

CHAPTER 8

Creating Reports with InfoMaker

About this chapter Reports display and summarize data. You can view reports on the screen and print reports on the printer.

In this tutorial you will create a report using the data in the contact table. The report you create groups contacts by job role and lists phone and fax numbers for each contact.

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How long will this tutorial take?

About 45 minutes.

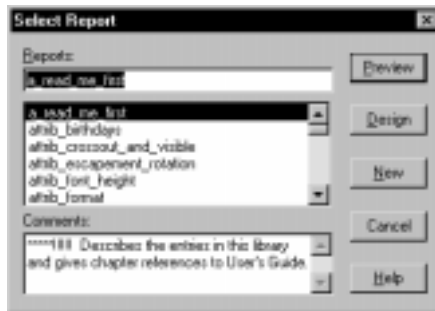
Creating the basic report

Now you will create the basic report. To do this you select a report style and the data to be used for the report.

- 1 Click the **Report painter** button in the PowerBar.

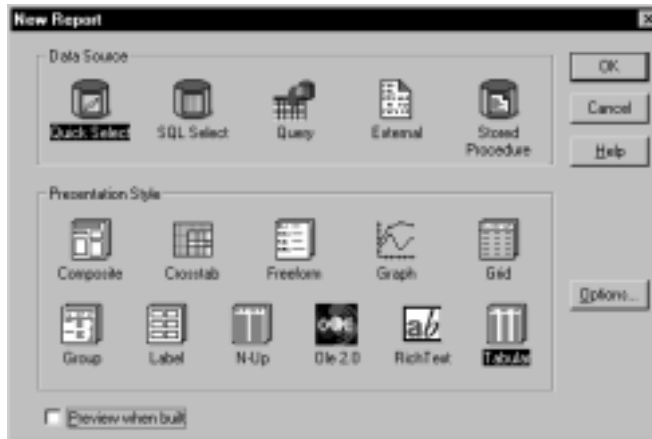


The Select Report dialog box displays. It lists reports in the current library (TUTOR_IM) and has a New button for creating new reports.



- 2 Click **New**.

The New Report dialog box displays. It contains the data sources and the report styles you can choose.



About data sources

Quick Select is for simply choosing columns and specifying selection criteria and sorting, which is what you want for this tutorial.

SQL Select is for using other SQL options not available with Quick Select.

Query is for specifying the name of a query that describes the data source. You define a query in the Query painter.

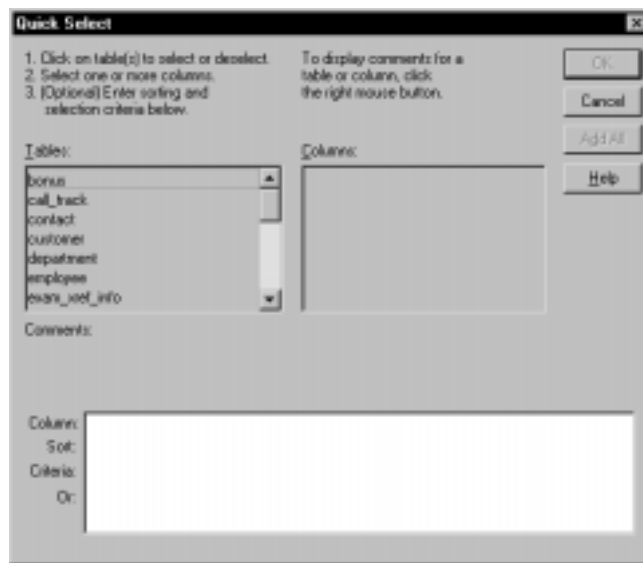
External is for specifying data that comes from a source other than a database.

Stored Procedure is for specifying data using a stored procedure.

About report presentation styles

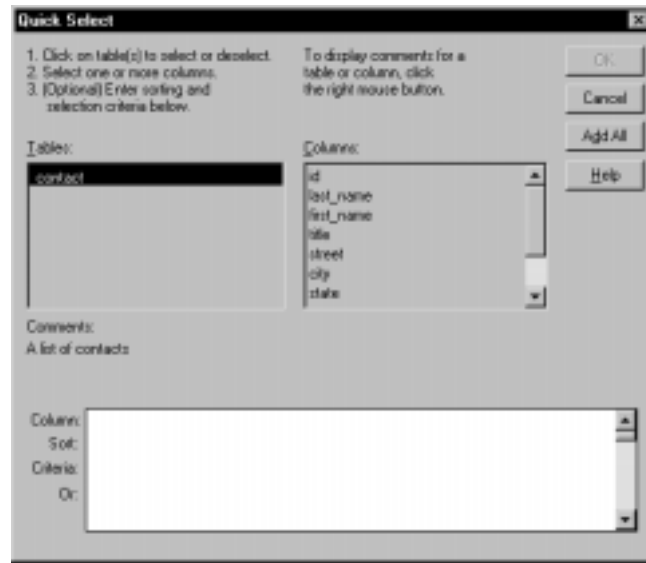
A report presentation style is a predefined way of presenting information in a report.

