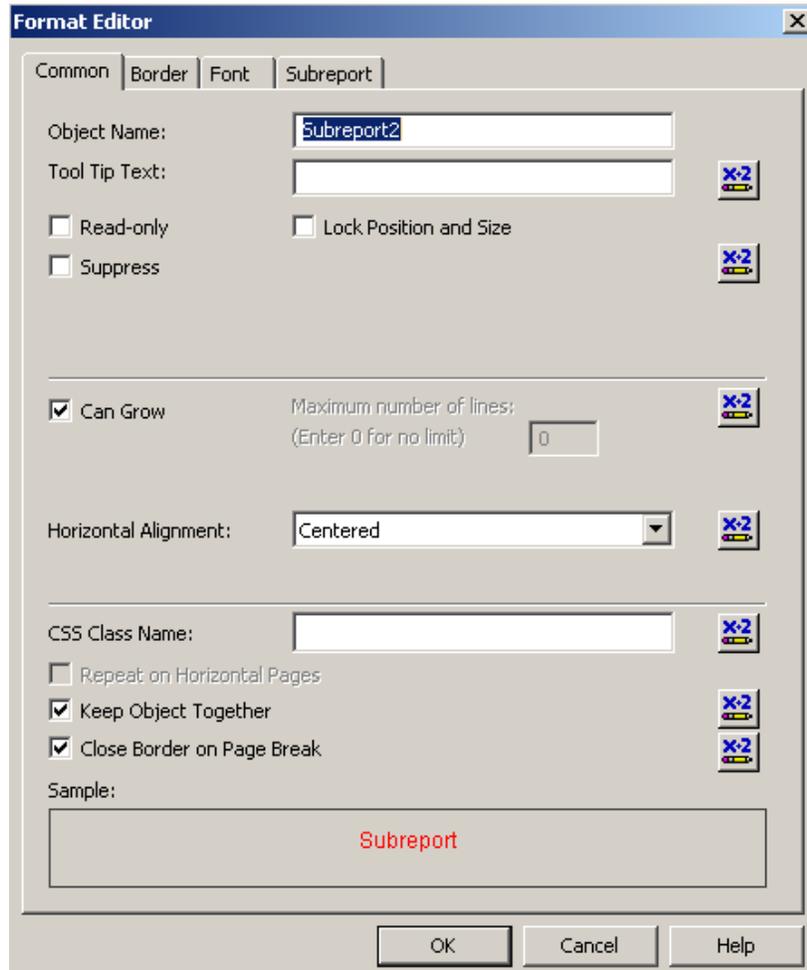


Notes: _____

Formatting the Subreport

Right click in the **Location** subreport box and click *Format Subreport*. Choose the formatting options that you prefer.

- For example, in the **Format Editor** dialog below, we've selected to center the report title. You can see a sample of your formatting selections at the bottom of the **Format Editor** dialog.

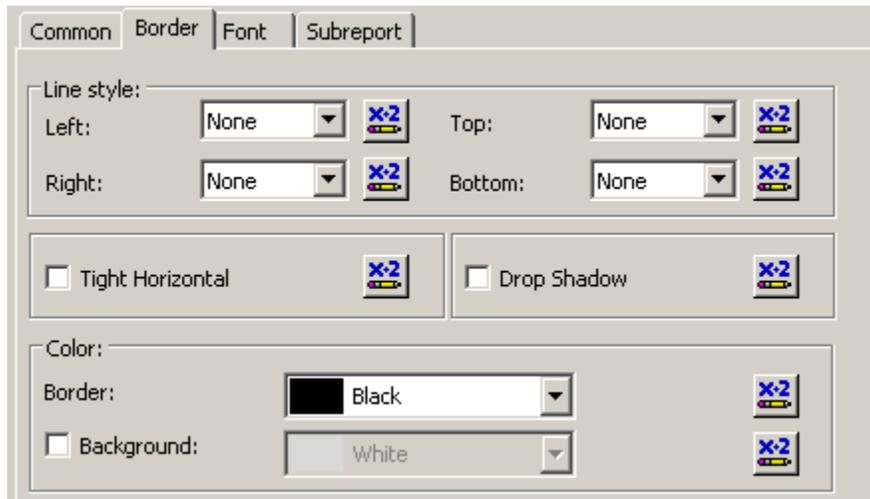


The screenshot shows the **Format Editor** dialog box with the **Subreport** tab selected. The dialog has four tabs: **Common**, **Border**, **Font**, and **Subreport**. The **Subreport** tab contains the following settings:

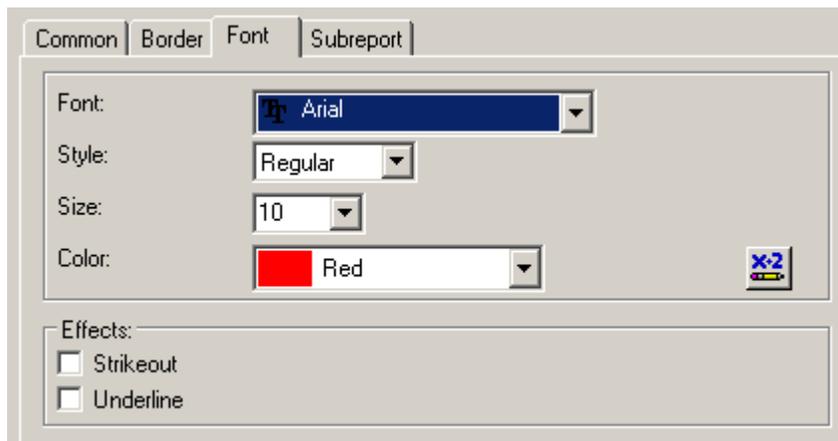
- Object Name:** Subreport2
- Tool Tip Text:** (empty field)
- Read-only
- Lock Position and Size
- Suppress
- Can Grow
- Maximum number of lines:** (Enter 0 for no limit) 0
- Horizontal Alignment:** Centered
- CSS Class Name:** (empty field)
- Repeat on Horizontal Pages
- Keep Object Together
- Close Border on Page Break
- Sample:** Subreport

At the bottom of the dialog are three buttons: **OK**, **Cancel**, and **Help**. Several settings have a magnifying glass icon with 'x2' next to it, indicating they are zoomed in.

