

Sub-Reports

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Learning Outcomes

- Understanding Subreports
- Unlinked versus Linked Subreports
- Creating an Linked and Unlinked Sub report
- Formatting the Subreport
- Passing Data from the Main Report into a Subreport
- Creating On-Demand Subreports

Sub Reports

- A subreport is basically a report embedded in another report.
- Subreports allow you to take data from diverse sources and present it on one or a small number of pages, for ease of comprehension.
- A standard report can not display data from two tables that are not linked, but a subreport can.
- The easiest kind of primary report/subreport combination to produce is one in which the two reports are unrelated but are of interest to the reader.

Sub Reports

- You can embed a subreport within another report in two ways:
 - Open the primary report and create a subreport within it from scratch.
 - Embed an existing report into another report as a subreport.
- Suppose we wish to see the results of 2 reports, say, the Employee Sales Orders for **2007** II (slide set 8) vs 2007 Sales Report. (Task 9c).

Sub Reports

- Modify the Employee Sales Orders for 2008 to include only year 2007.
- Just add the 2007 Sales Report to the Employee Sales Orders for 2007 Report. The 2007 Sales Report becomes a sub-report.
- We will place the sub-report in the GF1 section of Employees Sales Orders for 2008.
- Expand the GF1 Section just below Sum of Orders.Amount.

Sub Reports

- On the Insert Tools toolbar, click the Insert Sub-report icon. The Insert Sub-report dialog box appears.
- Select the Choose an Existing Report option. Click Browse.
- A standard Open dialog box appears.
- Find and select the report that you want to use as the sub-report. Then click the Open button to enter it in the Report File Name text box.
- To follow along with this example, find and open the 2007 Sales Order report. Click OK.
- Drag the placement frame that appears at the cursor location into the GF1.
- Save your report as 11a.rpt

Sub Reports

- A more common approach is that both the report and the subreport are half a page wide or less. That way the two reports can appear side by side without piling up, one upon the other.
- Thus these two reports are best used as an illustration, not as a realistic application of a subreport.
- The idea here is to show you how to include a subreport in a main report; make sure the template for your report can accommodate this operation.

Sub Reports

The sub-report we just created is unlinked but we could easily convert it into a linked subreport.

One of the most valuable uses of a subreport is to have it supplement related information displayed in the primary report. To set up this useful relationship, link the subreport to the primary, using a field that's shared by the tables forming the basis of the primary report *and* the subreport.

Sub Reports

- Create a Customer Listing for each Country. From Northwind, Select the Customer Table, and select Company Name, Contact Name, Phone and Country. Group by Country Ascending and insert a summary to display the number of Customer per Country. Divide the GF in two sections and insert the Count Summary in GF1a like below: (86 records)

GH1

D

D

D

GF1a

Argentina

Customer Listing

| Company Name | ContactName | Phone |
|----------------------------|------------------|--------------|
| Rancho grande | Sergio Gutiérrez | (1) 123-5555 |
| Océano Atlántico Ltda. | Yvonne Moncada | (1) 135-5333 |
| Cactus Comidas para llevar | Patricio Simpson | (1) 135-5555 |
| Total Customers: 3 | | |

Sub Reports

- Now we are going to create a linked subreport called supplier.rpt which we will place in GF1b.
- Create a new report called supplier.rpt from Northwind, Select Supplier Name, Phone, Country from the Suppliers table. Group by Country Ascending and create a simple report like follows: (29 records)

| | | |
|-----|---------------------------|---------------|
| GH1 | Supplier Listing | |
| D | SupplierName | Telephone |
| D | G'day, Mate | (02) 555-5914 |
| GF1 | Pavlova, Ltd. | (03) 444-2343 |
| | Total Suppliers: 2 | |
| GH1 | Supplier Listing | |
| D | SupplierName | Telephone |
| GF1 | Refrescos Americanas LTDA | (11) 555 4640 |
| | Total Suppliers: 1 | |
| GH1 | Supplier Listing | |
| | SupplierName | Telephone |

Sub Reports

Task

- Now we will insert your newly created report supplier.rpt in GF1b.
- Click the icon in the Insert Toolbar, browse to supplier.rpt
- We now link the subreport on the Customer.Country field. Crystal automatically creates a parameter field which it links to country. Click OK.
- Now we do not want to print blank subreports (e.g. for Argentina).
- So in the main Report, right-click on the supplier.rpt subreport and select Format Subreport. Select the last tab called subreport and make sure Suppress blank subreport is checked.
- Save your report as [11b.rpt](#)

Sub Reports

We will now see how we can pass data between the main report to a subreport by creating a “shared” variables and at the same time associate an on-demand report containing a chart.

Create a main report called CountrySales.rpt, Country from Customers, Order Date, Order Amount from Orders. Group by Country and include a Summary with Sum of Orders. Order Amount.

Create a formula field and a variable as follows:

```
Shared CurrencyVar CountrySales;  
CountrySales:= Sum ({Orders.OrderAmount}, {Customers.Country})
```

We will later used the shared variable CountrySales later in the subreport

Sub Reports

| | | | | |
|------|--|---------------------------------------|---------------------|------------------------|
| RHa | | | | Country Sales Analysis |
| RHb | | | | 2007 Sales Chart |
| PH | | | | |
| GH1 | | {Group #1 Name} 2007 Sales: {Sum of C | {CountrySalesI-Main | |
| D | | OrderAmount | | |
| GF1a | | 2008Q1 Sales.rpt | | |
| GF1b | | | | |
| RF | | All Countries; {OrderAmount | | |
| PF | | | | |

Sub Reports

Create a subreport called 2008Q1Sales.