- 3 Click the **Quick Select** data source and the **Tabular** presentation style. Make sure the **Preview when built** checkbox is not selected and click **OK**. The Quick Select dialog box displays. In this dialog box you select the table to use and the columns you want included in the report.



- 4 Click **contact**.

The contact table's columns display. For this report you will select five.

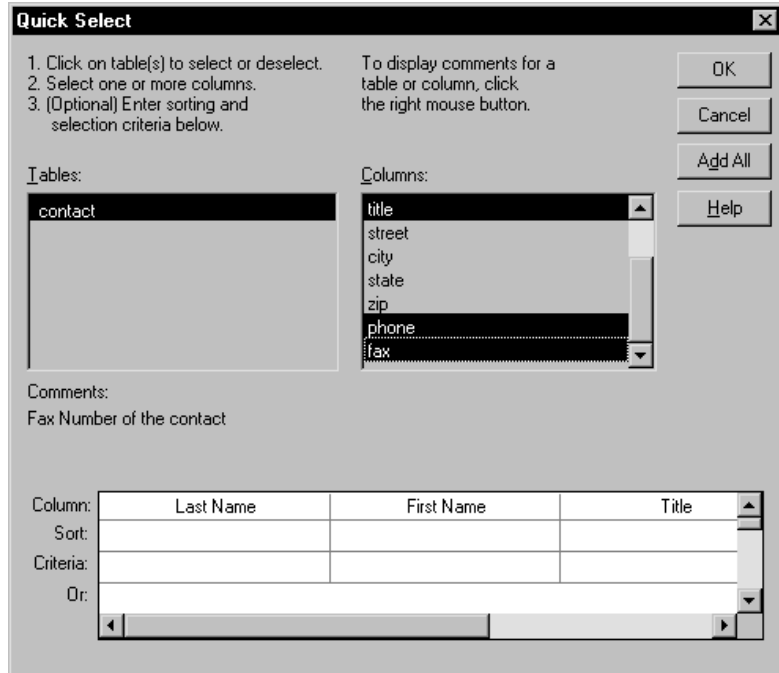


- 5 Click ***last_name***, ***first_name***, and ***title***.

Use the scrollbar to scroll the list of columns.

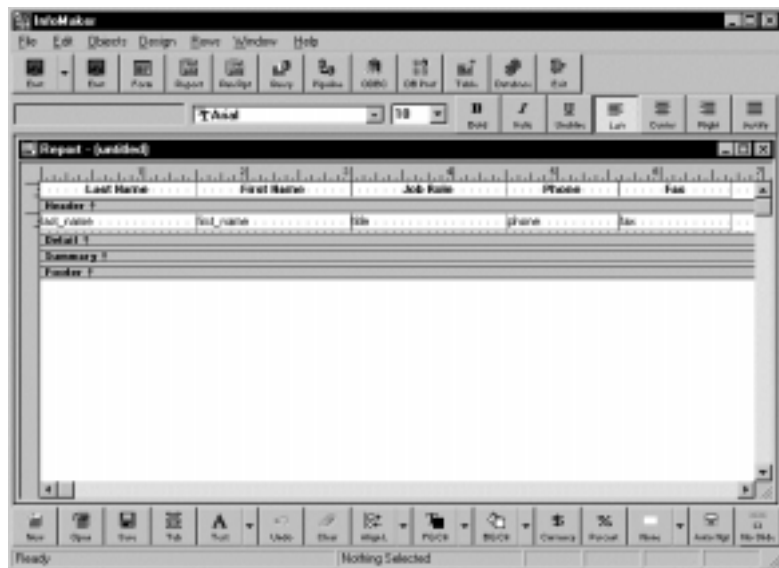
Click ***phone*** and ***fax***.

InfoMaker moves the selected columns to the grid at the bottom. You can use this grid for reordering columns and for providing sort and selection criteria. For this report you do not need selection criteria, and you will specify sorting later.



6 Click **OK**.

A design version of your report displays in the Report painter workspace. It uses the columns and report style you selected.



The text for the column headers comes from the repository. The names of the columns appear where the data values will be displayed.

The repository

The repository stores information about data such as labels and display formats. When you create forms and reports, InfoMaker uses repository information to create the basic report or form.

You put information into the repository using the Database painter. For example, in the Table tutorial of InfoMaker's Getting Started manual, you define the label **Job Role:** for the title column. Then when you use the title column in a form or report, InfoMaker uses the label **Job Role:**.

Previewing the report

In this section you will preview your report to see what it will look like when you print it. Usually you preview your report when you make changes that affect the way it looks.

- 1 Select **Design > Preview** from the menu bar.

The report displays. Notice that it includes the header information for the report and information from the database.