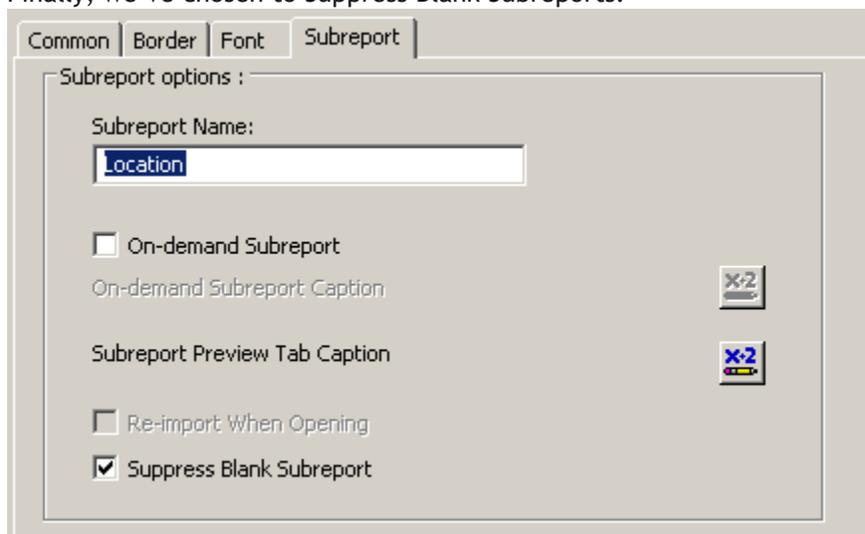
- Additionally, we've chosen to not use a predefined border.



- For the subreport title we've chosen 10 point Arial for our font, and made the text red.



- Finally, we've chosen to Suppress Blank Subreports.



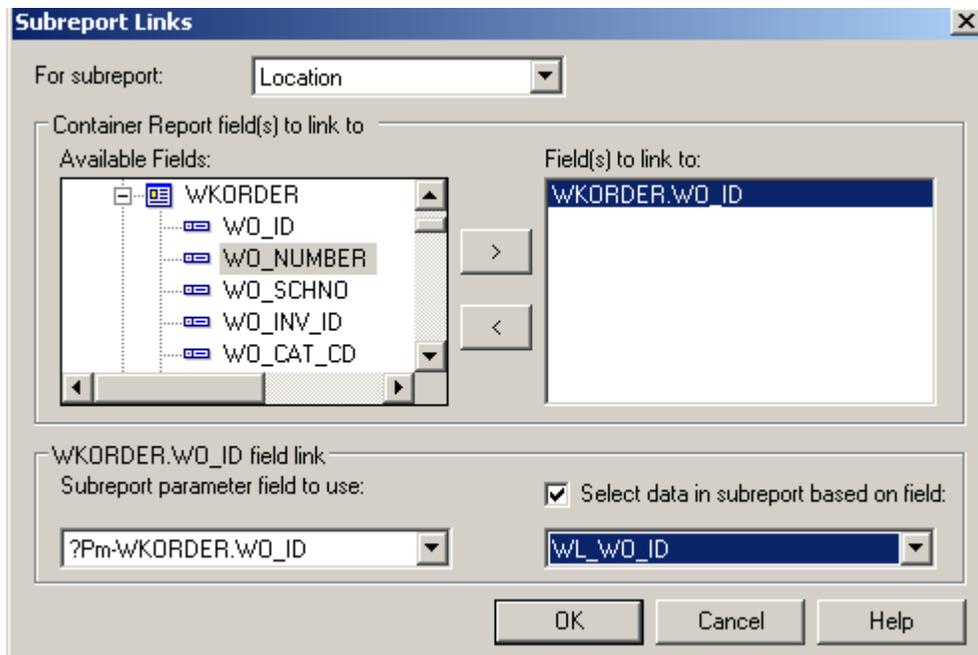
- Once you've finished selecting your formatting options, select *OK*.

Note: Some of the formatting options are strictly for the creator of the report like having the title centered and red. When working on a report this is a quick visual as to which parts of the report are subreports. Some of the formatting will affect the user end of the report like the border lines, empty space or whether the subreport Can Grow.

Subreport Links

Subreports can stand alone; however, typically they are linked to the main report. You'll need to find the correct table and field to link your subreport to. This will allow the main report and subreport to communicate effectively.

1. Right click in the **Location** subreport box and select *Change Subreport Links*.
 - The linked tables usually have an **ID** field with a common part; in this case it is **WO**.
2. Open the **WKORDER** table and move the **WO_ID** field over to the *Field(s) to link to* box on the right-hand side of the screen.
3. Click the arrow beside the field at the bottom-right of the screen and select the **WL_WO_ID** field.
4. Click *OK*.



The linking creates a formula in the Subreport in the *Select Expert*.

```
{WKORDERLOC.WL_WO_ID} = {?Pm-WKORDER.WO_ID}
```

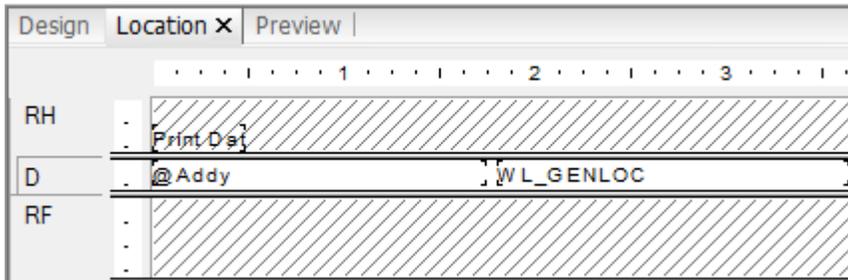
Note: The Web reports require any linking formula to have the “?Pm-XXXX” type formatting. This is automatically created through Crystal when using the Subreport Links dialog box. Remember to use this format if creating manually.

