



*Open Tools from Sybase, Inc.*

**InfoMaker**

***Getting Started***

Windows

*Version 6*

**InfoMaker<sup>®</sup>**

AA0534

October 1997

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# Contents

	<b>About This Book .....</b>	<b>vii</b>
<b>1</b>	<b>Welcome to InfoMaker .....</b>	<b>1</b>
	What you make with InfoMaker .....	2
	Starting InfoMaker .....	7
	Using the tutorials .....	8
	InfoMaker samples .....	9
<b>2</b>	<b>InfoMaker Basics Tutorial .....</b>	<b>11</b>
	Start InfoMaker .....	12
	Access painters .....	13
	Use toolbars .....	15
	Use popup menus and property sheets .....	20
	Use the mouse with objects .....	25
<b>3</b>	<b>Form Tutorial .....</b>	<b>31</b>
	Create the basic form .....	32
	Preview (run) the form .....	38
	Save the form .....	40
	Add buttons to the form .....	42
	Enhance the form .....	48
	Add a title .....	49
	Change the background for data .....	50
	Move the buttons .....	52
	Add a report .....	53
	Use the form to update the database .....	58
<b>4</b>	<b>Report Tutorial .....</b>	<b>63</b>
	Create the basic report .....	64
	Preview the report .....	70
	Save the report .....	72
	Set up the design environment .....	73

	Define sorting and grouping .....	75
	Enhance the report.....	79
	Rearrange objects .....	80
	Add a title and date .....	87
	Add page numbers .....	90
	Add a count of the total number of contacts.....	92
	Print the report .....	97
<b>5</b>	<b>Table Tutorial .....</b>	<b>99</b>
	Create the database table .....	100
	Define the columns in the table .....	101
	Define a primary key .....	105
	Enter comments to document the table.....	108
	Save the table .....	109
	Define extended attribute information .....	111
	Define a DropDownList edit style for the title column.....	112
	Change the column header, label, and display width of title .....	117
	Assign a DropDownDataWindow edit style and initial value to state .....	119
	Define an Edit Mask edit style for phone and fax .....	125
	Add data to the table .....	130
<b>6</b>	<b>Query Tutorial .....</b>	<b>133</b>
	About the query .....	134
	Select columns.....	135
	Save the query .....	139
	Specify row selection criteria.....	141
	Specify sorting for the rows.....	144
	Create a report using the query .....	146
<b>7</b>	<b>Graph Tutorial .....</b>	<b>151</b>
	Open the report to contain the graph .....	152
	Create the basic graph .....	155
	Preview the graph .....	162
	Save the graph (report) .....	163
	Enhance the graph.....	165
	Resize and reposition the graph.....	166
	Add a title .....	168
	Change the graph type .....	170
	Print the graph (report).....	178

<b>8</b>	<b>Environment Tutorial .....</b>	<b>179</b>
	Open forms, reports, and queries .....	180
	Create a new library and set the current library .....	188
	Copy forms, reports, and queries .....	191
	Create a new report from an existing one .....	193
<b>9</b>	<b>Application Tutorial .....</b>	<b>201</b>
	About the application.....	202
	Create the application .....	203
	Create a shortcut to the application .....	211
	Start the application .....	214
	Use the Data button .....	216
	Use the By Job button.....	220
	Use the Ad Hoc button .....	221
	What to do next.....	230



# About This Book

**Subject**

This book provides tutorials for learning to use InfoMaker. The tutorials introduce InfoMaker and teach how to create forms, reports, queries, and graphs. The last tutorial puts everything into an InfoMaker application.

**Audience**

This book is for new users.

**Online Help**

When you have a question about using InfoMaker, you can access its online Help system. You can also access the Powersoft Online Books, which consist of all InfoMaker documentation in electronic form.

## Roadmap to InfoMaker Documentation

### Installation and tutorial

- 📖 Installation Guide
- 📖 Getting Started

### Using InfoMaker

- 📖 User's Guide

### Communicating with a database

- 📖 Connecting to Your Database

### How to use the Powersoft Online Books

See the *Using the Powersoft Online Books* collection on the InfoMaker 6.0 Online Books CD

### How to order printed documentation sets

Call 1-800-8-SYBASE

### The Answer Page

For resources to help you get answers to questions you have about Powersoft products, use the Answer Page in InfoMaker online Help



## InfoMaker documentation

These are the books in the InfoMaker documentation set, grouped by topic:

<b>Topic</b>	<b>Manual</b>	<b>Description</b>
<b>Installation and tutorial</b>	Installation Guide	Provides instructions for installing InfoMaker
	Getting Started	Introduces you to InfoMaker and provides a tutorial you can step through to learn the basics
<b>Using InfoMaker</b>	User's Guide	Tells how to use InfoMaker to create reports, work with databases, transfer data between databases, create forms to update data, create queries to automatically retrieve data, and create applications to package reports and forms
<b>Communicating with a database</b>	Connecting to Your Database	Tells how to connect to a database from InfoMaker; describes how to set up, define, and manage database connections accessed through the Powersoft ODBC interface or one of the native Powersoft database interfaces

## InfoMaker documentation packaging

<b>Book</b>	<b>Packaging</b>
Installation Guide	X P
Getting Started	X P
Connecting to Your Database	X P
User's Guide	X

### Key to symbols

<b>Symbol</b>	<b>Means</b>
X	The book is applicable and provided on the InfoMaker 6.0 Online Books CD
P	The book is provided as a printed book in the box

### No Arabic and Hebrew

InfoMaker is not available in Arabic and Hebrew versions.

# Welcome to InfoMaker

InfoMaker is a powerful yet easy-to-use reporting and data maintenance tool that lets you work with data in the Windows environment.

With InfoMaker you can create sophisticated forms, reports, graphs, crosstabs, and tables, as well as applications that use these as building blocks. You can also move data between databases using the InfoMaker data pipeline.

This chapter introduces InfoMaker and describes:

- ◆ Starting InfoMaker
- ◆ Using the tutorials
- ◆ InfoMaker samples

The rest of the chapters are tutorials.

# What you make with InfoMaker

## Forms

### Employee Data

Employee ID: 102	Birth Date: 06/05/1958
Manager ID: 501	Soc. Sec. No.: 017-34-9033
Emp. First Name: Fran	Salary: \$45,700.00
Emp. Last Name: Whitney	Start Date: 02/26/1986
Department ID: 100	Termination Date: 00/00/0000
Street: 49 East Washington Street	Status: <input checked="" type="radio"/> Active <input type="radio"/> Terminated <input type="radio"/> On Leave
City: Needham	
State: MA	
Zip Code: 02192-	Health Insurance: <input checked="" type="checkbox"/>
Phone: (617) 555-3885	Life Insurance: <input checked="" type="checkbox"/>
Sex: <input type="radio"/> Male <input checked="" type="radio"/> Female	Day Care: <input type="checkbox"/>

## Reports

### Total Compensation Report Salary Plus Benefits

*Value of health ins. = \$4,800*  
*Value of life insurance = \$(5.43 x salary)/1,000*  
*Value of day care = \$5,200*

Page 1 of 4  
3/22/98

Department ID	Employee ID	Employee First Name	Employee Last Name	Salary	Health Ins.	Life Ins.	Day Care	Salary Plus Benefits
100	102	Fran	Whitney	\$45,700	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	\$50,748
	105	Matthew	Cobb	\$62,000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	\$67,137
	160	Robert	Breault	\$57,490	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	\$67,802
	243	Natasha	Shishov	\$72,995	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	\$78,191
	247	Kurt	Driscoll	\$48,024	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	\$58,284
	249	Rodrigo	Guevara	\$42,998	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	\$48,031
	266	Ram	Gowda	\$59,840	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	\$60,165
	278	Terry	Melkisetian	\$48,500	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	\$58,763
	316	Lynn	Pastor	\$74,500	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	\$84,905
	445	Kim	Lull	\$87,900	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	\$93,177
	453	Andrew	Rabkin	\$64,500	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	\$69,650

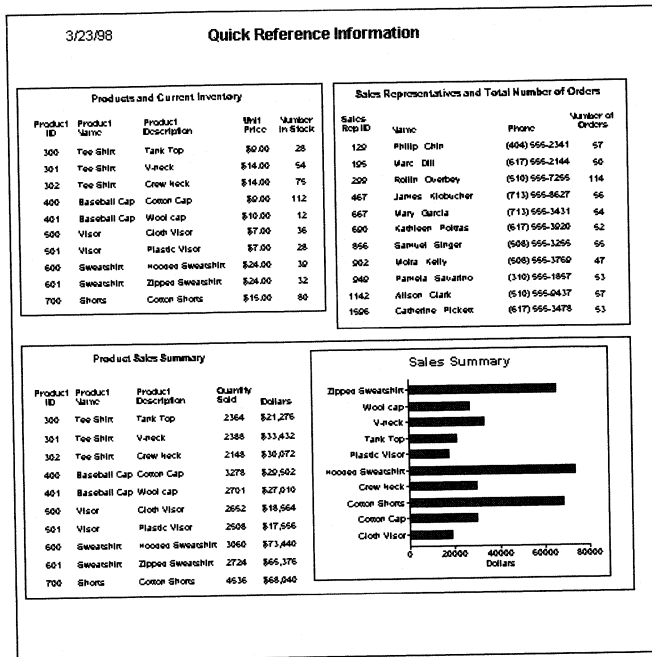
Crosstabs

Number of employees by department and salary 30,000 includes up to 39,999	Dept Id					Total number of employees making the salary	
	Salary	100	200	300	400		500
20000					2	5	7
30000	3	8	2	5	2	20	
40000	6	5	2	5	1	19	
50000	4	3	3	2	1	13	
60000	4	1		2		7	
70000	2	1	1			4	
80000	2	1				3	
90000	1					1	
130000			1			1	
<b>Total number of employees in the department</b>	22	19	9	16	9		

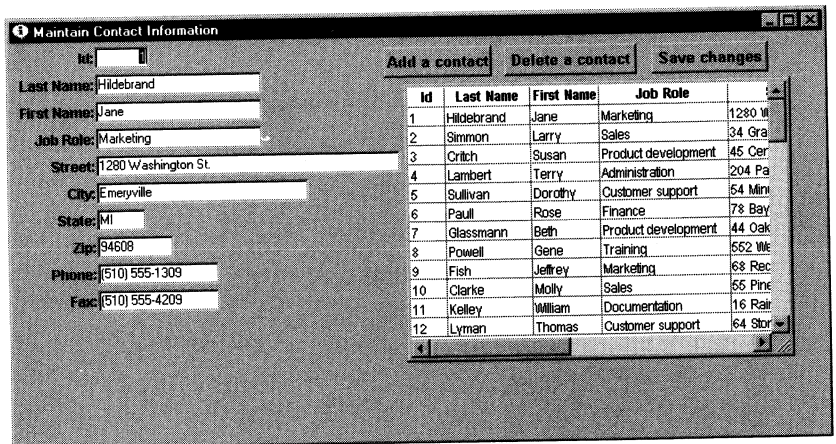
Reports with nested reports

3/23/98		Customers and Orders					
Customer Information			Order History				
Customer ID: 105							
First Name: Laura							
Last Name: McCarthy							
Address: 1210 Highway 36							
City: Carmel							
State: IN							
Zip Code: 46032							
Phone Number: (317) 555-8437							
Company Name: Amo & Sons							
Sales Order ID	Order Date	Sales Rep ID	Line #	Product ID	Quantity	Date Shipped	
2008	09/28/95	299	1	300	48	09/28/95	
2344	03/30/95	195	1	501	36	03/31/95	
2454	06/18/95	299	1	501	36	06/17/95	
2588	09/21/95	856	1	600	36	09/22/95	
			2	601	36	09/22/95	

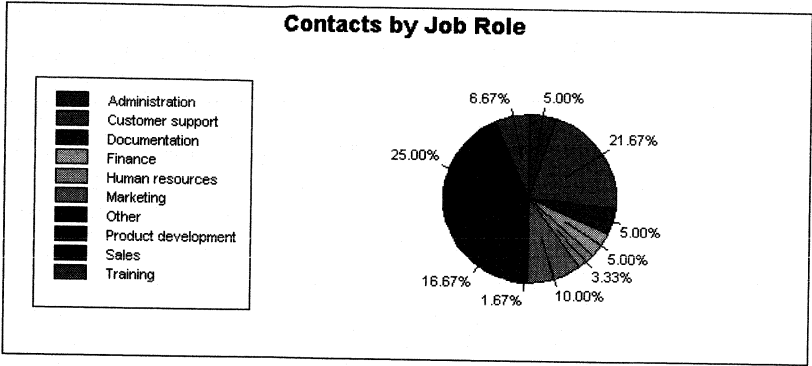
Composite reports



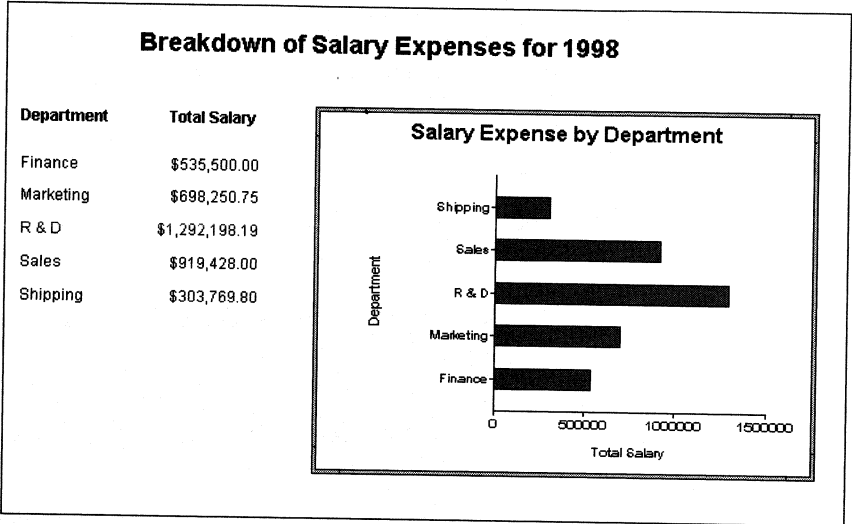
Forms with reports



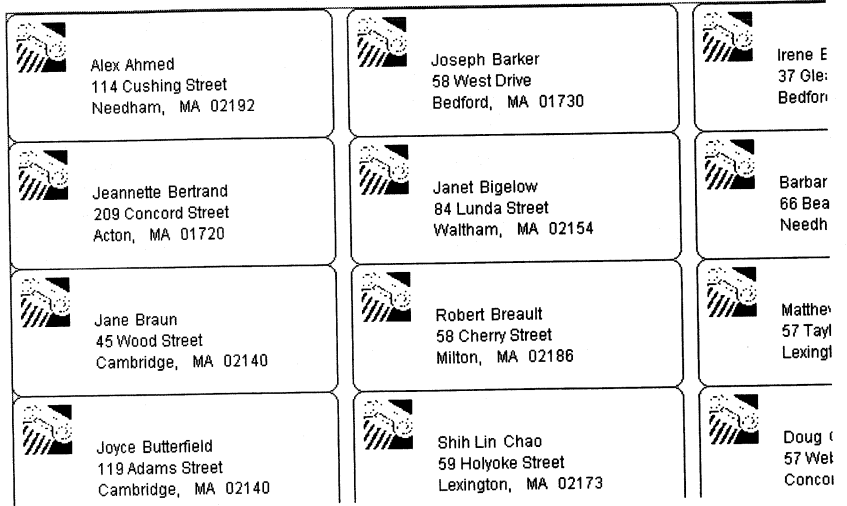
Graphs



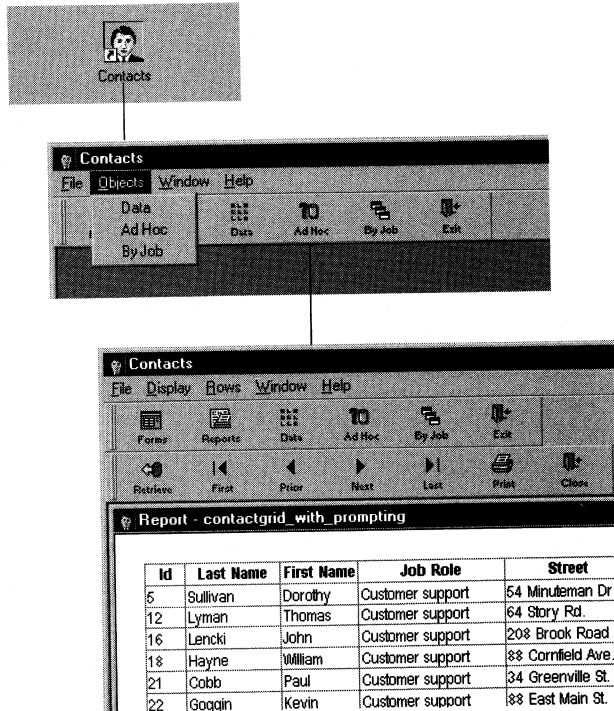
Reports with graphs



Labels



Applications





## Starting InfoMaker

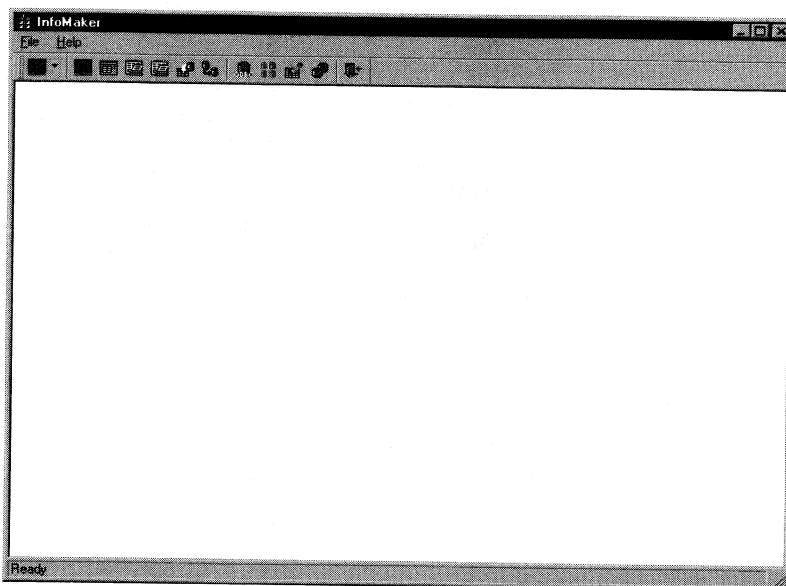
These instructions assume that you have already installed InfoMaker.

FOR INFO For information, see the *InfoMaker Installation Guide*.

❖ **To start InfoMaker using the Windows 95 Start menu:**

- ◆ Display the Start menu, select Programs, then Powersoft, then InfoMaker 6.0, and then InfoMaker. The InfoMaker initial screen displays.

The initial screen includes the PowerBar, which has buttons for accessing the InfoMaker painters. To access a painter, click the appropriate button.



---

### **If you are using Powersoft Online Books**

If you are doing the tutorial using the online version of this book, you may want to select a view that will automatically display all graphics (instead of showing them as icons). To display all graphics, select View>Main>SHOWALL from the menu bar in Powersoft Online Books.

---

## Using the tutorials

### Requirements

To use the InfoMaker tutorials, you need:

- ◆ To be connected to the Powersoft Demo Database
- ◆ To have the sample library named TUTOR\_IM.PBL open

### Approximate times

Tutorial	Chapter	Minutes
InfoMaker Basics	2	15
Form	3	45
Report	4	45
Table	5	45
Query	6	15
Graph	7	30
Environment	8	30
Application	9	30

## InfoMaker samples

The InfoMaker sample library named TUTOR\_IM.PBL is the library you use in the tutorials. TUTOR\_IM.PBL includes sample reports, forms, a sample query, and a sample pipeline. After you have finished with the tutorials, you may want to look at these samples to learn more. Many of the samples are discussed in the *InfoMaker User's Guide*.



# InfoMaker Basics Tutorial

The InfoMaker world is a friendly and efficient environment for you to work in. It provides features such as movable toolbars, popup menus and property sheets, lasso selection of objects, and more.

In this tutorial you will learn the basic skills you need to work in InfoMaker.

The screenshot shows the InfoMaker application with a report window titled 'Report - emp\_tot\_compensation'. The report content is as follows:

**Total Compensation Report  
Salary Plus Benefits**

Value of health ins. = \$4,800  
Value of life insurance = \$9,130 x salary/1,000  
Value of day care = \$5,200

Page 2 of 4  
9/8/97

Department ID	Employee ID	Employee First Name	Employee Last Name	Salary	Health Ins.	Life Ins.	Day Care	Salary Plus Benefits
200	667	Mary	Garcia	\$39,830	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	\$45,216
	690	Kathleen	Potras	\$46,230	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	\$45,451
	656	Samuel	Singer	\$34,832	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	\$36,881
	602	Meira	Kelly	\$97,510	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	\$97,375
	633	Ken	Mistel	\$56,800	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	\$56,802
	638	Ahn	Taylor	\$48,836	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	\$57,145
	649	Pamela	Savarino	\$72,330	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	\$77,493
	1021	Paul	Sterling	\$64,930	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	\$75,252
	1039	Shih Lin	Crao	\$33,880	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	\$35,274
	1101	Mark	Praeton	\$37,833	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	\$41,808

**How long will this tutorial take?**

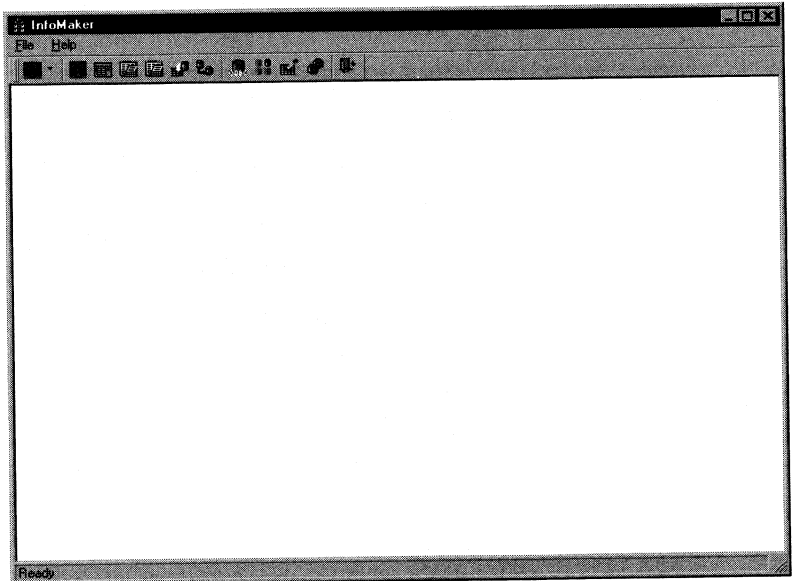
About 15 minutes.

## Start InfoMaker

Now you will start InfoMaker.

- ◆ Display the Windows 95 Start menu, select Programs, then Powersoft, then InfoMaker 6.0, and then InfoMaker.

The InfoMaker initial screen displays. It includes the PowerBar, which has buttons for accessing the InfoMaker painters and online Help.



---

### **If you are using Powersoft Online Books**

If you are doing the tutorial using the online version of this book, you may want to select a view that will automatically display all graphics (instead of showing them as icons). To display all graphics, select View>Main>SHOWALL from the menu bar in Powersoft Online Books.

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## Access painters

---

### Where you are

Chapter 2 InfoMaker Basics Tutorial

Start InfoMaker

> Access painters

Use toolbars

Use popup menus and property sheets

Use the mouse with objects

---

### What click means

The word click is used throughout these tutorials to mean move the pointer somewhere and press the left (primary) mouse button. For example, click the Report painter button.

---

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



InfoMaker connects to the Powersoft Demo database, which may take a minute or two.

Then the Select Report dialog box displays. It lists the reports in the current library, which is the library named TUTOR\_IM. This library includes samples that come with InfoMaker and is the library you will use for the tutorials.

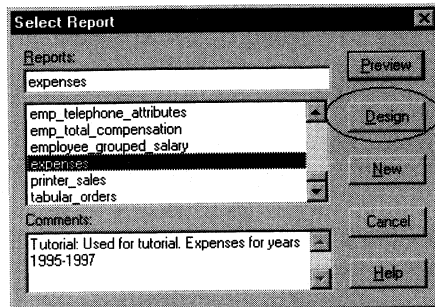
---

### If the current library is not TUTOR\_IM

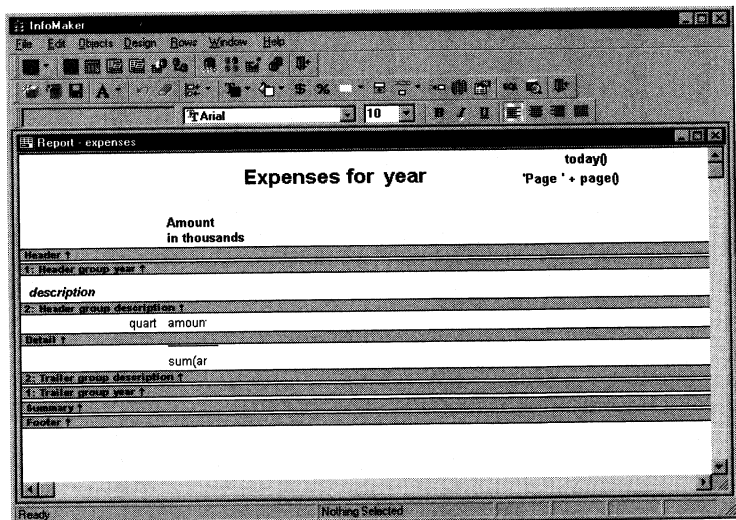
If the current library is not TUTOR\_IM, you need to change to it. Select File>PowerPanel from the menu bar. Select the Environment painter. In the Environment painter, select File>Open and navigate to TUTOR\_IM.PBL in the TUTORIAL folder (in the folder structure where InfoMaker is installed).

---

- 2 Click *expenses* (scroll the list until you see the report named *expenses*). Click the *Design* button.



The design version of the report displays in the Report painter workspace. You will learn about the workspace in the Report tutorial when you create a report. For now you will learn basic skills.





# Use toolbars

## Where you are

### Chapter 2 InfoMaker Basics Tutorial

Start InfoMaker

Access painters

> Use toolbars

Use popup menus and property sheets

Use the mouse with objects

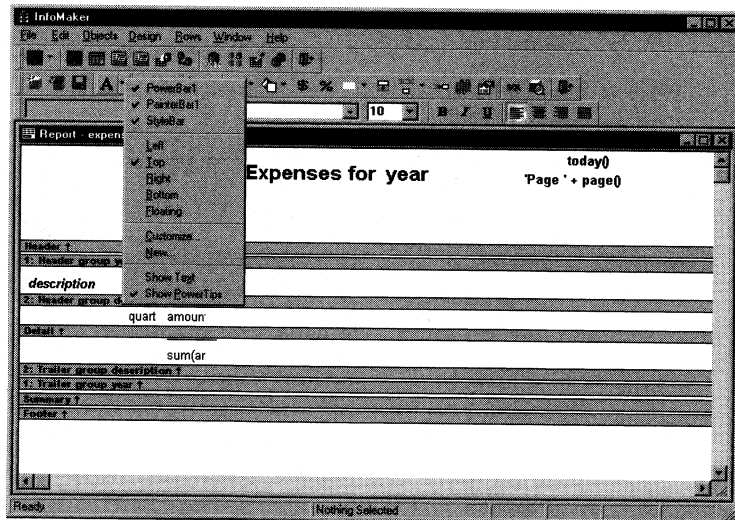
InfoMaker comes with three toolbars: the PowerBar, the PainterBar, and the StyleBar. You can control whether individual toolbars display and where they display. You can also choose whether to display text in the toolbars.

In this section you will learn how to use toolbars.

(You can also create your own toolbars and customize toolbars, but this tutorial will not cover these advanced activities.)

- 1 **Move the pointer to any one of the buttons in the PainterBar. Click the right mouse button.**

The popup menu for the toolbars displays.



---

### About the popup menu

Throughout InfoMaker, popup menus provide a fast way to do things. The right mouse button accesses the popup menu. The menu changes depending on the painter you are in and where you are in the workspace when you click the right mouse button.

---

#### 2 Select *Floating* from the popup menu.

The PainterBar changes to a floating toolbar.

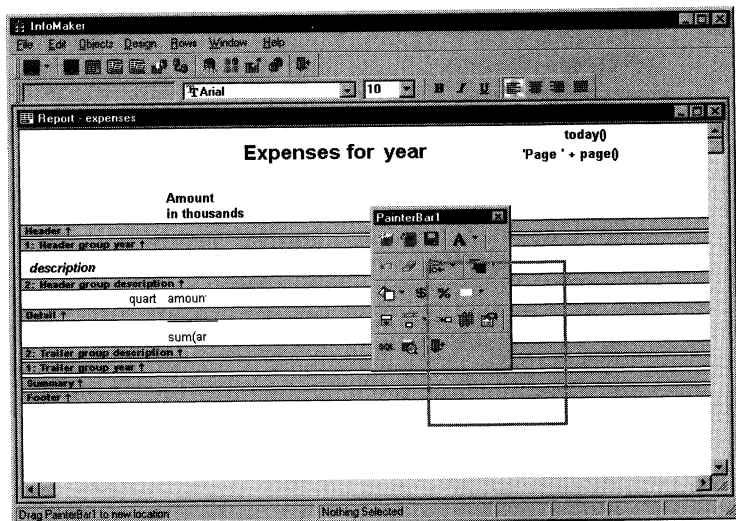
#### 3 Move the pointer to the title bar and drag the floating toolbar to another location.

---

### How to drag the toolbar

Press and hold the left mouse button. While holding the button, move the mouse (an outline displays to show the current location of the toolbar). When the toolbar is where you want it, release the mouse button.

---



You can put toolbars in different locations: left, top, right, bottom, and floating.

#### 4 Select *Window>Toolbars* from the menu bar.

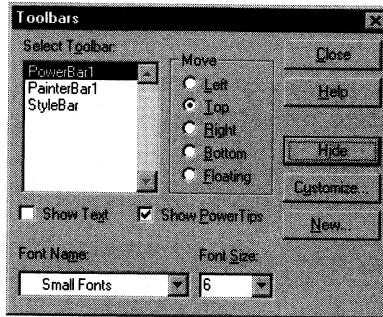
---

**About the notation *Window>Toolbars***

Throughout the tutorials, commands issued from the menu are shown as a sequence of choices separated by arrows. For example, to select *Window>Toolbars* means to select *Window* from the menu bar and then *Toolbars* from the menu items.

---

The Toolbars dialog box displays. Notice that the PowerBar is highlighted. If the PowerBar is currently displayed, the middle button says Hide.

**5 Click *Hide*.**

The PowerBar disappears from the InfoMaker window. The word Hide changes to Show.

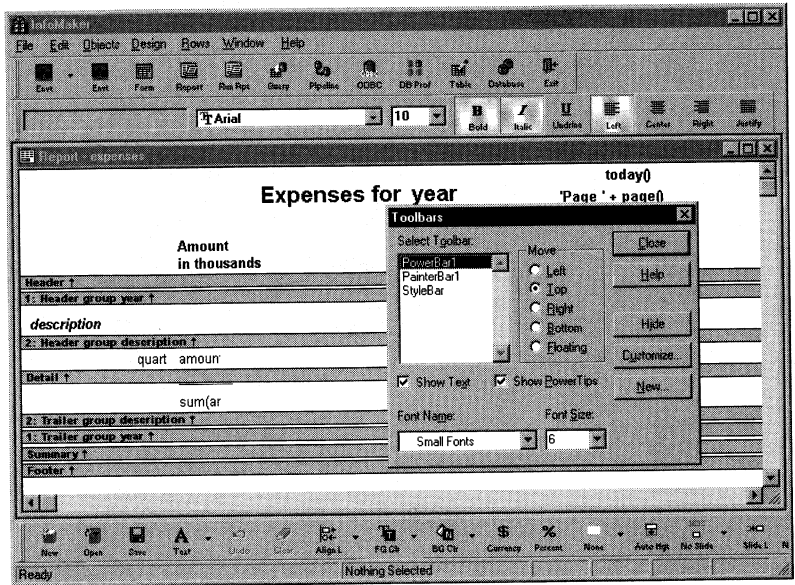
**6 Click *Show*.**

The PowerBar displays again and the word on the button changes to Hide.

**7 Click *PainterBar1* and then click the *Bottom* button.**

The PainterBar displays at the bottom of the workspace.

- 8 Click *Show Text* to make text display on the buttons. Click the *Close* button to close the dialog box.

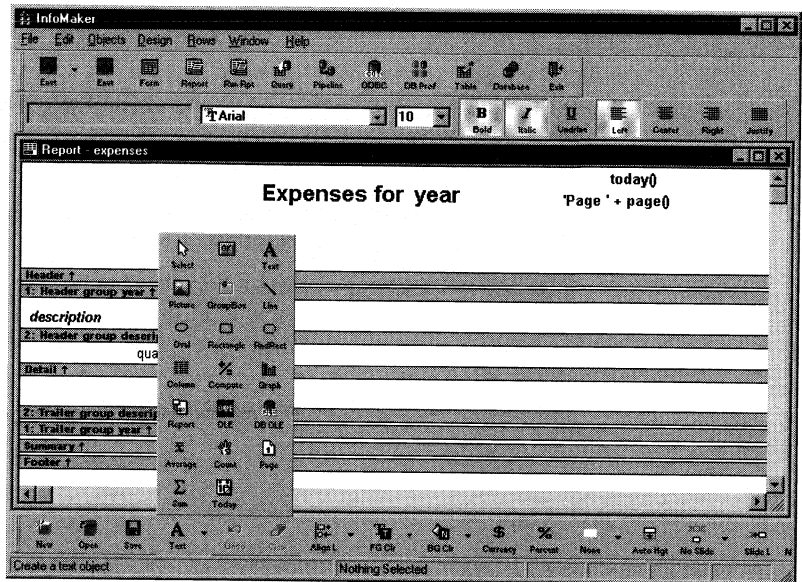


- 9 Move the pointer over one of the toolbar buttons.

After a couple of seconds, the PowerTip that tells what the button does displays.

**10 Click the small black triangle next to the Text button in the PainterBar.**

The Objects dropdown toolbar displays. It holds buttons for the objects you can add to reports (a text object is one type of object you can add to a report). Several buttons have small black triangles. These buttons belong to other dropdown toolbars (for example, the Border dropdown toolbar).



**11 Click in the white space to the right of the toolbar to make the Objects dropdown toolbar close.**

Now you know several ways to move the toolbars and you know how to turn text display on and off.

For the rest of these tutorials, you should move the toolbars where you like to have them. Your screen may not match the pictures in this book, depending on where and how you display toolbars.

## Use popup menus and property sheets

---

### Where you are

Chapter 2 InfoMaker Basics Tutorial

Start InfoMaker

Access painters

Use toolbars

> Use popup menus and property sheets

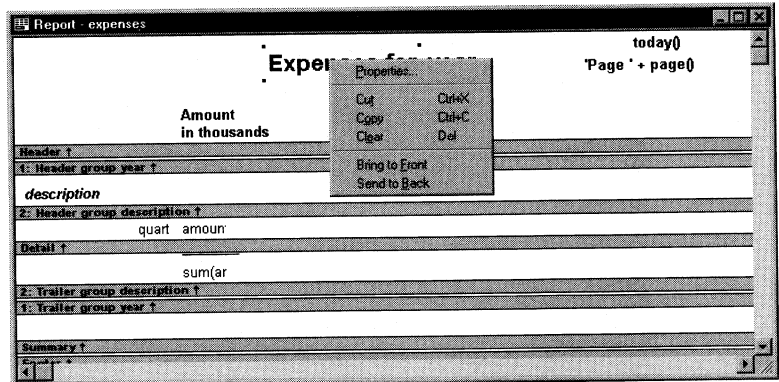
Use the mouse with objects

---

Now you'll take a look at popup menus and property sheets. In all the InfoMaker painters, popup menus and property sheets help you work quickly.

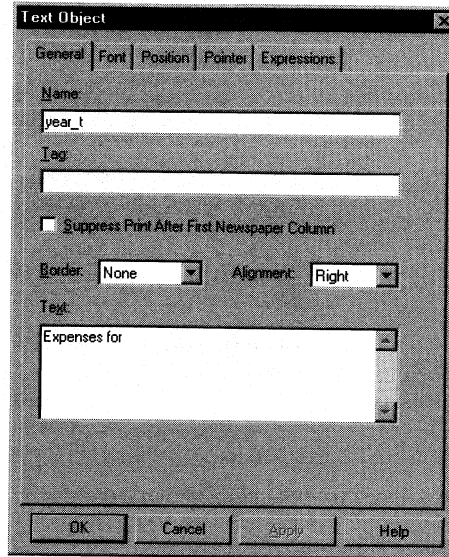
- 1 **Move the pointer to the words *Expenses for*. Click the right mouse button.**

The popup menu for a piece of text (also called a text object) displays. Whenever you position the pointer on something that has a popup menu and click the right mouse button, the appropriate menu items are listed.



**2 Select Properties from the popup menu.**

The property sheet for the *Expenses for* text object displays. It has five tabs, which identify five pages of information. The General page is on top.

**About property sheets**

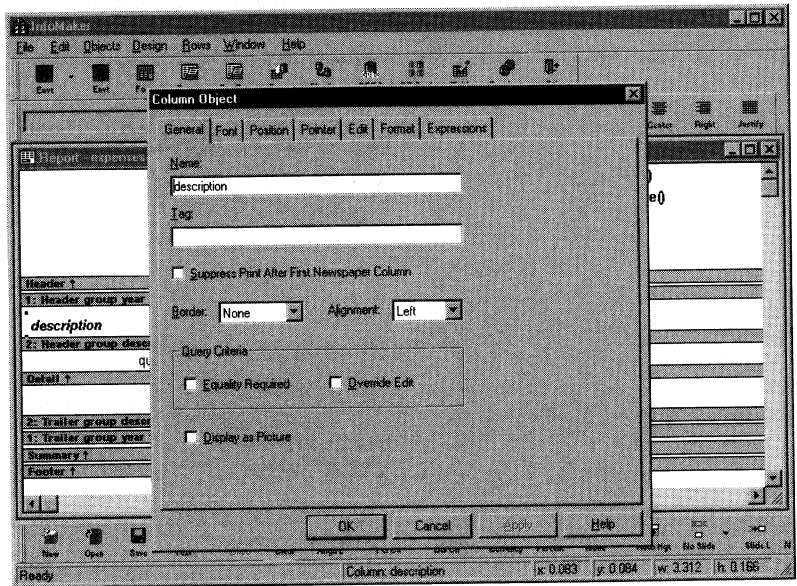
A property sheet is a collection of information about an object. You use an object's property sheet to find out and set properties.

For example, a text object has properties such as font, font size, location, border, and so on. You can see the current settings for these properties on the object's property sheet. You can also change them there.

**3 Click *Cancel* to close the property sheet.**

- 4 **Position the pointer on the word *description*. Click the right mouse button to display the popup menu. Select *Properties* from the popup menu.**

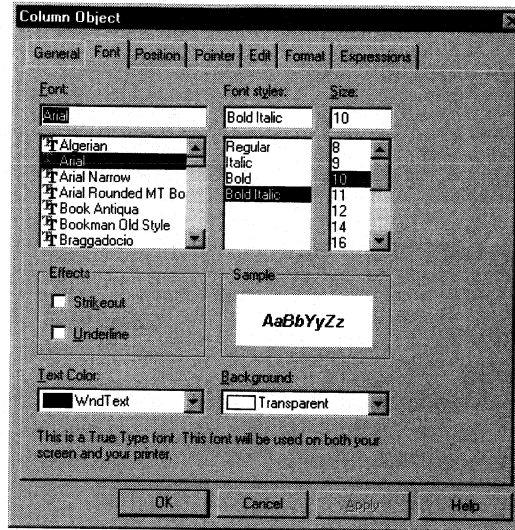
The property sheet for the data column (Column object) called *description* displays. The property pages and options are different from those in the property sheet for the text object. The Column Object property sheet is designed for the data column.





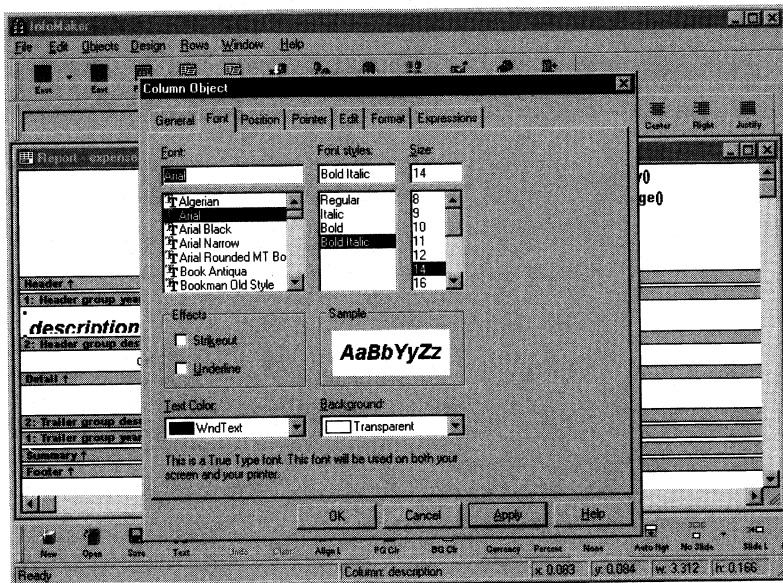
**5 Click the word *Font* on the font tab.**

The Font page comes to the front of the property sheet.