Last Name	First Name	Job Role	Phone	Fax
Hildebrand	Jane	Marketing	(61 8) 555-1309	(61 8) 555-4209
Simons	Larry	Sales	(71 3) 555-0960	(71 3) 555-6295
Calkin	Susan	Product development	(508) 555-4329	(508) 555-2025
Lambert	Tony	Administration	(61 7) 555-2246	(61 7) 555-2632
Sullivan	Dorothy	Customer support	(508) 555-3925	(508) 555-9931
Paul	Rose	Finance	(61 7) 555-6282	(61 7) 555-1495
Blessmann	Bob	Product development	(61 7) 555-0273	(61 7) 555-9933
Powell	Gene	Training	(61 7) 555-2628	(61 7) 555-9663
Fish	Jillibey	Marketing	(61 7) 555-2628	(61 7) 555-9663
Duke	Holly	Sales	(61 7) 555-4325	(61 7) 555-7638
Kelley	William	Documentation	(61 7) 555-0474	(61 7) 555-2584
Lynn	Thomas	Customer support	(61 8) 555-5370	(61 8) 555-3372
Davinton	Joann	Marketing	(61 8) 555-7363	(61 8) 555-6270
Petergill	Mark	Sales	(61 8) 555-2633	(61 8) 555-1146
Morre	Dawn	Sales	(404) 555-4834	(404) 555-6291
Lesch	John	Customer support	(61 7) 555-5348	(61 7) 555-4519
Kaplan	Duff	Sales	(61 7) 555-3887	(61 7) 555-2388
Horne	William	Customer support	(508) 555-7760	(508) 555-4422

InfoMaker retrieves information for all contacts and displays as many as will fit on the screen.

If some of your columns are displaying too close together, ignore it for now. We will fix the spacing of the columns later in the tutorial.

- 2 Use the scrollbar on the right side of the window to see more data.
- 3 Click the **Preview** button in the PainterBar.

You return to the Report painter workspace.

Saving the report

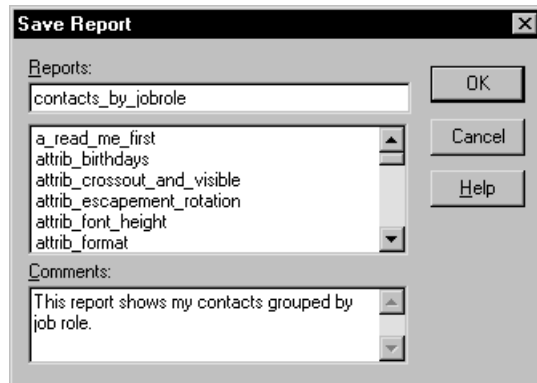
Now you will save the report and give it a name.

- 1 Make sure you are back in the workspace (if not, click **Preview**).

Select **File > Save** from the menu bar.

The Save Report dialog box displays, with the pointer positioned for you to type a name for the report.

- 2 Type **contacts_by_jobrole**.
- 3 Click in the **Comments** box and type **This report shows my contacts grouped by job role**.



- 4 Press the **ENTER** key.
InfoMaker saves your report.

Setting up the design environment

In this section, you set up the design environment to make it easier to work. You will:

- ◆ Show the edges of objects
- ◆ Display the grid and ruler

Object edges show how big the objects are. By displaying object edges, you can easily check for overlapping and make sure the spacing around objects is what you want. Displayed edges are a design aid only; they do not appear in the report.

The InfoMaker grid and ruler help you align objects.

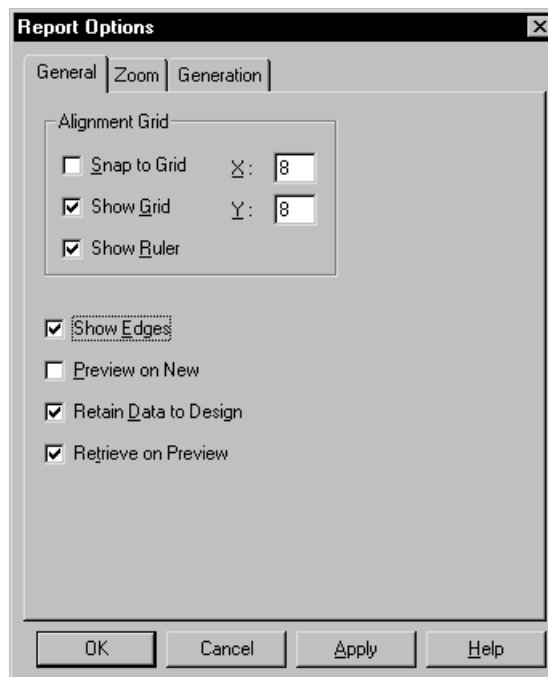
- 1 Select **Design > Options** from the menu bar.

The Report Options property sheet displays.

- 2 Make sure the **Show Grid** option, **Show Ruler** option, and the **Show Edges** option are selected.

Make sure **Snap to Grid** is not selected.

Click **OK**.



The workspace shows a dotted grid and a ruler. Text and columns show edges.

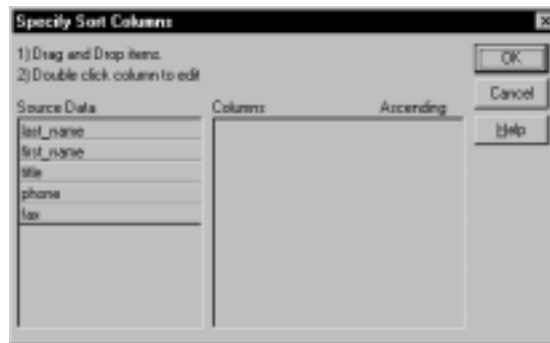


Defining sorting and grouping

Now you will specify sorting and grouping. You want the report to group contacts by title. This means you need to sort by title and then specify grouping by title.