Adding Fields to the Subreport

1. Open the Location subreport by double clicking or right click and selecting *Edit Subreport...*
2. There will always be at least three sections; the Report Header, Detail and Report Footer. Suppress all sections other than the Detail section.
3. As mentioned earlier the address is a concatenated field. This formula will be borrowed from a standard report.
 - o Open the Work Order Detail report (WODetail.rpt).
 - o Locate the Locations.rpt subreport and double click on it.
 - o Find the address formula within the report (@Addy). Right click on it and click *Copy*.
 - o Close WODetail.rpt.
4. Go back to the LC_WOsAgingLoc.rpt report.
5. Make sure you are in the Location subreport. Paste the address formula into the *Detail* section. Resize.
 - The address formula is shown below:

```
(If isNull({WKORDERLOC.WL_ADR_BDG}) then "" else Trim(ToText({WKORDERLOC.WL_ADR_BDG},0,"","")))+ " "+
(If isNull({WKORDERLOC.WL_ADR_B2}) then "" else Trim({WKORDERLOC.WL_ADR_B2}))+ " "+
(If isNull({WKORDERLOC.WL_ADR_DIR}) then "" else Trim({WKORDERLOC.WL_ADR_DIR}))+ " "+
(If isNull({WKORDERLOC.WL_ADR_PT}) then "" else Trim({WKORDERLOC.WL_ADR_PT}))+ " "+
Trim({WKORDERLOC.WL_ADR_STR}))+ " "+
(If isNull({WKORDERLOC.WL_ADR_TY}) then "" else Trim({WKORDERLOC.WL_ADR_TY}))+ " "+
(If isNull({WKORDERLOC.WL_ADR_SFX}) then "" else Trim({WKORDERLOC.WL_ADR_SFX}))+ " "+
(If isNull({WKORDERLOC.WL_ADR_APT}) then "" else Trim({WKORDERLOC.WL_ADR_APT}))
```

6. Open *Field Explorer > Database Fields > WKORDERLOC*.
7. Drag the **WL_GENLOC** field into the *Detail* section.



WO #	Status	Age	Create Date	Address	General Location	Action	Supervisor
WO_NUMBER	WO_STAT_TY	Age	@WOCreated		Location	WO_ACTN_TY	WO_SUPR_TY

Preview

Aging Work Order Report

3/3/2014
1:42 PM

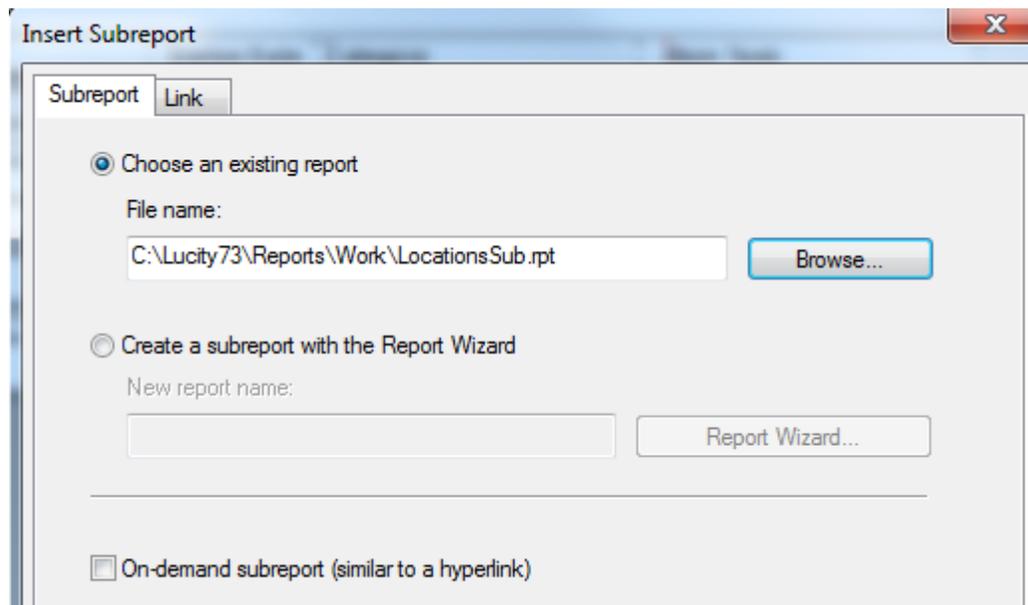
WO #	Status	Age	Create Date	Address	General Location	Action	Supervisor
2008-01129	New Work Order	2,909	3/18/2008			Residential Collections	KURT VONHOSSEN
2008-01608	New Work Order	2,797	7/8/2008			Sewer Line Cleaning	SHIELA KAMDON
2008-01610	New Work Order	2,797	7/8/2008	E CIVIC CENTER DR	by chipotle	SEWER OVERLFLOW	SHIELA KAMDON
2008-01611	New Work Order	2,797	7/8/2008	1564 E VALENCIA ST			SHIELA KAMDON

8. Save and close the report.

Copying a Subreport

You can use an existing subreport or report in the same family (i.e. Work, Sewer, Storm, etc.) as long as you are careful with the linking. In our example below, we'll show you how to copy the more detailed Location subreport from the **Work Order Detail Report** and place it in the **Summary Report**.

1. Open **WODetail.rpt**.
2. Right click on the **Location** subreport and select *Save Subreport As*.
 - o Make sure you are in the correct report file (**Work**).
 - o Enter a *File Name* (**LocationsSub.rpt**).
 - o Save the subreport and close the Detail report.
3. From the Work Order module export the **Work Order Summary Report (WOSum.rpt)** and name the new report **LC_WOSumDetLoc.rpt**.
4. Delete the **Address** column title.
5. Delete the **Locations** subreport.
6. Add a **new** section under *Group Footer 1a* and increase the size slightly to accommodate the new subreport.
7. Select *Insert Subreport*.
 - o Click *Choose an existing report*.
 - o Click **Browse**.
 - o Locate the Reports\Work folder and double click on **LocationsSub.rpt**. You'll see the **Insert Subreport** dialog box.
 - o Click **OK**.