- 6 Click the font size 14 in the *Size* box.  
Click the *Apply* button.

The Font size of the text object changes to 14. When you click *Apply*, InfoMaker applies the change you just made to the object and leaves the object's property sheet open.



- 7 Click the font size 10 in the *Size* box.  
Click the *OK* button.

When you click *OK*, InfoMaker applies changes and closes the property sheet. The Font size of the text object changes back to 10.

## Use the mouse with objects

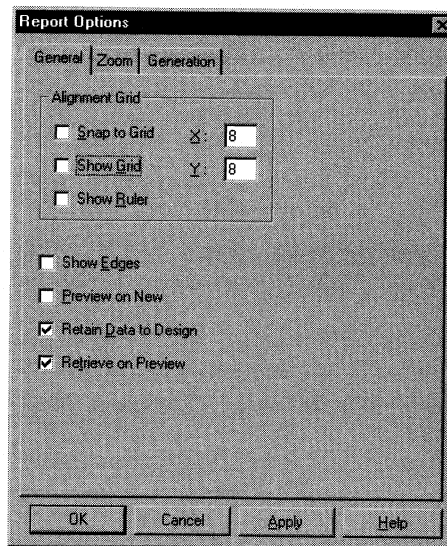
### Where you are

- Chapter 2 InfoMaker Basics Tutorial
- Start InfoMaker
- Access painters
- Use toolbars
- Use popup menus and property sheets
- > Use the mouse with objects

Now you will move some of the objects in the report. Be sure not to save the changed report, because you will use the original report later. When you leave the Report painter, you will be prompted to save changes. The instructions will remind you to say no.

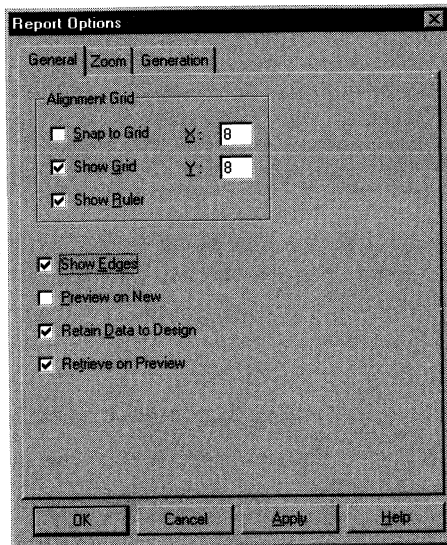
- 1 Select *Design>Options* from the menu bar.

The Report Options property sheet displays.



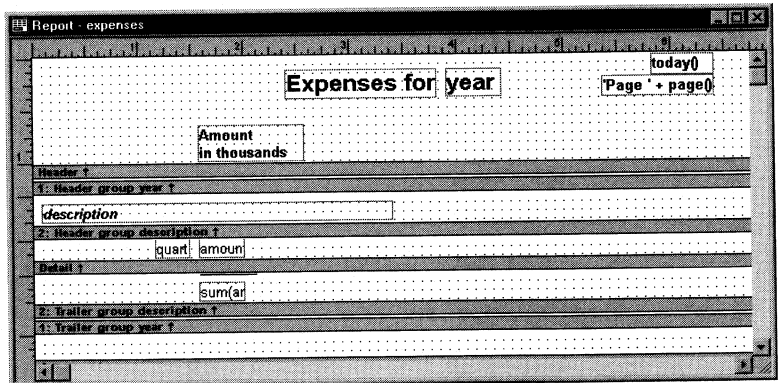
In this property sheet, you will turn on some design options that make it easier to work with objects in reports.

- 2 **Select the *Show Grid* checkbox.  
Select the *Show Ruler* checkbox.  
Select the *Show Edges* checkbox.**



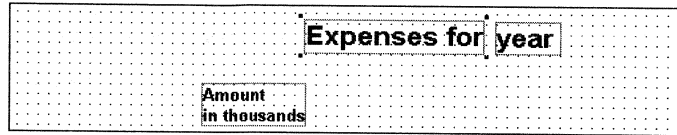
- 3 **Click *OK*.**

Now edges display around the objects in the report, and a grid and ruler display in the Report painter workspace.



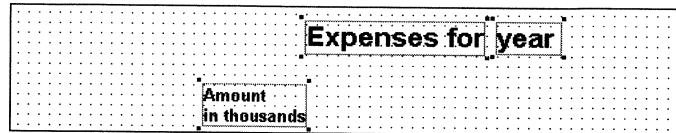
- 4 Click the text object with the text *Expenses for*.

Black boxes in the corners mean the object is selected.

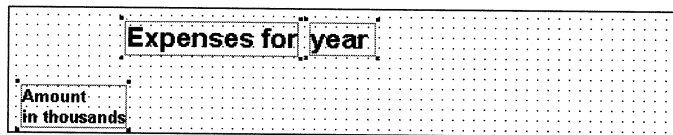


- 5 Press and hold the CTRL key.  
Click the *year* box and the *Amount in thousands* box.  
Release the CTRL key.

Now you've selected all three objects.

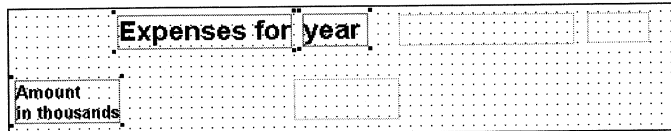


- 6 Press and hold the LEFT ARROW key until all three objects are on the far left of your screen.  
Release the key.

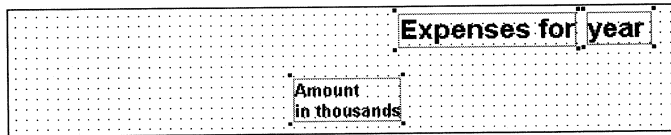


- 7 **Move the pointer to the word *Expenses*.  
Make sure the objects are still selected.  
Press and hold the left mouse button.  
Drag all the objects to the right.  
Release the mouse button.**

While you are dragging, gray boxes will show the current position of the objects.

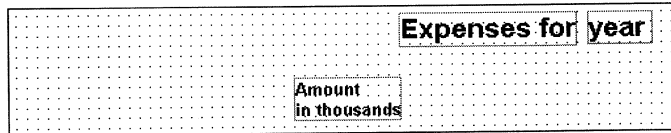


When you release the mouse button, you drop the objects where the pointer is currently positioned. Notice that the objects are still selected as indicated by the little black boxes.

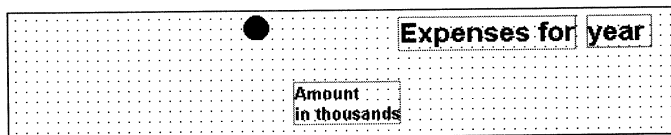


- 8 **Click in an unused area to deselect the objects.**

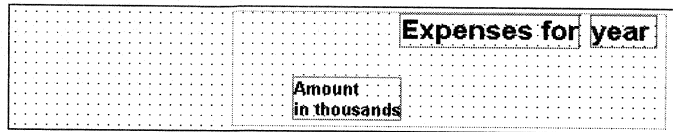
The objects are no longer selected (the black boxes are gone).



- 9 **Move the pointer to the position shown here by the big black dot.**

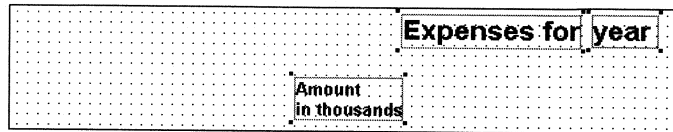


- 10 Press and hold the left mouse button.**  
**Drag the mouse diagonally down and to the right until the box surrounds or touches all three objects.**



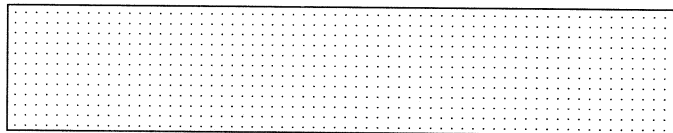
- 11 Release the mouse button.**

All the objects are selected. This is called lasso selection. You can use this lasso technique to select many objects quickly. Then you can move them all together or change something about them all at once.



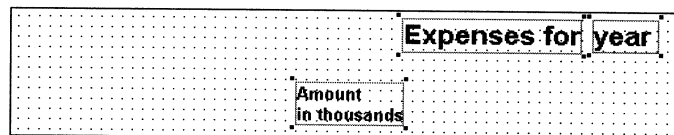
- 12 Press the DELETE key.**

The three selected objects are deleted. But you really didn't mean to delete them.



- 13 Select *Edit>Undo Clear* from the menu bar.**

The deletion is reversed.



---

### About Undo

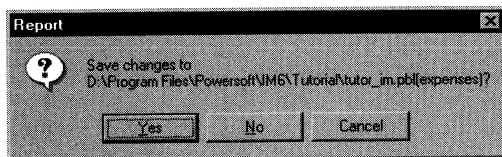
You can undo the most recent operation on objects in the Report painter workspace.

---

**14 Select *File>Close* from the menu bar.**

InfoMaker displays a message box to see whether you want to save the changes you've made to the expenses report. You do not want to save changes. You will use this report later in the Graph tutorial.

**15 Click *No*.**



The Report painter closes. Now you are ready to learn how to create a form.



# Form Tutorial

---

## This tutorial requires the Form painter

The Form painter component of InfoMaker is optional; you must have installed it to do this tutorial.

---

Forms display data and provide a way to interact with the database. You can use forms to view information and to change it.

In this tutorial you will create a form that updates the contact table. The form includes:

- ◆ All columns in the contact table
- ◆ Buttons for maintaining contact information
- ◆ A report that provides access to all the information in the contact table

Id	Last Name	First Name	Job Role	
1	Hidebrand	Jane	Marketing	1280 W
2	Simmon	Larry	Sales	34 Gra
3	Critch	Susan	Product development	45 Cer
4	Lambert	Terry	Administration	204 Pa
5	Sullivan	Dorothy	Customer support	54 Mini
6	Paul	Rose	Finance	78 Bay
7	Glassmann	Beth	Product development	44 Oak
8	Powell	Gene	Training	552 We
9	Fish	Jelley	Marketing	68 Rec
10	Clarke	Molly	Sales	55 Pine
11	Kelley	William	Documentation	16 Rain
12	Lyman	Thomas	Customer support	64 Stor

---

## How long will this tutorial take?

About 45 minutes.

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## Create the basic form

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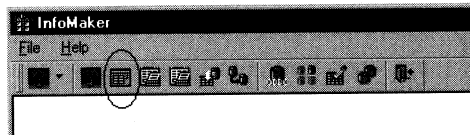
### Where you are

#### Chapter 3 Form Tutorial

- > Create the basic form
  - Preview (run) the form
  - Save the form
  - Add buttons to the form
  - Enhance the form
  - Use the form to update the database
- 

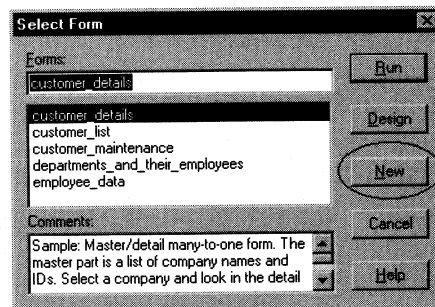
Now you will create the basic form. To do this you select a predefined InfoMaker form style and the data to be displayed in the form.

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



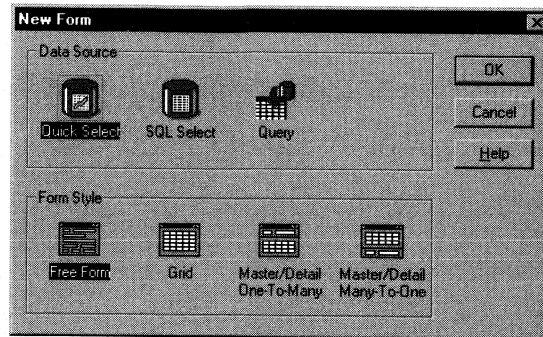
Your PowerBar may not match this one. It doesn't matter. You just need to use the Form painter button.

The Select Form dialog box displays. It lists the forms in the current library (TUTOR\_IM) and has a New button for creating new forms.



- 2 Click *New*.

The New Form dialog box displays. It contains the data sources and the form 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 queries in the Query painter.

---

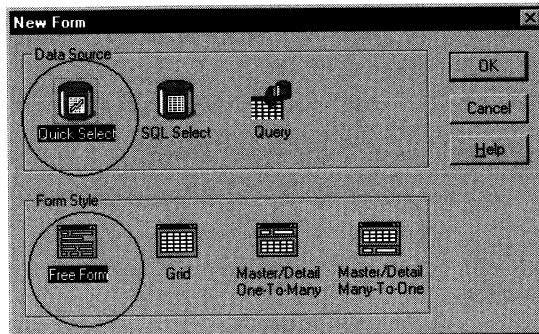
### About form styles

A form style is a predefined way of presenting and processing information on the form. Usually the style includes the common database functions (insert, delete, and update).

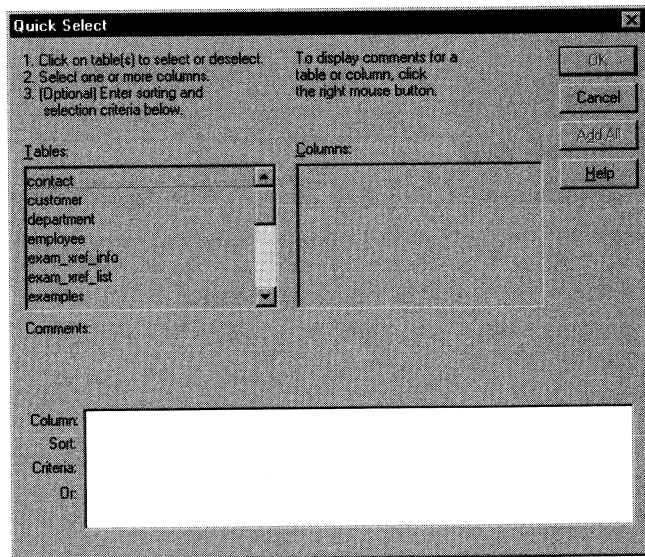
InfoMaker comes with a set of form styles. PowerBuilder users at your site can create additional styles, which will also display in the New Form dialog box.

---

- 3 Click **Quick Select** and **Free Form** to select them (the words are highlighted). Click **OK**.

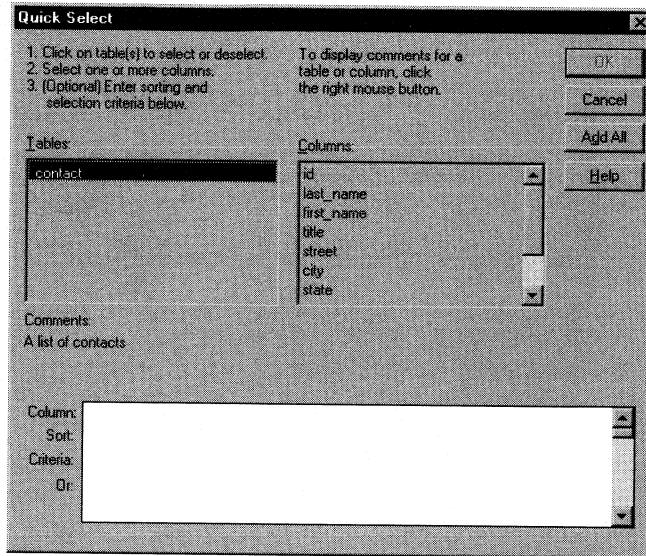


The Quick Select dialog box displays. In this dialog box you select the table to use and the columns you want included in the form.



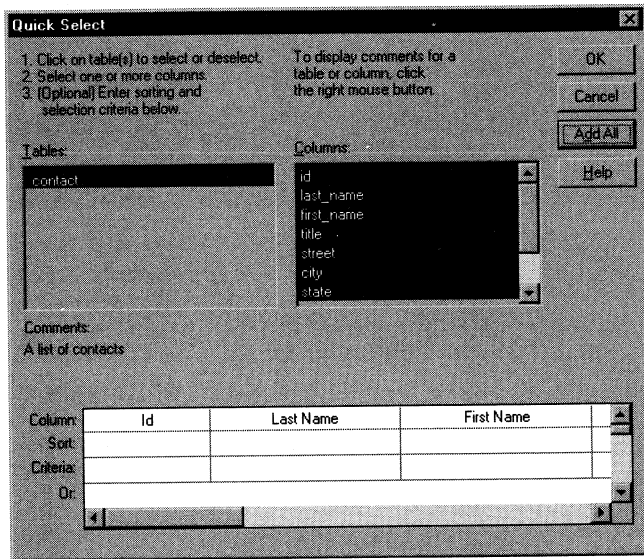
**4 Click *contact* in the *Tables* box.**

The *contact* table's columns display. You will include all columns in the form.



**5 Click the Add All button.**

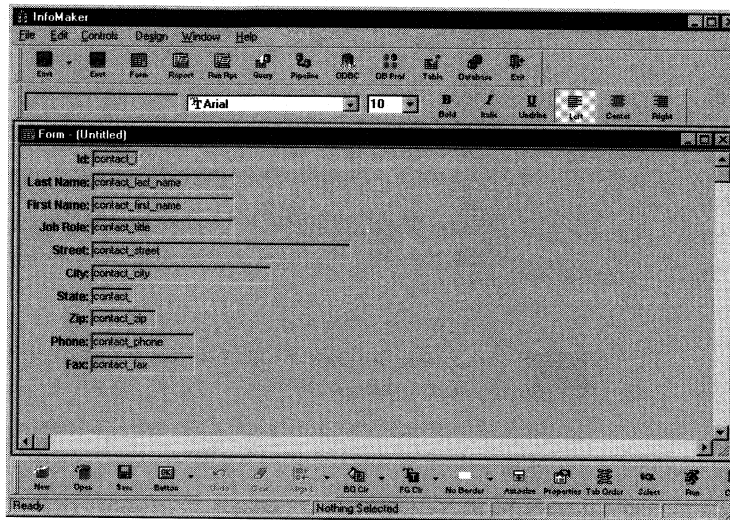
All columns are selected. They display in a grid at the bottom of the dialog box.



You could reorder columns and enter sorting and selection criteria in this grid. But for your form you do not need to do any of these things.

## 6 Click OK.

Your form displays. It uses the columns and form style you selected. The text labels come from the repository. Instead of data, the names of the database 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 form or report.

You put information into the repository using the Database painter. For example, in the Table tutorial 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:*.

## Preview (run) the form

---

### Where you are

#### Chapter 3 Form Tutorial

Create the basic form

> Preview (run) the form

Save the form

Add buttons to the form

Enhance the form

Use the form to update the database

---

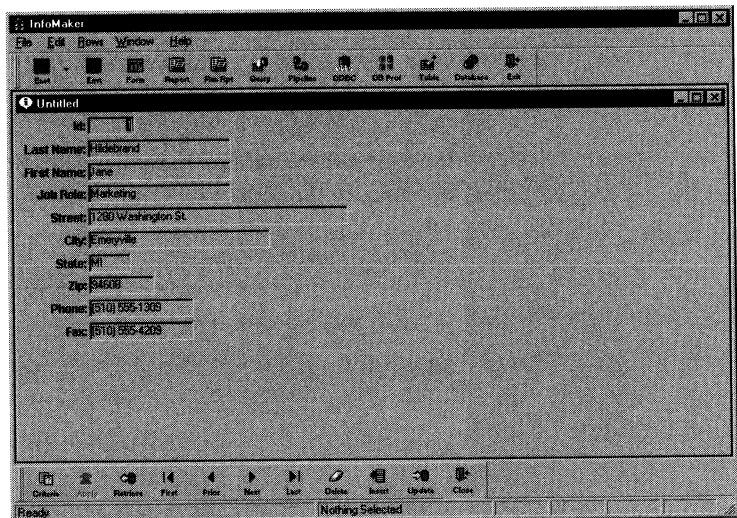
Now you will preview the form. Running the form is the way you preview it while you are designing it and the way you use it when you have finished designing it.



1 **Click the *Run* button in the PainterBar or select *Design>Run* from the menu bar**

InfoMaker runs your form, which includes going to the database and retrieving data.

Notice that real values have replaced the column names in the form. The PainterBar now has buttons that let you view and change data.



Now you will view the data using the form.



- 2 **Click the *Next* button.**  
**Click the *Last* button.**  
**Click the *First* button.**



This moves you among the rows. Later in this tutorial you will insert a new row.



- 3 **Click the *Close* button in the PainterBar.**

You return to the Form painter workspace.

## Save the form

---

### Where you are

#### Chapter 3 Form Tutorial

Create the basic form

Preview (run) the form

> Save the form

Add buttons to the form

Enhance the form

Use the form to update the database

---

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



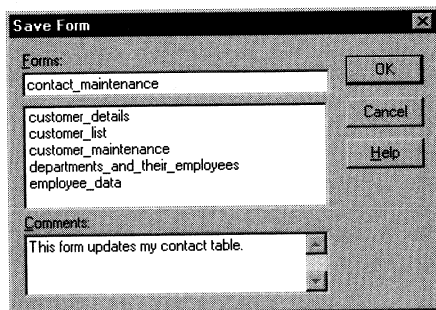
- 1 **Click the Save button in the PainterBar.**

The Save Form dialog box displays with the pointer positioned for you to type a name for the form.

- 2 **Type *contact\_maintenance*.**

- 3 **Click in the Comments box and type *This form updates my contact table.***

(Your list of forms may be different from the list shown here.)



- 4 **Click OK.**

InfoMaker saves your form.

---

**About saving**

Anytime you have completed a unit of work, you should save. To save, select File>Save from the menu bar or click the Save button or press CTRL+S.

---

## Add buttons to the form

---

### Where you are

#### Chapter 3 Form Tutorial

Create the basic form

Preview (run) the form

Save the form

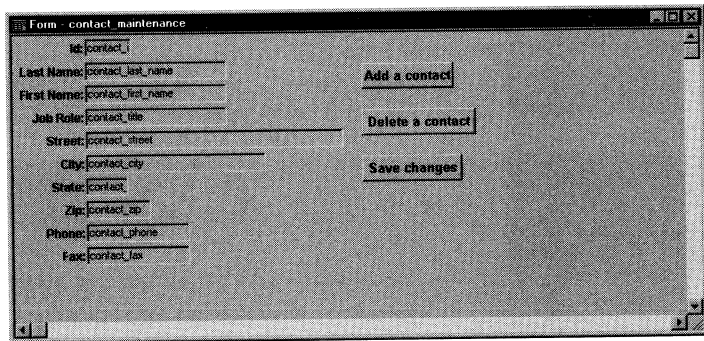
> Add buttons to the form

Enhance the form

Use the form to update the database

---

Now you will add three buttons to the form. Later when you run the form, you can click the buttons to add and delete contacts.



---

### About controls

The items you see on a form are called controls. For example, a button is a type of control.

The controls you can use on a form are listed in the Controls menu and are represented by buttons in the PainterBar. To see the list of controls, click *Controls* on the menu bar.

---

- 1 **Select *Controls*>*CommandButton* from the menu bar.**
- 2 **Move the pointer to an empty area of the form and click. If you need to move the button, drag it.**

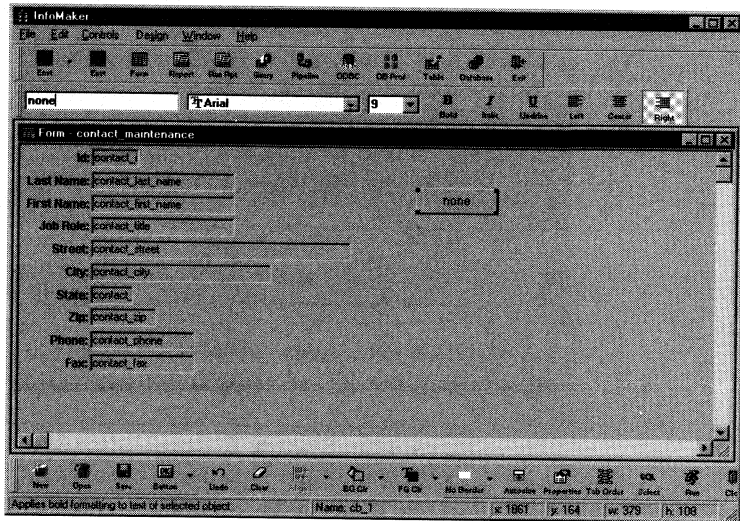
---

### How to drag

Position the pointer over an object, and press and hold the left mouse button. While pressing the button, move the mouse until the object is where you want it. Then release the mouse button.

---

A button with the text *none* displays. The text *none* also displays in a text box in the StyleBar.




---

### If the text box does not display

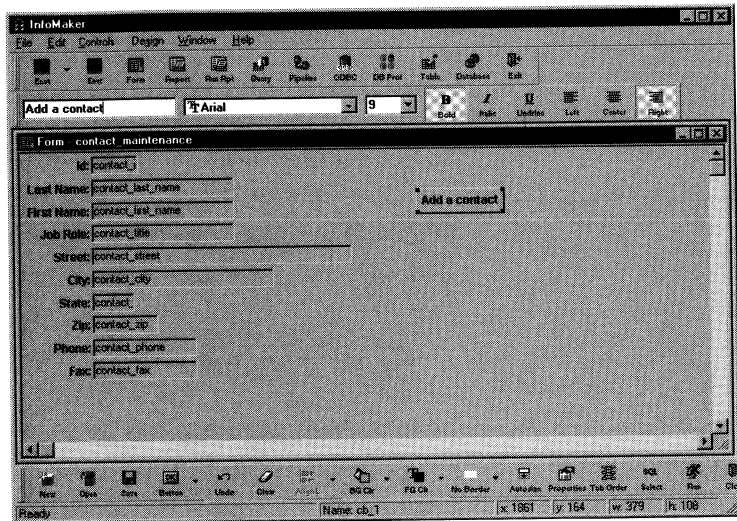
This means the button is not selected. To select the button, click it. Small black boxes in the corners indicate that it's selected.

---

- 3 **Make sure the button is still selected.**  
Type *Add a contact*.

The text displays on the button as you type and in the text box in the StyleBar.

4 Click **B** (for bold) on the StyleBar.



The text displays in bold. Next you will make the button work. To do this you will associate an InfoMaker action with the button.

---

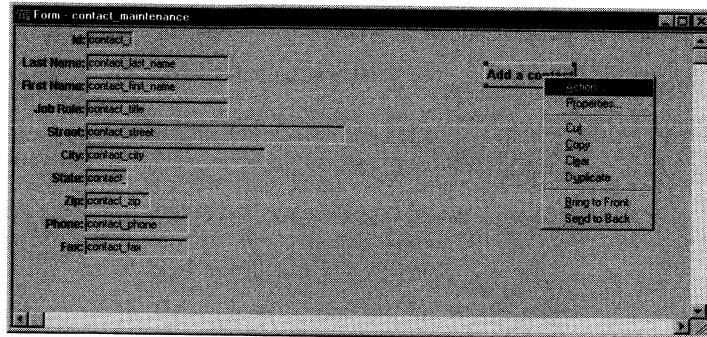
### Using the StyleBar

You can use the StyleBar to change text fonts, font size, and style (bold, italic, and underline). You can also use it to specify text alignment (left-aligned, centered, and right-aligned).

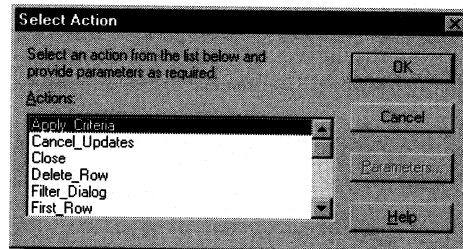
To use options on the StyleBar, you select a control with text and then click the appropriate button on the StyleBar.

---

- 5 Move the pointer to the *Add a contact* button. Press the right mouse button to display the popup menu for the button. Select *Action* from the popup menu.



The Select Action dialog box displays. It lists the actions you can assign to the button.



---

### About InfoMaker actions

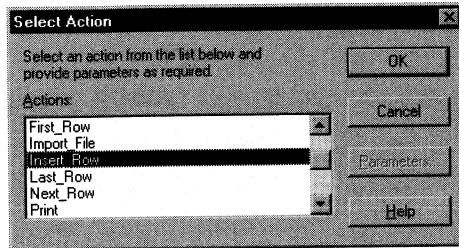
An action is what you want to happen when the button is clicked.

Whenever you associate an InfoMaker action with a button, InfoMaker creates the code to enable the button to perform the action. You do not see the code. All you have to do is select the action for the button.

InfoMaker comes with predefined actions. PowerBuilder users at your site can create additional actions, which will also display in the Select Action dialog box.

---

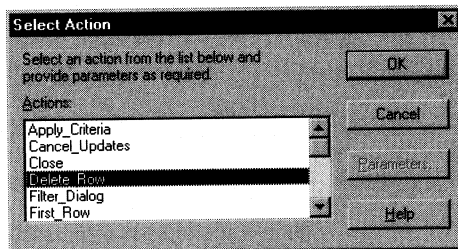
- 6 Scroll through the list of actions and double-click *Insert\_Row*.



InfoMaker creates the code that enables your *Add a contact* button to display a blank form so you can add information for a new contact. You will see the button work later.

Now you will add two more buttons.

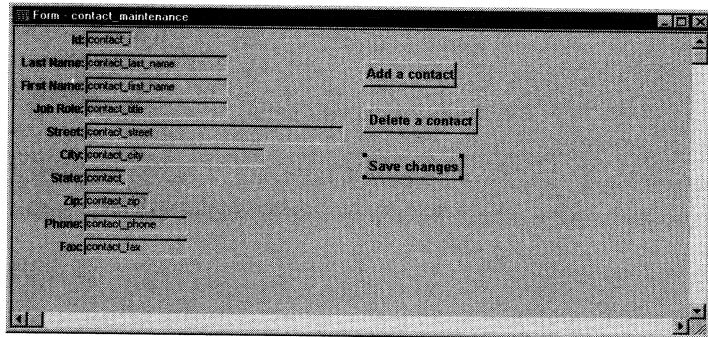
- 7 **Select *Controls>CommandButton* from the menu bar. Move the pointer below the *Add a contact* button and click. Type *Delete a contact*. Display the *Delete a contact* button's popup menu and select *Action*. Select the action *Delete\_Row* from the *Select Action* dialog box. Click *OK*.**





- 8 **Select *Controls>CommandButton* from the menu bar. Move the pointer below the *Delete a contact* button and click. Type *Save changes*. Display the *Save changes* button's popup menu and select *Action*. Select the action *Update\_Row* from the *Select Action* dialog box. Click *OK*.**

Now you have three buttons. InfoMaker has created the code that enables the buttons to work.



The screenshot shows a window titled "Form - contact\_maintenance". On the left side, there are several text input fields with labels: "Id: contact\_id", "Last Name: contact\_last\_name", "First Name: contact\_first\_name", "Job Role: contact\_title", "Street: contact\_street", "City: contact\_city", "State: contact\_state", "Zip: contact\_zip", "Phone: contact\_phone", and "Fax: contact\_fax". On the right side, there are three buttons: "Add a contact", "Delete a contact", and "Save changes". The "Save changes" button is highlighted with a mouse cursor.

## Enhance the form

---

### **Where you are**

Chapter 3 Form Tutorial

Create the basic form

Preview (run) the form

Save the form

Add buttons to the form

> Enhance the form

Use the form to update the database

---

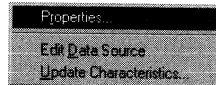
In this section you will:

- ◆ Add a title
- ◆ Change the background for data
- ◆ Move the buttons
- ◆ Add a report

## Add a title

- 1 **Move the pointer to an unused area of the form and click the right mouse button.**

The popup menu for the form displays.




---

### About the popup menu

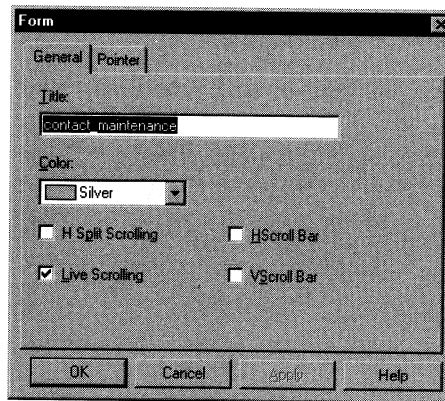
When you display the popup menu, the contents of the menu changes depending on the position of the pointer (on a control, on an unused area of the form, or on an unused area of a toolbar).

To see this, move the pointer to different places and display the popup menu.

---

- 2 **Select *Properties* from the popup menu.**

The form's property sheet displays. The General tab is on top.



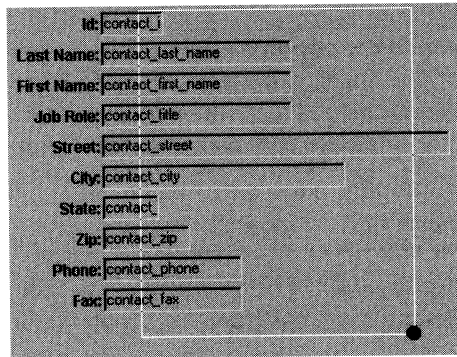
- 3 **Type *Maintain Contact Information* in the Title box and press ENTER.**

The title does not display now. When you run the form, the title will display.

## Change the background for data

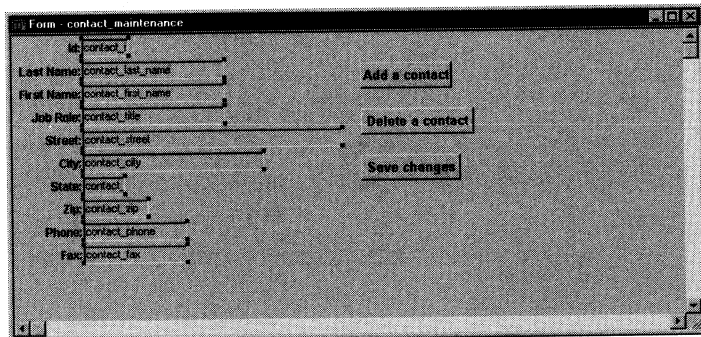
Now you will change the background for all data values to be white. This will make it easier to enter data. You will use lasso select to select the objects.

- 1 Move the pointer near the bottom of the data and on the right.
- 2 Press and hold the left mouse button and drag diagonally to the left and up until the white box (the lasso) touches all the data.

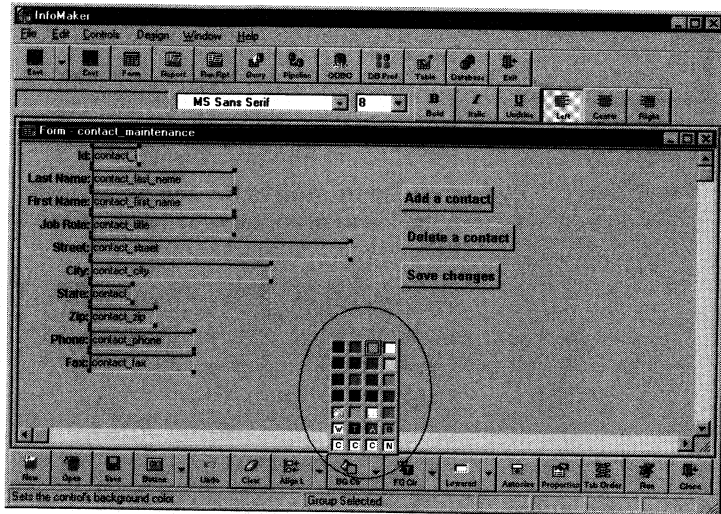


- 3 Release the mouse button

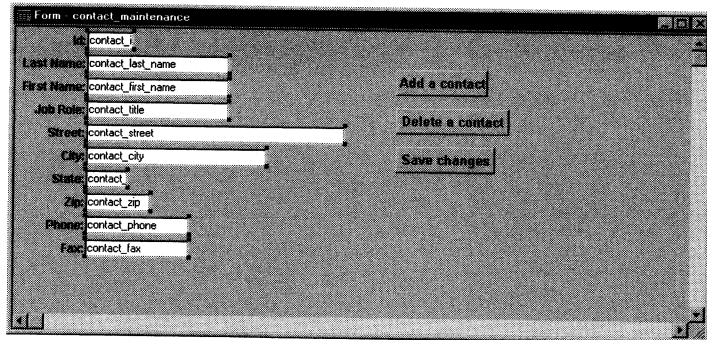
All the objects inside the white box are selected. Black boxes display in all the corners.



- 4 Move the pointer to the Background Color (Bg Clr) dropdown toolbar. Click the *arrow* to display the color menu. Click the *plain white* box (not the white box with the letter w in it).



All the areas on the form used to display data values now have white for a background color.



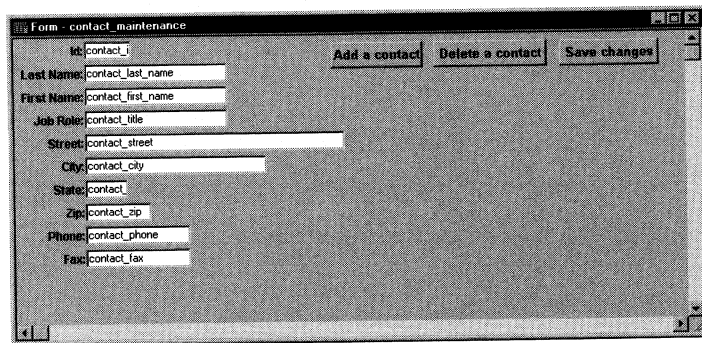
## Move the buttons

Now you will move the buttons to make room for the report you are about to add.

- 1 **Select a button.**  
(You can use lasso select or click one.)

Small black boxes in the corners mean it is selected.

- 2 **Drag the button to the top of the form.**  
Select and drag the other two buttons until your form looks like this.



Now the buttons are near the top of the form. There is more room for the report you are about to add.

## Add a report

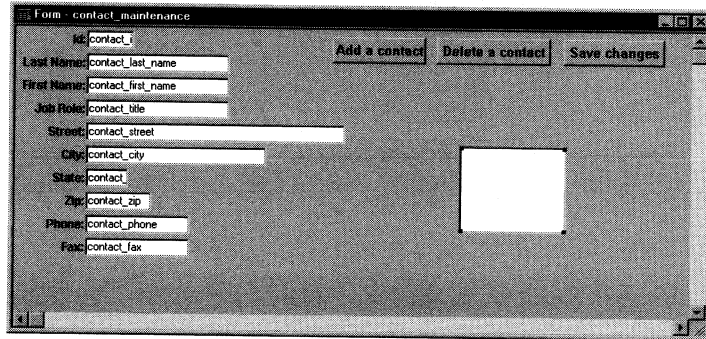
Now you will add a report to provide information when you are working with the form. You can scroll in the report while you are filling out the form for a new contact. This means, for example, that you could look up an area code or zip code if it's already present for another contact.

**1 Select *Controls>Report from the menu bar.***

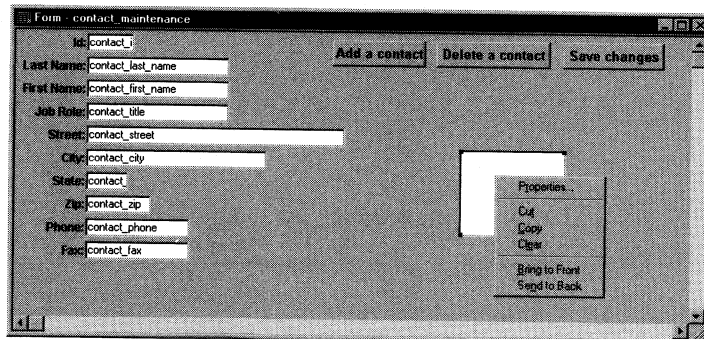
Move the pointer into the workspace. Where you next click will position the report that you are adding to the form.

**2 Move the pointer to the empty space on the right part of the form and click.**

The box that will hold the report displays on the form.

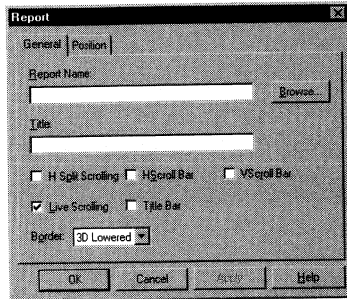


**3 Move the pointer to the box and display the popup menu.**



**4 Select Properties.**

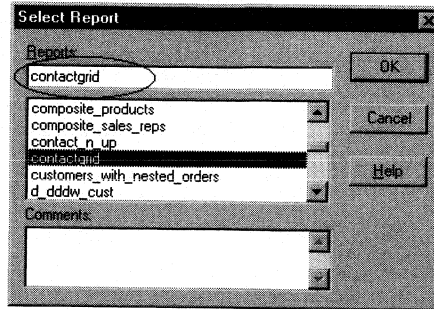
The property sheet for the box displays.