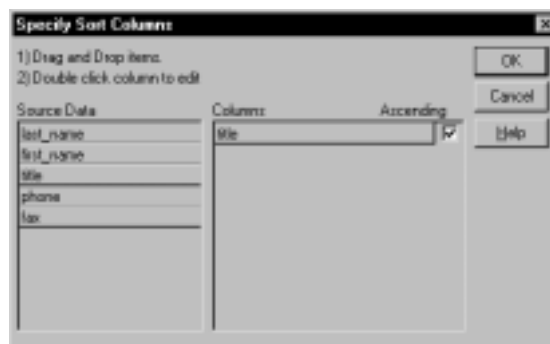
- 1 Select **Rows > Sort** from the menu bar.

The Specify Sort Columns dialog box displays.



- 2 Move the pointer to the word **title** in the Source Data box and drag it to the **Columns** box.

(To drag, press and hold the left mouse button, move the mouse, then release the mouse button.)



Ascending and Descending

Ascending and descending are options for sorting. Since you are alphabetizing in this tutorial, you want to sort in ascending (from A to Z) order. Ascending is the default, so you do not have to do anything.

You've specified the sorting required to group on title.

Next you will specify sorting by last name and then by first name. This ensures that your contacts are alphabetized within each group.

- 3 Drag **last_name** and **first_name** to the **Columns** box.



- 4 Click **OK**.

The sorting definition is complete. You return to the Report painter workspace.

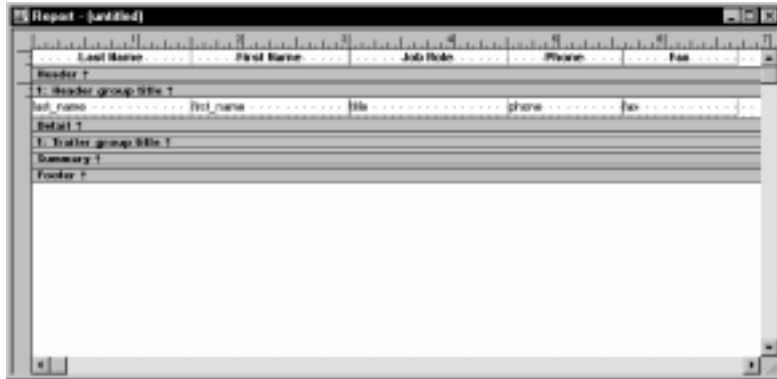
- 5 Select **Rows > Create Group** from the menu bar.

The Band Object property sheet displays. You are going to group on the title column. All contacts with the same title will be grouped together.

- 6 Drag **title** to the **Columns** box and click **OK**.



The grouping definition is completed. You return to the Report painter workspace.



You have two new bands for the group in the report. You'll learn about bands in the next section.

- 7 Select **Design > Preview** from the menu bar.

You see the report and its data. Notice that the data is sorted. You do not see the groups yet. In a few minutes, you will make some changes so the groups will appear.

The screenshot shows the same report window, but now displaying a preview of data. The data is sorted by Last Name. The report has a header band with five columns: "Last Name", "First Name", "Job Role", "Phone", and "Fax". The data rows are as follows:

Last Name	First Name	Job Role	Phone	Fax
Bier	Michael	Administrator	(617) 555-2398	(617) 555-3337
Lambert	Terry	Administrator	(617) 555-2346	(617) 555-3682
Pomero	John	Administrator	(718) 555-4523	(202) 555-1232
Cobb	Paul	Customer support	(404) 555-2229	(484) 555-8111
Cohen	Paul	Customer support	(617) 555-5803	(617) 555-4489
Collins	May/Beth	Customer support	(617) 555-1199	(617) 555-9586
Goggin	Kevin	Customer support	(713) 555-3943	(713) 555-8211
Hayne	William	Customer support	(508) 555-7700	(508) 555-4422
Hodson	Jack	Customer support	(508) 555-2998	(508) 555-8022
Lendki	John	Customer support	(617) 555-5348	(617) 555-4619
Lynan	Thomas	Customer support	(618) 555-5378	(510) 555-2272
Maschly	Kurt	Customer support	(404) 555-5111	(484) 555-8247
Paveas	Scott	Customer support	(603) 555-0900	(603) 555-9596
Short	Russell	Customer support	(617) 555-0903	(617) 555-1170
Sullivan	Dorothy	Customer support	(508) 555-2825	(508) 555-9931
Tippet	Debbie	Customer support	(706) 555-6227	(704) 555-8474
Wetland	Colman	Documentalist	(706) 555-2896	(704) 555-4532
Keller	William	Documentalist	(617) 555-0474	(617) 555-2584

- 8 Click the **Preview** button.

You return to the Report painter workspace.