8. Place the subreport "box" in the newly created *Group Footer 1b* section.
9. Choose the desired subreport formatting options discussed earlier.
10. Resize to fit the report.
11. Right click on the subreport and choose *Change Subreport Links*.
 - {WKORDERLOC.WL_WO_ID} = {?Pm-WKORDER.WO_ID}
12. Open the subreport and delete any empty sections.
13. Open the *Select Expert* and delete one of the parameter formulas. Even though the correct formula existed in the subreport's *Select Expert*, the main report doesn't recognize it, so it needed to be linked correctly again.
 - {WKORDERLOC.WL_WO_ID} = {?Pm-WKORDER.WO_ID} and
{WKORDERLOC.WL_WO_ID} = {?Pm-WKORDER.WO_ID}
 - You'll see a duplicate formula because the subreport was taken from a report with the same parent table. If the subreport being used was copied from a report with a different parent table, you would keep the formula that reflects the correct linking.
14. Select *Save and Close*.
15. *OK*

WO #	Status	Status Date	Category	Main Task
05-03-0008	Complete	3/9/2005	Meter Repair Calls	Adjust Meter Box/Vault To Grade

Work Order Locations			Address 2
Address	X Coord	Y Coord	General Location
803 RICHARD ST			

Note: Do not try to use a subreport from one family of reports in another family, such as a Work subreport in a Sewer report.

Grid Data with Associated Data

There are several cases throughout the Lucity modules where you click on data in one grid and information associated to that record shows up in the lower grid. A good example of this is in the *Work Order* module where the Resources are listed for each Work Task.

WD	Location	Assets	List/Events	Tasks/Res	Routing	Costs	Billing	Related	Requests/Track	Links
Work Tasks										
No	Task Text	Task Start Date	Task End Date	Status Text						
2	Sewer Line Cleaning	07/07/2006	07/07/2006	F						
1	Sewer Line Cleaning	07/06/2006	07/06/2006	F						
Resources										
Group	Type	Resource	Resource Text	UOM	Units					
	Employee	3	FRED MASON	Hours	0.50					
	Employee	87	SHIELA KAMDON	Hours	0.50					
	Employee	144	ZACH TURTLE	Hours	0.50					

The *TaskRes.rpt* subreport in the **Work Order Detail** report (*WODetail.rpt*) shows this relationship.

RHa	-----						
RHb	Tasks/Resources						
GH1	-----						
	@Tsk	Crew: WT_CREW_TY	Supervisor: WT_SUPR_TY	Start Date: skStartDt @TaskSt	End Date: kEndDate @TaskEn	Task Cost: WT_TOTCOST	
GH2	-----						
	WR_RTYP_TY	Time Type		Total Time	Units	Total Cost	
	Resource	Reg	OT	Normal	Type		
D	RSRC_CD	WR_RSRC_TY	UNIT	UNITS	R_UNIT	WR_TIME_TY	R_UNITS_ \$R_UOM_ TCST_G
RFb	-----						

The first group (*GH1*) is the Work Task and the second group (*GH2*) is the listing of the Resources associated with each Task.

Another example is in the *Fleet* module where the Sub-Components are associated with each Component.

Fleet - No Filter

Fleet ID: BGB0532 | 2001 CHEVROLET 1500

Operating Status: 1 Operational | Class: 165 Pickup 1/2 Ton

Manufacturer: 1 Chevrolet | Model:

General | WD/PM | Travel Log | Tracking | Tasks | Fueling | Items | Specs | Purchase | Costs | Eval | Reset | Custom | Comments

Fleet Parts/Components

Component	Component Text	Description	Manufacturer Text	Model	Serial Number	Status
1	Base Unit					

Fleet Parts/Sub-Components

Material ID	Material Text	Manufacturer Text	Model	Serial Number	Status Text	Quantity
0002022492	BRACKET					
00055721	TEMPERATURE GAUGE, F...					

In the **Fleet Detail** report (*FLDet.rpt*) there are separate Component and Sub-Component subreports; however, the Sub-Component groups on the Component (*GH1*) before it lists the parts.

RHa	-----						
RHb	Fleet Parts/Sub-Components						
GH1	-----						
D	PC_COMP_	MT_MAT	MT_MAT_TY	FP_MAN_TY	FP_MODEL	FP_SERIAL	FP_STAT_TY
RFa	-----						
RFb	-----						

There is an additional type of grid association. Within the *Work Order* module you'll see a *Daily Inspections* grid. Within each Daily Inspection record there are several grids containing information.

Work Order # 2006-01610

Status 2 New Work Order

Status Date 07/06/2006 10:23 AM

Category

Problem

Main Task

WO Location Assets List/Events Tasks/Res Routing Costs Billing F

Daily Inspections

Inspection Date	Report #	Master Project ID	Master Pro
08/31/2009	1		

Daily Inspect Rec # 10

Work Order # 2006-01610

Inspection Date 08/31/2009

Employee 1 RICK HONAS

General Contractors Staff/Equipment Construction Activity Field Work Custom Comments

Staff

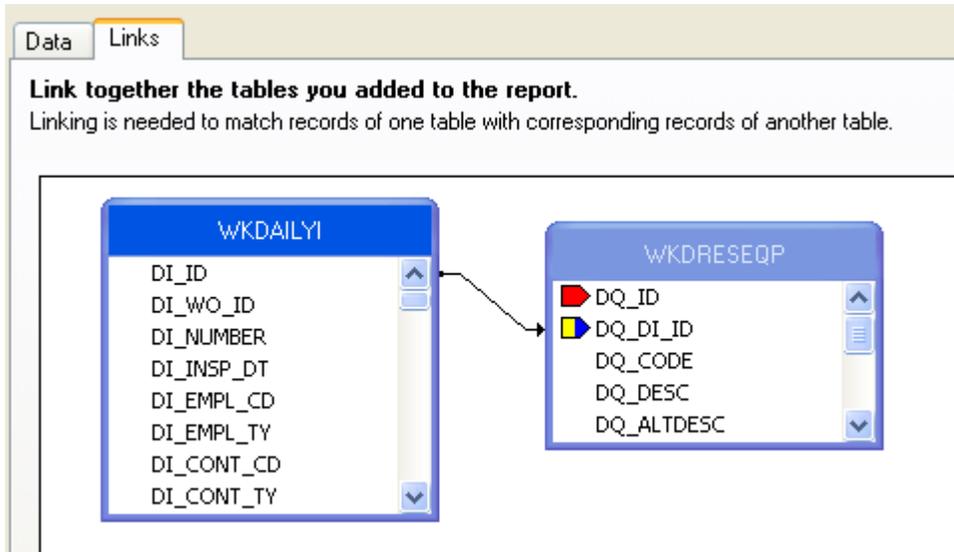
Type	Type Text	Quantity
1	Foreman	1
3	Labor	2

Equipment

Equipment	Equipment Description	In Use	Quantity	Model
BGS0385	1998 CHEVROLET SILVERADO	No		
PDP0293	2005 FORD CROWN VIC	No		

Notes: _____

At first glance, it would appear the only way to show this data would be a subreport within a subreport; however, this is not possible at this time. Sometimes it is possible to link the grid table and group. The following Inspection subreport shows the Equipment associated with each Inspection date.