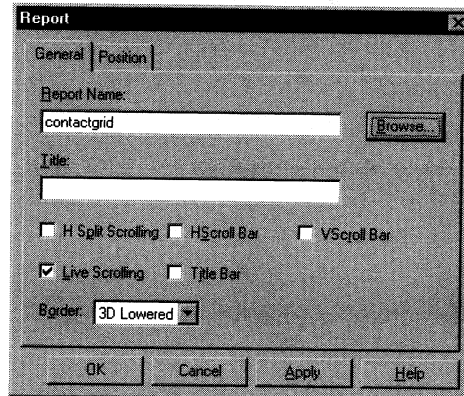
You will use this property sheet to specify a few things about the report. First you are going to select the report whose contents display in the box.



- 5 Click the *Browse* button. In the **Select Report** dialog box, scroll the list of reports. Select *contactgrid* and click *OK*.

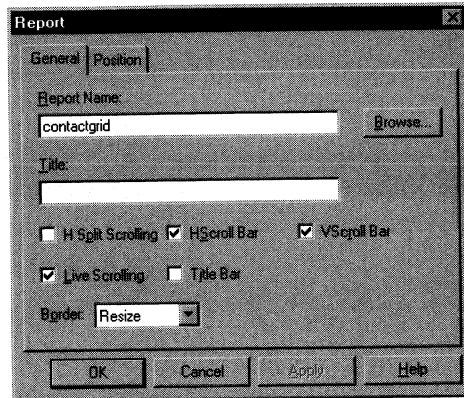


Contactgrid displays in the Report Name box in the property sheet.



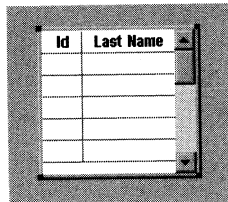
Next you will specify that the report is to have the *Resize* border, scrollbars, and the ability to be resized when you run the form.

- 6 Select *Resize* from the *Border* dropdown listbox (you'll have to scroll the list).  
Select the *HScroll Bar* and *VScroll Bar* checkboxes.



- 7 Click *OK*.

The report looks like this.

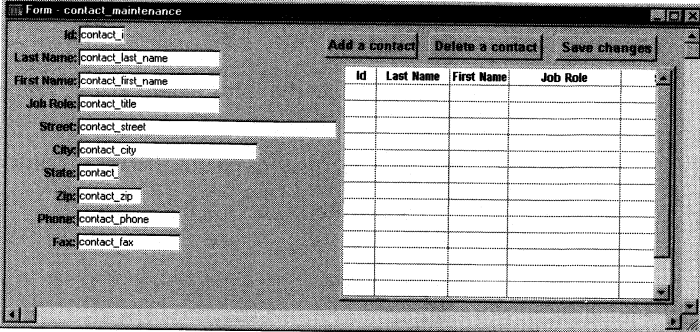


When you run the form, the report displays as a resizable window with horizontal and vertical scrollbars. This gives you flexibility in looking at data while working on the form.

- 8 Resize the report to show more data.**  
**To resize, move the pointer near an edge until the pointer becomes a double-pointed arrow.**  
**Then press the left mouse button, hold, and drag.**

This determines the size and position of the window when you start running the form. Because it is resizable, you can change the report window while you are running the form.

When you finish resizing, the report should look something like this.



The screenshot shows a window titled "Form - contact maintenance". On the left side, there is a form with the following fields:

- Id: contact\_id
- Last Name: contact\_last\_name
- First Name: contact\_first\_name
- Job Role: contact\_title
- Street: contact\_street
- City: contact\_city
- State: contact\_state
- Zip: contact\_zip
- Phone: contact\_phone
- Fax: contact\_fax

At the top right of the form area, there are three buttons: "Add a contact", "Delete a contact", and "Save changes". To the right of the form is a table with the following columns:

Id	Last Name	First Name	Job Role

## Use the form to update the database

### Where you are

#### Chapter 3 Form Tutorial

Create the basic form

Preview (run) the form

Save the form

Add buttons to the form

Enhance the form

> Use the form to update the database

Now you will use the form to add a new contact to the database.

### 1 Select *Design>Run* from the menu bar.

Your finished form displays with data in place. The report on the form gives you a way to see all your contact data.

The screenshot shows a software window titled "Maintain Contact Information". On the left side, there is a form with several input fields: "id:" (empty), "Last Name:" (Hildebrand), "First Name:" (Jane), "Job Role:" (Marketing), "Street:" (1280 Washington St.), "City:" (Emeryville), "State:" (MI), "Zip:" (94608), "Phone:" ((510) 555-1309), and "Fax:" ((510) 555-4209). On the right side, there is a table with columns "Id", "Last Name", "First Name", and "Job Role". Above the table are three buttons: "Add a contact", "Delete a contact", and "Save changes". The table contains 12 rows of contact data.

Id	Last Name	First Name	Job Role
1	Hildebrand	Jane	Marketing
2	Simmon	Larry	Sales
3	Critch	Susan	Product development
4	Lambert	Terry	Administration
5	Sullivan	Dorothy	Customer support
6	Pauli	Rose	Finance
7	Glassmann	Beth	Product development
8	Powell	Gene	Training
9	Fish	Jeffrey	Marketing
10	Clarke	Molly	Sales
11	Kelley	William	Documentation
12	Lyman	Thomas	Customer support

**2 Click the *Add a contact* button in the form.**

An empty form displays. You will use this form to enter a new contact.

Id	Last Name	First Name	Job Role	
1	Hildebrand	Jane	Marketing	1280 W
2	Simmon	Larry	Sales	34 Gra
3	Critch	Susan	Product development	45 Cer
4	Lambert	Terry	Administration	204 Pa
5	Sullivan	Dorothy	Customer support	54 Mini
6	Paul	Rose	Finance	78 Bay
7	Glassmann	Beth	Product development	44 Oak
8	Powell	Gene	Training	552 We
9	Fish	Jeffrey	Marketing	68 Rac
10	Clarke	Molly	Sales	55 Pine
11	Kelley	William	Documentation	16 Rai
12	Lyman	Thomas	Customer support	64 Str

The cursor is in the Id box, but you don't know the next available number. You will look in the report to see what number was used last.

**3 In the report window, use the scrollbar to scroll down to the last row of the report and check the value in the *Id* column.**

If the data has not been changed since installation, the value will be 60. So the next available number is 61.

Id	Last Name	First Name	Job Role	
49	Lull	John	Sales	93 Law
50	Shishov	Irina	Marketing	567 Pa
51	Trayers	Ken	Sales	234 He
52	Long	Peter	Training	78 Gra
53	Tippet	Debbie	Customer support	85 Abe
54	Hodson	Jack	Customer support	69 Linc
55	Kosko	Kim	Product development	334 Pie
56	McEvroy	Jim	Sales	23 Hav
57	Goodall	Sandra	Sales	56 Sun
58	Elkins	John	Training	899 Gc
59	Masalsky	Kurt	Customer support	29 Gar
60	Collins	MaryBeth	Customer support	56 Linc

**4 Click the *Id* column and type 61.**

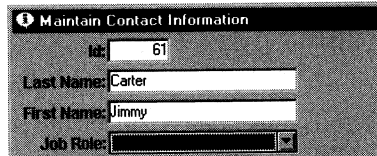
Id	Last Name
49	Lull

- 5 **Press TAB and type *Carter* for Last Name.  
Press TAB and type *Jimmy* for First Name.  
Press TAB.**

At this point you are on the Job Role box. In this box you cannot type. You must select a job role from a list of possible ones.

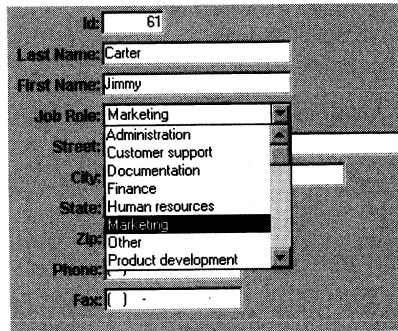
In the Database painter, the column was defined to be associated with a DropDownListBox edit style. The repository stores this and other information about data.

- 6 **Click the *down arrow* on the dropdown listbox to display the choices.**



The screenshot shows a form titled "Maintain Contact Information". It contains the following fields: "Id:" with the value "61"; "Last Name:" with the value "Carter"; "First Name:" with the value "Jimmy"; and "Job Role:" which is a dropdown menu currently showing an empty selection.

- 7 **Select *Marketing*.**



The screenshot shows the same form as in the previous image, but the "Job Role:" dropdown menu is open, displaying a list of options: "Marketing", "Administration", "Customer support", "Documentation", "Finance", "Human resources", "Marketing" (highlighted), "Other", and "Product development".

- 8 **Press TAB and type *Peanut Way* for Street.**
- 9 **Press TAB and type *Atlanta* for City.**
- 10 **Press TAB and select *GA* for State (another dropdown listbox).**

- 11 Press TAB.  
To determine what to enter for Zip, scroll the report until you find another *Atlanta* entry. Then click the *Zip* box in the form and type the zip code you see in the report.

Street	City	State	Zip	Phone
93 Lawn Rd	Bedford	MA	01730	(617)656-17
567 Park Drive	Atlanta	GA	30339	(404)656-12
234 Heather Drive	Arlington	MA	02174	(617)656-23
78 Grayson Rd.	Burlington	MA	01803	(617)656-45
85 Aberdeen Rd.	Schaumburg	IL	60173	(708)656-82
69 Lincoln St.	Acton	MA	01720	(608)656-29
334 Pleasant St.	Houston	TX	77079	(713)656-46
23 Hawthorne Rd.	Schaumburg	IL	60173	(708)656-86
56 Summer St.	Burlington	MA	01803	(617)656-36
899 Goddard Highway	Iselin	NJ	08830	(603)656-12
29 Garden St.	Atlanta	GA	30339	(404)656-51
56 Lincoln Street	Burlington	MA	01803	(617)656-11

- 12 Press TAB and type 4045557833 for Phone.

Notice that you type only the digits. The form formats the phone number. An Edit Mask edit style was defined for this column to handle the formatting. This edit style is stored in the repository.

- 13 Press TAB and type 4045554291 for Fax.

This is what your screen should look like now.

Street	City	State	Zip	Phone
93 Lawn Rd	Bedford	MA	01730	(617)656-17
567 Park Drive	Atlanta	GA	30339	(404)656-12
234 Heather Drive	Arlington	MA	02174	(617)656-23
78 Grayson Rd.	Burlington	MA	01803	(617)656-45
85 Aberdeen Rd.	Schaumburg	IL	60173	(708)656-82
69 Lincoln St.	Acton	MA	01720	(608)656-29
334 Pleasant St.	Houston	TX	77079	(713)656-46
23 Hawthorne Rd.	Schaumburg	IL	60173	(708)656-86
56 Summer St.	Burlington	MA	01803	(617)656-36
899 Goddard Highway	Iselin	NJ	08830	(603)656-12
29 Garden St.	Atlanta	GA	30339	(404)656-51
56 Lincoln Street	Burlington	MA	01803	(617)656-11

- 14 Click the *Save changes* button in the form to update the database with the new contact.**

The database is updated.

Note that the report always displays the information from the database when you start running the form. If you update the database, the report does not show the updates. To update the report, you return to the workspace and rerun the form.



- 15 Click the *Close* button in the PainterBar to return to the Form painter workspace.**



- 16 Click the *Run* button again and scroll the report to the 61st row in the report.**

Notice that your report has been updated.



- 17 Click the *Close* button in the PainterBar to return to the Form painter workspace.**

- 18 Select *File>Close* from the menu bar.**

If you haven't already saved the current version of the form, you will be prompted to save changes.

- 19 Click *Yes*.**

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



# Report Tutorial

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.

This is what the report will look like when you have finished.

3/14/98		My Contacts		
	Last Name	First Name	Phone	Fax
<i>Administration</i>				
	Brier	Michael	(617) 555-2398	(617) 555-3337
	Lambert	Terry	(617) 555-2246	(617) 555-3692
	Romeo	John	(310) 555-4533	(310) 555-1233
<i>Customer support</i>				
	Cobb	Paul	(404) 555-2239	(404) 555-8111
	Cohen	Paul	(617) 555-8883	(617) 555-4499
	Collins	MaryBeth	(617) 555-1199	(617) 555-9586
	Goggin	Kevin	(713) 555-3340	(713) 555-9211
	Hayne	William	(508) 555-7780	(508) 555-4422

---

**How long will this tutorial take?**

About 45 minutes.

---

## Create the basic report

---

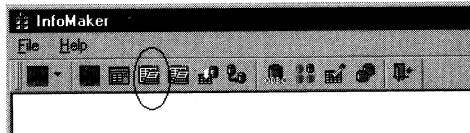
### Where you are

#### Chapter 4 Report Tutorial

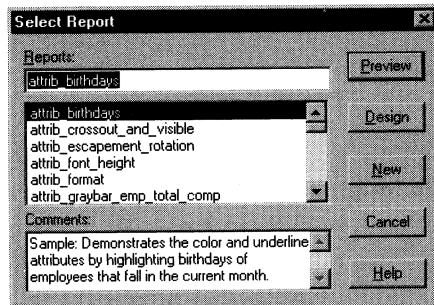
- > Create the basic report
  - Preview the report
  - Save the report
  - Set up the design environment
  - Define sorting and grouping
  - Enhance the report
  - Print the report
- 

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.

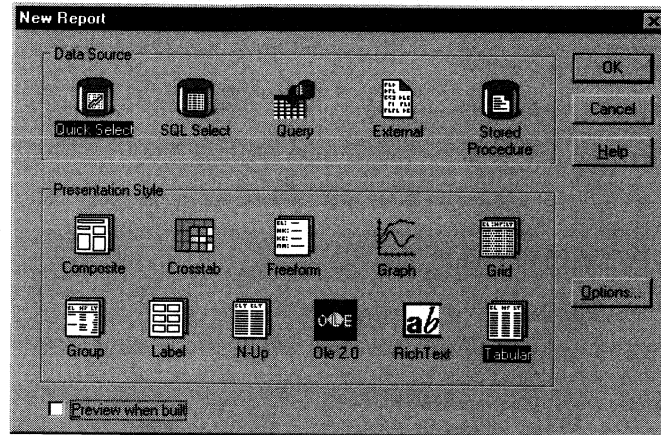


The Select Report dialog box displays. It lists reports in the current library (TUTOR\_IM) and has a New button for creating new reports.



## 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.

---

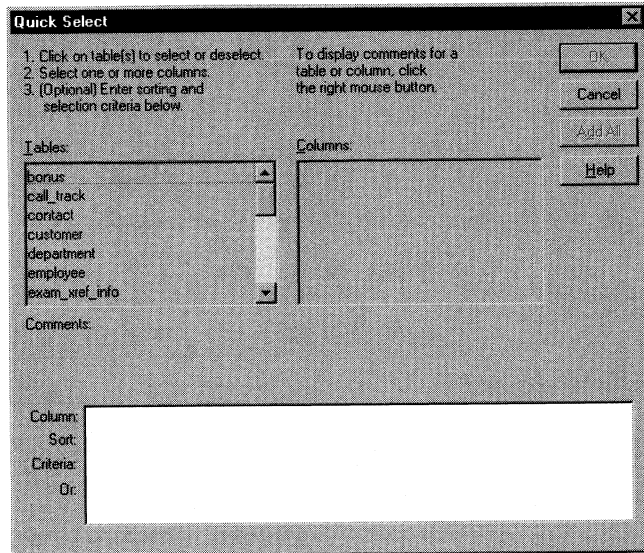
### About report presentation styles

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

---

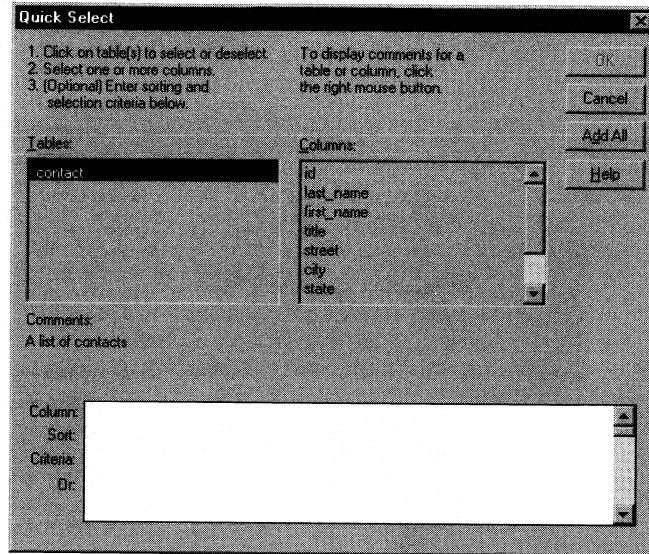
- 3 Click the *Quick Select* data source and the *Tabular* presentation style.  
Make sure the *Preview when built* checkbox is not selected and click *OK*.

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.



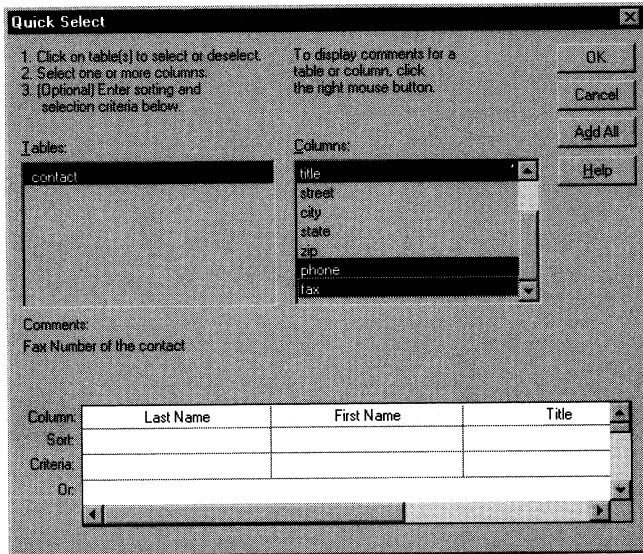
#### 4 Click *contact*.

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



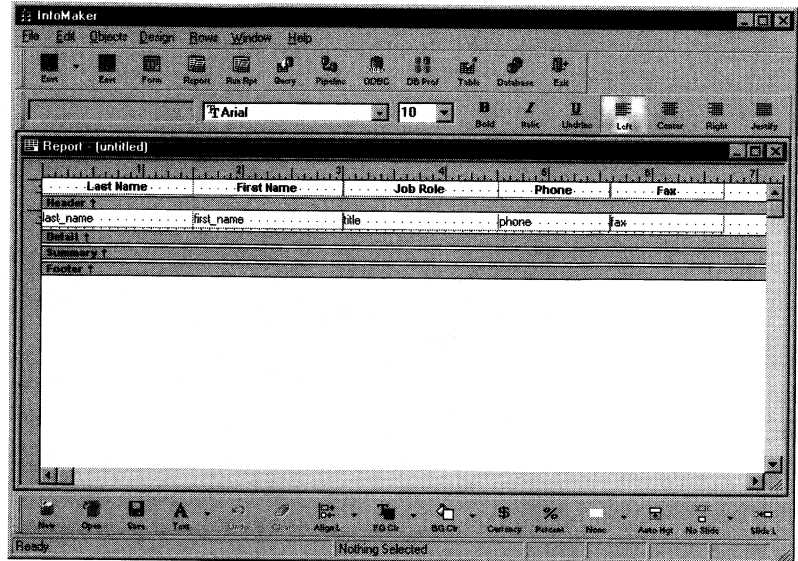
- 5 Click *last\_name*, *first\_name*, and *title*.  
Use the scrollbar to scroll the list of columns.  
Click *phone* and *fax*.

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 form or report.

You put information into the repository using the Database painter. For example, in the Table tutorial 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:*.

## Preview the report

### Where you are

#### Chapter 4 Report Tutorial

Create the basic report

> Preview the report

Save the report

Set up the design environment

Define sorting and grouping

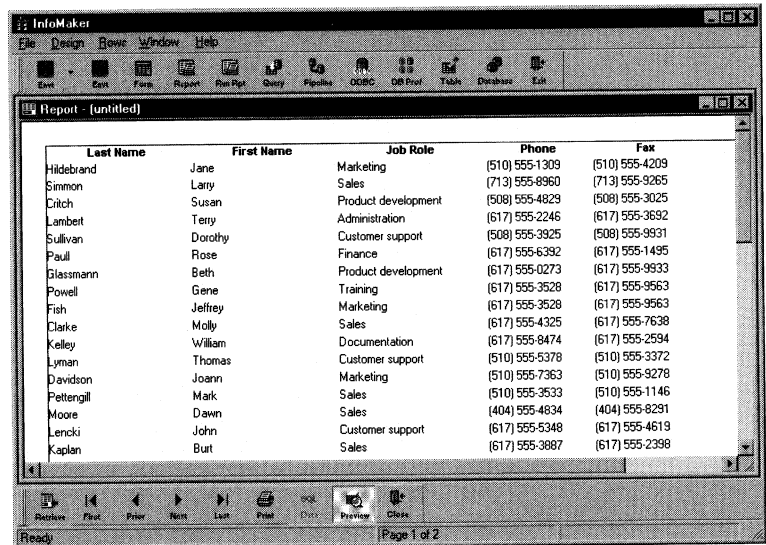
Enhance the report

Print 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.



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

### 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.

## Save the report

### Where you are

#### Chapter 4 Report Tutorial

Create the basic report

Preview the report

> Save the report

Set up the design environment

Define sorting and grouping

Enhance the report

Print the report

---

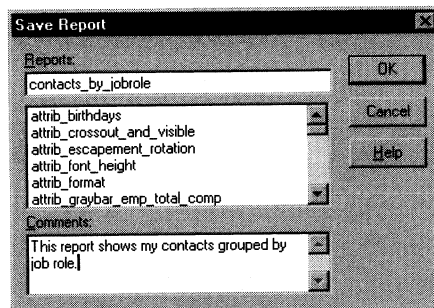
Now you will save the report and give it a name.

- 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.

---

### About saving

Anytime you have completed a unit of work and are satisfied, you should save your work. To save, select *File>Save* from the menu bar.

---

## Set up the design environment

---

### Where you are

#### Chapter 4 Report Tutorial

Create the basic report

Preview the report

Save the report

> Set up the design environment

Define sorting and grouping

Enhance the report

Print the report

---

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.

---

### If you completed Chapter 2

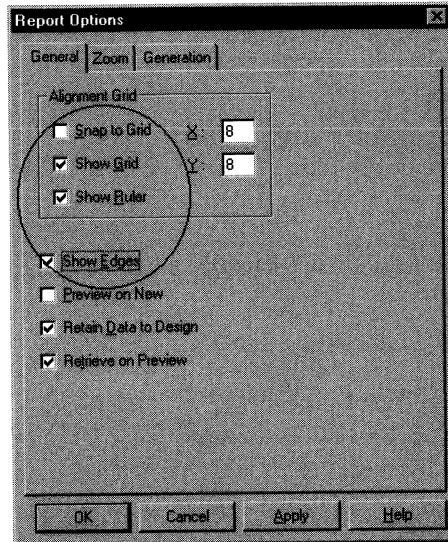
The design options you set here may already be set correctly.

---

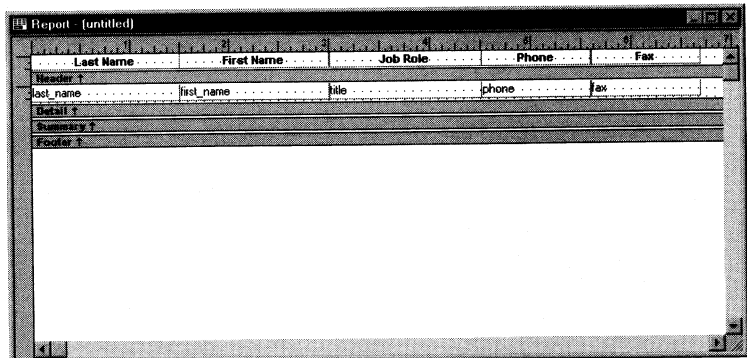
#### **1 Select *Design>Options* from the menu bar.**

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.



## Define sorting and grouping

### Where you are

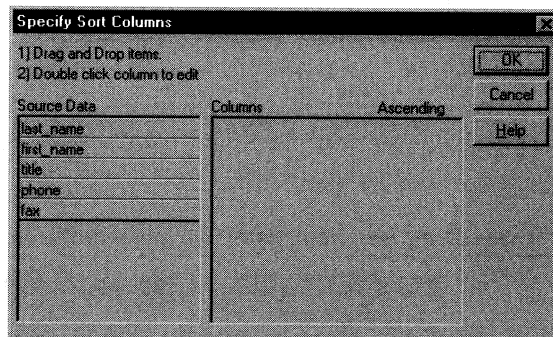
#### Chapter 4 Report Tutorial

- Create the basic report
- Preview the report
- Save the report
- Set up the design environment
- > Define sorting and grouping
- Enhance the report
- Print the report

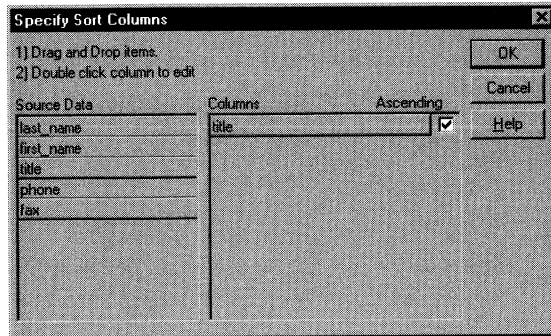
Now you will specify sorting and grouping. You want the report to group contacts by title. This means you need to sort by title and then specify grouping by title.

### 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

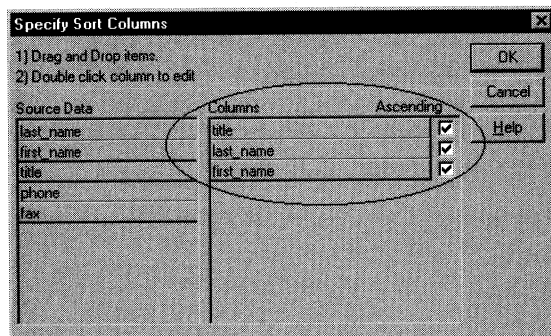
Ascending and descending are options for sorting. Since you are alphabetizing in this tutorial, you want to sort in ascending (from A to Z) order. Ascending is the default, so you do not have to do anything.

---

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.



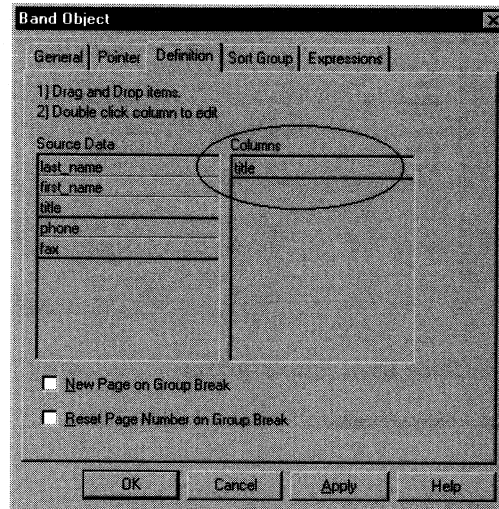
- 4 Click **OK**.

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

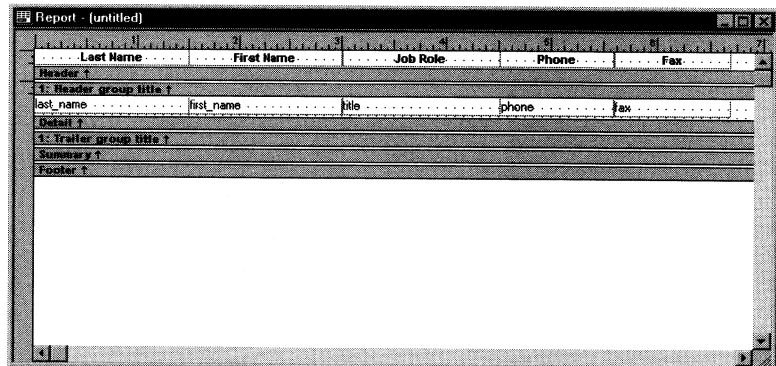
**5 Select Rows>Create Group from the menu bar.**

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.**



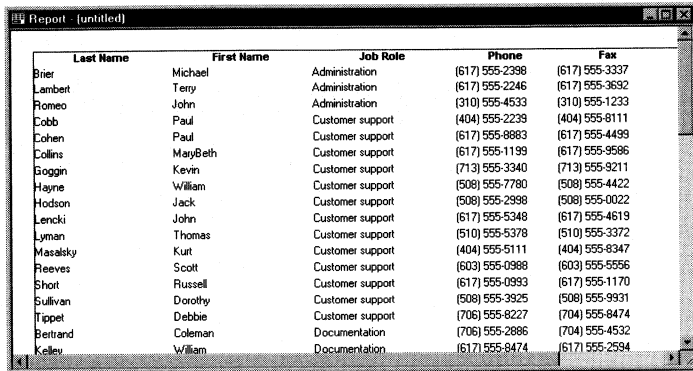
The grouping definition is completed. You return to the Report painter workspace.



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.



Last Name	First Name	Job Role	Phone	Fax
Brier	Michael	Administration	(617) 555-2398	(617) 555-3337
Lambert	Terry	Administration	(617) 555-2246	(617) 555-3692
Romeo	John	Administration	(310) 555-4533	(310) 555-1233
Cobb	Paul	Customer support	(404) 555-2239	(404) 555-8111
Cohen	Paul	Customer support	(617) 555-6883	(617) 555-4499
Collins	MaryBeth	Customer support	(617) 555-1199	(617) 555-9586
Goggin	Kevin	Customer support	(713) 555-3340	(713) 555-9211
Hayne	William	Customer support	(508) 555-7790	(508) 555-4422
Hodson	Jack	Customer support	(508) 555-2988	(508) 555-0022
Lencki	John	Customer support	(617) 555-5348	(617) 555-4619
Lyman	Thomas	Customer support	(510) 555-5378	(510) 555-3372
Masalsky	Kurt	Customer support	(404) 555-5111	(404) 555-6347
Reeves	Scott	Customer support	(603) 555-0988	(603) 555-5556
Short	Russell	Customer support	(617) 555-0993	(617) 555-1170
Sullivan	Dorothy	Customer support	(508) 555-3925	(508) 555-9931
Tippet	Debbie	Customer support	(706) 555-8227	(704) 555-8474
Bertrand	Coleman	Documentation	(706) 555-2886	(704) 555-4532
Kelley	William	Documentation	(617) 555-8474	(617) 555-2594



**8 Click the *Preview* button.**

You return to the Report painter workspace:



## Enhance the report

---

### Where you are

#### Chapter 4 Report Tutorial

Create the basic report

Preview the report

Save the report

Set up the design environment

Define sorting and grouping

> Enhance the report

Print the report

---

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

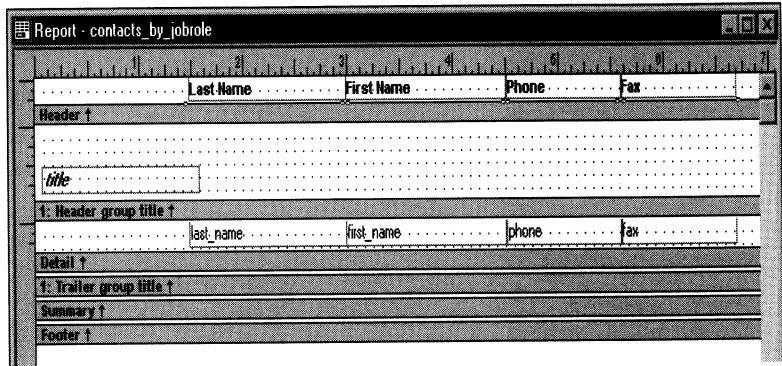
- ◆ Rearrange objects
- ◆ Add a title and date
- ◆ Add page numbers
- ◆ Add a count of the total number of contacts

## 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.

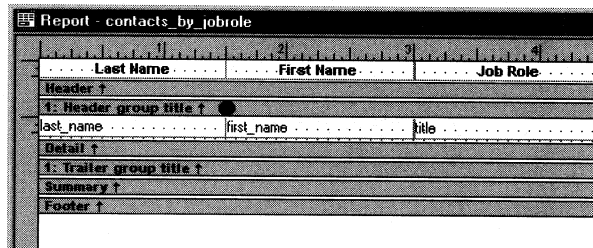
The **detail band** contains the retrieved data.

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

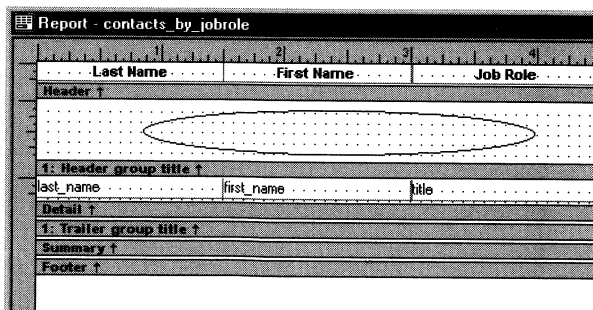
The **footer band** contains information to be located at the bottom of every page, such as a page number.

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

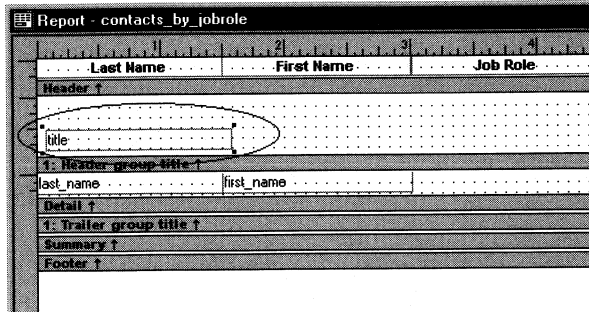
- 1 Move the pointer to the gray bar entitled *1: Header group title* until you see a double-pointed arrow.



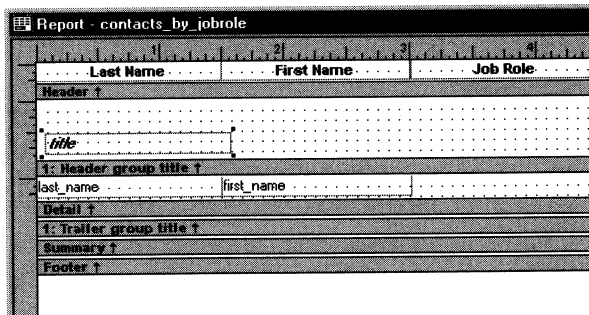
- 2 Drag the band down about 4 to 6 grid dots. (To drag, press and hold the left mouse button, move the mouse, then release the mouse button.)



- 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
<b>Administration</b>				
Brier	Michael		(617) 555-2398	(617) 555-3337
Lambert	Terry		(617) 555-2246	(617) 555-3632
Romeo	John		(310) 555-4533	(310) 555-1233
<b>Customer support</b>				
Cobb	Paul		(404) 555-2239	(404) 555-8111
Cohen	Paul		(617) 555-8883	(617) 555-4499
Collins	MaryBeth		(617) 555-1199	(617) 555-9586
Goggin	Kevin		(713) 555-3340	(713) 555-9211
Hayne	William		(508) 555-7780	(508) 555-4422
Hodson	Jack		(508) 555-2398	(508) 555-0022
Lencki	John		(617) 555-5348	(617) 555-4619
Lyman	Thomas		(510) 555-5378	(510) 555-3372
Masalsky	Kurt		(404) 555-5111	(404) 555-8347
...	...		(602) 555-0000	(602) 555-5555

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.

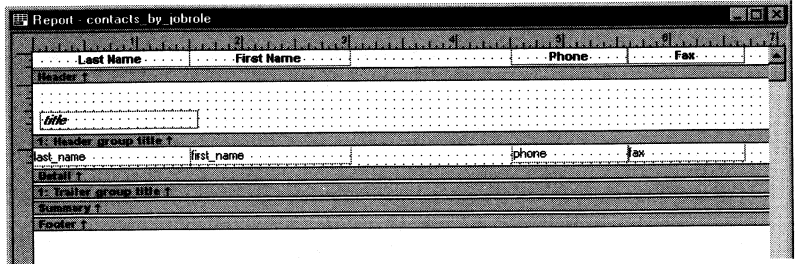
Previewing is helpful for identifying problems. Notice that the header Job Role is still present even though there is no longer a column in the detail band. When you return to the workspace you will delete the text.



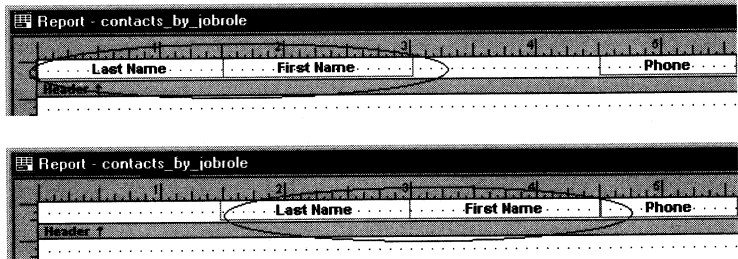
6 Click the *Preview* button to return to the workspace. Click the text *Job Role* in the header field.

Last Name	First Name	Job Role	Phone	Fax
<b>Header</b>				
<i>Title</i>				
<b>1: Header group title</b>				
last_name	first_name		phone	fax
<b>Detail</b>				
<b>1: Trailer group title</b>				
<b>Summary</b>				
<b>Footer</b>				

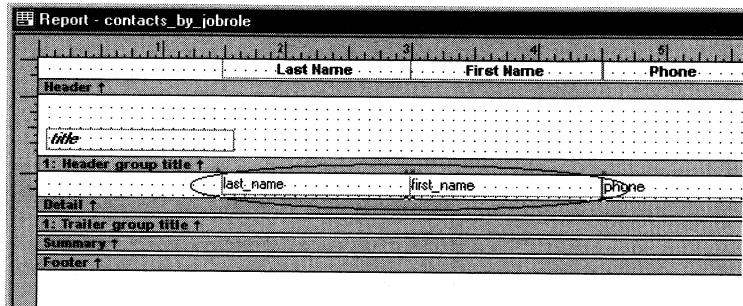
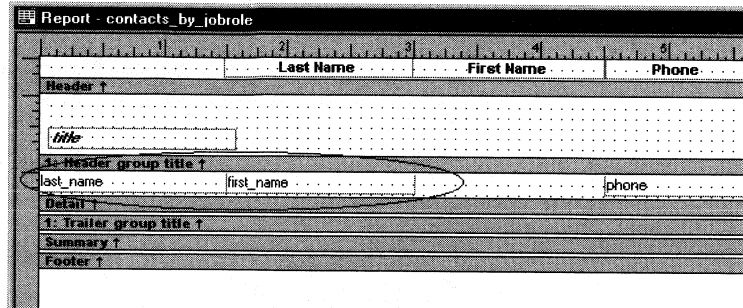
7 Press the DELETE key.



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.



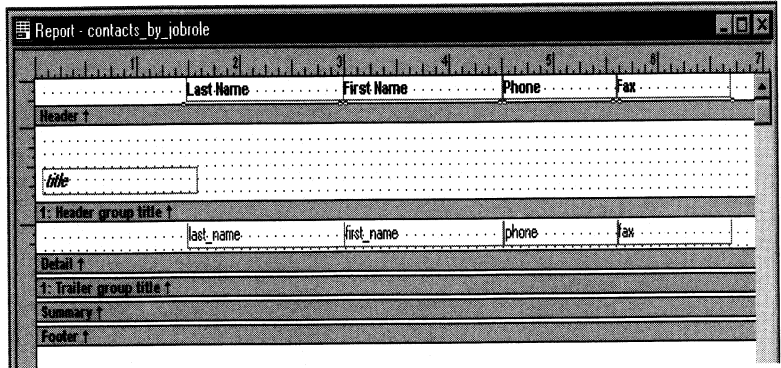
You will make one final visual improvement now by left aligning the text in the column headers.

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

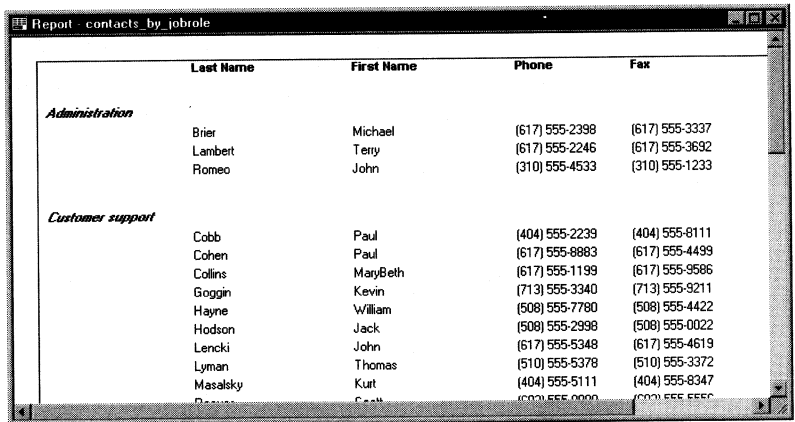
This selects all the headers. It may be difficult to see that they are selected because the band is so narrow.

- Click the *left justification* button on the **StyleBar**.  
If your headers are not already bold, click the *Bold* button.

All the headers become left justified (and bold).