Enhancing the report

You can enhance reports in many ways. In this section you will:

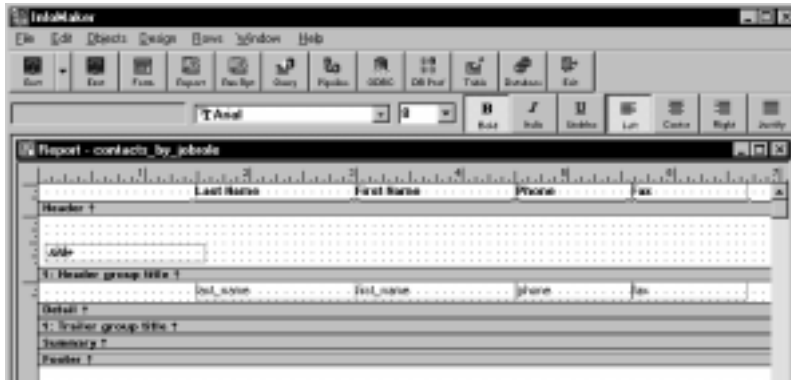
- ◆ Rearrange objects
- ◆ Add a title and date
- ◆ Add page numbers
- ◆ Add a count of the total number of contacts

Rearrange objects

To rearrange objects, you will:

- ◆ Put the job role into the group header and change its display font
- ◆ Move the remaining columns to close the gap left by moving the column

This is what the workspace will look like when you have finished rearranging the objects.



About report bands

The design version of the report that you see in the workspace divides the report into bands of information.

The **header band** contains heading information and is located at the top of each page.

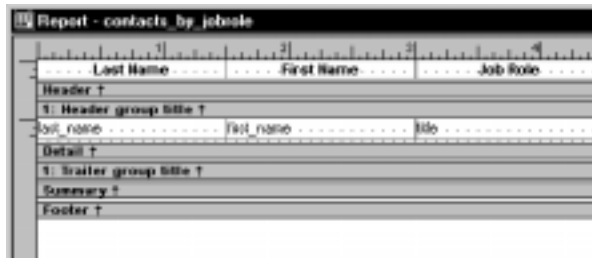
The **detail band** contains the retrieved data.

The **summary band** contains summary information that applies to the entire report and is located at the end of the report.

The **footer band** contains information to be located at the bottom of every page, such as a page number.

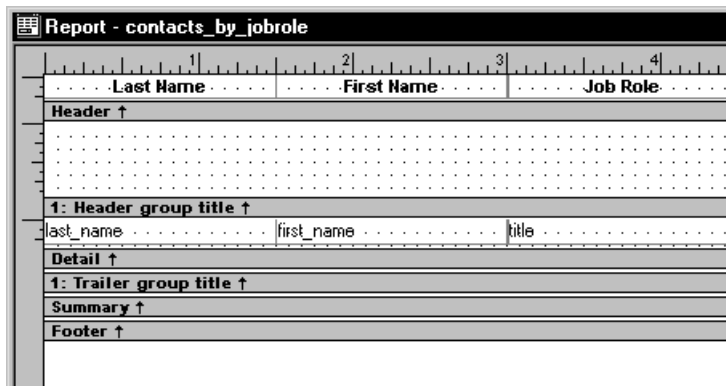
For groups, the **group header band** and **group trailer band** contain information for the group.

- 1 Move the pointer to the gray bar entitled **1: Header group title** until you see a double-pointed arrow.



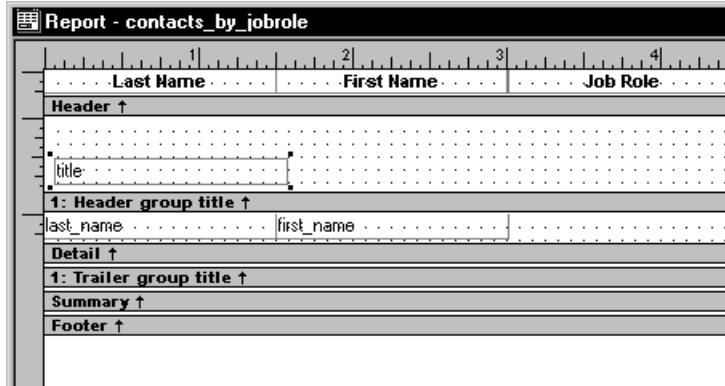
- 2 Drag the band down about 4 to 6 grid dots.

(To drag, press and hold the left mouse button, move the mouse, then release the mouse button.)

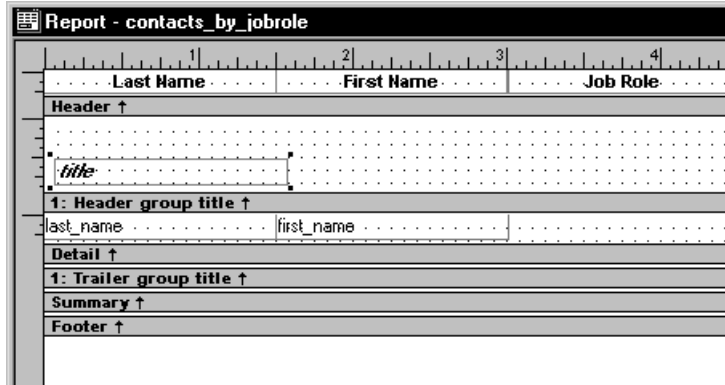


- 3 Move the pointer to the **title** column and drag it into the band for the group header.

Put it near the bottom of the band as shown.