The report groups on the Inspection Date (*GH1*) and then lists the Equipment for that Inspection record in the *Detail* section.

Design Inspections X							
RHb - Daily Inspections							
	Insp Date	Report#	Master Project ID	Master Project Name	Sub-Project ID	Sub-Project Name	Rec Lock
GH1a	@ InspDt	DI_NUM	DI_MP_NUM	DI_MP_NAME	DI_PJ_NUM	DI_PJ_NAME	DI_LO
GH1b	Equipment						
D	DQ_CODE		DQ_DESC				
GF1							
RFb							

Notes:

Date Parameters to a Subreport

Frequently subreport records need to be selected for a date range. If the main report or multiple subreports are using the date range as well then the date parameter should be created in the main body of the report and linked to the subreport(s). If only the subreport requires the date selection then the parameters can be created within the subreport.

The **Fleet Cost Report (FleetCost.rpt)** passes the parameters from the main body to both the **fuel** subreport and the **Work Order** subreport.

First the date parameters were created in the main body of the report.

The 'Edit Parameter: Start' dialog box is shown. The 'Name' field contains 'Start' and the 'Type' dropdown is set to 'Date'. The 'List of Values' section has 'Static' selected. The 'Value Field' and 'Description Field' are both set to '(None)'. Below these fields is a table with columns 'Value' and 'Description'. The 'Options' section contains the following settings:

Option	Setting
Prompt Text	Begin Date Range of WO End Date
Prompt With Description Only	False
Default Value	
Allow custom values	True
Allow multiple values	False
Allow discrete values	True

The 'Edit Parameter: End' dialog box is shown. The 'Name' field contains 'End' and the 'Type' dropdown is set to 'Date'. The 'List of Values' section has 'Static' selected. The 'Value Field' and 'Description Field' are both set to '(None)'. Below these fields is a table with columns 'Value' and 'Description'. The 'Options' section contains the following settings:

Option	Setting
Prompt Text	End Date Range of WO End Date
Prompt With Description Only	False
Default Value	
Allow custom values	True
Allow multiple values	False
Allow discrete values	True

Within the **Fuel** subreport the date formula that will be used with the parameter dates was placed in the body of the report.

RHa	-				
RHb	-				
D	-	FL_ID	@date	FHELAMT	TOT_CST
RFa	-				@FuelCost
RFb	-				

The parameter fields were brought to the subreport in the subreport linking.

Subreport Links

For subreport: fuel

Container Report field(s) to link to

Available Fields:

- Report Fields
 - EFFLEET.FL_VEH_CD
 - EFFLEET.FL_VEH_TY
 - EFFLEET.FL_DEPT_CD
 - EFFLEET.FL_DEPT_TY
 - EFFLEET.FL_ID

Field(s) to link to:

- EFFLEET.FL_ID
- ?Start
- ?End

?Start field link

Subreport parameter field to use: ?Pm-?Start

Select data in subreport based on field: @date

Subreport Links

For subreport: fuel

Container Report field(s) to link to

Available Fields:

- Report Fields
 - EFFLEET.FL_VEH_CD
 - EFFLEET.FL_VEH_TY
 - EFFLEET.FL_DEPT_CD
 - EFFLEET.FL_DEPT_TY
 - EFFLEET.FL_ID

Field(s) to link to:

- EFFLEET.FL_ID
- ?Start
- ?End

?End field link

Subreport parameter field to use: ?Pm-?End

Select data in subreport based on field: @date

The linking process set the fields up in an “=” formula. This was changed in the *Select Expert* in the subreport.

- Formula Crystal created:
{@date} = {?Pm-?Start} and
{@date} = {?Pm-?End}
- Changed to:
{@date} >= {?Pm-?Start} and
{@date} <= {?Pm-?End}

The date parameters were brought to the **Work Order** subreport in a similar manner.

It is a good practice to make sure formulas and parameters have unique names within the report. There should not be duplication of names from the main report to the subreports. The web reports will not support duplicate parameter names.

Our Web code looks for parameters that start with “Pm-“, it assumes these are subreport linking parameters and does not ask the user to provide this data. If you do not follow this convention our software will prompt you for the parameter values instead of letting Crystal automatically set those values.

Adding a General Comments Section

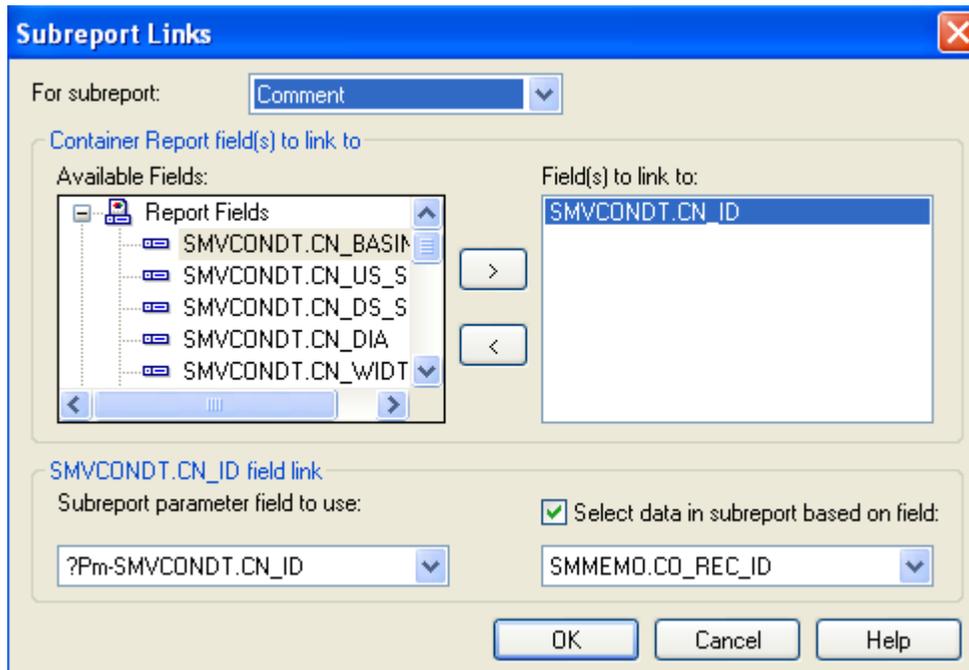
(Not Valid for Work Orders or Requests)