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



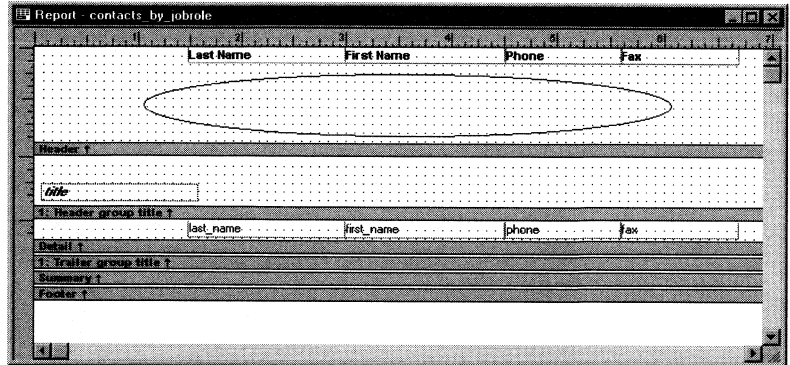
- Click the *Preview* button to return to the workspace.



## 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.

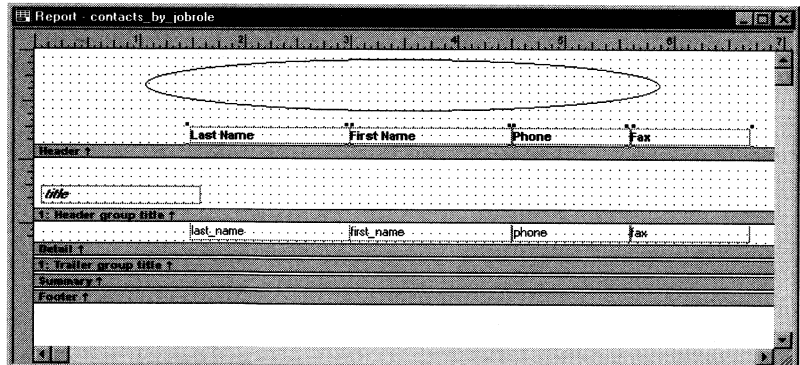


- 2 Choose *Edit>Select>Select Text* from the menu bar (or use lasso selection).

This selects all the headers.

- 3 Press the DOWN ARROW key to move all the headers down close to the gray band.

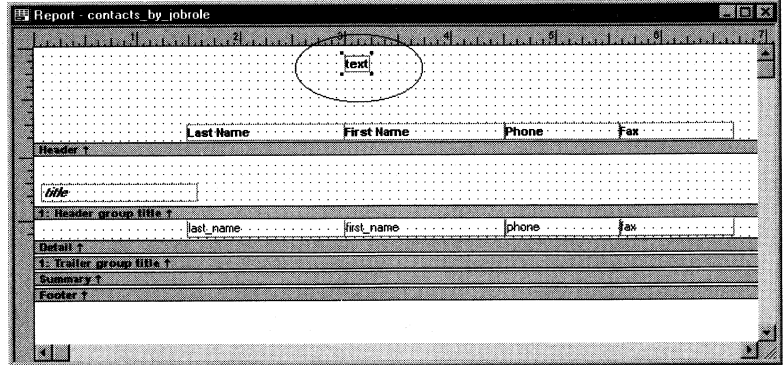
This leaves room for the title.



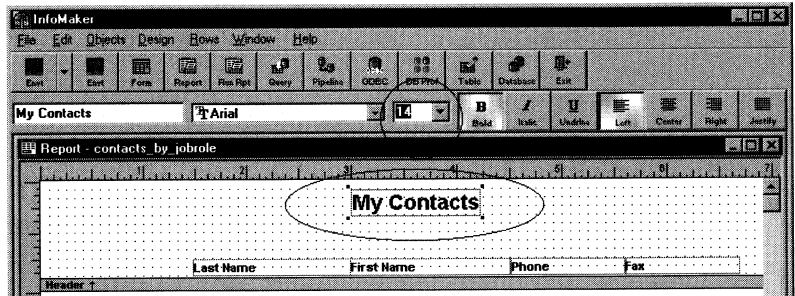


- 4 Click the *Text* button in the Objects dropdown toolbar in the PainterBar (or select *Objects>Text* from the menu bar). Move the point of the pointer above the *First Name* box and down one grid dot from the top of the page. Click.

This positions the text box for the title.



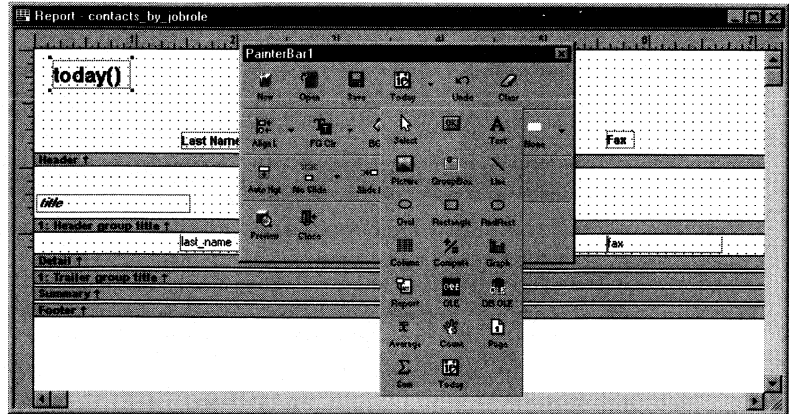
- 5 Type *My Contacts*. Select 14 from the font size dropdown listbox to make the title bigger (enlarge the text box if necessary).





- 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.



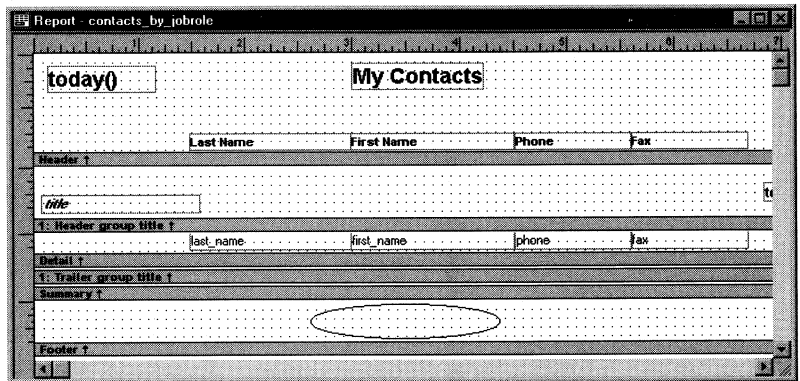
- 8 Click the *Preview* button to return to the workspace.

## 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.

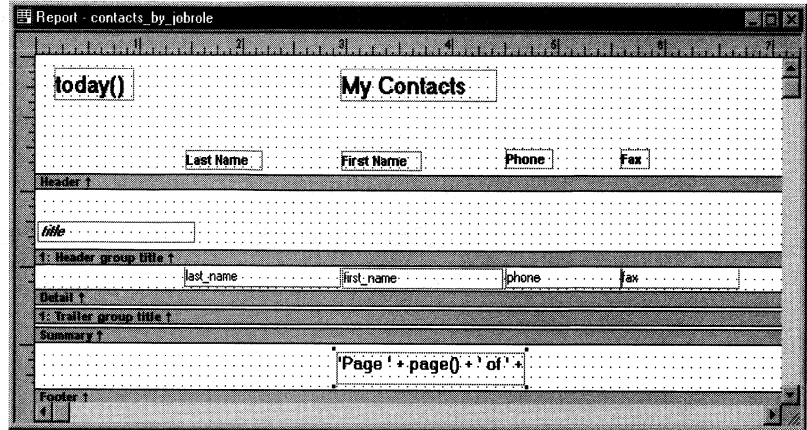
This makes space for the page number, which will be another computed field.





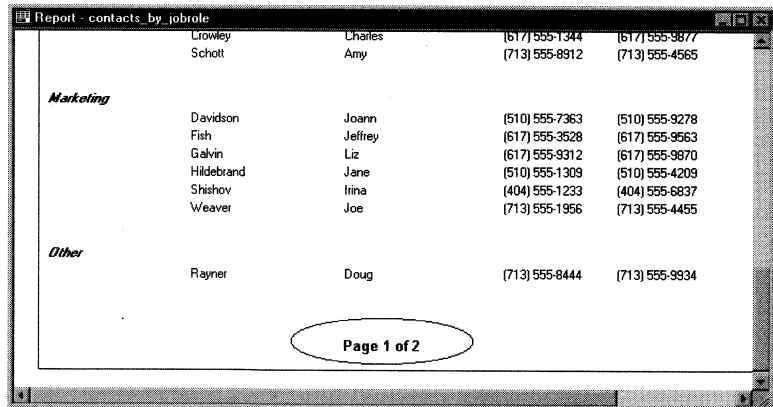
- 2 Click the *Page* button in the Objects dropdown toolbar. In the footer band, move the point of the pointer to the center and down 2 grid dots. Click. Select a different font size (10) from the style bar.

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.

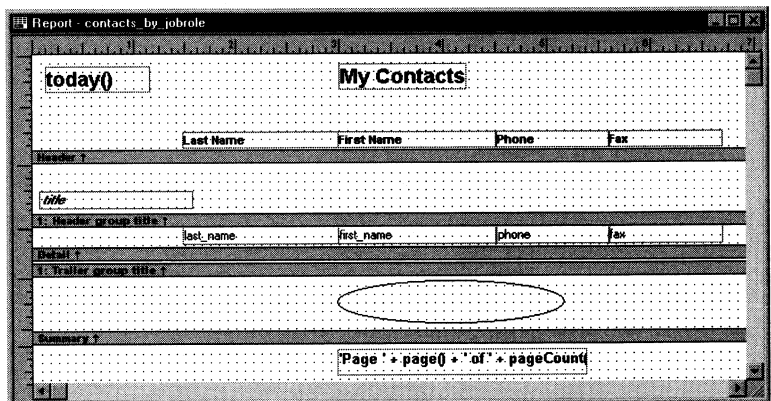
## Add a count of the total number of contacts

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.

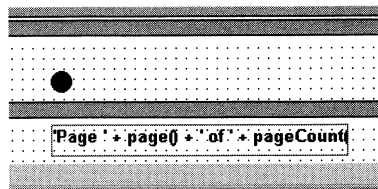
Like the date and page number, the count will be a computed field. Only this time, you will create it yourself using the Compute button.

- 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.

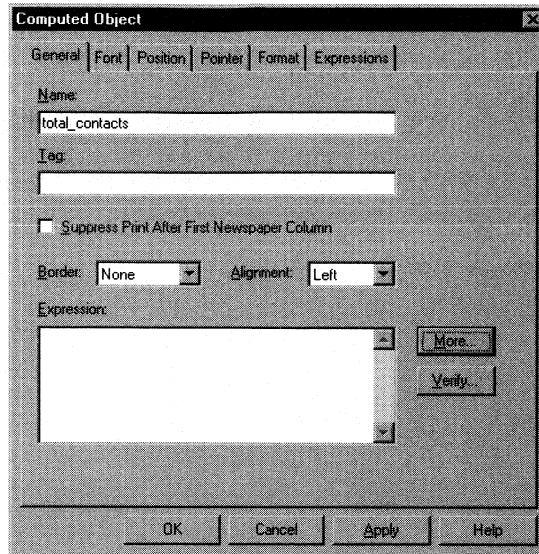


- 2 Click the *Compute* button in the Objects dropdown toolbar. In the summary band, move the point of the pointer to the center and down 4 grid dots. Click.



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*.

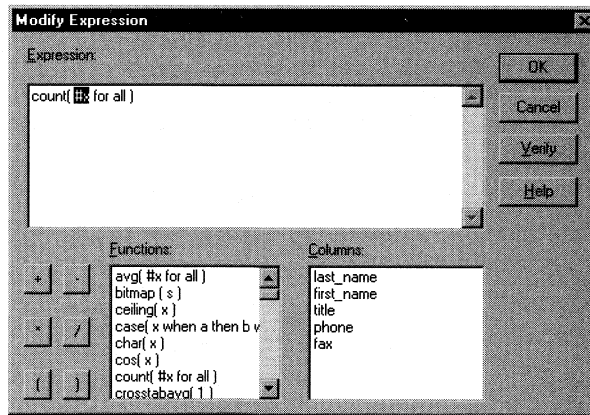


- 4 Click the *More* button.

The Modify Expression dialog box displays.

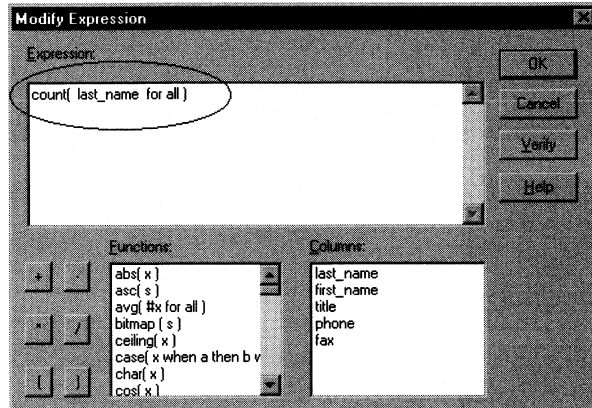
- 5 In the *Functions* box, click *count(#x for all)*.

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



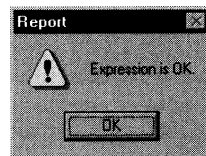
**6 In the Columns box, click last\_name.**

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.



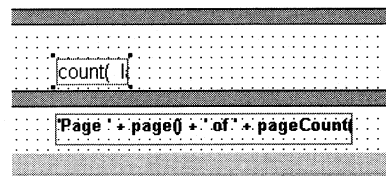
**7 Click Verify.**

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.**

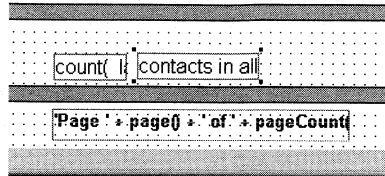
You return to the workspace. The computed field is in place.







- 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.



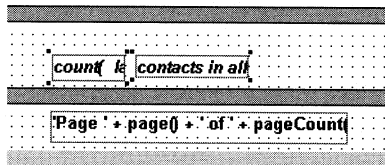
- 10 Select the computed field and the text using lasso selection. On the StyleBar, select 10 for a font size and click *I* for italic and **B** for bold.

---

#### How to use lasso selection

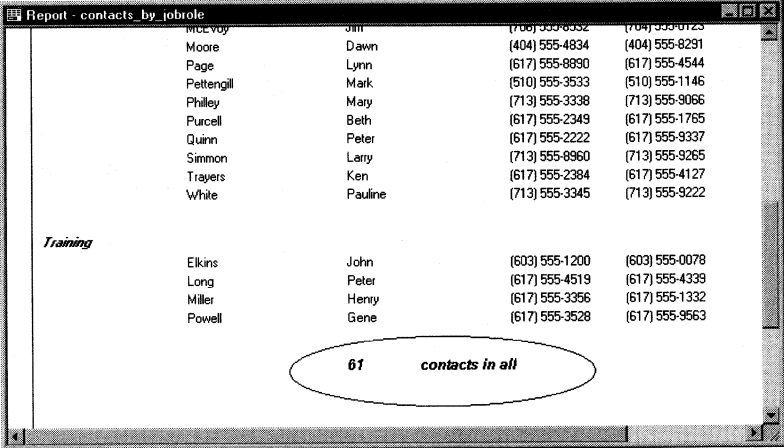
Position the pointer, press and hold the left mouse button, and drag the lasso around everything you want to select. Then release the mouse button.

---



- 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.



Training			
McEvoy	Jim	(708) 555-8352	(708) 555-8023
Moore	Dawn	(404) 555-4834	(404) 555-8291
Page	Lynn	(617) 555-8890	(617) 555-4544
Peltengill	Mark	(510) 555-3533	(510) 555-1146
Philey	Mary	(713) 555-3338	(713) 555-9066
Purcell	Beth	(617) 555-2349	(617) 555-1765
Quinn	Peter	(617) 555-2222	(617) 555-9337
Simmon	Larry	(713) 555-8960	(713) 555-9265
Trayers	Ken	(617) 555-2384	(617) 555-4127
White	Pauline	(713) 555-3345	(713) 555-9222

61 contacts in all



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

## Print the report

### Where you are

#### Chapter 4 Report Tutorial

Create the basic report

Preview the report

Save the report

Set up the design environment

Define sorting and grouping

Enhance the report

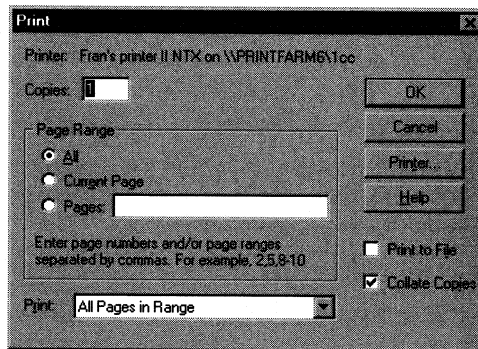
> Print the report

- 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 **After printing, 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.



# Table Tutorial

---

**This tutorial requires the Database painter**

The Database painter component of InfoMaker is optional; you must have installed it to do this tutorial.

---

Tables are the way relational databases organize information. To take full advantage of InfoMaker's ability to create forms and reports, you should learn how to create and work with database tables.

InfoMaker is installed with a SQL Anywhere database. You can create and work with tables in the SQL Anywhere database and in any other database you have access to.

After you create a table, you can display its columns on a form and use the form to add information into the database. For a final printed copy of the data in your tables, you can create and print reports.

In this tutorial you will:

- ◆ Create a database table
- ◆ Define extended attribute information
- ◆ Add data to the table

When you are finished, you can create forms to view and update information, and you can create and print reports using information in the table.

---

**How long will this tutorial take?**

About 45 minutes.

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## Create the database table

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### Where you are

#### Chapter 5 Table Tutorial

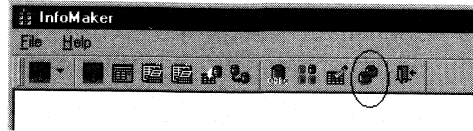
- > Create the database table
  - Define extended attribute information
  - Add data to the table
- 

To create the database table, you will:

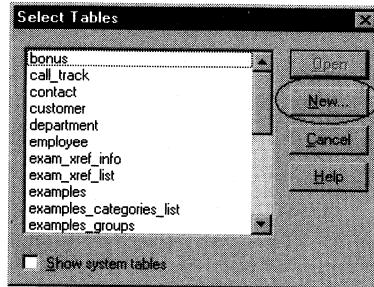
- ◆ Define the columns in the table
- ◆ Define a primary key
- ◆ Enter comments to document the table
- ◆ Save the table

## Define the columns in the table

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

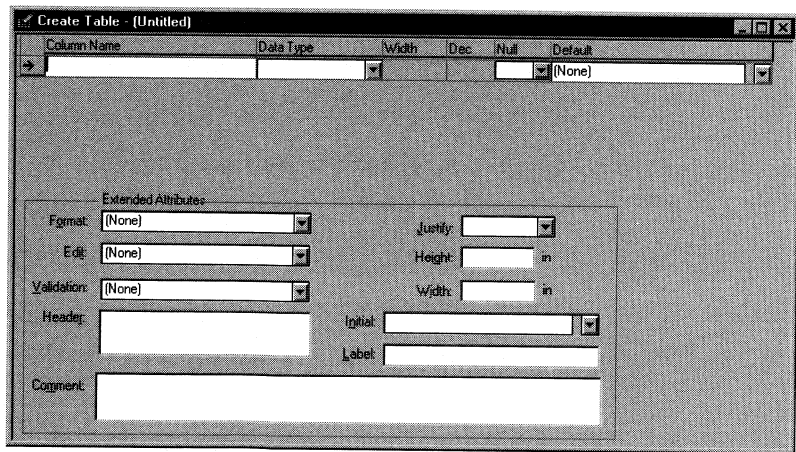


The Select Tables dialog box displays. It lists the tables in the current database and has a New button for creating new tables.



- 2 Click *New*.

You go to the Table painter. In the top part of the Table painter workspace, you define the columns in the table. In the bottom part of the workspace, you define extended attributes for each column. The cursor is in the Column Name box for the first column.



**3 Type *id* and press TAB.**

The cursor moves to the Type box. The default data type (varchar) is highlighted. The data type for the id column needs to be integer.

---

**About default data types**

Varchar is the default data type for the first column. The default data type for subsequent columns is the type of the previous column.

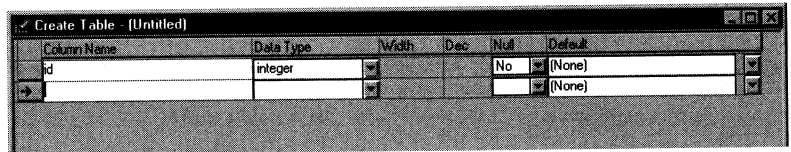
---

**4 Click the arrow to the right of the word *varchar* and select *integer* from the dropdown listbox of available data types.**

This changes the data type.

**5 Press TAB three times.**

This moves you past the setting of No for the column labeled Null. No means you do not want to allow the column you are defining to be empty (to have a null value). Since you always want a value for id, you will leave the value No. You also move past the column labeled Default. You are not going to specify a default.



**6 Type *last\_name* and press TAB.**

The cursor moves to the Type column. The most recently used data type (integer) is highlighted. Last\_name should be type char, so you will change it.

**7 Type *c* and press TAB.**

Typing c is a shortcut for choosing char quickly. The cursor moves to the Width column.

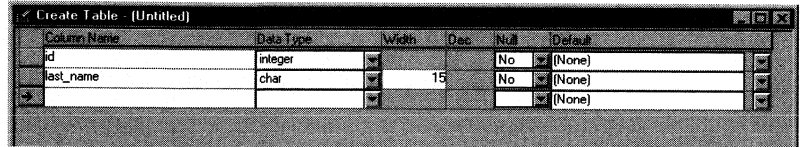
**8 Type 15.**

This allows 15 characters for the last name instead of 10.



**9 Press TAB three times.**

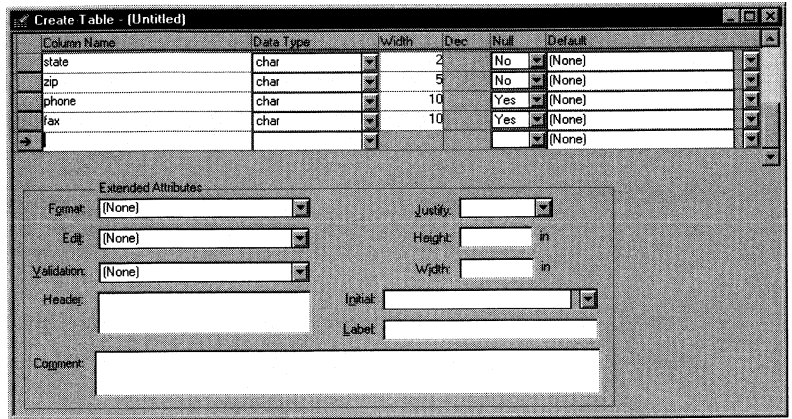
This moves you past the setting of No for the column labeled Null to the Name box for the next column. No is what you want (name cannot be empty). Again, you move past the column labeled Default.

**10 Finish entering information about the table columns.**

The following table shows all the values needed to define the columns in the contact table. You have already entered values for the first two columns (id and last\_name).

Name	Type	Width	Dec	Null	Default
id	integer			No	(None)
last_name	char	15		No	(None)
first_name	char	15		No	(None)
title	char	2		No	(None)
street	char	30		No	(None)
city	char	20		No	(None)
state	char	2		No	(None)
zip	char	5		No	(None)
phone	char	10		Yes	(None)
fax	char	10		Yes	(None)

When you are done, the workspace should look like this.

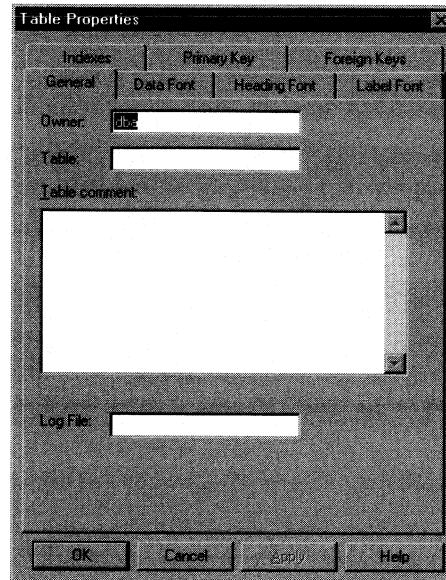


## Define a primary key

A primary key uniquely identifies each row. In your contact table, id is the unique identifier of each row of data.

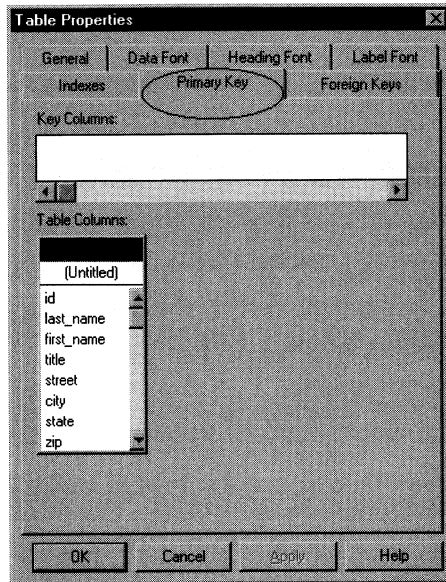
- 1 **Select *Edit>Table Properties* from the menu bar.**

The Table Properties property sheet displays.



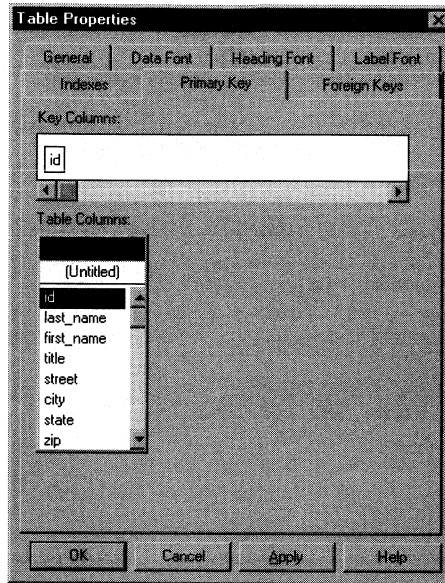
**2 Click the *Primary Key* tab.**

On this page, you can pick one or more columns as the primary key.



**3 Click *id* in the list of columns.**

Id displays in the box for Key Columns.



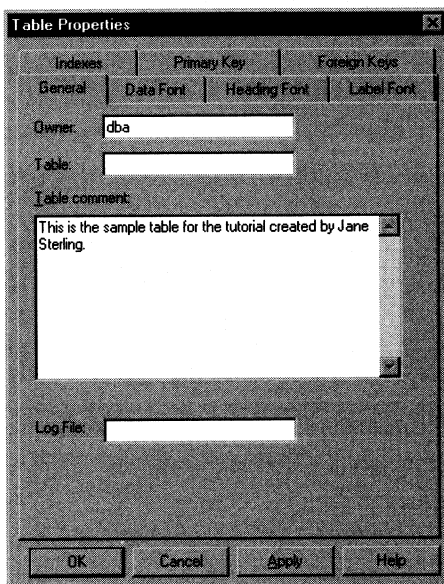
This defines *id* as the primary key for your table.

Next you will use another page on the property sheet to define a comment for the table.

## Enter comments to document the table

Although not required, comments can be helpful in identifying tables.

- 1 Click the *General* tab.
- 2 Click in the *Table comment* box and type *This is the sample table for the tutorial created by [your name]*. Click *OK*.



This associates the comments with the table you are creating. The property sheet closes and you return to the workspace.

## Save the table

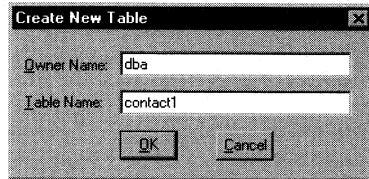
You have now entered all of the information needed. Now you will finish creating the table.

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

The Create New Table dialog box displays.

You will leave the owner as dba (database administrator) and enter a name for the table.

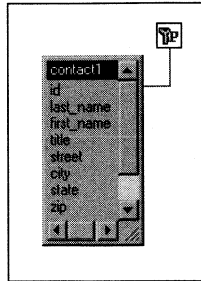
**2 Type *contact1* in the *Table Name* box. Click *OK*.**



InfoMaker passes the SQL needed to create the table to the SQL Anywhere DBMS, which creates the table. InfoMaker changes the title bar in the workspace to display the owner of the table (dba) and the name of the table. The words Read-Only also display in the title bar. This means you cannot change the table definition at this point.

**3 Select *File>Close* from the menu bar.**

InfoMaker closes the Table painter and displays a representation of the table in the Database painter workspace.



The list of columns displays. The scrollbar on the right side means that there are more columns than can be displayed at once. To see the other columns, click the down arrow at the bottom of the scrollbar.

The symbol on the right indicates that the table has a primary key. You can double-click the symbol to see the definition of the primary key.



## Define extended attribute information

---

### Where you are

#### Chapter 5 Table Tutorial

Create the database table

- > Define extended attribute information
  - Add data to the table
- 

Now you will extend the basic definitions of the columns in the table.

The following table summarizes how you will extend the column definitions of the contact1 table columns.

Column name	What you will do to extend its definition
id last_name first_name	Nothing
title	Define a DropDownList edit style of job roles, change the column header and label to Job Role, and enlarge the display width of the column to 1.5 inches
street city	Nothing
state	Assign the DropDownDataWindow edit style for state to the state column Set the default value of state to MA
zip	Nothing
phone fax	Define an Edit Mask edit style for a phone number and apply it to phone and fax

---

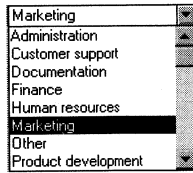
### About extended attribute information

InfoMaker stores extended attribute information in the repository and uses it to display and validate data in forms and reports. In the Report painter or Form painter, you can override whatever you specified in the Database painter, which is where you are now.

---

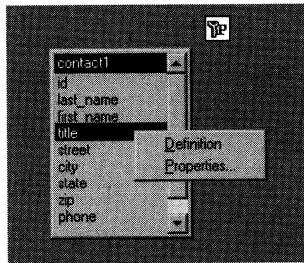
## Define a DropDownListBox edit style for the title column

Now you will define a DropDownListBox edit style that has the valid job roles for the title column. When you are finished, this is what it will look like in a form.



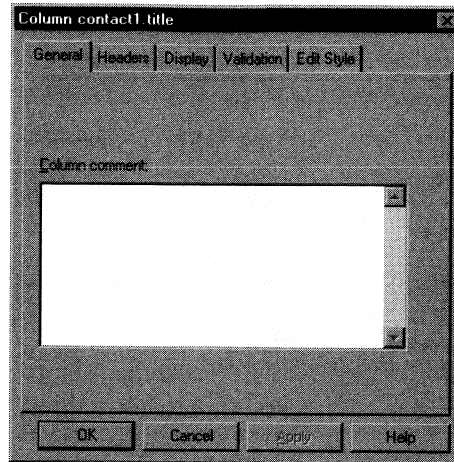
- 1 Position the pointer on *title*.  
Click the right mouse button.**

A popup menu for the title column displays. You can use this menu to extend the definition of the column.

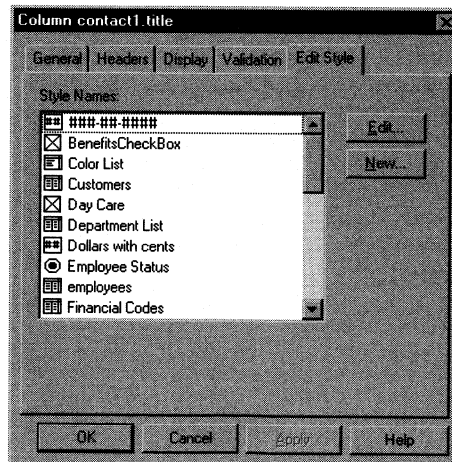


**2 Select *Properties* from the popup menu.**

The property sheet for the title column displays.

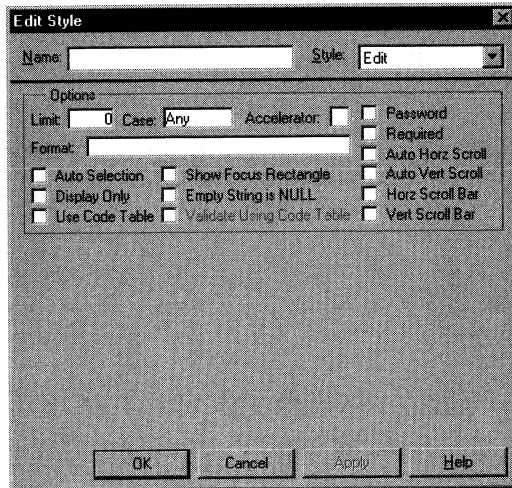
**3 Click the *Edit Style* tab.**

To supply an edit style for the title column, you can pick from the list of available edit styles or create a new style. You are going to create a new one.

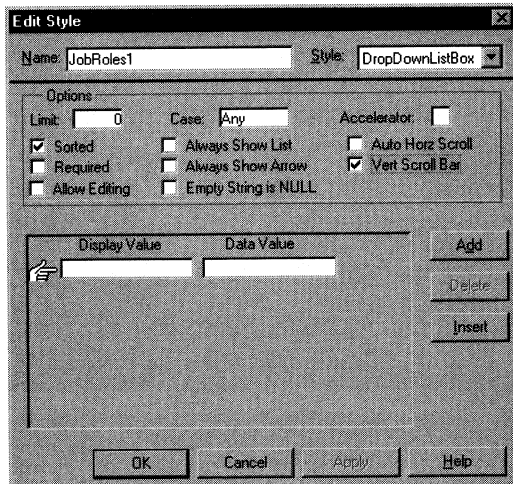


**4 Click the *New* button.**

The Edit Style dialog box displays.



- 5 Enter the name *JobRoles1*.  
Select *DropDownListBox* in the *Style* box next to *Name*.  
Click *Sorted* to alphabetize your entries.  
Click *Vert Scroll Bar* to display a vertical scrollbar on your list.**



- 6 Enter the *Display Values* and *Data Values* shown in the table below. Be sure to use lowercase for the data values. To enter each pair of values, type the values and click the *Add* button. For the last pair of values, do not click *Add*.

Display Value	Data Value
Sales	sa
Customer support	cs
Product development	pd
Administration	ad
Training	tr
Documentation	do
Marketing	ma
Human resources	hr
Finance	fi
Other	ot

**Edit Style**

Name: JobRoles1 Style: DropDownListBox

Options:

Limit: 0 Case: Any Accelerator:

Sorted  Always Show List  Auto Horiz Scroll

Required  Always Show Arrow  Vert Scroll Bar

Allow Editing  Empty String is NULL

Display Value	Data Value
Administration	ad
Training	tr
Documentation	do
Marketing	ma
Human resources	hr
Finance	fi
Other	ot

Buttons: Add, Delete, Insert, OK, Cancel, Apply, Help

---

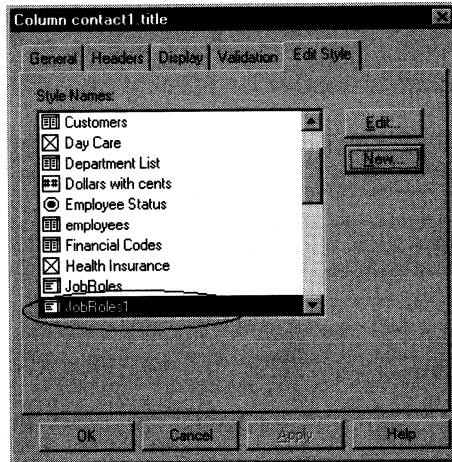
**About display values and data values**

Display values show in forms and reports. Data values are stored in the database. Display values should be meaningful—for example, *Human Resources*. In contrast, data values are often codes that are small—for example, *hr*. Small codes conserve space in the database.

---

- 7 **Click *OK* to accept the definition of the *DropDownListBox* edit style named *JobRoles1*.**

You return to the Edit Style page of the property sheet for the title column. *JobRoles1* is now listed as one of the available edit styles.



- 8 **Be sure *JobRoles1* is highlighted. Click *OK* in the property sheet to apply the edit style *JobRoles1* to the *title* column.**

## Change the column header, label, and display width of title

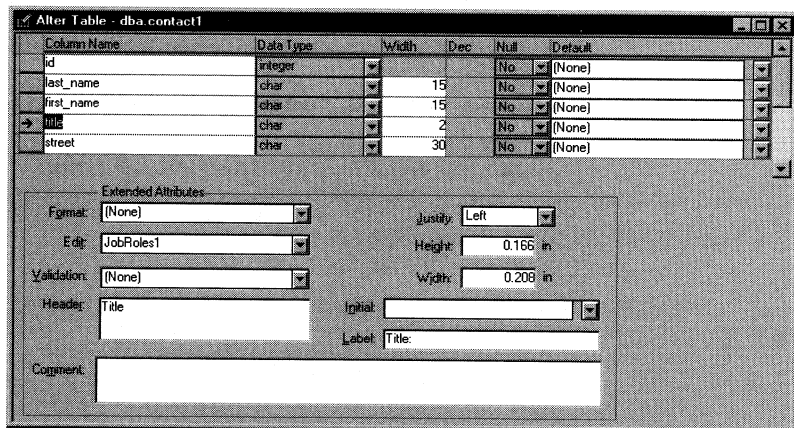
Now you will change the label and header text for the title column. The text you supply will appear on forms and reports you create.

Title is the field (column) name, but the text you want to display is *Job role*. Also, you will change the display width to 1.5 inches. The internally stored data value is only two characters, but the values you intend to display are longer.

- 1 **Position the pointer on the *title* column**  
**Press the right mouse button.**  
**Select *Definition* from the popup menu.**

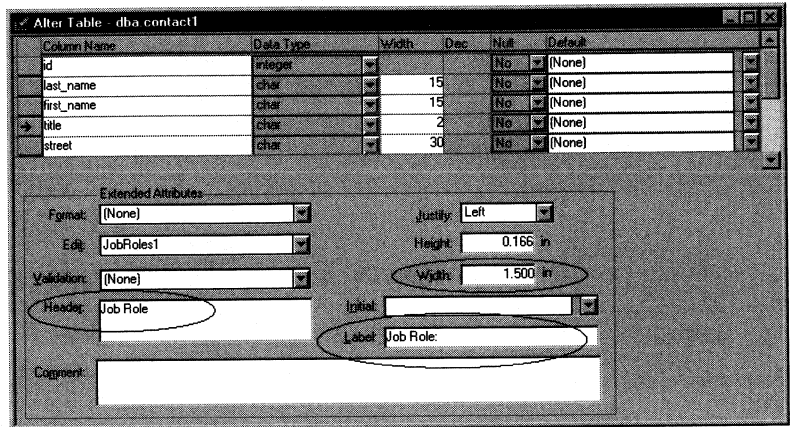
The Table painter workspace displays.

The arrow points to title and it's highlighted, which means it's the current column. Information about the title column displays in the bottom half of the workspace.



All the extended attribute information for a column displays at the bottom of the workspace. Notice that the edit style JobRoles1 displays as currently assigned to the title column.

- Type Job Role in the Header box.  
Type Job Role: in the Label box.  
Type 1.5 in the Width box.**



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

InfoMaker adds the extended attribute information to the repository.

- Select File>Close from the menu bar.**

InfoMaker closes the Table painter and returns to the Database painter workspace.

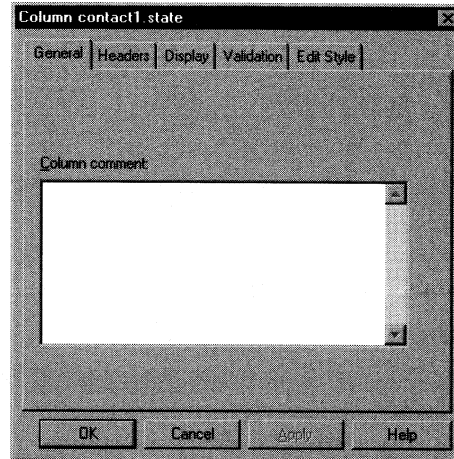


## Assign a DropDownDataWindow edit style and initial value to state

For the state column, you will assign an edit style that includes all the state names (as well as the provinces of Canada). Then when you enter information into this field, you pick from a list of states. You will also set the initial value to MA since a large number of your contacts are in Massachusetts.

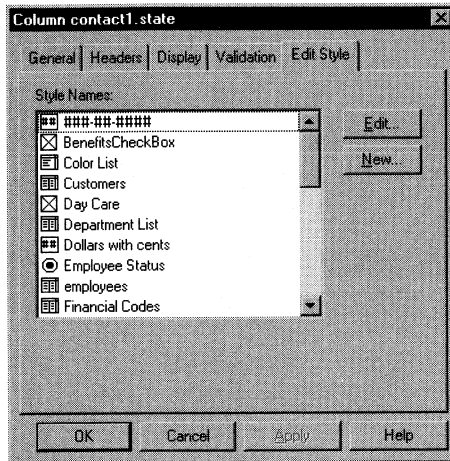
- 1 **Position the pointer on *state*.**  
**Click the right mouse button.**  
**Select *Properties* from the popup menu.**

The property sheet for the state column displays.