- 4 With the **title** column still selected, click **B** for bold and **I** for italic on the StyleBar.



This makes the job role (title) stand out in the report.

- 5 Select **Design > Preview** from the menu bar.

You see the report and its data.

Last Name	First Name	Job Role	Phone	Fax
Administration				
Bier	Michael		(617) 555-2298	(617) 555-3337
Lombert	Terry		(617) 555-2345	(617) 555-3682
Pomero	John		(318) 555-4533	(318) 555-5233
Customer support				
Cobb	Paul		(604) 555-2229	(684) 555-6111
Cohen	Paul		(617) 555-0803	(617) 555-4489
Collis	Maybeth		(617) 555-1199	(617) 555-9586
Groggin	Kevin		(712) 555-2343	(712) 555-6251
Hayes	William		(508) 555-7700	(588) 555-4422
Hodson	Jack		(508) 555-2398	(588) 555-8022
Londki	John		(617) 555-5343	(617) 555-4619
Lynan	Thomas		(518) 555-5378	(518) 555-3372
Maschly	Eurt		(604) 555-5111	(684) 555-6347
...

Notice that the value of the title column appears only once for each group. This is because the title column is now located in the group header band.

Previewing is helpful for identifying problems. Notice that the header Job Role is still present even though there is no longer a column in the detail band. When you return to the workspace you will delete the text.

- Click the **Preview** button to return to the workspace.

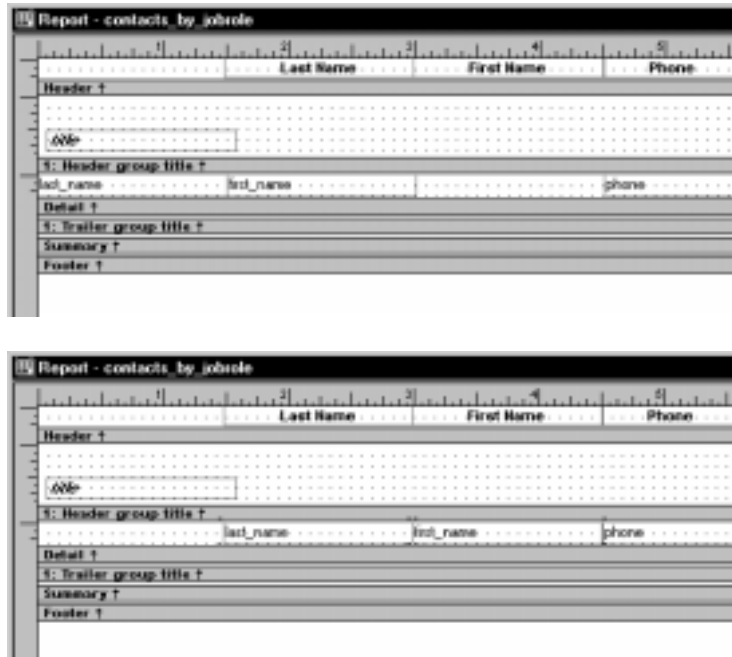
Click the text **Job Role** in the header field.

- Press the DELETE key.

- 8 Drag the **First Name** and **Last Name** textboxes in the header band to the right to fill the empty space.



- 9 Drag the **first_name** and **last_name** columns in the detail band to the right to fill the empty space.
- 10 If when previewing your report, your **phone** and **fax** numbers do not have enough room to display, lengthen the fields now. Click on **fax** and move your cursor to the edge of the field until you see a double arrow. Drag the arrow until the box is large enough to hold the resulting data. Perform the same procedure on the **phone** field. You may have to move a few of the fields in order to make room to expand the **phone** and **fax** fields.



You will make one final visual improvement now by left aligning the text in the column headers.

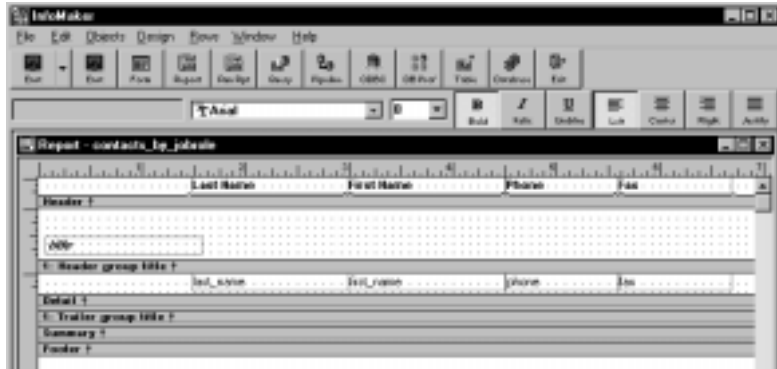
- 11 Choose **Edit > Select > Select Text** from the menu bar.

This selects all the headers. It may be difficult to see that they are selected because the band is so narrow.

- 12 Click the **left alignment** button on the StyleBar.

If your headers are not already bold, click the **Bold** button.

All the headers become left aligned (and bold).



- 13 Select **Design > Preview** from the menu bar.