The system handles Comment grids differently than other types of grids in Lucity. For these grids, the information is stored in a **MEMO** table. The parent table communicates with this **MEMO** table to retrieve the Comment information. In the example below, we’ll show you how to add the **Comment** field for the **Storm Conduit Inventory** module to the **Conduit Physical Data Check Report (SMcnpchck.rpt)**. You’ll use these same steps to add Comment sections to all modules other than Work Orders and Requests comment section. It will work for the Memo type fields in Work Order like **Comment From Request** or in Request like the **Information for Work Order** memo fields.

Option 1 - Creating a Subreport From Scratch

1. First we’ll locate the field definition information for the Comment section.
 - From **Storm** open the **Conduit Inventory** module and click on the *Comment* tab.
 - Use the Ctrl + right click function to view the field definition. Make a note of the table name (**SMVCOND**T) and field name (**CN_MEMO1**). The **SMVCOND**T table is NOT where the data is stored so this is misleading. The data is in the **SMMEMO** table. All Storm comments are stored here.
2. Open the **Conduit Inventory** module’s reports and Export the **SMcnpchck.rpt** report.
3. Rename the new report as **LC_SMConChkCom.rpt** and then open it.
4. Right click in the margin to the left of the *Details* section and select *Insert Section Below*.
5. Increase the size of the new section slightly to accommodate the new **Comment** subreport.
6. Click the *Database Expert* button 
 - Click *Links* and note where the “tree” of tables begins. This one starts with **SMVCOND**T. In general, this will be the table for the module the report is run from.
 - Close the Database Expert.

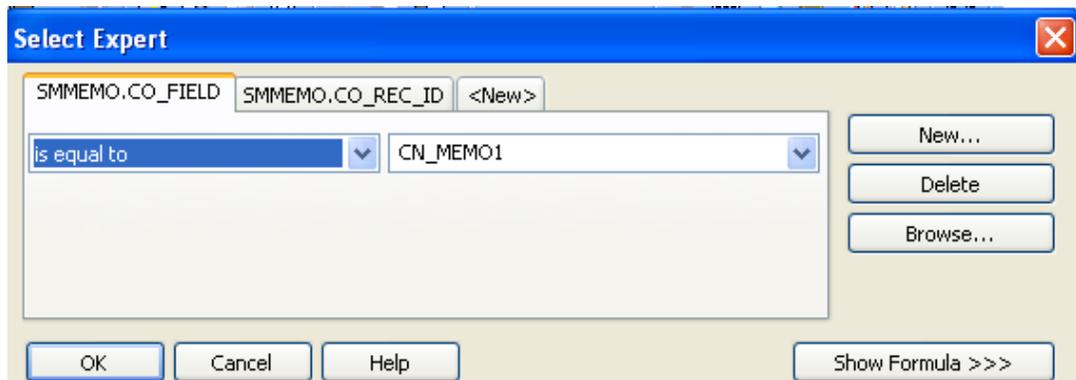
7. Click Insert Subreport  .
 - o Type in the *New report name (Comment)*.
 - o Select *Report Wizard*.
8. Open *Create New Connection > ODBC (RDO) > GBASstorm001 (Finish key) > Tables*.
 - o Select **SMMEMO** and move it to the right-hand box, *Selected Tables*.
 - o Click *Finish*.
 - o Click *OK*.
9. Place the “box” in the *Details b* section.
10. Right click in the **Comment** subreport box and click *Format Subreport*. Choose the formatting options that you prefer.
11. Select *OK*.
12. Resize the subreport box.
13. Right click in the **Comment** box and select *Change Subreport Links*.
 - o Open **SMVCONDT** and move the **CN_ID** field over to the *Field(s) to link to* box on the right-hand side of the screen.
 - o Click on the arrow beside the box at the bottom-right of the dialog and select the **CO_REC_ID** field.
 - o Click *OK*.



14. Double click on the **Comment** subreport box. You are now within the subreport.

15. Click on the *Select Expert* .

- o Click on the *New* tab.
- o Click on the **CO_FIELD** and then *OK*.
- o Click on the down arrow within *Select Expert* and select “is equal to”.
- o Click on the down arrow for the right hand drop down box. Select “CN_MEMO1”. (The comment field name, **CN_MEMO1**, was previously found using the field definition.) The field is only available in the drop down box if there is a record that has the Comment field populated with data. Otherwise, type in the field name.



- o Click *OK*.
- o To view the formulas created within the *Select Expert*, click on *Select Expert* and then *Show Formula>>>*.

{SMMEMO.CO_REC_ID} = {?Pm-SMVCONDT.CN_ID} and
 {SMMEMO.CO_FIELD} = "CN_MEMO1"

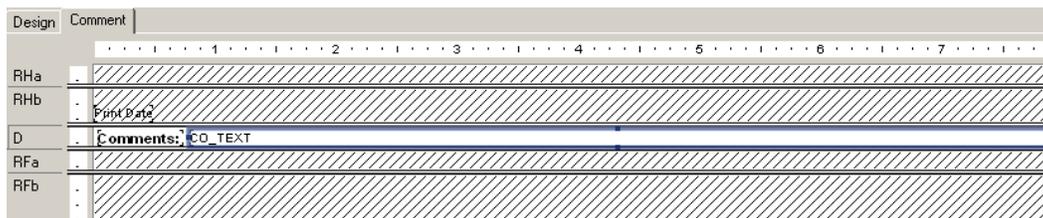
Note: The CO_REC_ID and CO_FIELD are the same for all general Comment subreports; however, the linking table and the field name in quotations changes for each module. The XXMEMO table name also changes depending on which suite of modules you are working in. For example, Street is STMEMO, Water is WTMEMO etc.