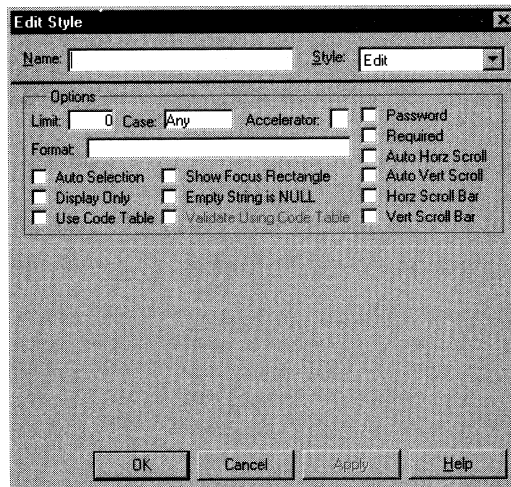
**2 Click the *Edit Style* tab.**

The Edit Style page for the column displays. It includes a list of available edit styles and a New button for creating new edit styles.



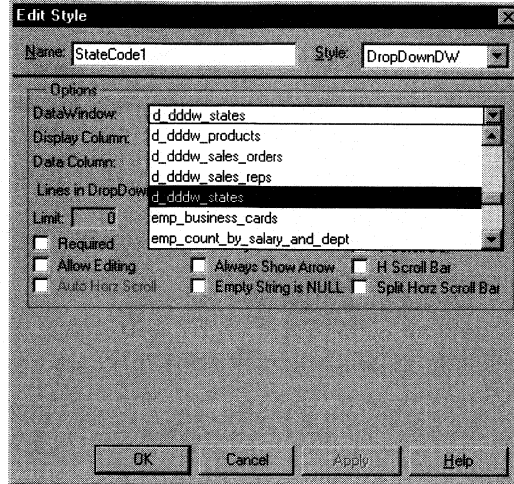
**3 Click the *New* button.**

The Edit Style dialog box displays.



- 4 **Type `StateCode1` in the Name box.**  
**Select `DropDownDW` from the *Style* dropdown listbox.**  
**Select `d_dddw_states` from the *DataWindow* dropdown listbox.**

The `StateCode1` edit style references a report (DataWindow) named `d_dddw_states`. The report gets its values from the `State` table.



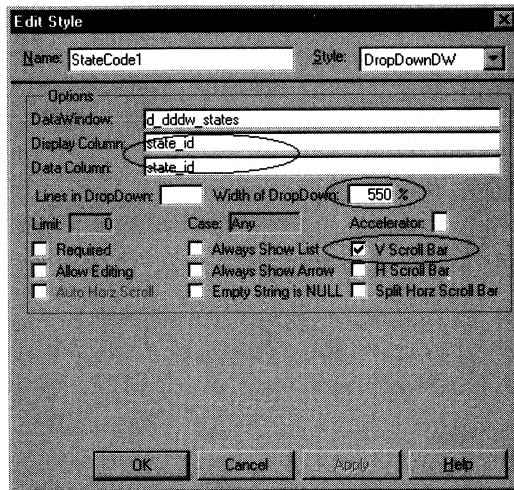
### About DropDownDataWindow edit styles

A DropDownDataWindow edit style gets its values from a report that it references. The report gets its values from the database.

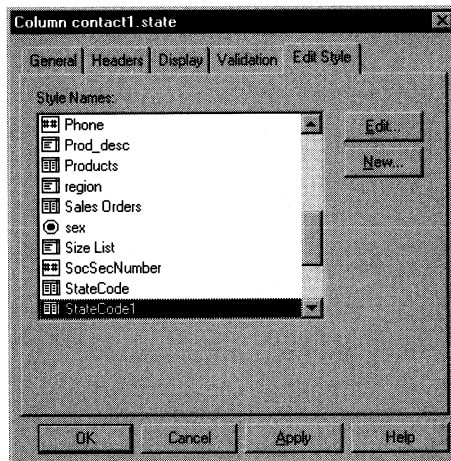
This is what the `d_dddw_states` report looks like.

ID	Name	Country
AB	Alberta	CAN
AK	Alaska	USA
AL	Alabama	USA
AR	Arkansas	USA
AZ	Arizona	USA
BC	British Columbia	CAN
CA	California	USA
CO	Colorado	USA
CT	Connecticut	USA
DC	District of Columbia	USA

- 5 Select *state\_id* from the listbox for *Display Column* and for *Data Column*.  
Select *V Scroll Bar*.  
Type *550* for the *Width of DropDown*.  
Click *OK*.



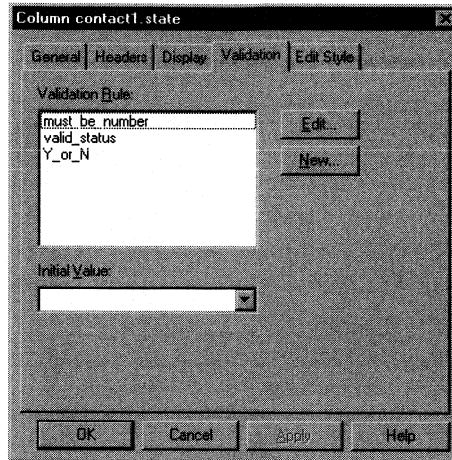
You return to the state column's property sheet. StateCode1, the style you just created, displays in the list and is highlighted.



In a few minutes you will click OK. This will assign the StateCode1 edit style, which includes 63 entries—states, territories, and possessions of the United States and provinces of Canada. The values that this edit style displays and the values that it stores are state postal

abbreviations (such as MA for the state of Massachusetts).

**6 Click the *Validation* tab.**



The Validation page lets you create and assign a validation rule to a column and enter an initial value for the column.

You are not going to assign a validation rule. You have handled validation by forcing the user to select from exactly 63 valid values.

However you are going to set an initial value.

---

**About column validation rules**

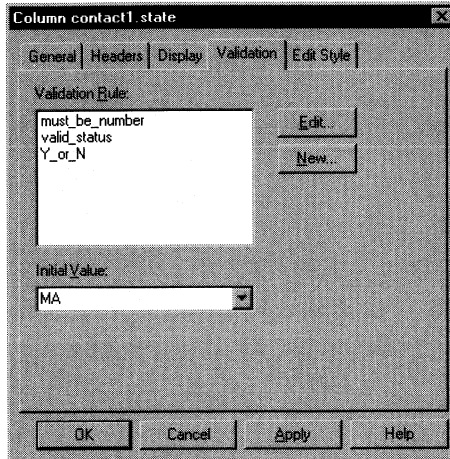
You can use column validation rules to express requirements for entries in a column. For example, you could define a rule for a salary column that requires salaries to be greater than \$15,000 and less than \$100,000.

When you assign a column validation rule to a column, no one can enter a value that breaks the rule.

---

**7 Type MA in the Initial Value box and click OK.**

This assigns an initial value of MA to the state field and closes the property sheet.

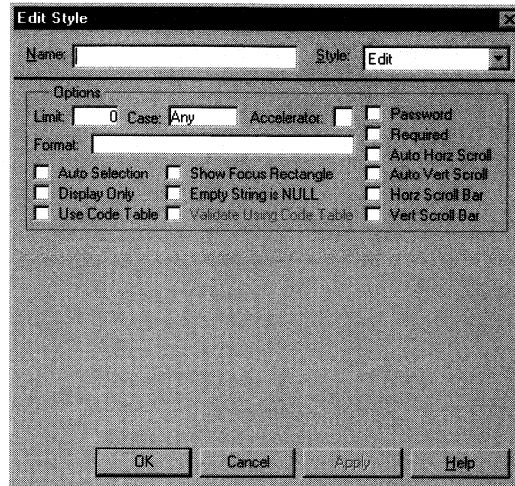


## Define an Edit Mask edit style for phone and fax

Now you will define an Edit Mask edit style to display phone numbers for both viewing and editing.

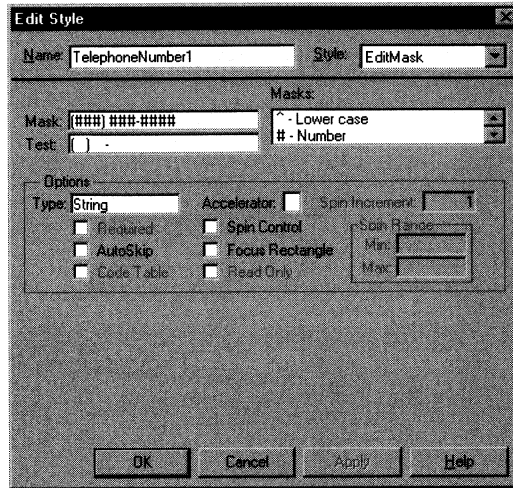
- 1 **Position the pointer on *phone* (scroll the list of columns if necessary).  
Click the right mouse button.  
Select *Properties* from the popup menu.  
Click the *Edit Style* tab on the property sheet.  
Click the *New* button on the *Edit Style* page.**

The Edit Style dialog box displays.



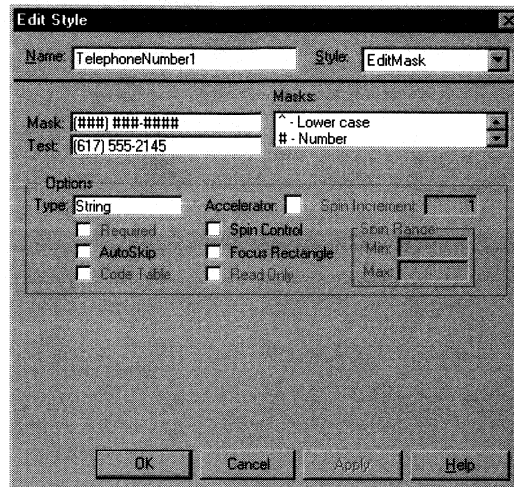
- Type `PhoneNumber1` in the `Name` box. Select `EditMask` in the `Style` dropdown listbox. Delete the xxx's and type `(###) ###-####` in the `Mask` box.**

This specifies the edit mask. Now you can test it to make sure it is what you want.





- 3 Press TAB.**  
**Type 6175552145 in the Test box.**

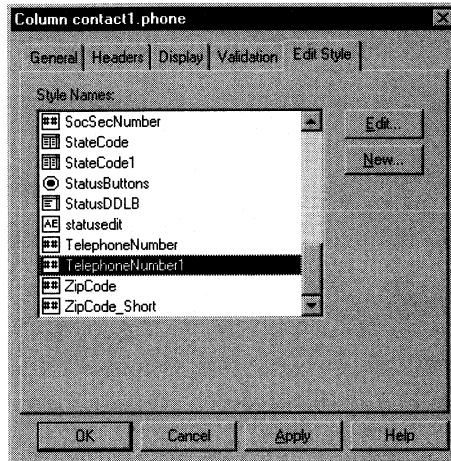


The pound signs (#) in the Mask box are placeholders for numbers. Only numbers 0 through 9 can be entered in each of these positions. Parentheses, the hyphen, and the space are where you want them to display. When you type a telephone number in the Test box, you can see the effects of the edit mask.

- 4 Click OK to accept the definition of the Edit Mask edit style named TelephoneNumber1.**

This takes you to the Edit Style dialog box.

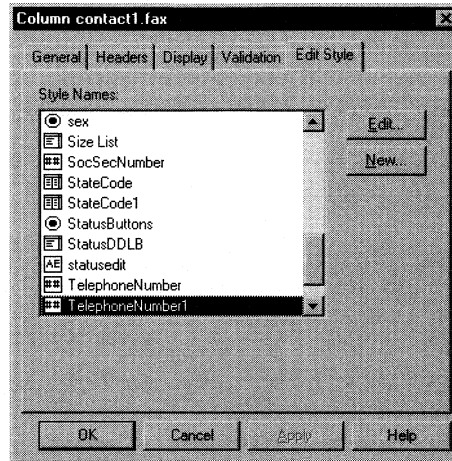
- 5 Scroll the list and select the *TelephoneNumber1* edit style.



- 6 Click *OK* to apply the *TelephoneNumber1* edit style to the *phone* column.

You return to the Database painter workspace. Now you will use the same edit style with the fax column. Once you have created an edit style it is available for any column.

- 7 **Position the pointer on *fax* (scroll the list of columns if necessary). Click the right mouse button. Select *Properties* from the popup menu. Click the *Edit Style* tab in the property sheet. Click *TelephoneNumber1* in the list of styles (scroll the list). Click *OK* to apply the *TelephoneNumber1* edit style to the *fax* column.**



Now you are finished extending the definitions of your columns. Next you will add data to the table.

## Add data to the table

---

### Where you are

#### Chapter 5 Table Tutorial

#### Create the database table

#### Define extended attribute information

#### > Add data to the table

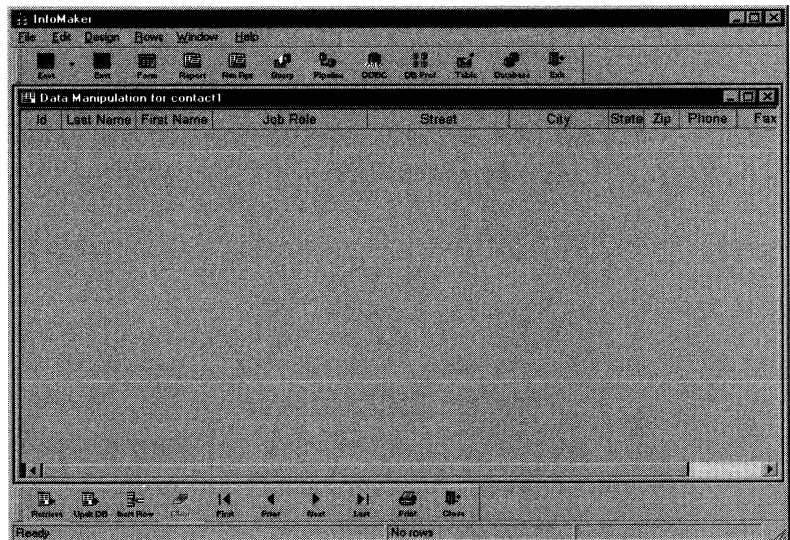
---

To add data to your table, you will import a text file of tab-separated values. Importing the file quickly adds 60 rows of data.

Typically you create a form to add data to the database. In the form tutorial you saw how to add data using a form.

### 1 Select *Object>Edit Data>Grid* from the menu bar.

The Data Manipulation painter opens. This painter is a workspace that lets you view, add, modify, and delete data.



### 2 Select *Rows>Import* from the menu bar.

The Select Import File dialog box displays. You may need to change to the Tutorial folder, which contains the file you will use.

- 3 If necessary, change to the Tutorial folder.  
Double-click the *contact.txt* file.**

InfoMaker imports the data into the Data Manipulation painter (the data is not yet in the database).

Id	Last Name	First Name	Job Role	Street	City	State	Zip	Phone
1	Hildebrand	Jane	Sales	1280 Washington St.	Emeryville	MI	94608	(510) 4
2	Simon	Larry	sa	34 Granville St.	Houston	TX	77079	(713) 4
3	Critch	Susan	Product development	46 Center St.	Danvers	MA	01923	(508) 4
4	Lambert	Terry	Administration	204 Page St.	Canton	MA	04606	(617) 4
5	Sullivan	Dorothy	Customer support	54 Minuteman Dr.	Lincoln	MA	01743	(508) 4
6	Paul	Rose	Finance	78 Bay St.	Marblehead	MA	01948	(617) 4
7	Glasemann	Beth	Product development	44 Oak St.	Lexington	MA	02173	(617) 4
8	Powell	Gene	Training	52 West Main St.	Lexington	MA	02173	(617) 4
9	Fish	Jeffrey	Sales	68 Red Acre Rd.	Lexington	MA	02173	(617) 4
10	Clarke	Molly	sa	55 Pine Grove Rd.	Lexington	MA	02173	(617) 4
11	Kelley	William	Documentation	16 Rainbow Rd.	Burlington	MA	01803	(617) 4
12	Lyman	Thomas	Customer support	54 Story Rd.	Emeryville	CA	94608	(510) 4
13	Davidson	Joann	Sales	34 Story Rd.	Emeryville	CA	94608	(510) 4



- 4 Click the Update Database (*Update*) button.**

This adds the 60 rows of data to the database. To be sure that the data is in the database, you will retrieve it from the database.



- 5 Click the *Retrieve* button.**

InfoMaker retrieves all the contact data from the database and displays the data that fits in the Data Manipulation painter workspace.

- 6 Select *File>Close* from the menu bar.**

This closes the Data Manipulation painter workspace and returns you to the Database painter.

- 7 Select *File>Close* from the menu bar again.**

This closes the Database painter.

You have created a new database table, complete with repository information and data.

*Add data to the table*

---

# Query Tutorial

A query is a SQL SELECT statement created with the Query painter and saved with a name so that it can be used repeatedly to define data requirements. A SQL SELECT statement is the way you tell the DBMS exactly which rows and columns to retrieve.

Queries save time because you can specify all your data retrieval needs once in the query. For example, you can specify the columns and rows to select, as well as the sorting requirements. Then you specify the query as the data source whenever you create forms and reports that use the data the query retrieves.

---

**How long will this tutorial take?**

About 15 minutes.

---

## About the query

The query you will create retrieves financial data. When you are done, the query will return data from the database similar to this.

Year	Quarter	Amount in thousands	Type	Description
1997	Q2	204	expense	Fees
1997	Q3	214	expense	Fees
1997	Q4	231	expense	Fees
1997	Q1	1462	expense	R & D
1997	Q2	1472	expense	R & D
1997	Q3	1438	expense	R & D
1997	Q4	1498	expense	R & D
1997	Q1	4138	expense	Sales & Marketing
1997	Q2	4500	expense	Sales & Marketing
1997	Q3	4532	expense	Sales & Marketing
1997	Q4	5298	expense	Sales & Marketing
1997	Q1	321	expense	Services
1997	Q2	375	expense	Services
1997	Q3	984	expense	Services
1997	Q4	982	expense	Services

The financial data is stored in two tables: the **fin\_data** and **fin\_code** tables.

The following illustration shows the two tables with some data. The code value in the **fin\_data** table gets its meaning from the **fin\_code** table.

Year	Quarter	Code	Amount in thousands
1997	Q2	r2	2011
1997	Q3	e1	214
1997	Q3	e2	984
1997	Q3	e3	4532
1997	Q3	e4	1438
1997	Q3	e5	966
1997	Q3	r1	13567
1997	Q3	r2	2897
1997	Q4	e1	231
1997	Q4	e2	982
1997	Q4	e3	5298
1997	Q4	e4	1498
1997	Q4	e5	963
1997	Q4	r1	15198
1997	Q4	r2	4129

Code	Type	Description
e1	expense	Fees
e2	expense	Services
e3	expense	Sales & Marketing
e4	expense	R & D
e5	expense	Administration
r1	revenue	Fees
r2	revenue	Services

For example, the r1 circled in the **fin\_data** table means the row reports a revenue amount for fees.



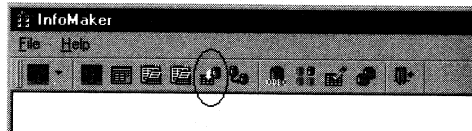
## Select columns

### Where you are

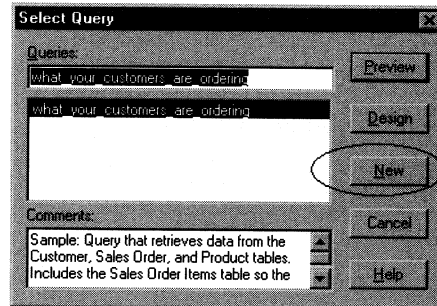
Chapter 6 Query Tutorial

- > Select columns
- Save the query
- Specify row selection criteria
- Specify sorting for the rows
- Create a report using the query

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

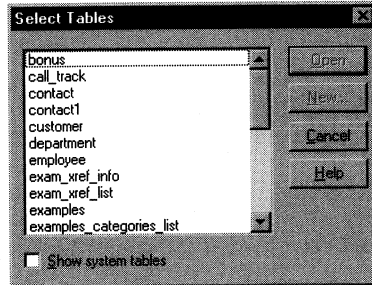


The Select Query dialog box displays. It lists queries in the current library and has a New button for creating new queries.



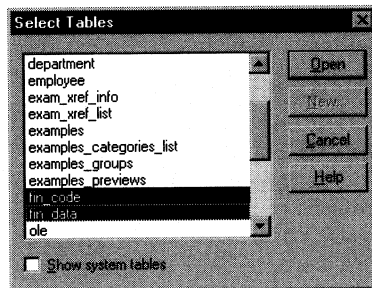
**2 Click New.**

The Select Tables dialog box displays. In this dialog box you can select one or more tables to use.



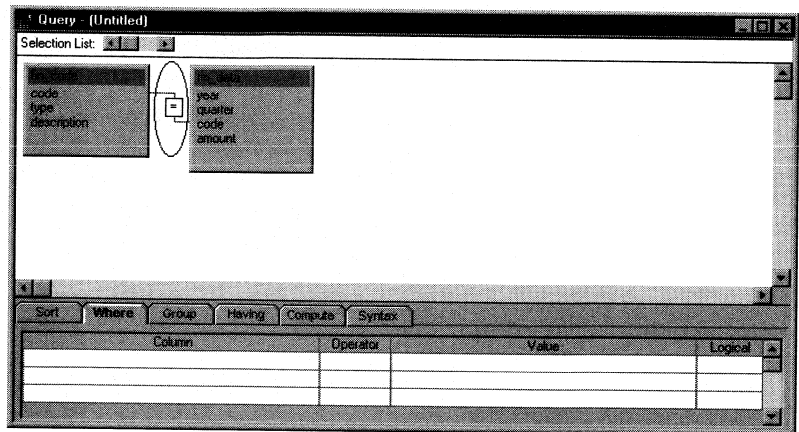
You are going to use two of the tables.

**3 Click the tables named *fin\_code* and *fin\_data*.**



#### 4 Click Open.

The `fin_code` and `fin_data` tables display. The tables are joined on the code column. Both tables have a code column.



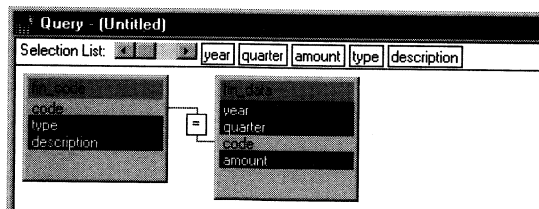
The `fin_data` table has a code value in each row to indicate what the row of data applies to (for example, r1 means revenue from fees).

The `fin_code` table stores information about codes, including the actual values (such as r1 and e4), the type of each code (revenue or expense), and a description of each code.

Next you will select columns from the tables.

- 5 **Click `year` in the `fin_data` table.**  
**Click `quarter` in the `fin_data` table.**  
**Click `amount` in the `fin_data` table.**  
**Click `type` in the `fin_code` table.**  
**Click `description` in the `fin_code` table.**

When you click each column, it is highlighted in the table and added to the selection list above the tables.





**6 Click the *Preview* button.**

You can see the results of your query. InfoMaker uses your query as it is currently defined to access the database and retrieve data.

Year	Quarter	Amount in thousands	Type	Description
1996	Q1	101	expense	Fees
1996	Q2	93	expense	Fees
1996	Q3	123	expense	Fees
1996	Q4	143	expense	Fees
1996	Q1	153	expense	Fees
1996	Q2	149	expense	Fees
1996	Q3	157	expense	Fees
1996	Q4	163	expense	Fees
1997	Q1	198	expense	Fees
1997	Q2	204	expense	Fees
1997	Q3	214	expense	Fees
1997	Q4	231	expense	Fees
1995	Q1	403	expense	Services
1995	Q2	456	expense	Services
1995	Q3	605	expense	Services

**7 Use the scrollbar to view the data.**

Each row has either the word *expense* or the word *revenue* in the Type column. First you will save the query and then you will use the value in the Type column to select rows for the query.



**8 Click the *Preview* button.**

You return to the workspace.

## Save the query

---

### Where you are

Chapter 6 Query Tutorial

Select columns

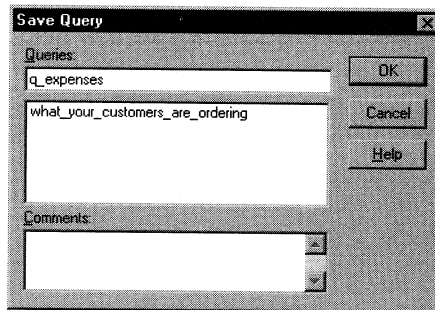
- > Save the query
  - Specify row selection criteria
  - Specify sorting for the rows
  - Create a report using the query
- 

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

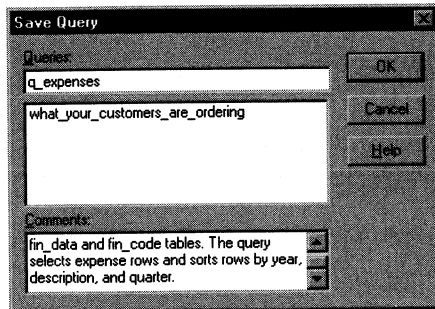
- 1 **Make sure you are back in the workspace.**  
Select *File>Save* from the menu bar.

The Save Query dialog box displays with the pointer positioned for you to type a name for the query.

- 2 **Type *q\_expenses*.**



- 3** Click in the *Comments* box and type *This query retrieves financial data from the fin\_data and fin\_code tables. The query selects expense rows and sorts rows by year, description, and quarter.*



- 4** Press ENTER.

InfoMaker saves your query.

---

#### **About saving**

Anytime you have completed a unit of work and are satisfied, you should save your work. To save, select File>Save from the menu bar.

---

## Specify row selection criteria

### Where you are

#### Chapter 6 Query Tutorial

Select columns

Save the query

> Specify row selection criteria

Specify sorting for the rows

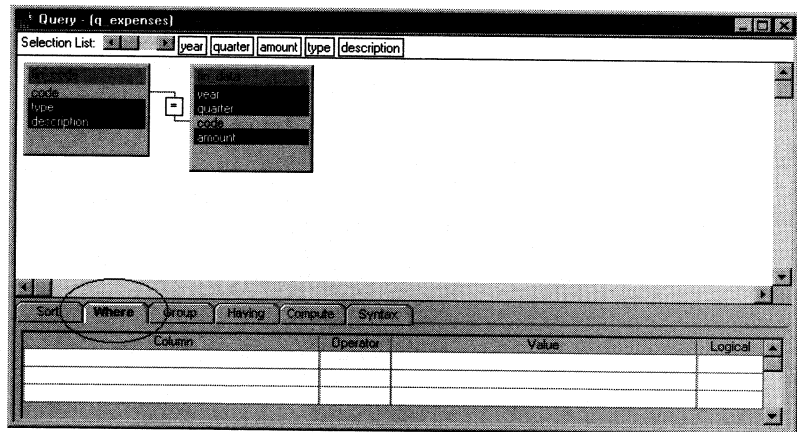
Create a report using the query

Now you will select the rows to include in the query. To do this you specify selection criteria.

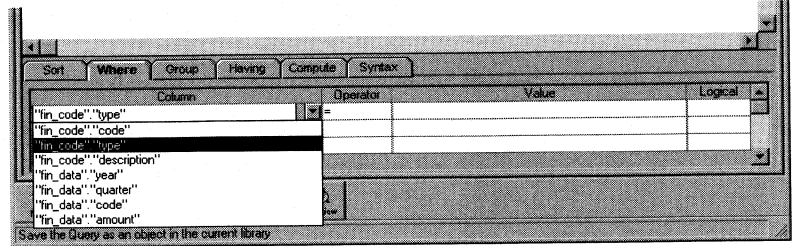
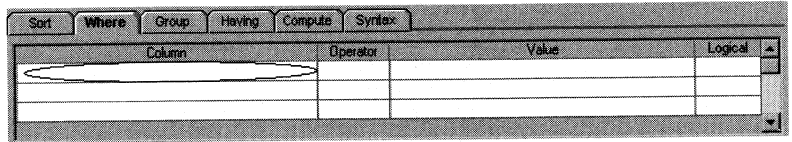
The query you are creating is for expenses. So the rows you need are those whose type is expense. You do not need the rows whose type is revenue.

**1 Click the *Where* tab in the SQL toolbox if it's not in front.**

The Where tab comes to the front of the SQL toolbox. In the Where tab, you specify selection criteria for retrieving rows.

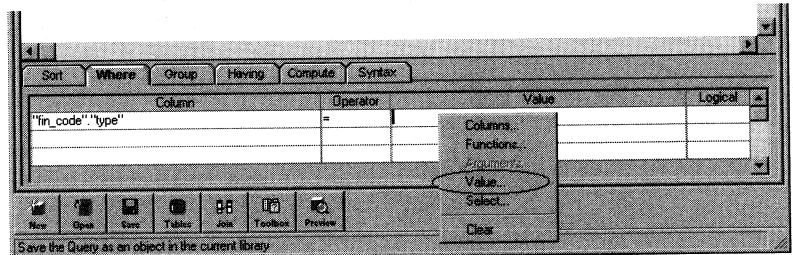


- Click the first space under column and then click the arrow to display a listbox of columns.  
Click the column named "fin\_code"."type" in the list of columns.



The equal sign (=) displays by default in the Operator box. This is what you want.

- Move the pointer over the Value box.  
Press the right mouse button to display the popup menu.  
Select Value.





#### 4 Select *expense* and click the *Paste* button.

The selection criteria are complete. Notice that 'expense' is surrounded with single quotes. These are required. If you type the value here rather than choosing it, you need to type the single quotes.

Sort	Where	Group	Having	Compute	Syntax
Column	Operator	Value	Logical		
"lin_code"."type"	=	'expense'			

Notice that the Logical box displays at the end of the line. This box is for choosing a logical connector such as AND so that you can specify more than one selection requirement. You do not need to use this box for this query.



#### 5 Click the *Preview* button. Use the scrollbar to view the data.

Now all rows have expense in the type column. Rows with revenue in the type column are not retrieved.

Year	Quarter	Amount in thousands	Type	Description
1995	Q1	101	expense	Fees
1995	Q2	93	expense	Fees
1995	Q3	123	expense	Fees
1995	Q4	143	expense	Fees
1996	Q1	153	expense	Fees
1996	Q2	143	expense	Fees
1996	Q3	157	expense	Fees
1996	Q4	163	expense	Fees
1997	Q1	198	expense	Fees
1997	Q2	204	expense	Fees
1997	Q3	214	expense	Fees
1997	Q4	231	expense	Fees
1996	Q1	403	expense	Services
1996	Q2	453	expense	Services
1996	Q3	603	expense	Services



#### 6 Click the *Preview* button.

You return to the workspace.

# Specify sorting for the rows

**Where you are**

Chapter 6 Query Tutorial

Select columns

Save the query

Specify row selection criteria

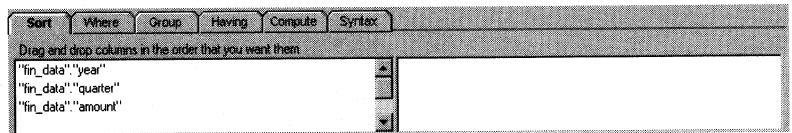
> Specify sorting for the rows

Create a report using the query

Now you will specify sorting for the rows. When you specify sorting, you also enable grouping. Before you can define a group, the rows have to be sorted so that the data can be grouped.

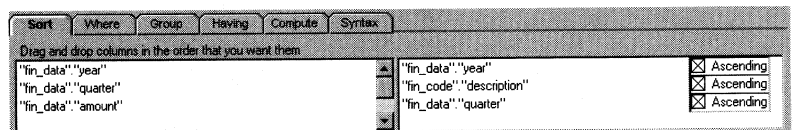
**1 Click the *Sort* tab in the SQL toolbox.**

The Sort tab comes to the front. In the Sort tab, you specify one or more columns to use for sorting the rows.



- 2 Scroll the list as needed to drag and drop column names.**  
**Drag and drop *"fin\_data"."year"* from the left box to the right box.**  
**Drag and drop *"fin\_code"."description"* from the left box to the right box.**  
**Drag and drop *"fin\_data"."quarter"* from the left box to the right box.**

In all cases Ascending is what you want. Ascending means years and quarters are ordered by increasing values and descriptions will be alphabetized from A to Z.





- 3 Click the *Preview* button.  
Use the scrollbar to view the data.

First the rows are sorted by year. All the 1995 information is first. Then they are sorted by description so that expenses of the same category are together. Finally the rows are sorted by quarter so that the data is always time-sequenced.

Year	Quarter	Amount in thousands	Type	Description
1995	Q1	391	expense	Administration
1995	Q2	402	expense	Administration
1995	Q3	412	expense	Administration
1995	Q4	467	expense	Administration
1995	Q1	101	expense	Fees
1995	Q2	93	expense	Fees
1995	Q3	123	expense	Fees
1995	Q4	143	expense	Fees
1995	Q1	623	expense	R & D
1995	Q2	784	expense	R & D
1995	Q3	856	expense	R & D
1995	Q4	1043	expense	R & D
1995	Q1	1437	expense	Sales & Marketing
1995	Q2	2033	expense	Sales & Marketing
1995	Q3	2184	expense	Sales & Marketing



- 4 Click the *Preview* button.

You return to the workspace.

- 5 Select *File>Close* from the menu bar.  
If prompted to save changes, click *Yes*.

The Query painter closes.

## Create a report using the query

---

### Where you are

Chapter 6 Query Tutorial

Select columns

Save the query

Specify row selection criteria

Specify sorting for the rows

> Create a report using the query

---

Now you will use the query to create a new report.



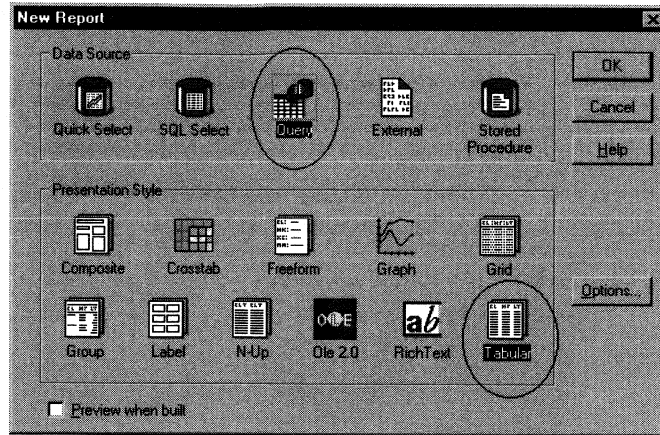
**1 Click the *Report painter* button in the PowerBar.**

The Select Report dialog box displays. It lists the reports you create and has a New button for creating new reports.

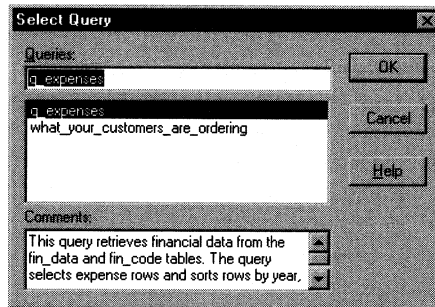
**2 Click *New*.**

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

You are going to use the query you just created as the data source.

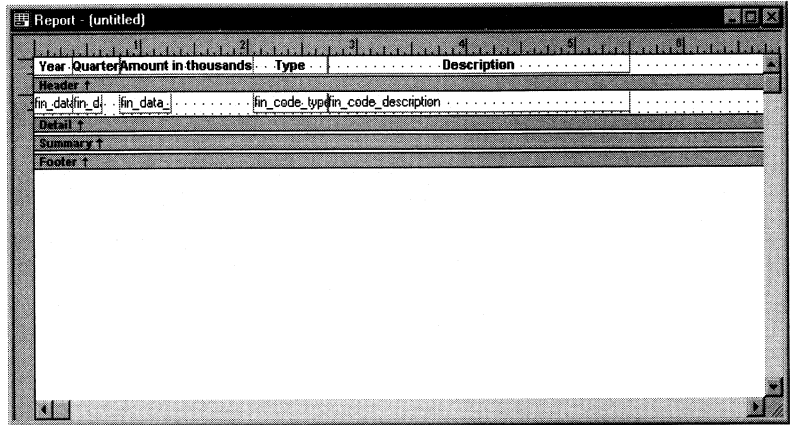
**3 Click Query and Tabular and click OK.**

The Select Query dialog box displays. In this dialog box you select the query to use.



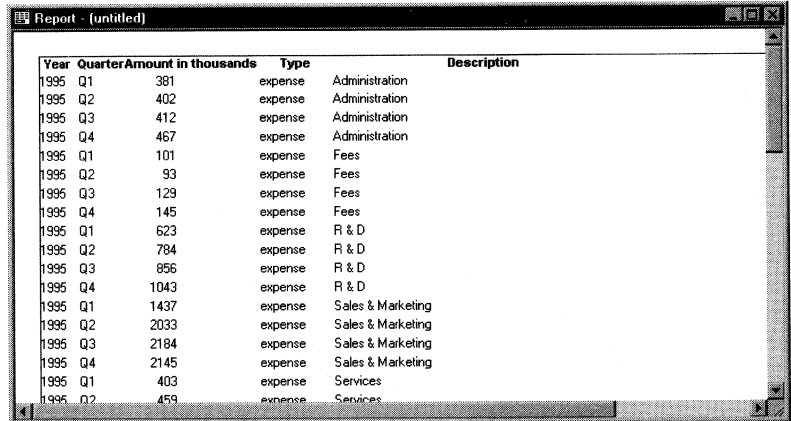
4 Click *q\_expenses* and click *OK*.

A design version of your report displays in the Report painter workspace.



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

The report displays. InfoMaker uses the query you created to retrieve data from the database. Because the query includes selection criteria and sorting requirements, the database returns only the data you selected, in the sort order you specified.





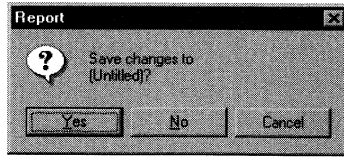
**6 Click the *Preview* button.**

You return to the Report painter workspace.

At this point you could continue designing and improving your report. But for this tutorial, you will leave the Report painter now. You will not save the report.

**7 Select *File>Close* from the menu bar.**

This Message Box displays to see if you want to save your report.



**8 Click *No*.**

The Report painter closes.

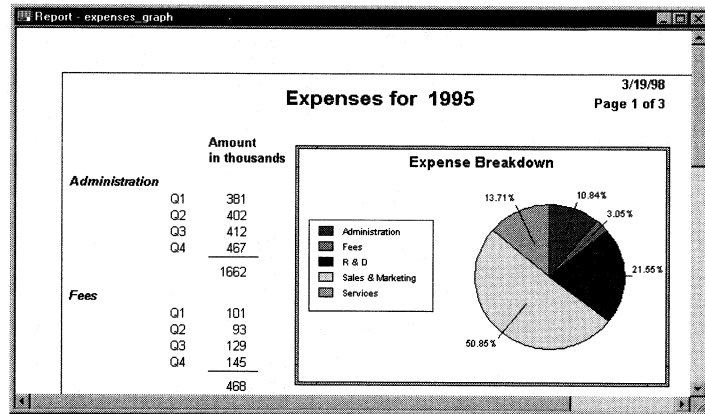




# Graph Tutorial

Graphs present data in a visual way so that you can more easily interpret the data. You can use graphs to supplement the numbers in a report or you can replace numbers with a graph. InfoMaker provides a variety of graph styles and options.

The graph you create in this tutorial uses financial data (the same data as the Query tutorial). You will start with a report that's already created and add a graph to the report. When you have finished, the report and the graph will look like this.




---

**How long will this tutorial take?**

About 30 minutes.

---

## Open the report to contain the graph

---

### Where you are

#### Chapter 7 Graph Tutorial

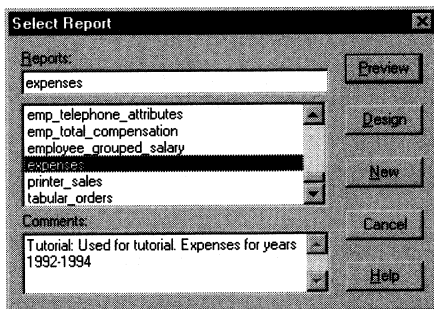
- > Open the report to contain the graph
  - Create the basic graph
  - Preview the graph
  - Save the graph (report)
  - Enhance the graph
  - Print the graph (report)
- 

First you will open a report that has been created for you. This report will provide the data for your graph.

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

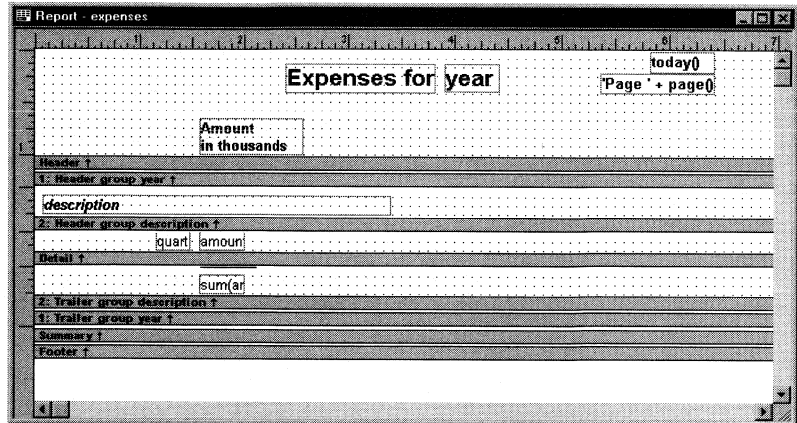


The Select Report dialog box displays. It lists reports in the current library (TUTOR\_IM). You will be using the report named expenses.