Using Country from Customers, and Order Date and Order Amount from Orders. Group by OrderDate monthly ascending.

Create a formula field called say CountrySales-Sub
And defines it as follows:

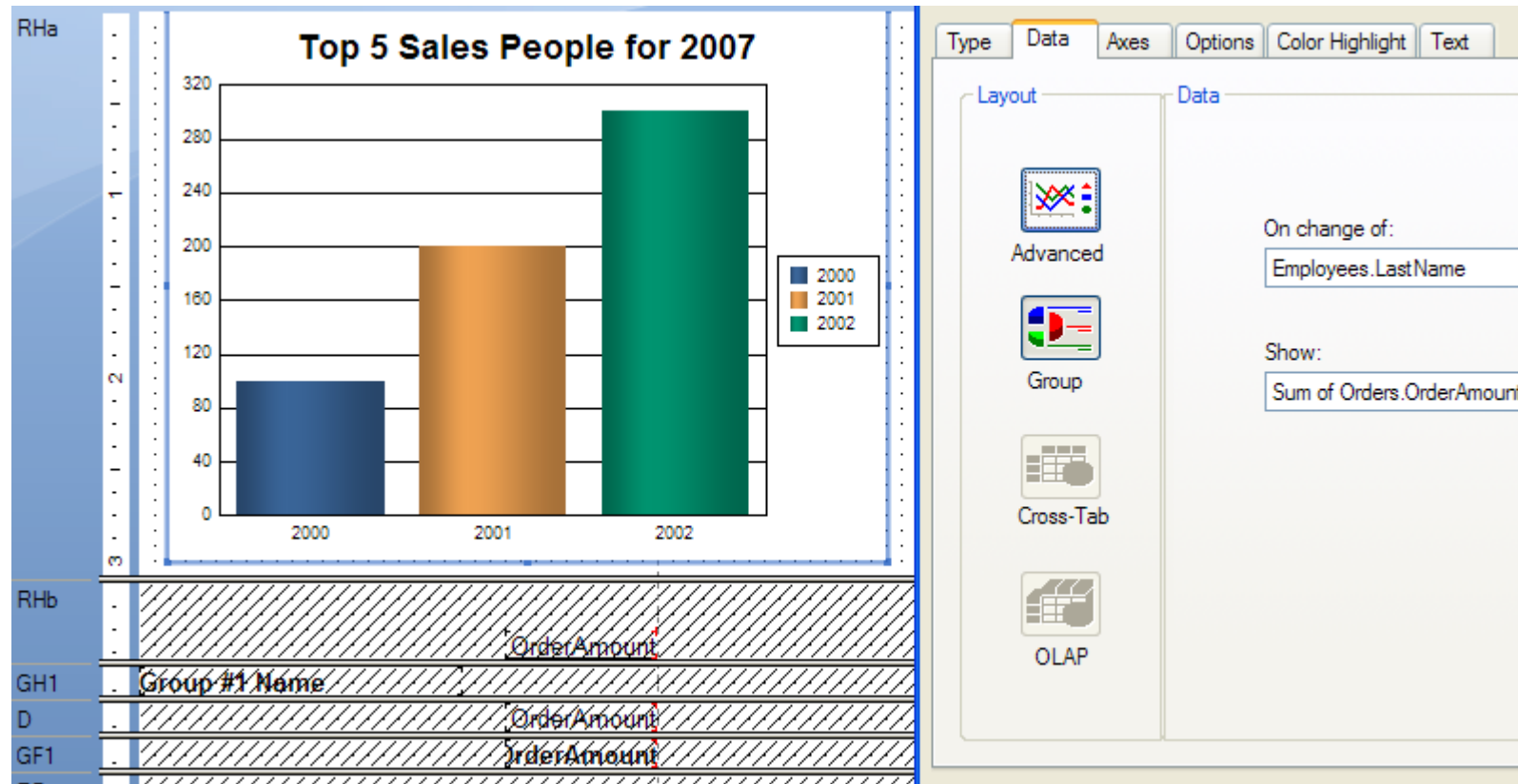
Shared CurrencyVar CountrySales;

ToText(Sum ({Orders.OrderAmount}, {Orders.OrderDate},
"monthly") % CountrySales,2) + "%"

Note that we are using the CountrySales variable from the main report to display the percentage growth in Sales between Q1 2007 and 2008.

Sub Reports

Finally, create a subreport called 2007 Sales Chart. Using LastName from Employees, and Order Date and Order Amount form Orders. Group by LastName monthly ascending. Then insert a bar-chart.



Sub Reports

Now paste that sub-report in the main report in RHb. Right-click and select Format Subreport. In the Subreport Tab, select On-Demand Subreport and for On-demand Subreport Caption enter the following in the Formula Editor "Click here to see a graph of sales for the top five sales people in 2007"

Your report should now be ready, save it as **11d.rpt**