16. Suppress *Report Header a* and *b* and *Report Footer a* and *b*.

17. Create a “Comments” text object field in the *Detail* section.

18. Drag in the **CO_TEXT** field from *Field Explorer* and resize the field.

- o It is important that the **CO_TEXT** field be able to grow, so remember to check the *Can Grow* option within *Format Field*. Right click on the field and select *Format Field>>Common (tab)>>Can Grow (checked)>>OK*.



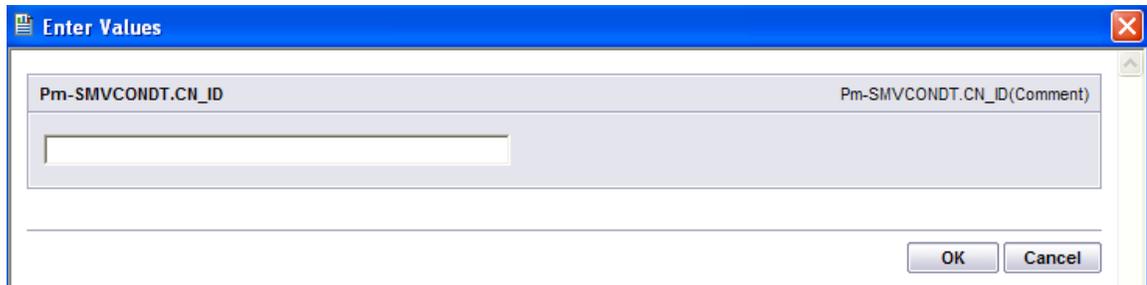
19. Click on the *Design* tab and then the *Print Preview* button .

Conduit Physical Data Check Report							Print Date
Report Subtitle							Print Time
Basin	US Structure	Dia/Height	Length	Manning	US Rim	US Invert	
	DS Structure	Width	Slope (%)		DS Rim	DS Invert	
Da	CN_BASIN	CN_US_STR	CN_DIA	LENGTH	NNIN	CN_US_RIM	CN_US_INV
	CN_DS_STR	N_WIDTH	N_SLOPE		CN_DS_RIM	CN_DS_INV	
Db	Comment						

Preview

Conduit Physical Data Check Report							8/31/2010
							8:52:57AM
Basin	US Structure	Dia/Height	Length	Manning	US Rim	US Invert	
	DS Structure	Width	Slope (%)		DS Rim	DS Invert	
250	1120	15	97.30	2.00	22.00	21.00	
	1119	6	0.01		11.00	11.00	
Comments:	comment for conduit 1120 1119						
1645	1121	15	50.60	2.00	24.00	24.00	
	1122	6	0.00		15.00	15.00	
Comments:	Comment for 1121 to 1122						
5615	1124	15	127.00	2.00	40.00	43.00	
	1123	8	0.00		33.00	34.00	
654135	1126	18	553.00	1.00	45.00	44.00	
	1125	8	0.00		33.00	33.00	

20. If you had tried to Preview the report while still in the subreport, something similar to the following would appear:



21. Press *Cancel* and then go to the report *Design* tab to run the report.

22. After reviewing the report, further modifications may seem necessary to make it easier to read.

- o In our example, a line should be added below the **Comments** line.

23. Add a *Detail* section below *Detail b*.

24. Add a line to *Detail c*.

25. Format the line to silver.

26. Even when a record has no comments, the space for the **Comments** subreport will still appear. This space can be removed as follows:

- Click *Section Expert* .
- Click *Detail b* and select the *Suppress Blank Section* option.
- *OK*.

Preview

Conduit Physical Data Check Report							8/31/2010
							8:56:23AM
Basin	US Structure DS Structure	Dia Height Width	Length Slope (%)	Manning	US Rim DS Rim	US Invert DS Invert	
250	1120	15	97.30	2.00	22.00	21.00	
	1119	6	0.01		11.00	11.00	
Comments: comment for conduit 1120 1119							
1645	1121	15	50.60	2.00	24.00	24.00	
	1122	6	0.00		15.00	15.00	
Comments: Comment for 1121 to 1122							
5615	1124	15	127.00	2.00	40.00	43.00	
	1123	8	0.00		33.00	34.00	
654135	1126	18	553.00	1.00	45.00	44.00	
	1125	8	0.00		33.00	33.00	

Option 2 - Creating a Subreport with the Report Wizard

1. In Storm, open the Conduit Inventory module's reports and Export the **Conduit Physical Data Check Report (SMcnpchck.rpt)**.
2. Rename the new report as **LC_SMConChkCom2.rpt**.
3. Open the new report and add a *Detail* section.
4. Click *Insert Subreport*.
 - Name it **Comment**, and click *Report Wizard*.
5. Open *Create New Connection > ODBC > GBASstorm001 > Next > Finish > Tables*.
6. Move **SMMEMO** to *Selected Tables*. Then, click *Next*.
7. Move **CO_TEXT** to *Fields to Display*. Then, click *Next*.
8. There will be no grouping, so select *Next* in the *Grouping* dialog box.
9. In *Record Selection*, move the **CO_FIELD** to the *Filter Fields*.
 - Using the drop down box, select *is equal to*.
 - Using the next drop down box, select **CN_MEMO1**. Then, click *Next*.
10. Select *No Template* and *Finish*.
11. Select the *Link* tab.
 - Set this up as described in **Option 1**.
12. Select *OK* and drop the new subreport box in the new *Detail* section.
13. Set up and format the subreport as described in Option 1.

Adding a Comments Section to Work Orders and Requests and Dated Comments for Inventory Modules

The *Comment* tab within **Work Orders** and **Requests** is formatted differently than the *Comment* sections in other modules. For this example, we'll add a Comment subreport to the **Work Order Summary Report**.

1. First, we'll find the field definition for the Work Order Comment section.
 - o Open the **Work Orders Standard** module. Click on the *Comments* tab.