- Click *expenses* (scroll the list if necessary).  
Click the *Design* button.

The design version of the report displays in the Report painter workspace.



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

The report displays. InfoMaker retrieves information from the database and displays as much as will fit on the screen.

		Amount in thousands
<b>Administration</b>		
	Q1	381
	Q2	402
	Q3	412
	Q4	467
		1862
<b>Fees</b>		
	Q1	101
	Q2	93
	Q3	129
	Q4	145
		468

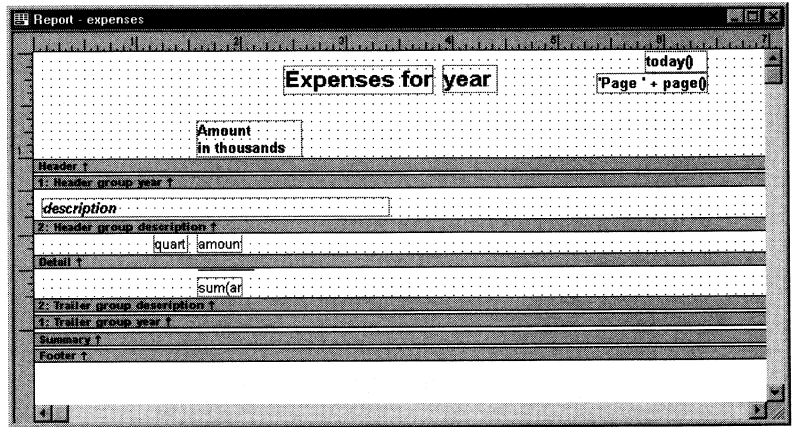
- 4 Use the PAGE UP and PAGE DOWN keys on the keyboard and the scrollbar on the right edge of the report to see more data.

The entire report consists of three pages: one for 1995, one for 1996, and one for 1997.



- 5 Click the *Preview* button.

You return to the Report painter workspace.



## Create the basic graph

### Where you are

#### Chapter 7 Graph Tutorial

Open the report to contain the graph

> Create the basic graph

Preview the graph

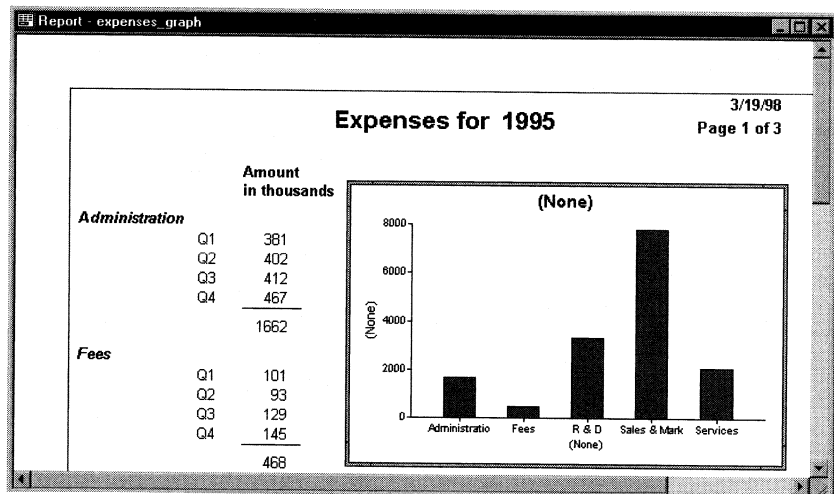
Save the graph (report)

Enhance the graph

Print the graph (report)

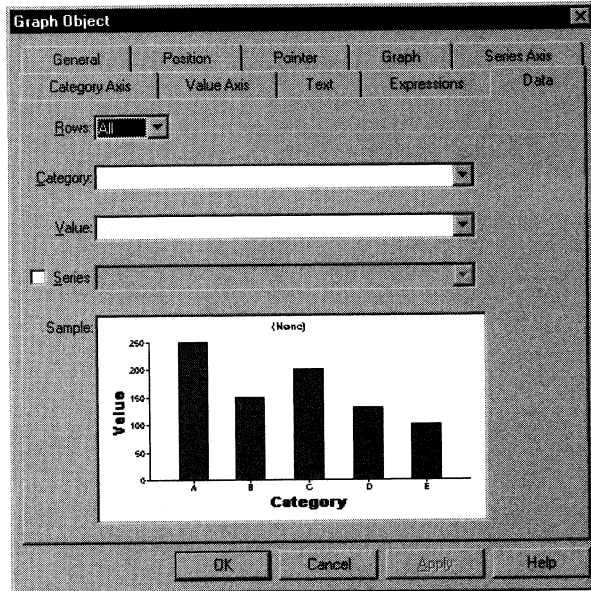
The report you are working with has three pages, one for each of three years. The graph you will create will be on all three pages. It will look the same from page to page, but the data will be for the correct year for each page.

This is what a graph for 1995 looks like. It shows the year's expenses in five categories.



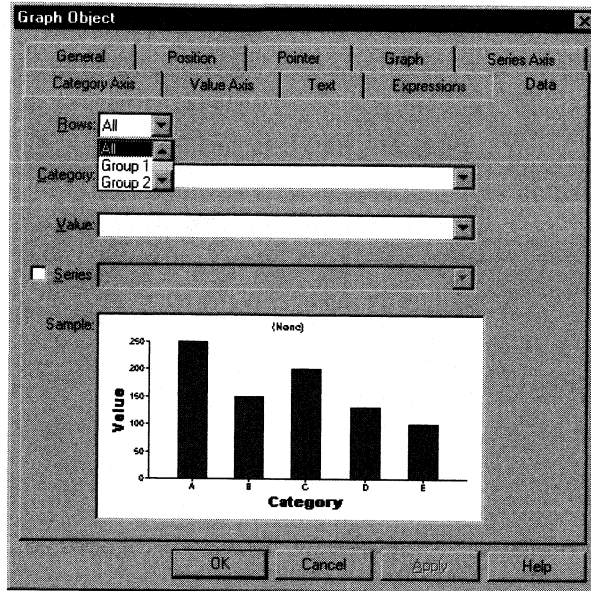
- 1 Select *Objects>Graph* from the menu bar.  
Click in the middle of the report workspace.

The Graph Object property sheet displays. The Data page is on top.



**2 Click the down arrow on the Rows box.**

The dropdown listbox shows choices for rows.



All means to include all rows in the graph. You want to have the appropriate graph for each of three years, so you do not want all rows included in the graph at the same time.

Group 1 means to include the rows for the current Group 1. Group 1 for this report is grouping by year. So Group 1 is what you want. When you specify Group 1, you ensure that the graph includes only rows from the current year.

**3 Select Group 1.**

Next you will fill in the Category and Value boxes. The graph will show expenses for the year by type of expense. (For this graph you do not need to fill in the Series box.)

The description column provides the categories (Administration, Fees, R&D, Sales & Marketing, Services).

The sum of the amounts for the four quarters for each category provides the values.

Report expenses

3/19/98  
Page 1 of 3

**Expenses for 1995**

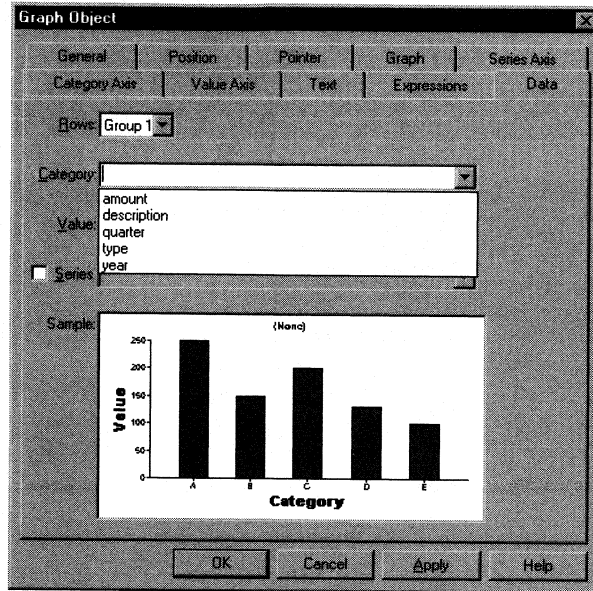
Amount  
in thousands

<b>Administration</b>	
Q1	381
Q2	402
Q3	412
Q4	467
	<hr/>
	1662
<b>Fees</b>	
Q1	101
Q2	93
Q3	129
Q4	145
	<hr/>
	468



**4 Click the down arrow next to the *Category* box.**

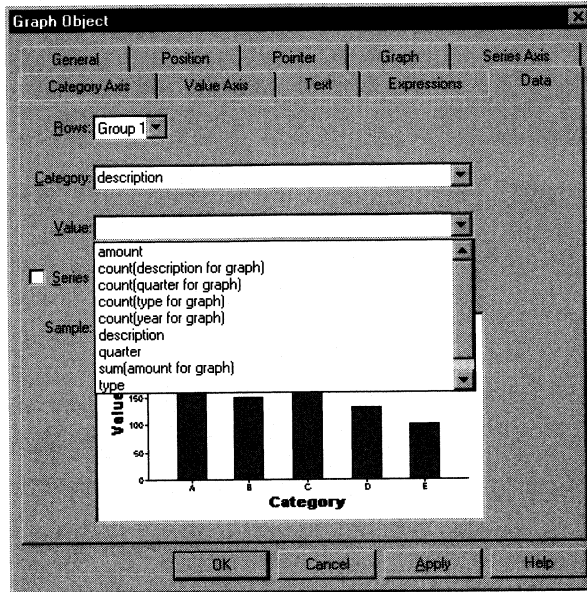
A dropdown listbox displays the columns you can choose to supply the categories to use in the graph. (You can think of categories as X values.)

**5 Select *description*.**

This specifies that the values in the description column will be the categories.

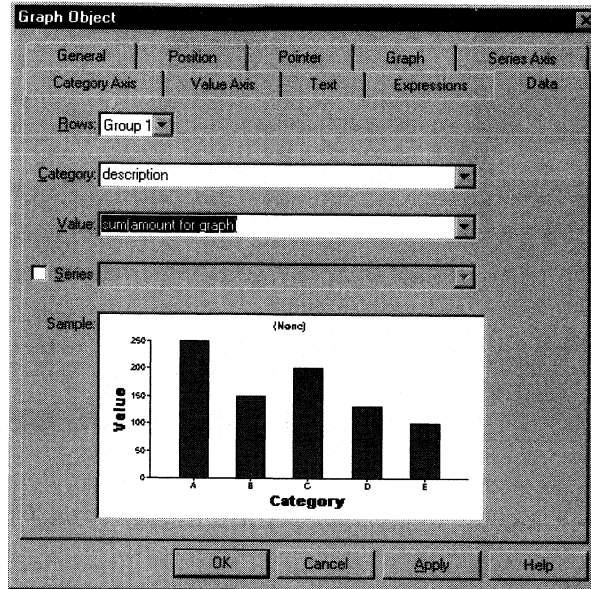
6 Click the down arrow next to the *Value* box.

A dropdown listbox displays all the choices for the column to supply the values to use in the graph. Notice that the choices include expressions such as counts and sums.



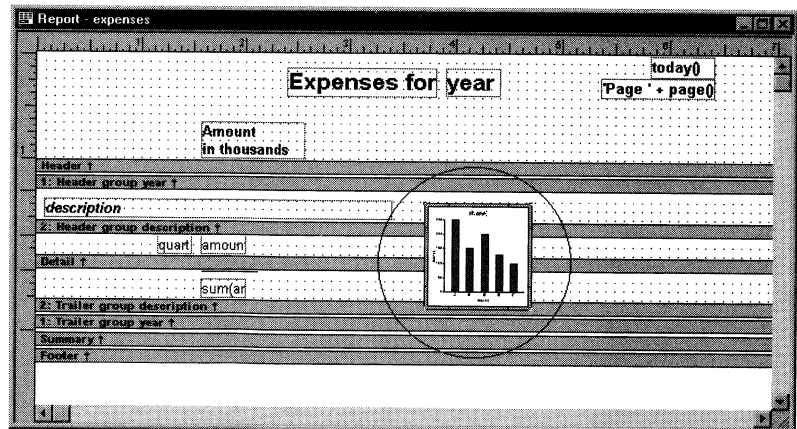
### 7 Select `sum(amount for graph)`.

This specifies that the sum of the amount column will be the value. A separate value is calculated for each category within each year.



### 8 Click OK.

The Graph Object property sheet closes and the graph displays in the report. What you see is a representation of the graph. To see what it will look like in the report you need to preview it.



## Preview the graph

### Where you are

#### Chapter 7 Graph Tutorial

Open the report to contain the graph

Create the basic graph

> Preview the graph

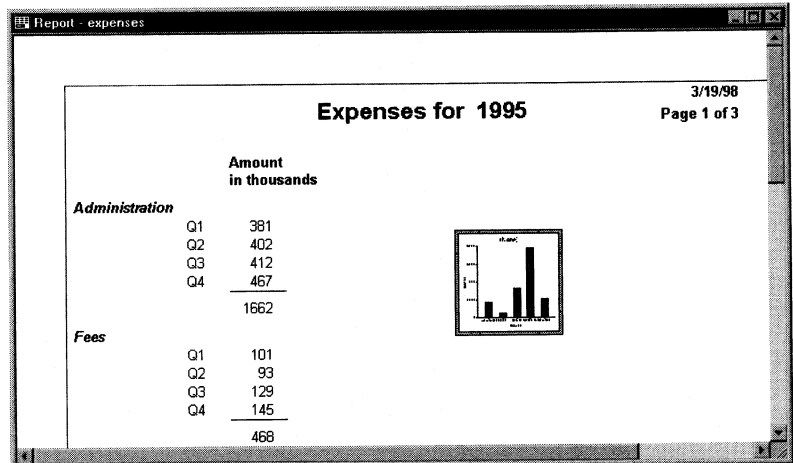
Save the graph (report)

Enhance the graph

Print the graph (report)

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

The report displays. InfoMaker retrieves information from the database and displays the data both in the report and in the graph. The graph is small right now. In a few minutes, you will resize the graph.



### 2 Click the *Preview* button.

You return to the Report painter workspace.

## Save the graph (report)

### Where you are

Chapter 7 Graph Tutorial

Open the report to contain the graph

Create the basic graph

Preview the graph

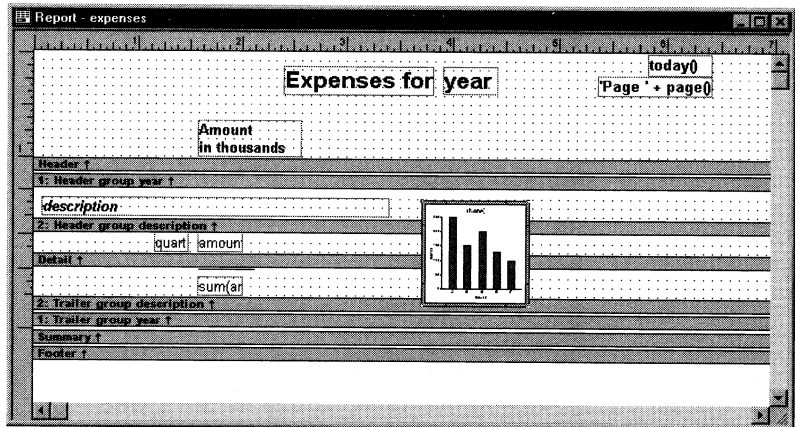
> Save the graph (report)

Enhance the graph

Print the graph (report)

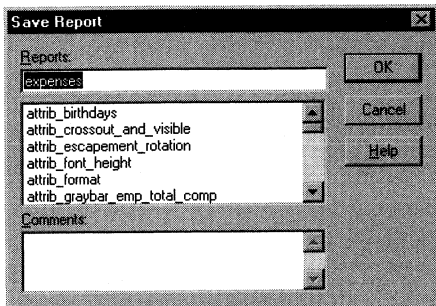
Now you will save the graph. The graph is part of the report, so to save the graph you save the report that contains it. To leave the original report unchanged, you will use the Save As command. Save As saves a new report with the name you supply.

### 1 Make sure you are back in the workspace.

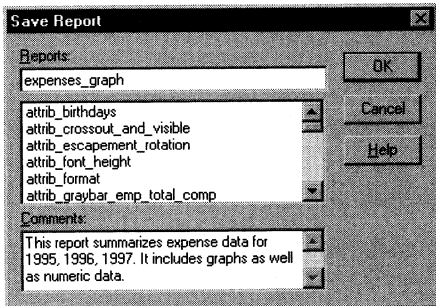


- 2 **Select File>Save As from the menu bar.**

The Save Report dialog box displays with the name of the report you opened earlier highlighted.



- 3 **Type expenses\_graph.**
- 4 **Click in the Comments box and type This report summarizes expense data for 1995, 1996, 1997. It includes graphs as well as numeric data.**



- 5 **Press ENTER.**

InfoMaker saves your report, including the graph.

---

### About saving

Anytime you have completed a unit of work and are satisfied, you should save your work. To save, select File>Save from the menu bar.

---

## Enhance the graph

---

### Where you are

#### Chapter 7 Graph Tutorial

- Open the report to contain the graph
  - Create the basic graph
  - Preview the graph
  - Save the graph (report)
  - > Enhance the graph
  - Print the graph (report)
- 

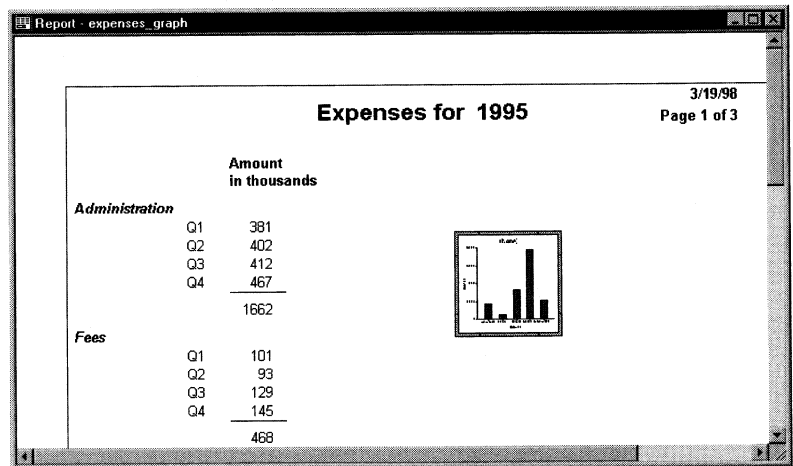
To enhance the graph you will:

- ◆ Resize and reposition the graph
- ◆ Add a title
- ◆ Change graph types

## Resize and reposition the graph

Usually you work in design mode when enhancing a report or graph. But to resize and reposition a graph, you may find it easier to work on it while previewing. You can get a much better idea of what the page will look like. The sizing and positioning changes you make are retained when you return to the workspace.

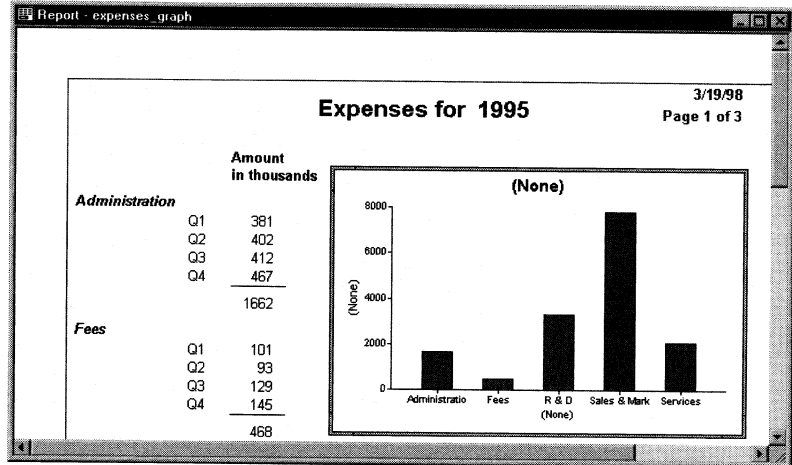
- 1 Select *Design>Preview* from the menu bar.





- 2 **Resize and reposition the graph so that it looks like the one shown below.**

To make it bigger, put the pointer near a corner or a side until the pointer changes shape. Then press the left mouse button and drag the corner or the side. To move it, put the pointer in the middle of the graph. Then press the left mouse button and drag the graph.



- 3 **Use the PAGE DOWN key on the keyboard to display the graphs for 1996 and 1997.**



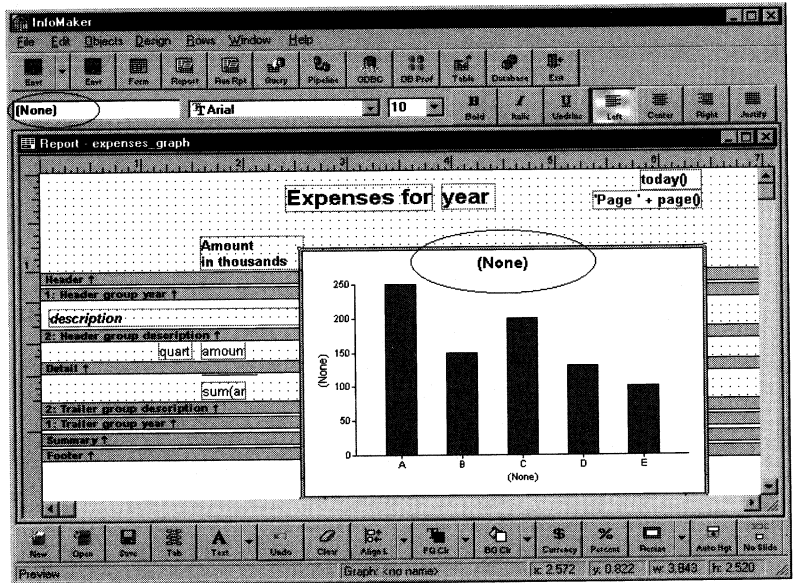
- 4 **Click the *Preview* button.**

You return to the Report painter workspace.

## Add a title

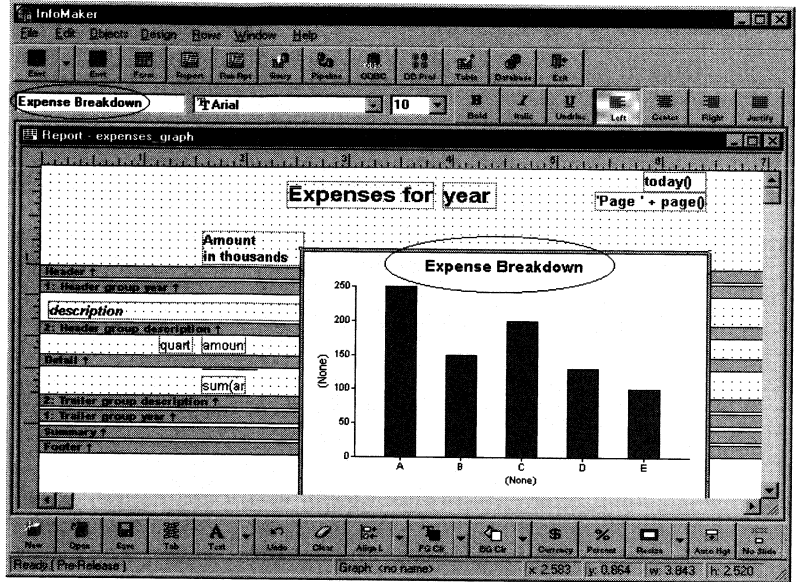
- 1 Move the pointer to the middle of the graph and click.

This selects the graph. The current title, (None), displays in the textbox just above the upper-left corner of the workspace.



2 Type Expense Breakdown.

The title displays in the graph and in the textbox.

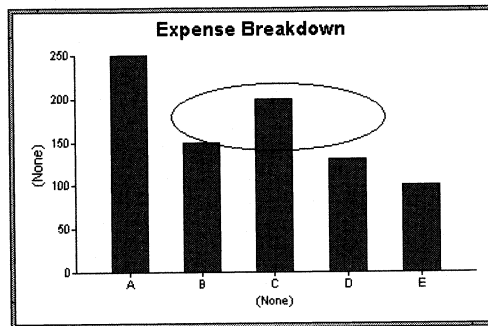


## Change the graph type

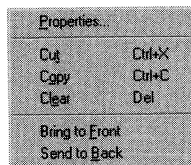
You can use many different types of graphs to present the same data. Sometimes it's useful to try different types until you find the one that works best for the data you are presenting.

Now you will try several graph types with the expense data.

- 1 If you need to, use the scrollbar to display the entire graph in the workspace.
- 2 Move the pointer to the middle of the graph. Click the right mouse button.

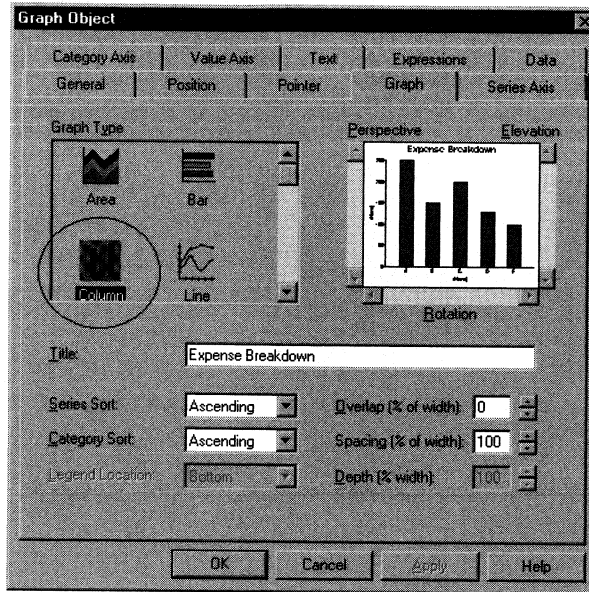


The popup menu for the graph displays.

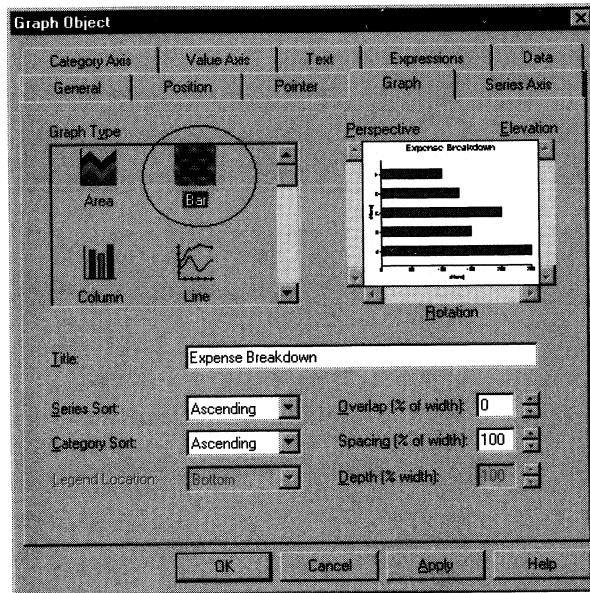


**3 Select Properties from the popup menu.**

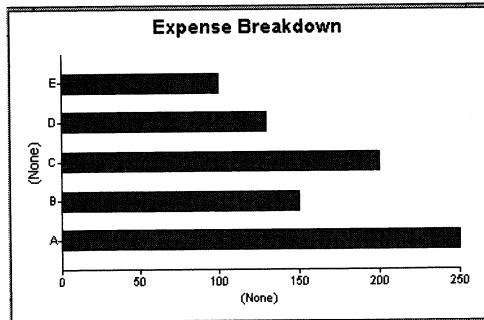
The Graph Object property sheet displays, with the Graph page on top. On this page you can choose a graph type. The current graph type is Column.



- 4 Click the *Bar* graph type.  
Click *OK*.

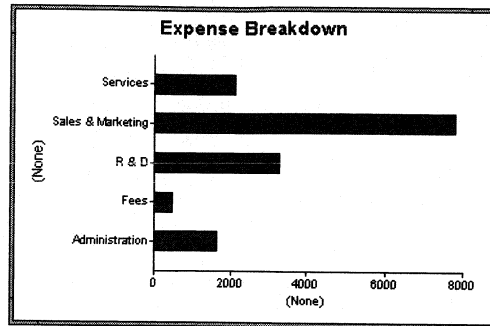


InfoMaker redisplay the design version of the graph using the Bar style.



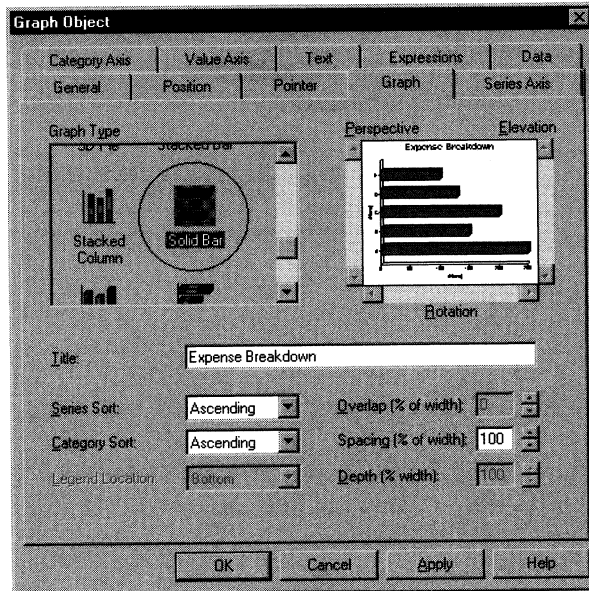
5 Select *Design>Preview* from the menu bar.

The graph looks like this with real data.

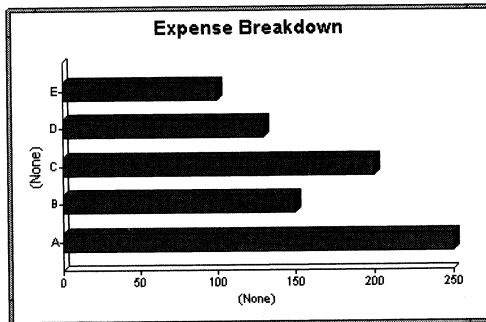




- 6 Click the *Preview* button to return to the workspace. Move the pointer to the middle of the graph. Click the right mouse button to display the popup menu. Select *Properties*. Scroll the graph types and click the *Solid Bar* graph type. Click *OK*.



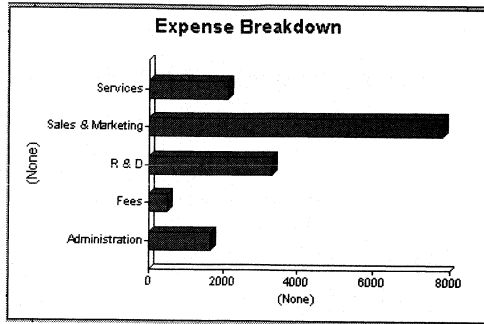
InfoMaker redisplay the design version of the graph using the Solid Bar style.





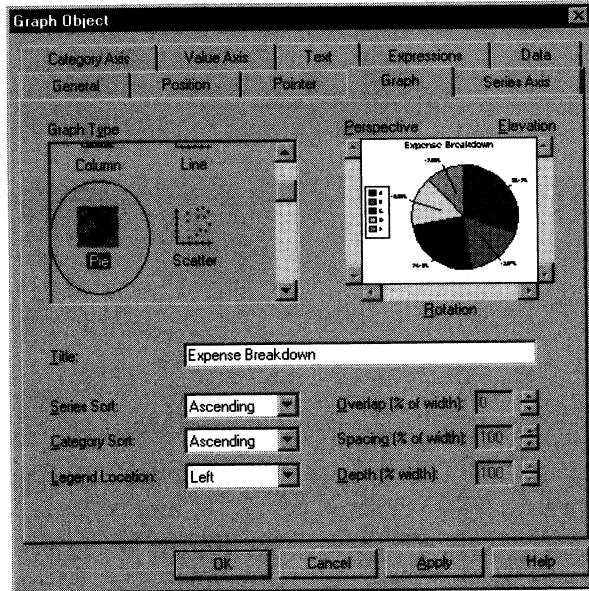
7 Select *Design>Preview* from the menu bar.

The graph looks like this.

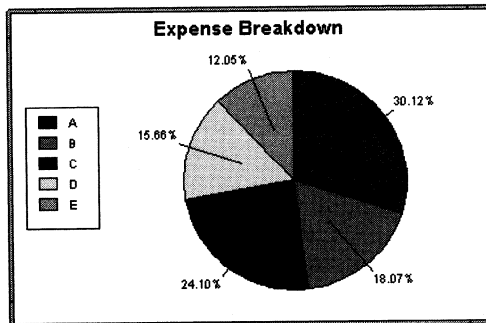




- 8 Click the *Preview* button to return to the workspace. Display the graph's popup menu. Select *Properties*. Scroll the graph types and click the *Pie* graph type. Click *OK*.

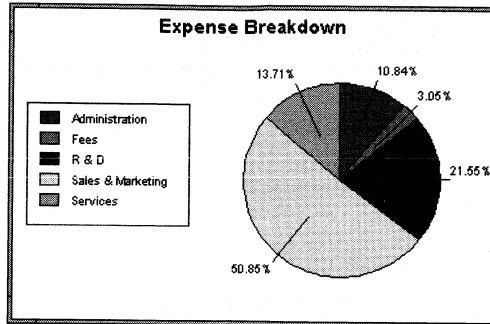


InfoMaker redisplay the design version of the graph using the Pie style.



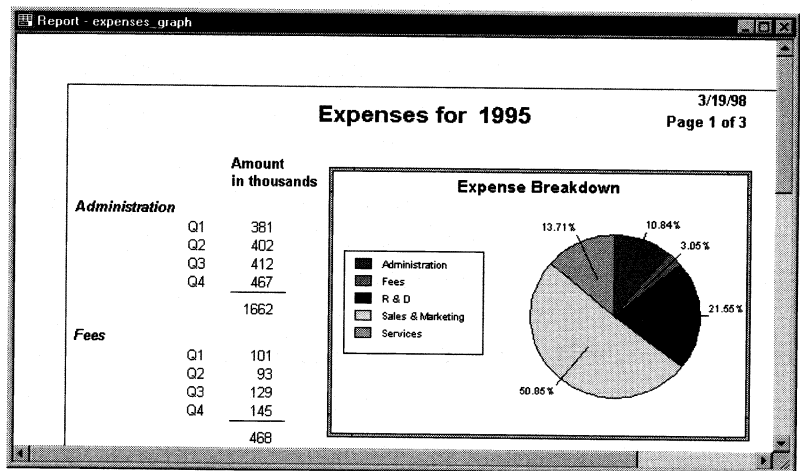
9 Select *Design>Preview* from the menu bar.

The graph looks like this.



Pie seems to be a good style for showing the data so you will not change the graph style again.

This is what the report with the graph looks like now.



## Print the graph (report)

---

### Where you are

#### Chapter 7 Graph Tutorial

Open the report to contain the graph

Create the basic graph

Preview the graph

Save the graph (report)

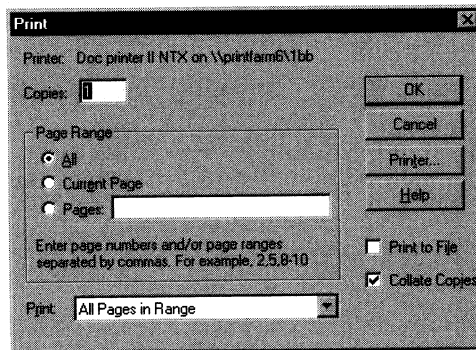
Enhance the graph

> Print the graph (report)

---

- 1 **Make sure you are still previewing the graph.**  
**Select *File>Print* from the menu bar.**

The Print dialog box displays.



- 2 **Click *OK* to accept the defaults and print the report.**

Your report goes to the printer or the print queue.



- 3 **Click the *Preview* button.**

You return to the Report painter workspace.

- 4 **Select *File>Close* from the menu bar.**

If you haven't saved all your changes, a message box displays to see if you want to save changes.

- 5 **Click *Yes* (if the message box displays).**

This closes the Report painter.

# Environment Tutorial

You use the Environment painter to manage forms, reports, queries, and pipelines. In the Environment painter you can:

- ◆ Open forms, reports, queries, and pipelines, and go automatically to the appropriate painter
- ◆ Create a new library and set the current library
- ◆ Copy, move, and delete forms, reports, queries, and pipelines

In this tutorial you will learn how.

---

### Other things you can do in the Environment painter

- ◆ Package forms and reports into an application, which you will do in the next tutorial
- ◆ Identify query libraries and style libraries, which you can read about in the *InfoMaker User's Guide*

---

### How long will this tutorial take?

About 30 minutes.

---

## Open forms, reports, and queries

---

### Where you are

#### Chapter 8 Environment Tutorial

- > Open forms, reports, and queries
    - Create a new library and set the current library
    - Copy forms, reports, and queries
    - Create a new report from an existing one
- 

### You need a blank formatted diskette

Before you begin, make sure you have a blank formatted diskette.

---

First you will learn about using the Environment painter to open forms, reports, and queries. When you open one of these, you automatically go to the appropriate painter. (This is also true for pipelines, but you do not work with pipelines in this tutorial.)

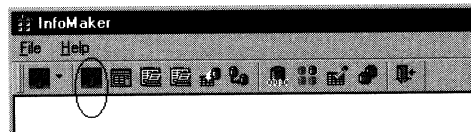
---

### If you have not installed the Form painter

A few of the steps in this tutorial and the next one refer to forms. Just skip those steps. You will be able to do the tutorials without the forms.

---

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



The Environment painter workspace displays. It lists the forms, queries, reports, and pipelines in the current library. When you install InfoMaker, the current library is the InfoMaker sample library (TUTOR\_IM.PBL).

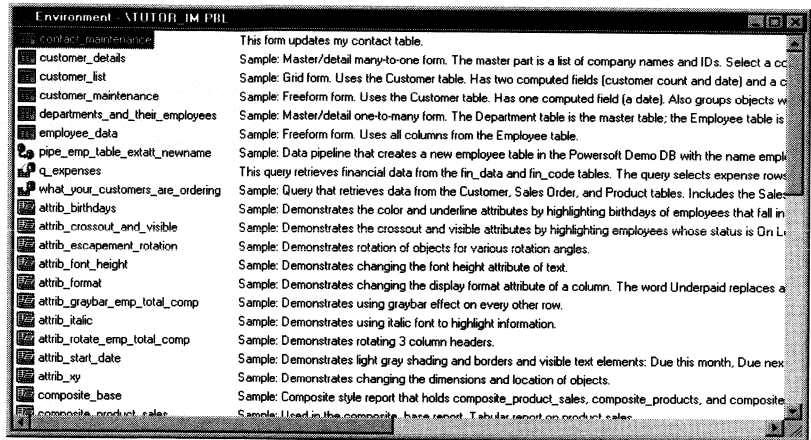
The list includes many samples as well as the form, query, and reports you created earlier.

---

### Showing dates in the Environment painter

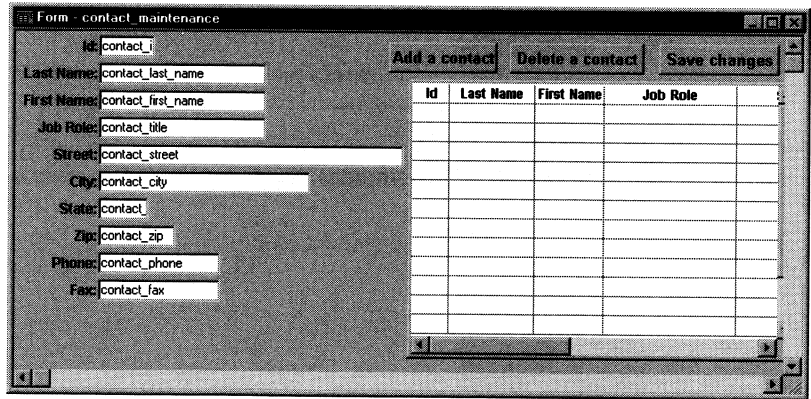
You can show dates for the items listed in the Environment painter. To control the display of dates, select Design>Modification date from the menu bar.

---



**2 Double-click the form *contact\_maintenance*, which is the form you created earlier.**

The form displays in the Form painter. Accessing your form by double-clicking its name in the Environment painter is the same as opening the form in the Form painter.



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

Your form runs.

Id	Last Name	First Name	Job Role	
1	Hildebrand	Jane	Marketing	1280 W
2	Simmon	Larry	Sales	34 Gra
3	Critch	Susan	Product development	46 Cer
4	Lambert	Terry	Administration	204 Pa
5	Sullivan	Dorothy	Customer support	54 Mini
6	Paul	Rose	Finance	78 Bay
7	Glassmann	Beth	Product development	44 Oak
8	Powell	Gene	Training	552 We
9	Fish	Jeffrey	Marketing	68 Rec
10	Clarke	Molly	Sales	55 Pine
11	Kelley	William	Documentation	16 Rai
12	Lyman	Thomas	Customer support	64 Stor



- 4 Click the *Close* button in the PainterBar.