	Last Name	First Name	Phone	Fax
Administration				
	Bieri	Michael	(817) 555-2398	(817) 555-3337
	Lambert	Terry	(817) 555-2246	(817) 555-3682
	Romeo	John	(318) 555-4533	(318) 555-1233
Customer support				
	Cobb	Paul	(404) 555-2229	(484) 555-8111
	Cohen	Paul	(817) 555-9883	(817) 555-4489
	Collins	MagBeth	(817) 555-1198	(817) 555-8586
	Goggin	Kevin	(713) 555-2948	(713) 555-8291
	Hayne	William	(508) 555-7768	(588) 555-4422
	Hudson	Jack	(508) 555-2998	(588) 555-8032
	Lencio	John	(817) 555-5348	(817) 555-4619
	Lyman	Thomas	(818) 555-5378	(818) 555-3272
	Masalsky	Kurt	(404) 555-5111	(484) 555-8247
	Quinn	Tom	(703) 555-8888	(703) 555-8888

- 14 Click the **Preview** button to return to the workspace.

Add a title and date

Now you will add a title and date to the header band. They will be at the top of each page.

- 1 Move the pointer to the gray bar marked Header and drag it down about 10 grid dots.



- 2 Choose **Edit > Select > Select Text** from the menu bar (or use lasso selection).
This selects all the headers.
- 3 Press the **DOWN ARROW** key to move all the headers down close to the gray band.

This leaves room for the title.

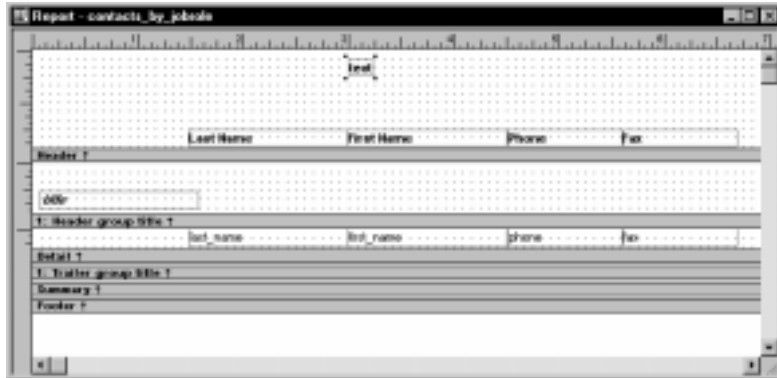


- 4 Click the **Text** button in the Objects dropdown toolbar in the PainterBar (or select **Objects > Text** from the menu bar).

Move the point of the pointer above the **First Name** box and down one grid dot from the top of the page.

Click.

This positions the text box for the title.



5 Type ***My Contacts***.

Select **14** from the font size dropdown listbox to make the title bigger.

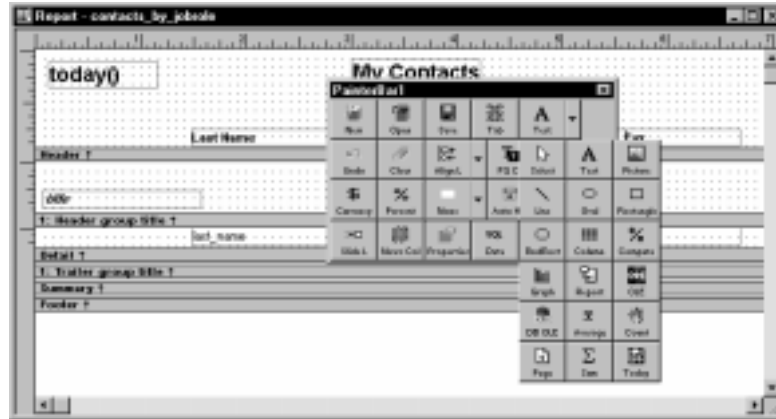


6 Click the ***Today*** button in the Objects dropdown toolbar.

Move the point of the pointer to the upper-left corner.

Click.

This places a computed field in the report. The computed field is for today's date.



- 7 Select **Design > Preview** from the menu bar. Your report now has a title and today's date.



- 8 Click the **Preview** button to return to the workspace.

Add page numbers

Now you will put page numbers in the footer band.

- 1 Move the pointer to the gray bar marked Footer and drag it down about 4 grid dots.

If necessary, use the scrollbar to make room at the bottom of the design workspace.

This makes space for the page number, which will be another computed field.



- 2 Click the **Page** button in the Objects dropdown toolbar.

In the footer band, move the point of the pointer to the center and down 2 grid dots.

Click.

Select a different font size (10) from the style bar.

This places a computed field for page numbers.



- 3 Select **Design > Preview** from the menu bar.

Click the scrollbar until you move to the bottom of the page.

You now have a page number on your report.



- 4 Click the **Preview** button to return to the workspace.

Add a count of the total number of contacts

Now you will add a count of the total number of contacts you have to the end of the report. You will put the information in the Summary band, which means it will print at the end of the report.

Like the date and page number, the count will be a computed field. Only this time, you will create it yourself using the Compute button.

- 1 Move the pointer to the gray strip marked **Summary** for the summary band and drag it down about 6 grid dots.