Recorded By ▲	Recorded Date	Recorded Time	Comment
GBA	04/09/2007	08:53 PM	This is also a special type of memo

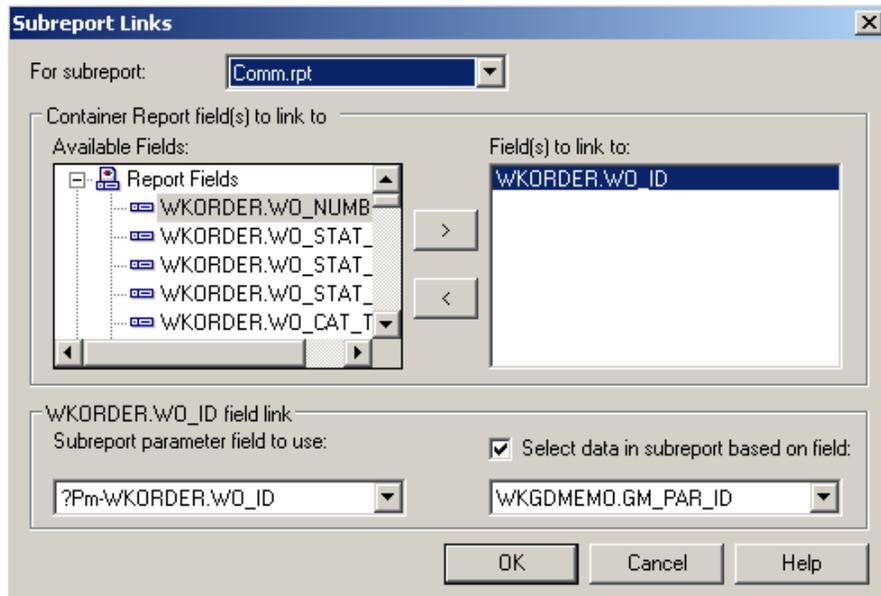
- o Right click in the grid.
- o Select *Add Comment* or *View Details* for an existing comment.
- o Ctrl + right click in the large comments box to view the field definition. Note that the table name is **WKGDMEMO** and the field name is **GM_MEMO**.
- o Close the comment dialog.

*Note: This Comment section does not hit the **WKMEMO** table. Instead, it uses the **WKGDMEMO** table.*

2. From the Work Order module, export the **Work Order Summary Report (WOSum.rpt)** and rename it **LC_WOSumComment.rpt**. Then, open the renamed report.
3. Right click in the left margin of the *Group Footer 1a* section and select *Insert Section Below*.
4. Click *Insert Subreport* .
 - o Type a name for the subreport (**Comment**) in the *New report name* section.
 - o Click *Report Wizard*.
5. Open *Create New Connection > ODBC > GBAWork001 (Finish) > Tables*.
 - o Move the **WKGDMEMO** table to *Selected Tables*.
 - o Click *Finish*.
 - o Click *OK*.
6. Insert the **Comment** “box” into the *Group Footer 1b* section.
7. Choose subreport formatting options and resize the box.

Work Order Summary Report							
Report Subtitle							Print Date
WO #							Print Time
	Status	Status Date	Category	Main Task	Address	Total Cost	
GH1 Group #1 Name							
D							
GF1a	WO_NUMBER	WO_STAT_TY	@Status Date	WO_CAT_TY	WO_ACTN_TY	Locations.rpt	@CostTo @WOCost
GF1b	Comment						

8. Next, right click within the **Comment** box and select *Change Subreport Links*.
 - o Select fields so it looks like the following:



- o Click *OK*.
9. Double click on the **Comment** box. You are now in the **Comment** subreport.
 - o Click *Select Expert* and click the *New* tab.
 - o Click and highlight **GM_PARENT**.
 - o Click *OK*.
 - o With the drop down arrow select *is equal to*.
 - o With the right drop down box select **WKORDER**. (This will only show as a choice if there is at least one record with a comment. Otherwise type **WKORDER**.)
 - o Click *OK*.

{WKGDMEMO.GM_PAR_ID} = {?Pm-WKORDER.WO_ID} and
 {WKGDMEMO.GM_PARENT} = "WKORDER"

Note: The formula in Requests would look like this:

{WKGDMEMO.GM_PAR_ID} = {?Pm-WKREQ.RQ_ID} and
 {WKGDMEMO.GM_PARENT} = "WKREQ"

10. Add column titles. You'll want to make the titles **bold** and underlined in order to make them distinct.
11. Drag in the appropriate fields.
 - You'll need to create formulas before you can add the **Date** and **Time** fields.
12. Increase the size of the **GM_MEMO** field and format it so it *Can Grow*.

13. Place a box around the **Comment** subreport to separate it from the rest of the data. Make sure the bottom of the box is in the Report Footer section so the box will grow to accommodate the Memo field if necessary.
 - Add a title for the box (**Comments**).
 - Format the **Comments** text box with a *white background*.

Report Header a				
Report Header b	Comments			
	Recorded By:	Date:	Time:	Comment:
Details	GM_REC_BY	@ Date	@ Time	GM_MEMO
Report Footer b				

14. Click the *Design* tab.
15. Click the *Section Expert* button.
 - Select *Group Footer1b* and the *Suppress Blank Section* option.
 - Select *Group Footer 1* and the *Keep Together* option. Then, click *OK*.

Preview

Work Order Summary Report

WO #	Status	Status Date	Category	Main Task
98-000027	Complete		Administrative	General Office
Comments				
	Recorded By:	Date:	Time:	Comment:
	GBA	4/16/2007	2:33:00PM	This is a comment for 98-000027
98-000028	Complete		Administrative	General Office
Comments				
	Recorded By:	Date:	Time:	Comment:
	GBA	4/16/2007	2:34:00PM	This is a comment for 98-000028
98-000029	Complete		Pavements	Asphalt Preparation
98-000005S	Completed		Pavements	Mudjacking
98-000030	Complete		Pavements	Repair Potholes

The Inventory modules have a second grid in the Comment tab with Dated Comments. The table will be obvious from the field definition and should reflect the suite of modules. For Storm - **SMGDMEMO**, for Sewer - **SWGDMEMO** etc. The setup would be similar to the Work/Request comment setup.