You return to the Form painter workspace.

- 5 Select *File>Close* from the menu bar.

You return to the Environment painter. Now you will look at some other forms.

- 6 Double-click the form *customer\_maintenance*.



7 Select *Design>Run* from the menu bar.

This form is for maintaining customer information.

Customer Maintenance

Customer Information

Customer ID: 101

Company Name: The Power Group

Address: 3114 Pioneer Avenue

City, State, Zip: Rutherford NJ 07070

Contact Information

Contact: Michaels Devlin

Phone: (201) 565-8966

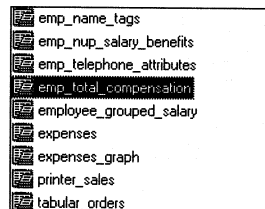
3/20/96



8 Click the *Close* button to return to the Form painter workspace. Select *File>Close* from the menu bar to return to the Environment painter.

Now you will open two reports.

9 Double-click the report *emp\_total\_compensation* (scroll the list).



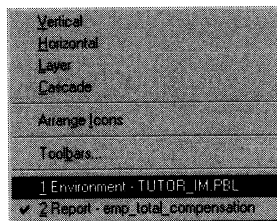
The report displays in the Report painter.

10 Select *Design>Preview* from the menu bar.

Department ID	Employee ID	Employee First Name	Employee Last Name	Salary	Health Ins.	Life Ins.	Day Care	Salary Plus Benefits
100	102	Ran	Whitney	\$46,700	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	\$60,748
	105	Matthew	Cobb	\$62,000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	\$67,137
	100	Robert	Bresalt	\$57,600	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	\$67,602
	243	Matthew	Whitney	\$72,000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	\$76,801
	80	Alan	Whitney	\$64,500	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	\$69,254
	202	Robert	Whitney	\$65,500	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	\$70,251
	266	Ran	Glowa	\$50,000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	\$60,165
	278	Terry	Melickedan	\$48,000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	\$58,763
	316	Lynn	Pastor	\$74,500	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	\$84,605
	446	Kim	Lull	\$87,000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	\$93,177
	463	Anastop	Rabkin	\$64,500	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	\$69,650
	470	Linaa	Siperswein	\$30,876	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	\$44,802
	501	Davis	Scott	\$26,300	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	\$31,623
	520	Dorothy	Sullivan	\$67,800	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	\$73,050

11 Use the PAGE UP and PAGE DOWN keys and the scrollbar to see more data.

12 From the *Window* menu, select *Environment-TUTOR\_IM.PBL*.



You return to the Environment painter. The emp\_total\_compensation report is still open.

13 Scroll the list of reports and double-click the report *attrib\_start\_date*.

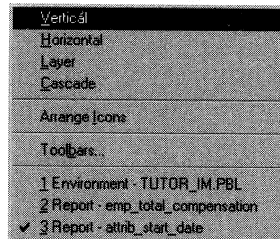
- 14 Select *Design>Preview* from the menu bar. Use the PAGE UP and PAGE DOWN keys and the scrollbar to see more data.

Report - attrib\_start\_date

3/20/98 Performance Review Reminder

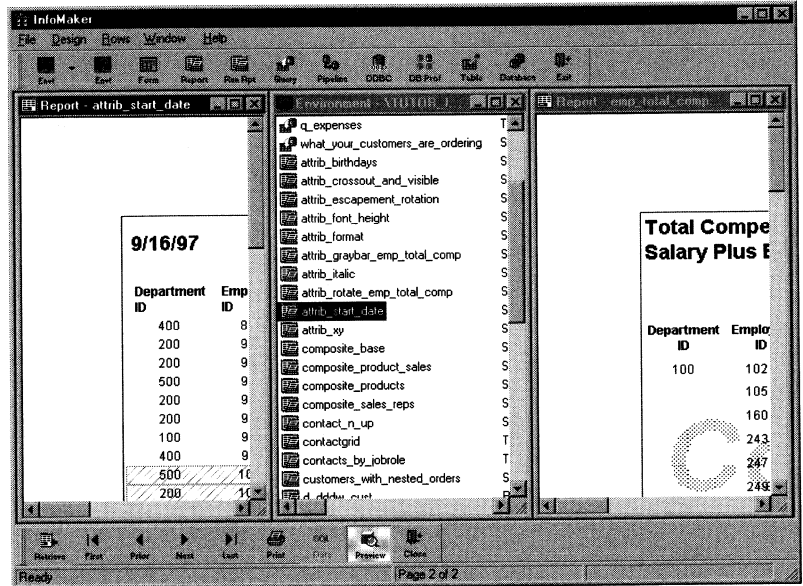
Department ID	Employee ID	Employee First Name	Employee Last Name	Start Date
100	102	Ryan	Whitney	03/26/1086
100	105	Matthew	Cobb	07/02/1086
200	120	Philip	Chin	08/04/1086
300	148	Julie	Jones	10/04/1086
100	160	Sobek	Brewer	12/18/1086
400	184	William	Espinoza	04/19/1087
500	101	Johanna	Betzana	05/20/1087
200	105	Warc	Diti	06/06/1087
400	207	Jane	Rancis	08/04/1087
100	243	Katasha	Shelton	12/09/1087
100	247	Guo	Decker	12/30/1087
500	240	Rodrigo	Quetzal	04/13/1088
100	266	Ryan	Olson	04/30/1088
100	278	Terry	Wetstein	06/01/1088
200	300	Rollin	Ovarey	08/10/1088
100	316	Lynn	Pattor	10/24/1088
400	118	Jahn	Cow	11/20/1088
300	300	Jo Ann	Davison	11/30/1088
400	400	Bruce	Weaver	12/08/1088
100	446	Kim	Wall	12/13/1088

Now you have two reports and the Environment painter open. All three are listed at the bottom of the Window menu.



**15 Select Window>Vertical from the menu bar.**

The Environment painter and the two reports display. Sometimes it's useful to have multiple windows. And you can tile windows vertically or horizontally, cascade them, or layer them depending on your preferences.



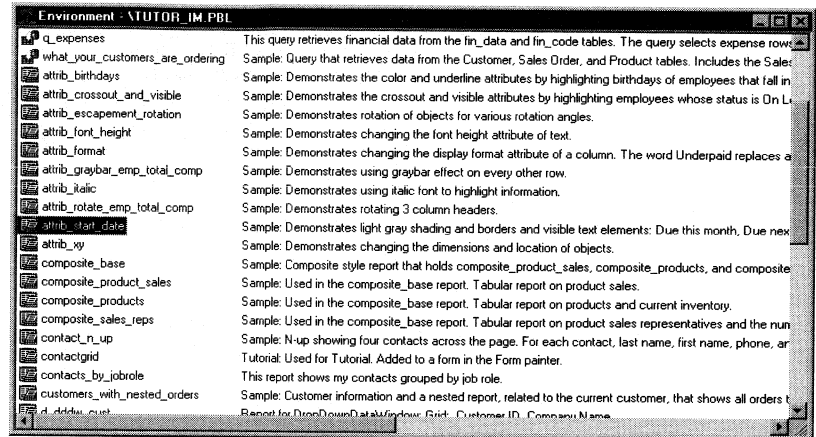
For now you will close the two reports and leave the Environment painter open.

**16 Click the painter close button (X) of each of the two reports.**

The two reports close.

## 17 Select *Window>Layer* from the menu bar.

The Environment painter window becomes full size.



## Create a new library and set the current library

---

### Where you are

#### Chapter 8 Environment Tutorial

Open forms, reports, and queries

- > Create a new library and set the current library
  - Copy forms, reports, and queries
  - Create a new report from an existing one
- 

Now you will create a new library on a diskette so you can copy some items into the library.

### 1 Insert a blank formatted diskette into your diskette drive.

The first thing you will do is to create a new library on the diskette.

---

### About InfoMaker libraries

InfoMaker uses special libraries to hold forms, reports, queries, and pipelines. These libraries have the file extension PBL. When you save (or copy or move) a form, report, query, or pipeline, it goes into a PBL file (pronounced *pibble*).

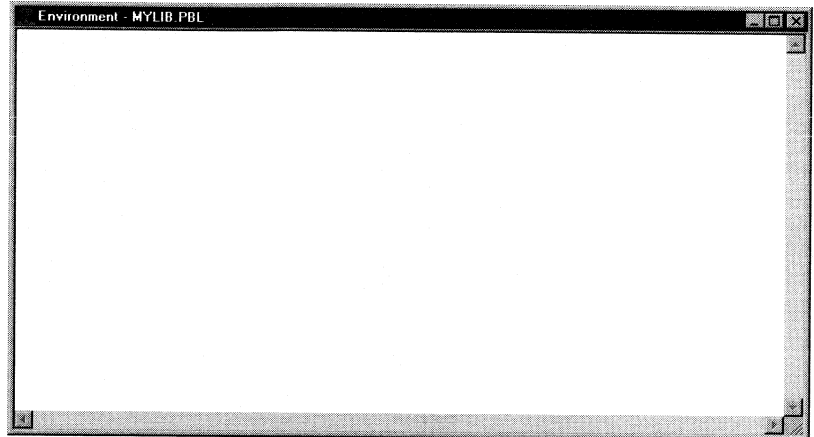
---

### 2 Select *File>New* from the menu bar.

The Select Library dialog box displays.

- 3 Change drives to the diskette drive and type the library name *mylib.pbl*.  
Click *Save*.**

InfoMaker creates the library and opens it. The library is empty.



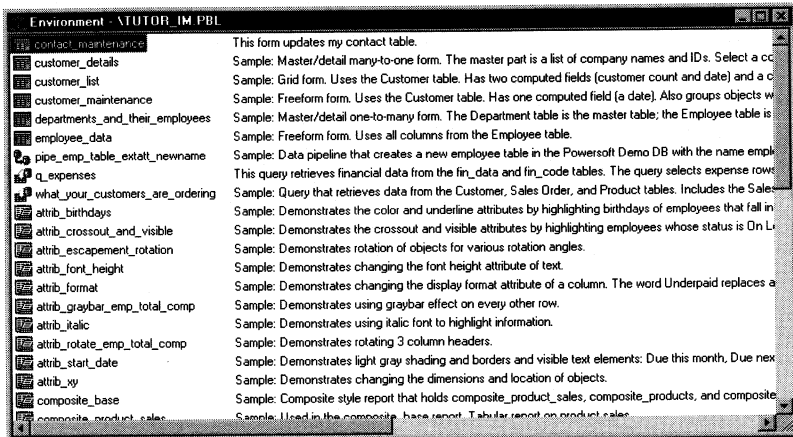
You are going to change back to TUTOR\_IM.PBL so that you can copy objects.

- 4 Select *File>Open* from the menu bar.**

The Select Library dialog box displays. It lists all the libraries in the current folder. You change current libraries by changing to the folder that holds the library you want to be current and then selecting the library.

- 5 **Change drives back to the hard drive.  
Change to the Tutorial folder.  
Select *tutor\_im.pbl* and click *Open*.**

Now you are back in TUTOR\_IM.PBL.





## Copy forms, reports, and queries

---

### Where you are

#### Chapter 8 Environment Tutorial

- Open forms, reports, and queries
  - Create a new library and set the current library
  - > Copy forms, reports, and queries
  - Create a new report from an existing one
- 

Now you will copy a form, a query, and two reports onto the diskette. Then you can give them to another InfoMaker user. That user can then use and/or modify them. Remember that the other user must also be able to access the database.

All InfoMaker users have SQL Anywhere and the contact table. That means other InfoMaker users can run the form, query, and reports you have created in this tutorial.

### 1 (Scroll the list in the Environment painter as necessary.)

**Click** *contact\_maintenance*.

**Press** CTRL and **click** *q\_expenses*.

**Press** CTRL and **click** *contactgrid*.

**Press** CTRL and **click** *contacts\_by\_jobrole*.

**Press** CTRL and **click** *d\_dddw\_states*.

The five objects you selected are highlighted. You can copy, move, or delete them. You are going to copy them to the diskette.

---

### Why you include the report named *d\_dddw\_states*

The *contact\_maintenance* form uses a DropDownDataWindow edit style for the state column. That edit style uses the report named *d\_dddw\_states*, which must be present in the library when you run the form.

If you create a new library for objects you create using the Powersoft Demo Database, you need to copy the eight reports that begin with *d\_dddw* from the TUTOR\_IM.PBL to the new library. These reports go with the DropDownDataWindow edit styles that the tables in the Powersoft Demo Database use.

There's a way to make the reports centrally available, as described in the *InfoMaker User's Guide*.

---



**2 Click the *Copy* button in the PainterBar.**

The Select library dialog box displays.

**3 Change drives to the diskette drive.**

Select *mylib.pbl*.

Click *Open*.

InfoMaker copies the selected objects onto the diskette. It takes a minute or so. You can see messages about the copying at the bottom of your screen.

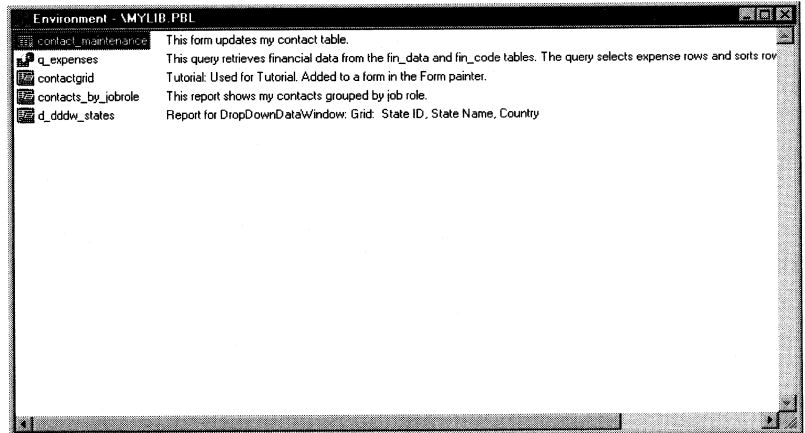
**4 Select *File>Open* from the menu bar.**

The Select Library dialog box displays.

**5 Select *mylib.pbl*.**

Click *Open*.

The Environment painter lists the contents of MYLIB.PBL, the current library.



## Create a new report from an existing one

---

### Where you are

Chapter 8 Environment Tutorial

Open forms, reports, and queries

Create a new library and set the current library

Copy forms, reports, and queries

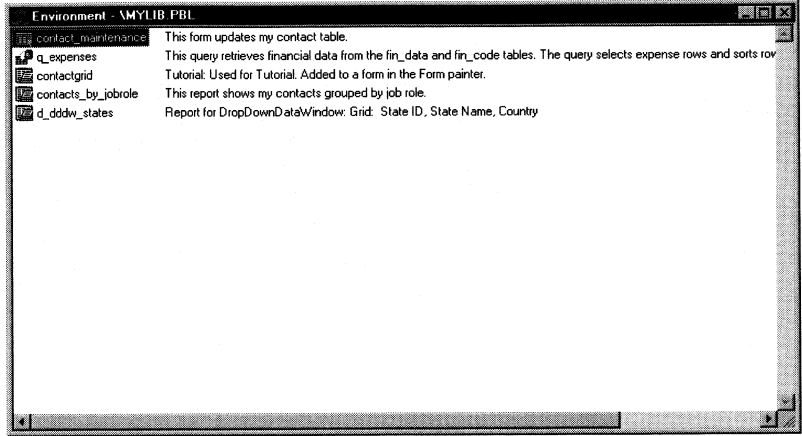
> Create a new report from an existing one

---

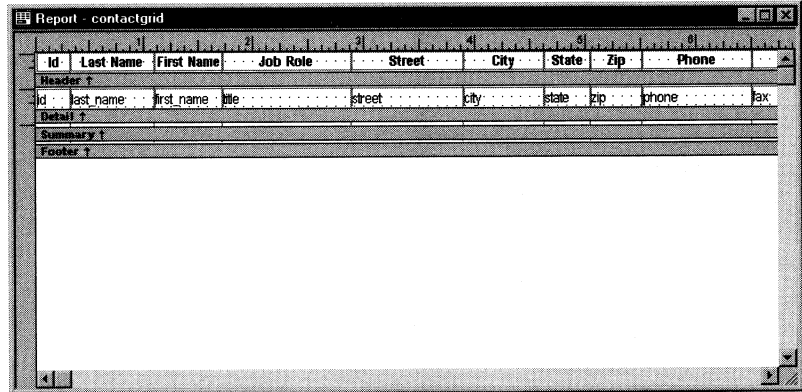
Now you will create a new report from one of the reports on the diskette. Then you will make a slight modification to the report.

The modification adds powerful options to the report that you can see when you run the report.

1 Double-click the *contactgrid* report.

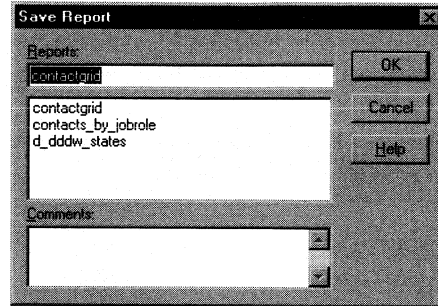


You go to the Report painter with the *contactgrid* report open.

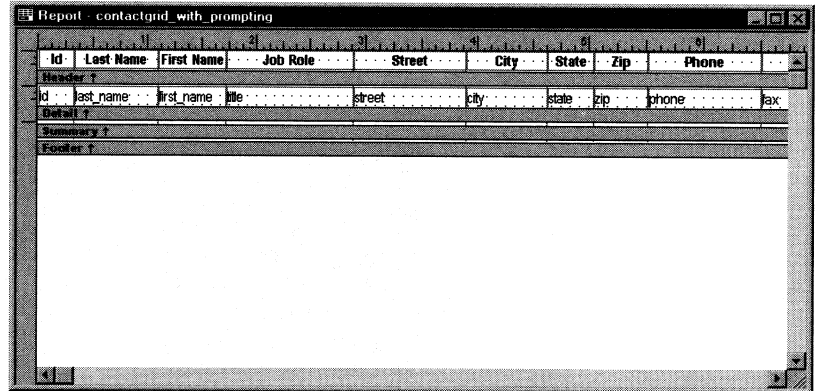


**2 Select File>Save As from the menu bar.**

The Save Report dialog box displays. You are going to change the name of the report so that you can keep the old one and create a new one with some changes.

**3 Type the name *contactgrid\_with\_prompting* and click OK.**

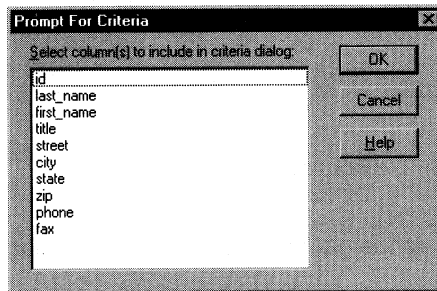
The report name changes in the workspace. You are now working on a report called *contactgrid\_with\_prompting*.



**4 Select Rows>Prompt for Criteria from the menu bar.**

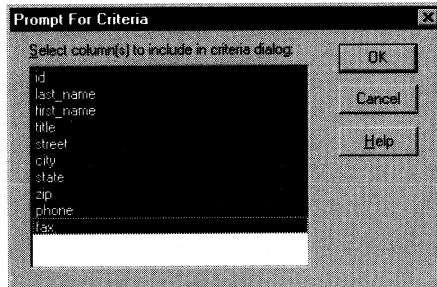
The Prompt For Criteria dialog box displays. It lists all the columns in the report. You can choose one, many, or all columns. The columns you choose here let you control what rows are selected when you run the report.

For example, if you choose the city column here, you can specify a city when you run the report. Then only rows that include that city will be retrieved.



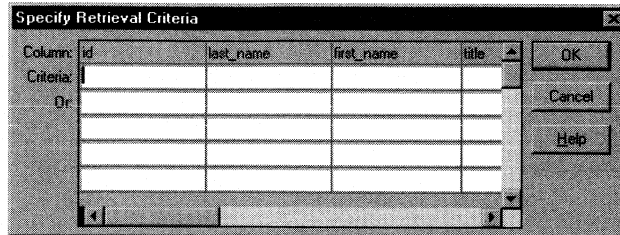
**5 Click each of the columns until they are all highlighted. Click OK.**

You are choosing all columns so that you can enter criteria for any column you want when you run the report.



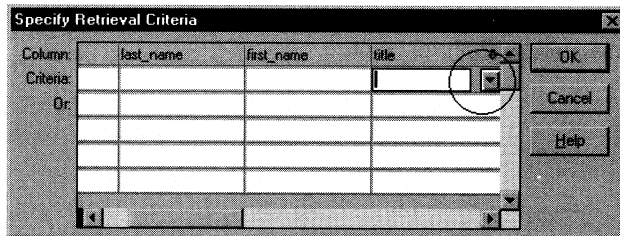
**6 Select *Design>Preview* from the menu bar.**

The Specify Retrieval Criteria dialog box displays. Since you said that you wanted to be prompted for all the columns, the dialog box includes all the columns.



**7 Click in the first cell in the *title* column. Use the horizontal scrollbar to move the *title* column into full view.**

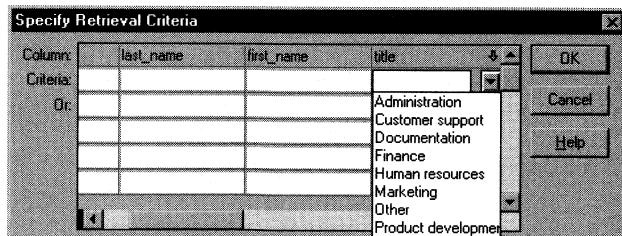
A box with an arrow displays to show there is a dropdown listbox for that column.



**8 Click the *arrow* to open the listbox.**

**9 Select *Customer support*.**

This puts Customer support in the title column. This means that the report will be limited to contacts in Customer support.



**10 Click OK.**

The report displays. It includes only contacts in Customer support.

Id	Last Name	First Name	Job Role	Street	City	State	Zip	Phone
6	Sullivan	Dorothy	Customer support	54 Minuteman Dr.	Lincoln	MA	01742	(508)655-3925
12	Lyman	Thomas	Customer support	64 Story Rd.	Emeryville	CA	94608	(510)655-5378
16	Lencki	John	Customer support	208 Brook Road	Burlington	MA	01803	(617)655-5348
18	Hayne	William	Customer support	28 Cornfield Ave.	Acton	MA	01720	(508)655-7780
21	Cobb	Paul	Customer support	34 Greenville St.	Atlanta	GA	30339	(404)655-2239
22	Goggin	Kevin	Customer support	28 East Main St.	Houston	TX	77079	(713)655-3340
23	Cohen	Paul	Customer support	108 Park Street	Burlington	MA	01803	(617)655-8883
32	Reeves	Scott	Customer support	89 Linden St.	Iselin	NJ	08830	(603)655-0988
44	Short	Russell	Customer support	12 Newton St.	Needham	MA	02192	(617)655-0993
53	Tippet	Debbie	Customer support	45 Aberdeen Rd.	Schaumburg	IL	60173	(708)655-8227
54	Hodson	Jack	Customer support	69 Lincoln St.	Acton	MA	01720	(508)655-2998
59	Masalsky	Kurt	Customer support	29 Garden St.	Atlanta	GA	30339	(404)655-5111
60	Collins	MaryBeth	Customer support	56 Lincoln Street	Burlington	MA	01803	(617)655-1199
61	Carler	Jimmy	Customer support	Peanut Way	Atlanta	GA	30339	(404)655-7833

By setting up a report to prompt for criteria, you give yourself a lot of power and flexibility when you run the report. You will learn more about this when you create an application in the next tutorial.

**11 Select File>Close from the menu bar. When prompted to save changes, click Yes.**

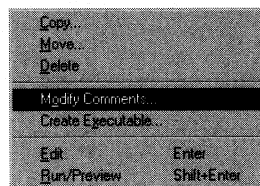
The Report painter closes and you return to the Environment painter. You may notice that your new report does not appear in the list.

**12 Select Design>Refresh from the menu bar.**

Now your new report is listed. It's a good idea to add comments to document the report. You can do that now.

**13 Position the pointer on *contactgrid\_with\_prompting*. Press the right mouse button.**

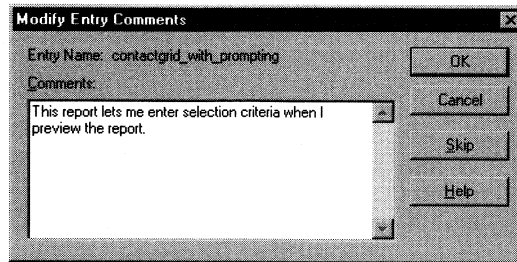
The popup menu displays.





**14 Select Modify Comments.**

The Modify Entry Comments dialog box displays. If the entry already had comments, you would be able to edit them. This entry has no comments yet, so you will enter one.

**15 Type** *This report lets me enter selection criteria when I preview the report.***16 Click OK.**

The newly added comment displays.

Now you have become familiar with most of the activities you can do in the Environment painter except for creating applications.

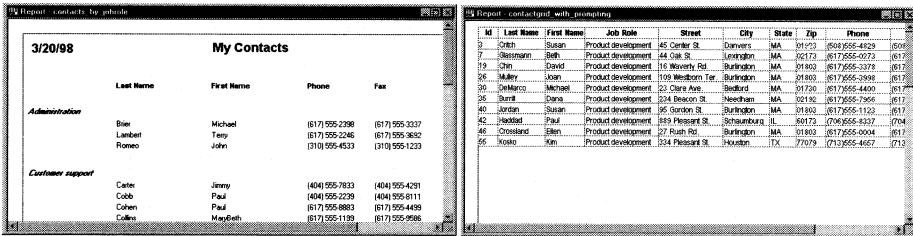
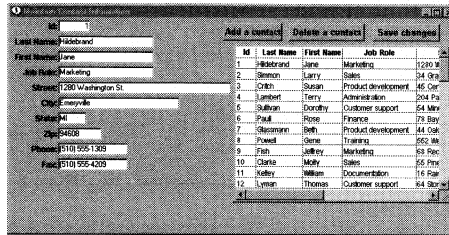
**17 Continue directly to the next tutorial, the Application tutorial. (Leave the Environment painter open.)**



# Application Tutorial

An InfoMaker application is a collection of related reports and forms. For example, the Contacts application that you will create in this tutorial has:

- ◆ A form to maintain data in the contact table
- ◆ A report to list all contacts
- ◆ A report to list only contacts that meet your criteria

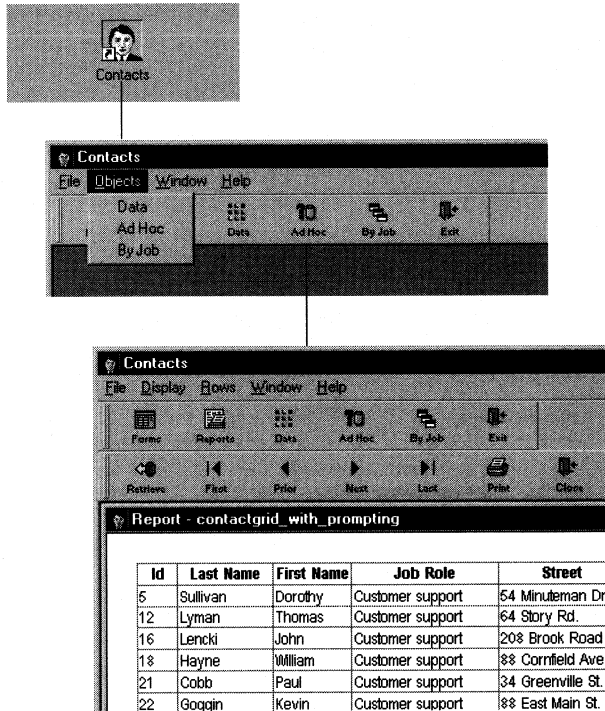


**How long will this tutorial take?**

About 30 minutes.

## About the application

You will create an application, complete with toolbars and menus. You will create a shortcut for the application. Then you can run it from your desktop, just the way you run InfoMaker or any other application.



## Create the application

---

### Where you are

Chapter 9 Application Tutorial

- > Create the application
  - Create a shortcut to the application
  - Start the application
  - Use the Data button
  - Use the By Job button
  - Use the Ad Hoc button
- 

The application you create will consist of an executable file and an initialization file. The initialization file provides information about the database to the executable file.

For example, InfoMaker itself is an application that has an executable file called **im60.exe**. This is the file you start running when you start InfoMaker. InfoMaker also has an initialization file called **im.ini**.

---

### Terms

The executable file is also called an EXE file (pronounced *exxy*). The initialization file is also called an INI file (pronounced *inny*).

---

### Make sure you have the diskette

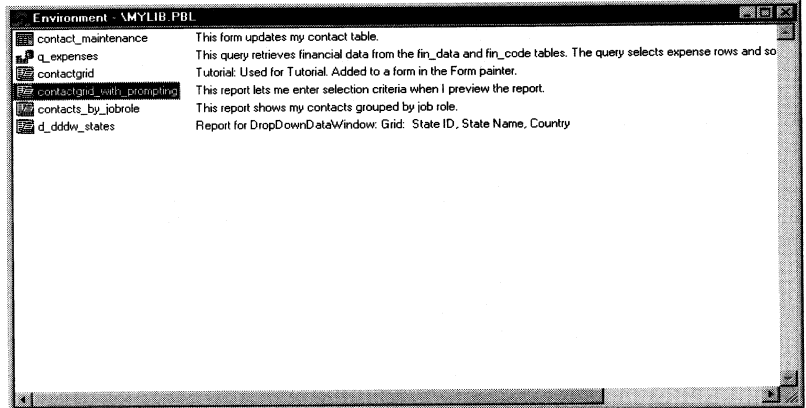
Before you begin, make sure you have the diskette from the previous tutorial in the diskette drive.

---



- 1 If you are continuing from the previous tutorial, go to step 2. Otherwise, go to the Environment painter with the diskette in the drive and the library named *mylib.pbl* open.

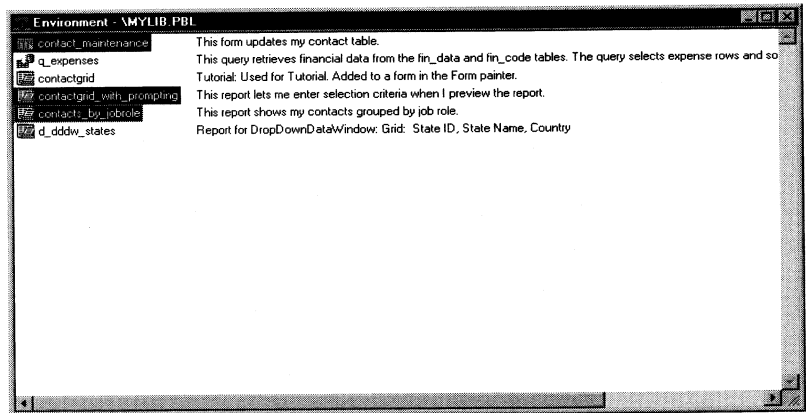
The Environment painter workspace shows the contents of MYLIB.PBL.



Now you will select the form and reports for your application.

- 2 Click *contact\_maintenance* if it is not already highlighted. Press CTRL and click *contactgrid\_with\_prompting*. Press CTRL and click *contacts\_by\_jobrole*.

The selected items are highlighted.





### 3 Click the *Create Executable* button in the PainterBar.

The Create Executable dialog box displays. In this dialog box you will specify a title for the application window, a filename for the executable file, the folder for storing the executable file, and an icon for the application.

A screenshot of the 'Create Executable' dialog box. The title bar reads 'Create Executable'. There are three input fields: 'Executable Title' with the text 'Powered Launcher', 'Executable File Name' with an empty field and a 'Browse...' button to its right, and 'Executable Icon' with an empty field and a 'Browse...' button to its right. At the bottom, there are four buttons: '< Back', 'Next >', 'Cancel', and 'Help'.

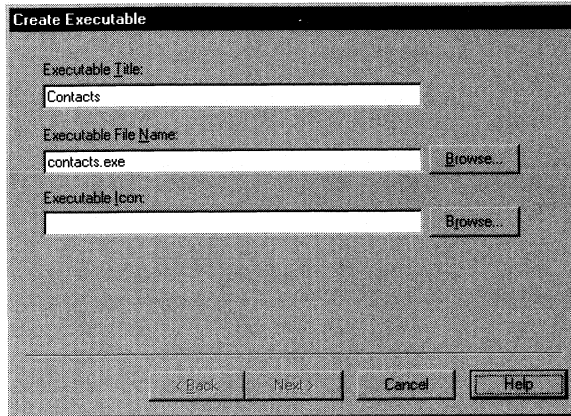
### 4 Type *Contacts* in the *Executable Title* box.

Later, when you run your application, the title bar will display the word Contacts.

A screenshot of the 'Create Executable' dialog box, similar to the previous one, but with the text 'Contacts' entered in the 'Executable Title' field. The other fields and buttons remain the same.

**5 Type *contacts.exe* in the Executable File Name box.**

This assigns a name to your executable file.

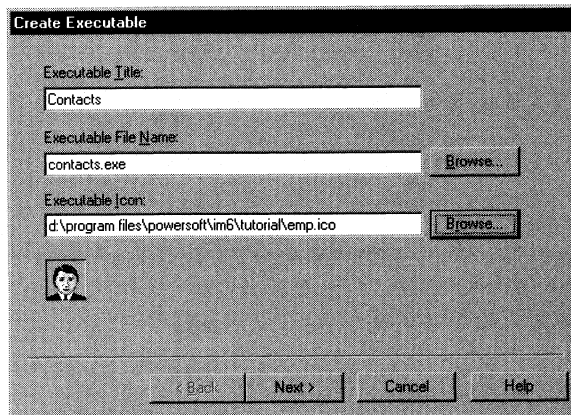


**6 Click the *Browse* button next to the Executable Icon box to select an icon for your application. Change to the Tutorial folder (the icon is there).**

The icon will display in the Windows 95 shortcut. You will create one shortly.

**7 Click *Emp.ico*. Click *Open* to accept the *emp.ico* file as the icon for your application.**

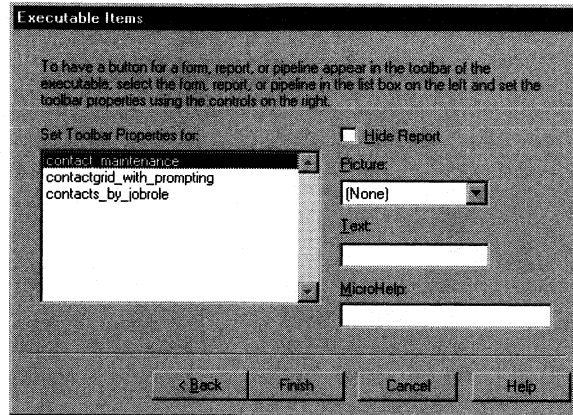
You return to the Create Executable dialog box. The icon and its full name display.





**8 Click *Next* to define the toolbar items.**

The Executable Items dialog box displays. It lists the form and reports to be included in your application. The information you enter in the boxes to the right of the list of items is for the currently selected item.

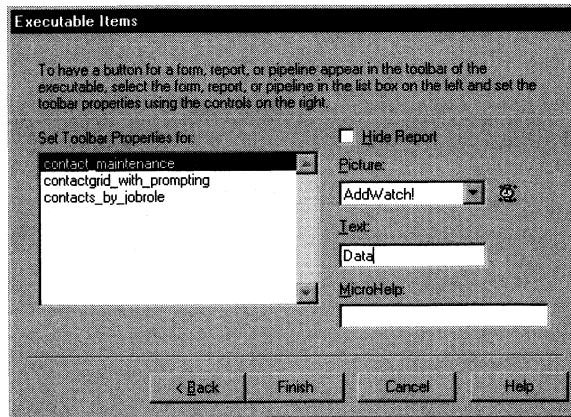
**Finish defining all information before you click *Finish***

Do not click the *Finish* button or press ENTER until you have finished defining information for *all* the items you want to include in the application's toolbar. Once you click *Finish* or press ENTER, InfoMaker generates the executable file.

If you create the executable file before you mean to, select one of the reports and click the *Create Executable* button again. InfoMaker remembers what you have specified already. You can continue where you left off and recreate the executable file.

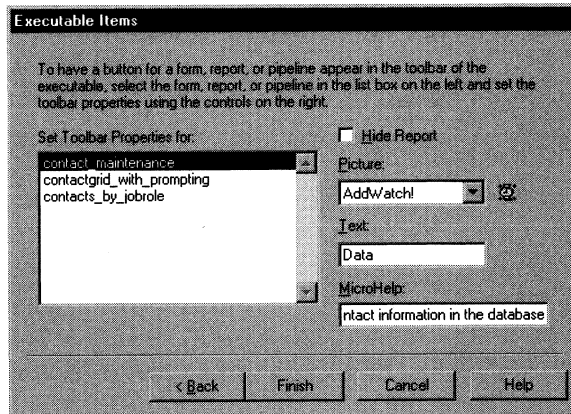
**9 Click the *Text* box.  
Type *Data*.**

This provides text for the button and for the menu item that will run `contact_maintenance` in your application.



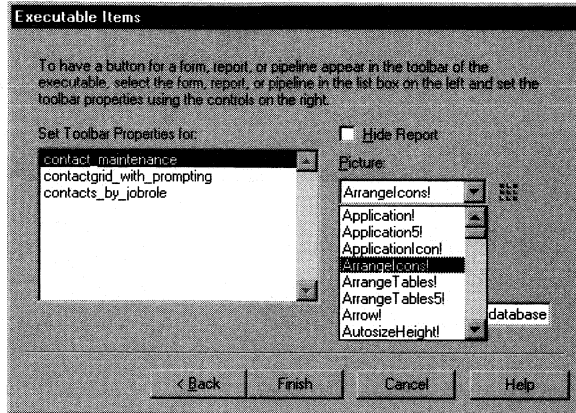
**10 Press TAB to move to the *MicroHelp* box.  
Type *Maintain contact information in the database*.**

This provides MicroHelp for the button and menu item.

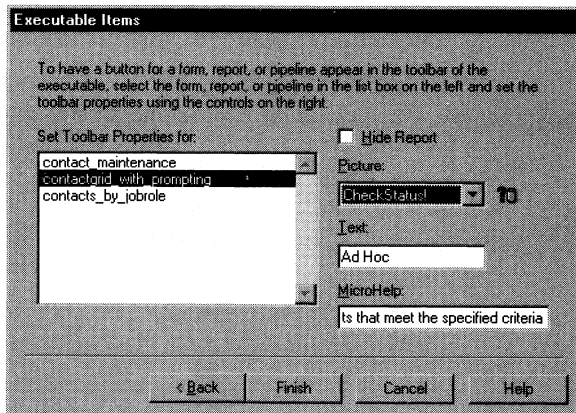


- 11 In the *Picture* box, click the *arrow* on the right end of the box to display the listbox. Select the entry *Arrangelcons!*

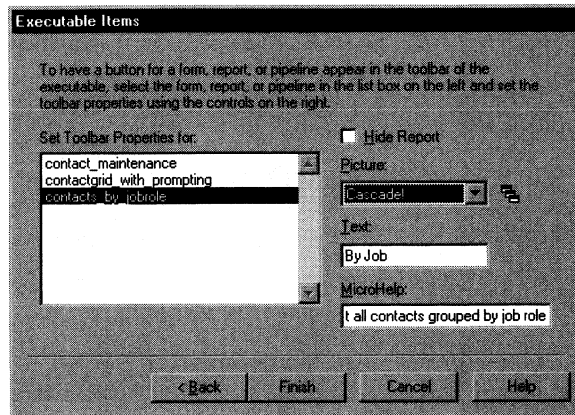
This selects the picture for the button, which will be in the application's toolbar.



- 12 Click *contactgrid\_with\_prompting*. Click the *Text* box and type *Ad Hoc*. Press *TAB* to go to the *MicroHelp* box. Type *List contacts that meet the specified criteria*. In the *Picture* box, display the list and select *CheckStatus!*.



- 13 **Click *contacts\_by\_jobrole*.**  
**Click the *Text* box and type *By Job*.**  
**Press *TAB* to go to the *MicroHelp* box.**  
**Type *List all contacts grouped by job role*.**  
**In the *Picture* box, display the list and select *Cascade!*.**



Now you have finished providing information for the form and the two reports that will be in your application.

- 14 **Click *Finish*.**

InfoMaker creates the application, which consists of an executable file and an initialization file. These files are in the Tutorial folder.

Now that InfoMaker has finished creating the application, you return to the Environment painter.

Before leaving the Environment painter, you will open TUTOR\_IM.PBL again. This is where the samples and the tutorial work are kept.

- 15 **Select *File>Open* from the menu bar.**

- 16 **Select the *Tutorial* folder.**  
**Select *Tutor\_im.pbl*.**  
**Click *Open*.**

The Environment painter lists the contents of TUTOR\_IM.PBL again.

- 17 **Select *File>Exit* from the menu bar.**

InfoMaker closes.