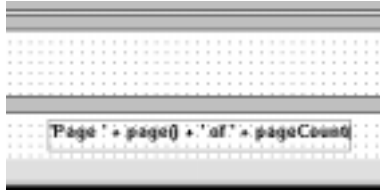
This makes space for the total number of contacts, which will be a computed field.



- 2 Click the **Compute** button in the Objects dropdown toolbar.

In the summary band, move the point of the pointer to the center and down 4 grid dots.

Click.



This sets the position for a computed field that you will use for the total number of contacts. The Computed Object property sheet displays.

- 3 In the **Name** box, type **total_contacts**.



- 4 Click the **More** button.
The Modify Expression dialog box displays.
- 5 In the **Functions** box, click **count(#x for all)**.

Your dialog box should look like this. The placeholder for what to count is highlighted.



- 6 In the **Columns** box, click **last_name**.

This selects the last_name column to apply the count function to. You are going to count all the last names to find out how many contacts you have in the report.



- 7 Click **Verify**.

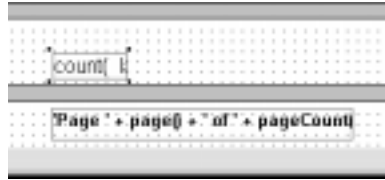
You should get the message box stating that your expression is valid.



- 8 Click **OK** to close the message box.
Click **OK** to complete the definition of the expression for the computed field.

Click **OK** to accept the name and expression and close the property sheet.

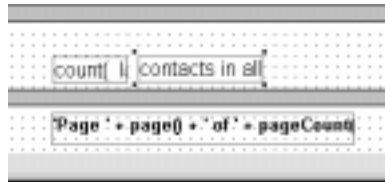
You return to the workspace. The computed field is in place.



- 9 Click the **Text** button in the Objects dropdown toolbar.
Position the pointer to the right of the computed field and click.

Type **contacts in all**.

Drag the text box to line it up with the computed field.

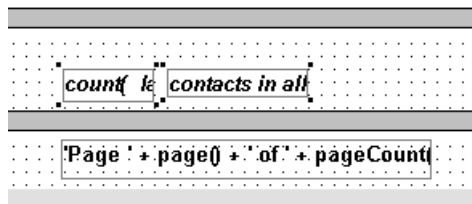


- 10 Select the computed field and the text using lasso selection.

On the StyleBar, select **10** for a font size and click **I** for italic and **B** for bold.

How to use lasso selection

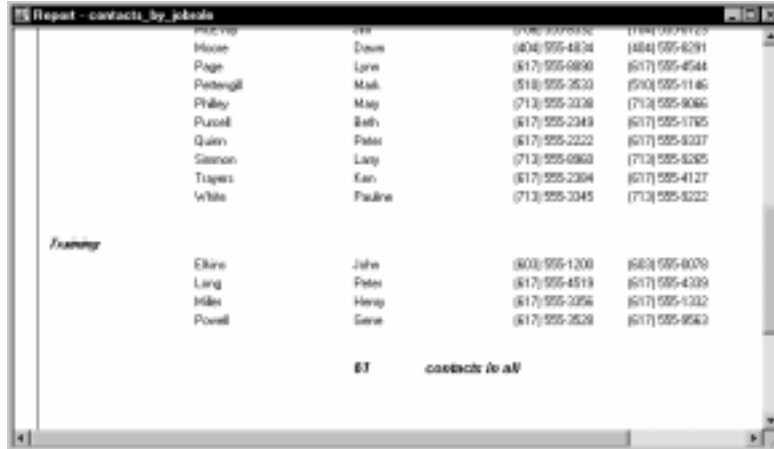
Position the pointer, press and hold the left mouse button, and drag the lasso around everything you want to select. Then release the mouse button.



- 11 Select **Design > Preview** from the menu bar.

Press the **PAGE DOWN** key and use the scrollbar until you see the end of your report.

The summary band of your report now shows the total number of contacts in the report. The number you see may not be 61. The number depends on the contacts currently in *your* database.



- 12 Click the **Preview** button to return to the workspace.

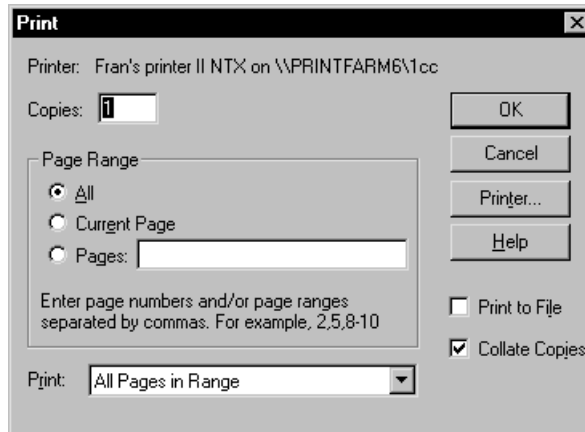
Printing the report

- 1 Select **Design > Preview** from the menu bar.

Your report displays.

- 2 Select **File > Print** from the menu bar.

The Windows Print dialog box displays.



- 3 Click **OK**.
- 4 Click the **Preview** button to return to the workspace.
- 5 Select **File > Close** from the menu bar.

If you are prompted to save changes, click **Yes**.

This closes the Report painter. You return to the PowerBar.