## Create a shortcut to the application

---

### Where you are

Chapter 9 Application Tutorial

Create the application

> Create a shortcut to the application

Start the application

Use the Data button

Use the By Job button

Use the Ad Hoc button

---

Now you will make the application easy to access. To do this you will create a shortcut on the Windows 95 desktop.

---

### If you are using Windows 3.1

Instead of creating a shortcut, you can add the application to the Powersoft Program Group (or another program group).

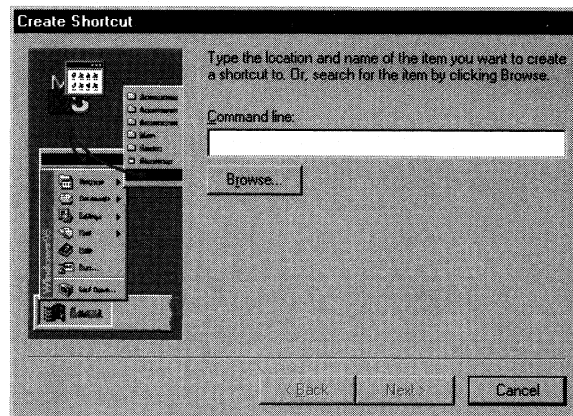
---

- 1 Move the pointer to an empty area of the desktop and press the right mouse button.**

The popup menu for the desktop displays.

- 2 Select *New* and then *Shortcut*.**

The Create Shortcut dialog box displays.



- 3 Click the *Browse* button to locate *contacts.exe*. In the *Browse* dialog box, change folders to the *Tutorial* folder. Select *contacts.exe* and click *Open*.**

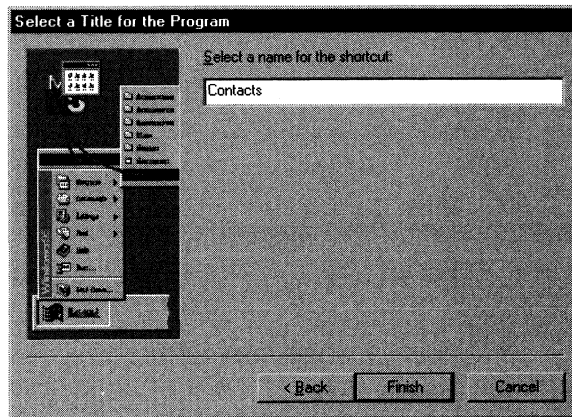
You return to the Create Shortcut dialog box with the full path of the *contacts.exe* file in place.

- 4 Click *Next*.**

The *Select a Title for the Program* dialog box displays.

- 5 In the textbox, type *Contacts* over the name offered as a default (*contacts.exe*).**

This provides a better title to display under the icon on the desktop.

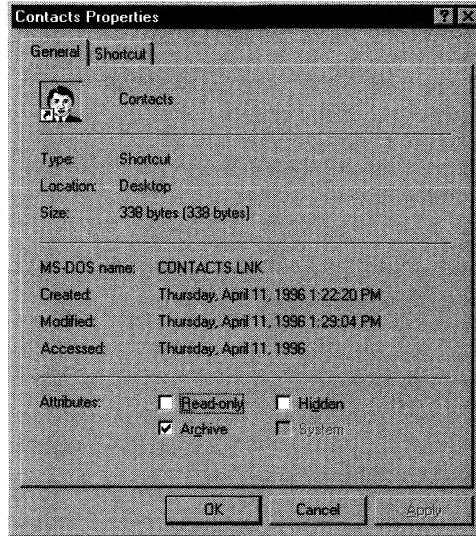


- 6 Click *Finish*.**

Windows 95 creates the shortcut to your application and displays it on the desktop. Now you must modify a property of the shortcut so that you can run your application.



- 7 Move the pointer to the icon and press the right mouse button to display the popup menu. Select *Properties* to display the shortcut's property sheet.



- 8 Select the *Shortcut* tab and type the location (path) of the Powersoft system modules in the *Start in* box:

---

#### About the location of Powersoft system modules

When you install InfoMaker, the installation process automatically puts the DLLs in a system folder.

For Windows 95 and Windows NT 4.0, the folder path is *c:\Program Files\Powersoft\Shared*.

For Windows NT 3.51 and Windows for Workgroups, the folder path is *c:\pwrs\shared*.

If you have changed the names of the folders used for installing, you will need to use your names in this step.

---

- 9 Click *OK*.

Windows 95 modifies the shortcut to your application. This modification enables Windows 95 to find some InfoMaker modules (DLLs) required for running your application.

## Start the application

---

### Where you are

#### Chapter 9 Application Tutorial

Create the application

Create a shortcut to the application

> Start the application

Use the Data button

Use the By Job button

Use the Ad Hoc button

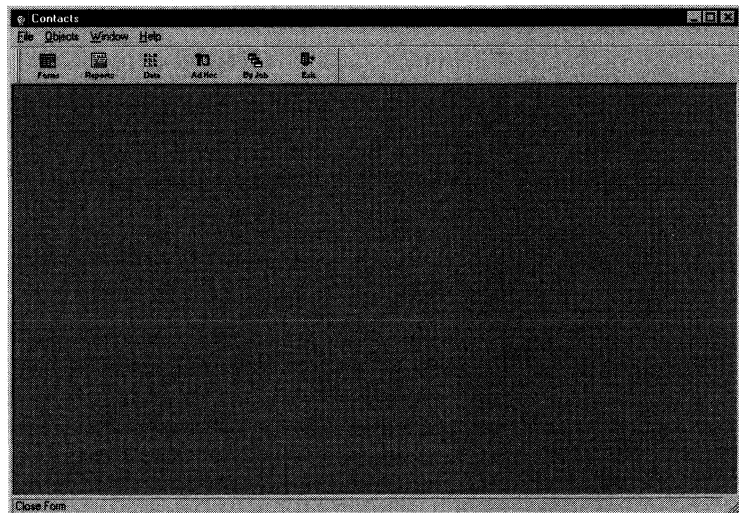
---

In this section you will start the application you created and take a look at its toolbar, MicroHelp, and menus.

### 1 Double-click the *Contacts* icon shortcut on your desktop.

Your application runs. Don't be surprised if it takes a minute to get everything running. The database itself has to start up so that you can access data.

The main window of the *Contacts* application displays.





**2 Notice the toolbar.**

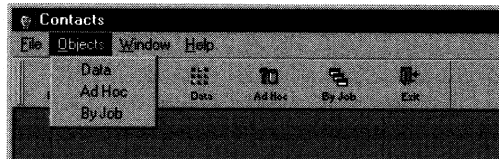
The Reports, Forms, and Exit buttons are automatically included. The Data, By Job, and Ad Hoc buttons are in the toolbar because you defined them when you created the application.

**3 Move the pointer to one of the buttons.**

Notice the MicroHelp at the bottom of the screen.

**4 Click the *Objects* menu item.**

Notice that Data, By Job, and Ad Hoc are included in the Objects menu. Your application has a toolbar and a menu. You can run forms and reports from either place.



## Use the Data button

### Where you are

#### Chapter 9 Application Tutorial

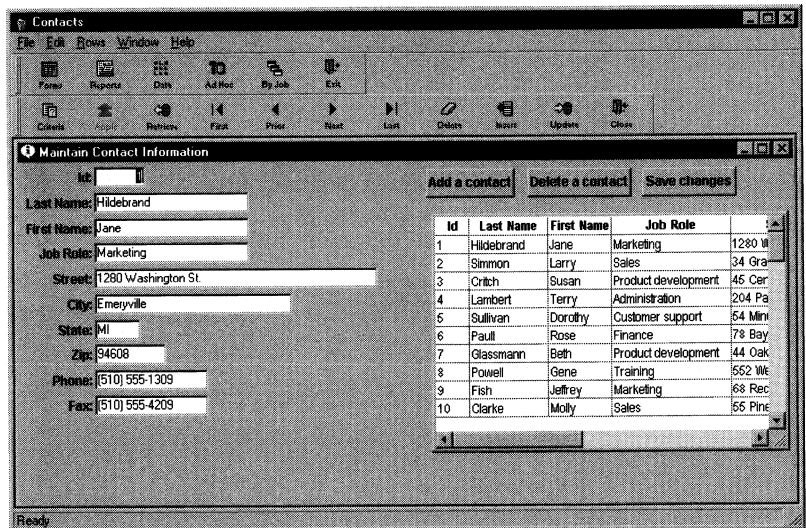
- Create the application
- Create a shortcut to the application
- Start the application

- > Use the Data button
- Use the By Job button
- Use the Ad Hoc button

Now you will use the Data button to run your form. You will add a new contact and change information about an existing one.

### 1 Click the *Data* button.

Your form displays. Notice that title bars identify your application and the particular part you are using. You also have the usual form toolbar that lets you view, add, and update information in the database.



### 2 Click the *Add a contact* button in the form.

A blank form displays.

- 3 **Enter information for a new contact.**  
**Use 62 for the Id entry and make up the rest.**  
**Be sure to fill in all blanks (the only columns you can skip are phone and fax; the other columns are defined as required in the database).**  
**Use the TAB key to move from box to box.**

Id	Last Name	First Name	Job Role	
1	Hildebrand	Jane	Marketing	1280 W
2	Simmon	Larry	Sales	34 Gra
3	Critch	Susan	Product development	45 Cer
4	Lambert	Terry	Administration	204 Pa
5	Sullivan	Dorothy	Customer support	54 Mini
6	Paul	Rose	Finance	78 Bay
7	Glassmann	Beth	Product development	44 Oak
8	Powell	Gene	Training	552 Mt
9	Fish	Jeffrey	Marketing	68 Rec
10	Clarke	Molly	Sales	55 Pine

- 4 **Click the *Save changes* button in the form.**

Your new contact goes into the database. You will see it shortly.

Next you want to display information on the contact with Id 37 so you can make a correction.

---

#### **About updating the database and canceling changes**

You can click the Update button to update the database immediately. Or you can wait until you close the form; InfoMaker prompts you to see if you want to update the database.

Cancel Changes on the Rows menu cancels any changes you've made since the last time you clicked Update.

---



- Click the *Criteria* button to display a blank form for setting retrieval criteria.  
Type 37 in the *Id* box.

This sets the retrieval criteria.

The screenshot shows the 'Maintain Contact Information' window. On the left, there is a form with the following fields: Id (37), Last Name, First Name, Job Role, Street, City, State, Zip, Phone, and Fax. On the right, there is a table of contacts with columns: Id, Last Name, First Name, Job Role, and a fifth column with values like 1280 W, 34 Gra, 45 Cer, 204 Pa, 54 Mini, 78 Bay, 44 Oak, 552 We, 68 Rec, 55 Pine.

Id	Last Name	First Name	Job Role	
1	Hildebrand	Jane	Marketing	1280 W
2	Simmon	Larry	Sales	34 Gra
3	Critch	Susan	Product development	45 Cer
4	Lambert	Terry	Administration	204 Pa
5	Sullivan	Dorothy	Customer support	54 Mini
6	Pauli	Rose	Finance	78 Bay
7	Glassmann	Beth	Product development	44 Oak
8	Powell	Gene	Training	552 We
9	Fish	Jeffrey	Marketing	68 Rec
10	Clarke	Molly	Sales	55 Pine



- Click the *Apply* button.

This applies the retrieval criteria. InfoMaker retrieves the row with the Id 37.

The screenshot shows the 'Maintain Contact Information' window. The form fields are now populated with data for Id 37: Last Name: Purcell, First Name: Beth, Job Role: Sales, Street: 134 Cherry Hill St, City: Arlington, State: MA, Zip: 02174, Phone: (617) 555-2349, Fax: (617) 555-1765. The table of contacts remains the same as in the previous screenshot.

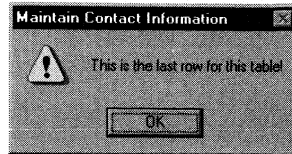
Id	Last Name	First Name	Job Role	
1	Hildebrand	Jane	Marketing	1280 W
2	Simmon	Larry	Sales	34 Gra
3	Critch	Susan	Product development	45 Cer
4	Lambert	Terry	Administration	204 Pa
5	Sullivan	Dorothy	Customer support	54 Mini
6	Pauli	Rose	Finance	78 Bay
7	Glassmann	Beth	Product development	44 Oak
8	Powell	Gene	Training	552 We
9	Fish	Jeffrey	Marketing	68 Rec
10	Clarke	Molly	Sales	55 Pine

- Change the *Street* to *134 Cherry St.*  
Click the *Save changes* button in the form.

Your changes are added immediately to the database.

**8 Click the *Next* button.**

A message box displays because you have set criteria that allow only row number 37 to be retrieved. You need to remove the criteria or specify other criteria.

**9 Click *OK* to close the message box.**

**Click the *Criteria* button.**

**Select 37 and press the DELETE key to delete 37 from the *Id* box.**

**Click the *Apply* button.**



Now you have no criteria, so InfoMaker retrieves all rows.

**10 Select *File>Close* from the menu bar.**

Your form closes.

## Use the By Job button

---

### Where you are

#### Chapter 9 Application Tutorial

Create the application

Create a shortcut to the application

Start the application

Use the Data button

> Use the By Job button

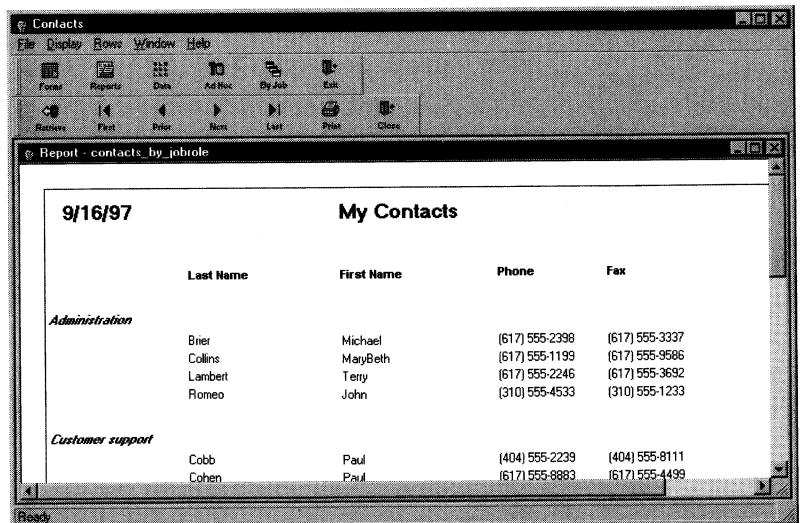
Use the Ad Hoc button

---

Now you will run a report of all contacts grouped by job role.

### 1 Click the *By Job* button.

The report that lists all contacts grouped by job role displays.



### 2 Scroll the report to see your new contact.

When you've finished, select *File>Close* from the menu bar.

Once again you return to the main application window.

## Use the Ad Hoc button

### Where you are

#### Chapter 9 Application Tutorial

Create the application

Create a shortcut to the application

Start the application

Use the Data button

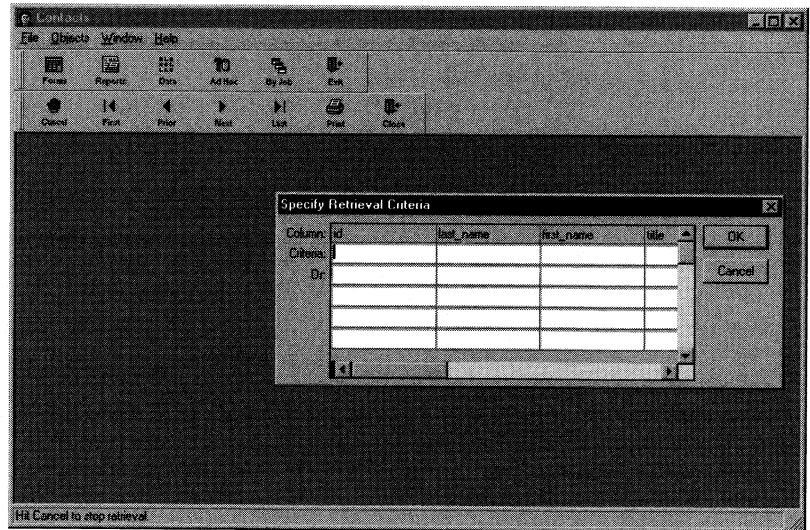
Use the By Job button

> Use the Ad Hoc button

Now you will use the Ad Hoc button to run several different reports based on the criteria you specify.

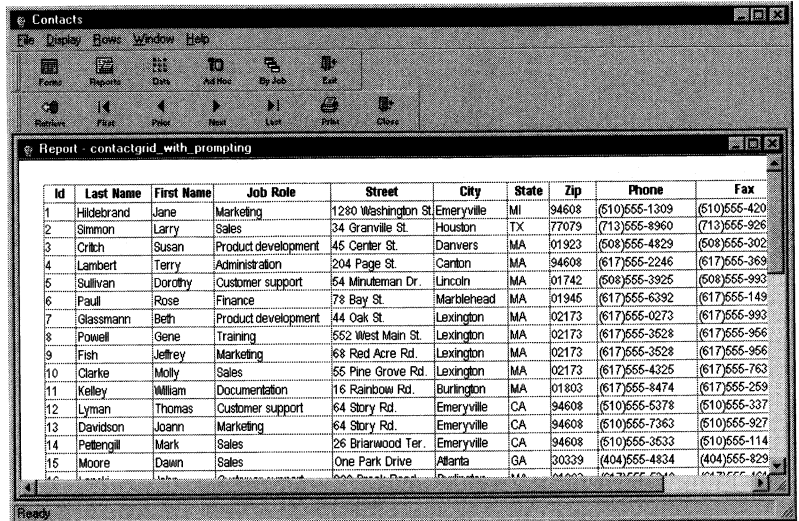
### 1 Click the *Ad Hoc* button.

The Specify Retrieval Criteria dialog box displays. This dialog box displays because you selected Prompt for Criteria for this report. Whenever you run this report, you are first prompted for criteria.



**2 Click OK.**

Because you didn't specify any criteria, the report retrieves all your contacts.



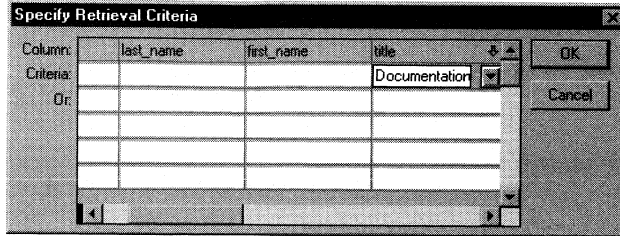
Id	Last Name	First Name	Job Role	Street	City	State	Zip	Phone	Fax
1	Hildebrand	Jane	Marketing	1280 Washington St	Emeryville	MI	94608	(610)565-1309	(610)565-420
2	Simmon	Larry	Sales	34 Granville St.	Houston	TX	77079	(713)566-8960	(713)566-926
3	Critch	Susan	Product development	45 Center St.	Danvers	MA	01923	(508)566-4829	(508)566-302
4	Lambert	Terry	Administration	204 Page St.	Canton	MA	94608	(617)566-2246	(617)566-369
5	Sullivan	Dorothy	Customer support	54 Minuteman Dr.	Lincoln	MA	01742	(508)566-3925	(508)566-993
6	Pauli	Rose	Finance	78 Bay St.	Marblehead	MA	01945	(617)566-6392	(617)566-149
7	Glassmann	Beth	Product development	44 Oak St.	Lexington	MA	02173	(617)566-0273	(617)566-993
8	Powell	Gene	Training	552 West Main St.	Lexington	MA	02173	(617)566-3528	(617)566-956
9	Fish	Jeffrey	Marketing	68 Red Acre Rd.	Lexington	MA	02173	(617)566-3528	(617)566-956
10	Clarke	Molly	Sales	55 Pine Grove Rd.	Lexington	MA	02173	(617)566-4325	(617)566-763
11	Kelley	William	Documentation	16 Rainbow Rd.	Burlington	MA	01803	(617)566-8474	(617)566-259
12	Lyman	Thomas	Customer support	64 Story Rd.	Emeryville	CA	94608	(510)566-6378	(510)566-337
13	Davidson	Joann	Marketing	64 Story Rd.	Emeryville	CA	94608	(510)566-7363	(510)566-927
14	Petengill	Mark	Sales	26 Briarwood Ter.	Emeryville	CA	94608	(510)566-3533	(510)566-114
15	Moore	Dawn	Sales	One Park Drive	Atlanta	GA	30339	(404)566-4834	(404)566-829

**3 Select Rows>Retrieve from the menu bar.**

The Specify Retrieval Criteria dialog box displays again. This time you will enter criteria.

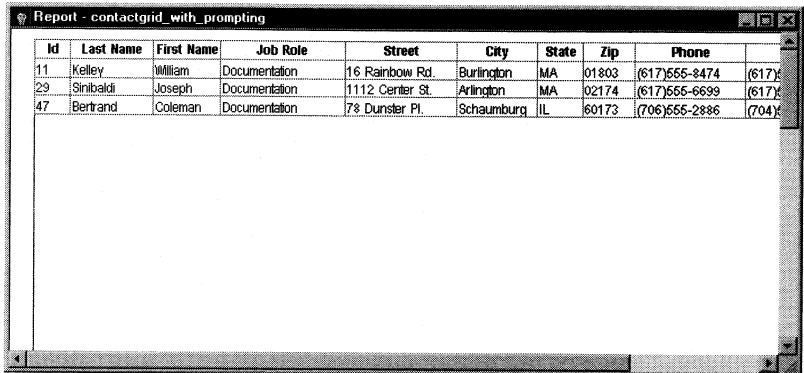


- 4 Go to the *title* column.  
Select *Documentation* from the dropdown listbox.  
Click *OK*.



The dialog box titled "Specify Retrieval Criteria" has a table with columns: last\_name, first\_name, and title. The "Criteria:" row shows "Documentation" selected in the dropdown for the "title" column. There are "OK" and "Cancel" buttons on the right.

You have specified that the report is to list only contacts who have jobs in documentation.

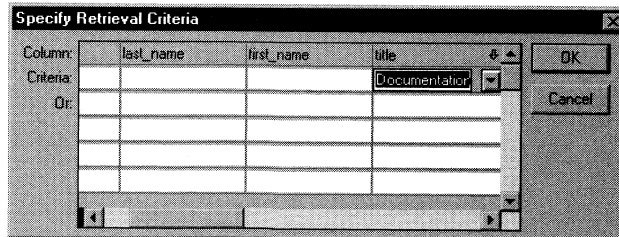


The report window shows a table with the following data:

Id	Last Name	First Name	Job Role	Street	City	State	Zip	Phone
11	Kelley	William	Documentation	16 Rainbow Rd.	Burlington	MA	01803	(617)555-8474 (617)555-8474
29	Sinibaldi	Joseph	Documentation	1112 Center St.	Arlington	MA	02174	(617)555-6699 (617)555-6699
47	Bertrand	Coleman	Documentation	78 Dunster Pl.	Schaumburg	IL	60173	(706)555-2886 (704)555-2886

- 5 Click the *Retrieve* button.

The Specify Retrieval Criteria dialog box displays again. Notice that the criterion in the title column is still in effect. To specify different criteria, you are now going to delete *Documentation*. Then you will enter new criteria.

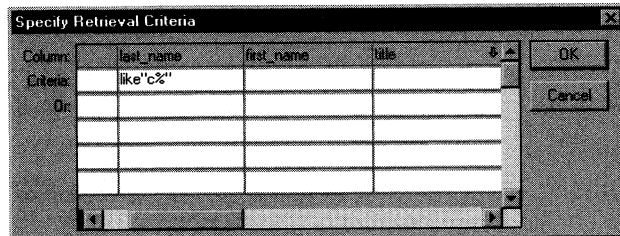


The dialog box titled "Specify Retrieval Criteria" is shown again. The "Criteria:" row now shows "Documentator" selected in the dropdown for the "title" column. There are "OK" and "Cancel" buttons on the right.

- 6 Select the documentation entry in the *title* column.  
Press DELETE.

This deletes criteria from the title column. Now you are going to enter new criteria.

- 7 Click in the first box underneath *last\_name*.  
Type like "c%".  
Click OK.



This entry (*like "c%"*) helps you find that name you couldn't remember. All you could remember is that it started with C.

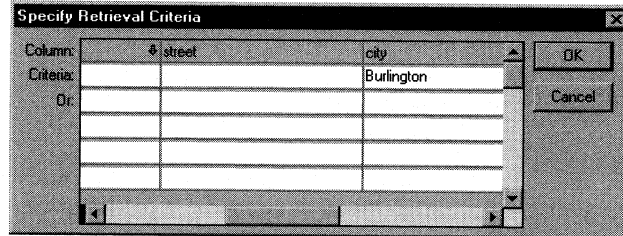
The **like** operator specifies that only rows that match what follows should be retrieved. The quotes are required. The **c** means that the first character must be C. The **%** sign means any characters can follow the C.

This is the report.

Id	Last Name	First Name	Job Role	Street	City	State	Zip	Phone
3	Critch	Susan	Product development	45 Center St.	Danvers	MA	01923	(508)555-4829
10	Clarke	Molly	Sales	55 Pine Grove Rd.	Lexington	MA	02173	(617)555-4325
19	Chin	David	Product development	16 Waverly Rd.	Burlington	MA	01803	(617)555-3378
21	Cobb	Paul	Customer support	34 Greenville St.	Atlanta	GA	30339	(404)555-2239
23	Cohen	Paul	Customer support	108 Park Street	Burlington	MA	01803	(617)555-8883
34	Crowley	Charles	Human resources	69 Edson St.	Burlington	MA	01803	(617)555-1344
36	Caruso	William	Finance	99 Edison St.	Bedford	MA	01730	(617)555-2144
46	Crossland	Ellen	Product development	27 Rush Rd.	Burlington	MA	01803	(617)555-0004
60	Collins	MaryBeth	Customer support	56 Lincoln Street	Burlington	MA	01803	(617)555-1199
61	Carter	Jimmy	Customer support	Peanut Way	Atlanta	GA	30339	(404)555-7833

**8 Click the *Retrieve* button.**

The Specify Retrieval Criteria dialog box displays again. This time the requirement that the last name begin with C is still in effect. Now you will add an additional requirement. The report is to list contacts whose last names begin with C *and* who are from Burlington.

**9 Use the scrollbar to display the *city* column. Click in the first box underneath *city* and type *Burlington*. Click *OK*.**

Now the report has only contacts whose last names begin with C *and* who are from Burlington.

Id	Last Name	First Name	Job Role	Street	City	State	Zip	Phone
19	Chin	David	Product development	16 Waverly Rd.	Burlington	MA	01803	(617)655-3378 (617)
23	Cohen	Paul	Customer support	108 Park Street	Burlington	MA	01803	(617)655-8883 (617)
34	Crowley	Charles	Human resources	69 Edson St.	Burlington	MA	01803	(617)655-1344 (617)
46	Crossland	Ellen	Product development	27 Rush Rd.	Burlington	MA	01803	(617)655-0004 (617)
60	Collins	MaryBeth	Customer support	56 Lincoln Street	Burlington	MA	01803	(617)655-1199 (617)

**10 Click the *Retrieve* button.**

The Specify Retrieval Criteria dialog box displays again. The requirements that the last name begin with C and that the city must be Burlington are still in effect.

Now you will change the city requirement slightly. The report is to list contacts whose last names begin with C *or* who are from Atlanta. To be listed, contacts have to meet *either* requirement; they do not have to meet both requirements.

- Use the scrollbar to display the *city* column. Select *Burlington* and press DELETE to delete *Burlington*.

- Press the DOWN ARROW key to move down one row. Type *Atlanta*. Click OK.

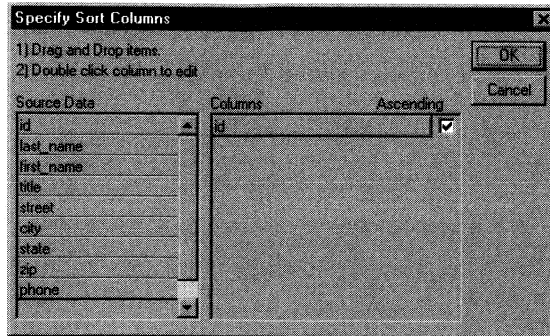
By specifying criteria in two different rows in the dialog box, you are specifying that the report should retrieve rows from the database that meet the first row of criteria or the second row of criteria.

Your report retrieves all contacts whose names begin with C. It also retrieves all contacts who are from Atlanta. It's hard to look at the two sets of rows, so now you will sort by city. Then all the Atlanta rows will be together.

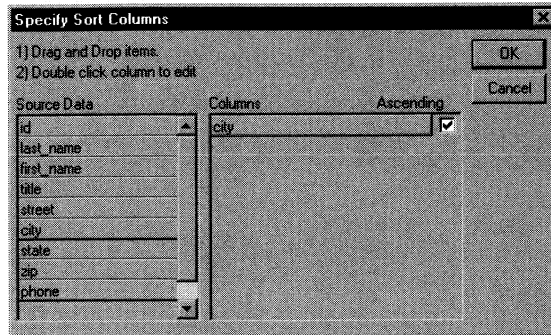
Report - contactgnd_with_prompting									
Id	Last Name	First Name	Job Role	Street	City	State	Zip	Phone	
3	Critch	Susan	Product development	45 Center St.	Danvers	MA	01923	(508)555-4829	(508)555-4829
10	Clarke	Molly	Sales	55 Pine Grove Rd.	Lexington	MA	02173	(617)555-4325	(617)555-4325
15	Moore	Dawn	Sales	One Park Drive	Atlanta	GA	30039	(404)555-4834	(404)555-4834
19	Chin	David	Product development	16 Waverly Rd.	Burlington	MA	01803	(617)555-3378	(617)555-3378
21	Cobb	Paul	Customer support	34 Greenville St.	Atlanta	GA	30039	(404)555-2239	(404)555-2239
23	Cohen	Paul	Customer support	108 Park Street	Burlington	MA	01803	(617)555-8883	(617)555-8883
27	Evans	Carrie	Sales	89 Washington St.	Atlanta	GA	30039	(404)555-1169	(404)555-1169
34	Crowley	Charles	Human resources	69 Edison St.	Burlington	MA	01803	(617)555-1344	(617)555-1344
36	Caruso	William	Finance	99 Edison St.	Bedford	MA	01730	(617)555-2144	(617)555-2144
46	Crossland	Ellen	Product development	27 Rush Rd.	Burlington	MA	01803	(617)555-0004	(617)555-0004
50	Shishov	Irina	Marketing	567 Park Drive	Atlanta	GA	30039	(404)555-1233	(404)555-1233
59	Masalsky	Kurt	Customer support	29 Garden St.	Atlanta	GA	30039	(404)555-6111	(404)555-6111
60	Collins	MaryBeth	Customer support	56 Lincoln Street	Burlington	MA	01803	(617)555-1199	(617)555-1199
61	Carler	Jimmy	Customer support	Peanut Way	Atlanta	GA	30039	(404)555-7833	(404)555-7833

**13 Select Rows>Sort from the menu bar.**

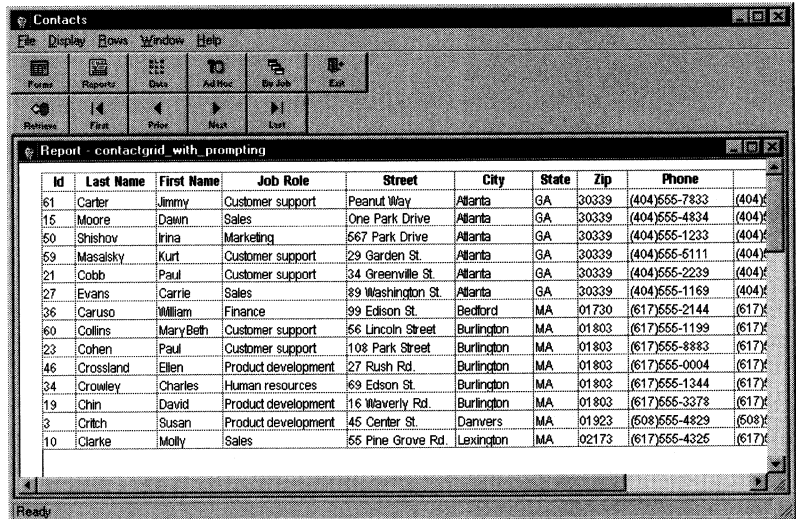
The Specify Sort Columns dialog box displays.



- 14 Drag the *Id* column out of the Columns box and the *city* column into the Columns box. Click *OK*.



InfoMaker sorts the rows by city. Now you can see the Atlanta contacts first. These are followed by contacts whose names begin with C.



Now you are finished using this report and using the application.

- 15 Click the *Exit* button.

This closes the report and the application.

Now you have done it all. You created data, maintained it, and reported on it. And you put all your work together into your own application.

*Congratulations.*

See the next page for some suggestions on what to do next.

## What to do next

You may be ready to make your own InfoMaker application or interested in learning more. Here are some ideas.

**Personalize the contact data** Delete all the data in the contact table and add your own. You can run your Contacts application to do this. Use the form to delete and add data.

**Look at other sample forms and reports** In the Environment tutorial, you accessed a few of the sample forms and reports delivered with InfoMaker. Now you can go back and look at more. The samples are located in the InfoMaker sample library named TUTOR\_IM.PBL. When you look, notice both the design version and what results when you run a form or preview a report.

**Use the sample pipeline** The sample library includes a sample pipeline. Pipelines let you move data structures and data within and between databases. Open the library and double-click the pipeline. This takes you to the Data Pipeline painter. The sample pipeline creates a copy of the employee table in the Powersoft Demo Database. To create the copy, you execute the pipeline.

**Change sample forms and reports** If you want to try some changes with samples, open the form or report and use Save As on the File menu. With Save As, you create a copy of the form or report and save it with a new name. Then you can make changes without affecting the original.

**Create other forms and reports using the Powersoft Demo Database** Once you've looked at the sample forms and reports, try creating some on your own. The Powersoft Demo Database has several tables that you can use. You may want to start with the Contact table since you are so familiar with it. Use the other InfoMaker documentation and online Help as you work.



# Index

## A

- actions in forms 45
- AND operator 143
- applications
  - about 201
  - applying retrieval criteria in forms 218
  - creating 210
  - creating shortcuts 211
  - defining menu items 208
  - defining MicroHelp 208
  - defining toolbar buttons 209
  - defining toolbar items 207
  - executable (EXE) files 203, 210
  - initialization (INI) files 203, 210
  - modifying most recently created 207
  - running forms 216
  - running reports 220
  - selecting objects for 204
  - setting retrieval criteria in forms 218
  - specifying a title 205
  - specifying icons 206
  - specifying the application filename 206
  - specifying the folder for the EXE file 206
  - starting 214
  - updating the database 217
- Ascending sort order option 76

## B

- buttons
  - adding to forms 42
  - defining in application toolbars 209
  - moving in forms 52

## C

- clicking 13

- columns
  - default data types 102
  - defining display widths 117
  - defining DropDownDataWindow edit style 119
  - defining DropDownListBox edit style 112
  - defining headers 117
  - defining in tables 101
  - defining labels 117
  - Null setting 103
  - setting initial values 123
  - validating data 123
- comments
  - adding to objects in libraries 198
  - modifying for objects in libraries 198
- computed fields, adding to reports 92
- contact.txt file 131
- controls in forms 42
- copying
  - forms 191
  - queries 191
  - reports 191
- counts, adding to reports 92
- Create Executable dialog box 205

## D

- d\_dddw\_states report 191
- Data Manipulation painter 131
- data sources
  - defining for forms 33
  - defining for reports 65
  - Query 146
  - Quick Select 34, 66
- data values in edit styles 116
- data, importing into tables 130
- database
  - canceling changes 217
  - inserting rows 59
  - retrieving 131

- updating 62, 131, 217
- Database painter 101
- dates, adding to reports 89
- deleting
  - forms 191
  - reports 191
- deleting queries 191
- Descending sort order option 76
- dialog boxes
  - Create Executable 205
  - Edit Style 114, 120, 125
  - Executable Items 207
  - Modify Entry Comments 199
  - Modify Expression 93
  - New Form 32, 34
  - New Report 147
  - Print 97, 178
  - Prompt For Criteria 196
  - Quick Select 34, 35, 36, 66, 135
  - Save Form 40
  - Save Query 139
  - Save Report 72, 164
  - Select Action 45
  - Select Form 32
  - Select Import File 130
  - Select Query 147
  - Select Report 64
  - Select Tables 101
  - Specify Retrieval Criteria 197, 221
  - Specify Sort Columns 75
  - tabs in the SQL toolbox 137, 141
- display values in edit styles 116
- dragging 43
- DropDownDataWindow edit style
  - about 121
  - database and PBL requirements 191
  - defining for column 119
- DropDownListBox edit style
  - defining 112
  - using 60

## E

- Edit Mask edit style
  - defining 125

- using 61, 128
- Edit Style dialog box 114, 120, 125
- Environment painter 179
- executable (EXE) files 203
- Executable Items dialog box 207
- extended attributes 111

## F

- Form painter 32
- forms
  - actions 45
  - adding buttons 42
  - adding reports 53
  - adding scrollbars to reports 56
  - adding titles 49
  - applying retrieval criteria 218
  - changing background for data 50
  - controls 42
  - copying 191
  - creating 32
  - data sources 33
  - deleting 191
  - making reports resizable in 56
  - moving 191
  - moving buttons 52
  - opening in a library 180
  - previewing (running) 38, 58
  - resizing reports in 57
  - running in applications 216
  - saving 40
  - setting retrieval criteria 218
  - styles 33

## G

- graph type, changing 170
- graphs
  - adding titles 168
  - Bar type 172
  - changing type 170
  - creating 155
  - defining data 156
  - Pie type 176

- popup menus 170
- previewing 162
- printing 178
- repositioning 166
- resizing 166
- saving 163
- Solid Bar type 174
- grid, displaying in report workspace 26
- grouping in reports 77

**I**

- icons, specifying for applications 206
- IM.INI 203
- IM60.EXE 203
- importing data 130
- initial values, setting for columns 123
- initialization (INI) files 203
- inserting rows in the database 59

**L**

- lasso selection 29, 50
- libraries
  - about 188
  - adding comments to objects 198
  - changing current 189
  - copying objects 191
  - creating 188
  - deleting objects 191
  - modifying comments for objects 198
  - moving objects 191
  - opening 189
  - opening objects 180
- LIKE operator 224

**M**

- menu items, defining in applications 208
- menus, about WindowToolbars notation 17
- MicroHelp, defining in applications 208
- Modify Entry Comments dialog box 199
- Modify Expression dialog box 93

- mouse
  - clicking 13
  - displaying a popup menu 16
  - dragging toolbars 16
- moving
  - forms 191
  - reports 191
- moving queries 191
- MYLIB.PBL 189

**N**

- New Form dialog box 32, 34
- New Report dialog box 147

**O**

- object edges, showing in report workspace 73
- objects in libraries
  - adding comments 198
  - copying 191
  - deleting 191
  - modifying comments 198
  - moving 191
- objects in reports
  - deleting 29
  - deselecting 28
  - dragging 28
  - edges, showing in workspace 73
  - moving 27
  - selecting multiple 27
  - showing edges 26
- operators
  - logical AND 143
  - logical LIKE 224

**P**

- page numbers, adding to reports 90
- painters
  - accessing 13
  - Data Manipulation 131
  - Data Pipeline 230

- Database 101
- Environment 179
- Form 32
- Query 135
- Report 152
- PBL files 188
- pipeline 230
- popup menus 49
  - displaying 16
  - for graphs 170
  - using 20
- previewing
  - (running) forms 38, 58
  - graphs 162
  - queries 138
  - reports 70
- primary key, defining for a table 105
- Print dialog box 97, 178
- printing
  - graphs 178
  - reports 97
- Prompt For Criteria dialog box 196
- prompting for retrieval criteria 196, 221
- property sheets 20

## Q

- queries
  - about 133
  - copying 191
  - deleting 191
  - moving 191
  - opening in a library 180
  - previewing 138
  - saving 139
  - selecting columns 135
  - specifying selection criteria 141
  - specifying sorting 144
  - using as data source 146
- Query painter 135
- Quick Select data source 34, 66
- Quick Select dialog box 34, 35, 36, 66, 135

## R

- Report Options property sheet 25
- Report painter 152
- reports
  - adding a date 89
  - adding a title 87
  - adding computed fields 92
  - adding counts 92
  - adding page numbers 90
  - adding to forms 53
  - copying 191
  - creating 64
  - creating from queries 146
  - creating new from existing 193
  - data sources 65
  - deleting 191
  - deleting objects 84
  - detail band 81
  - displaying grid in workspace 26
  - displaying rulers in workspace 73
  - footer band 81
  - group header band 81, 83
  - group trailer band 81
  - grouping 77
  - header band 81
  - moving 191
  - opening 152
  - opening in a library 180
  - previewing 70
  - printing 97
  - prompting for retrieval criteria 196
  - rearranging objects 80
  - resizing in forms 57
  - running in applications 220
  - saving 72
  - selecting all text 85
  - showing object edges 73
  - sorting 75
  - specifying retrieval criteria 196
  - styles 65
  - summary band 81
  - tabular style 66
  - working with bands 81
- repository 37
- retrieval criteria
  - applying in forms 218

selecting columns for prompting 196  
 setting in forms 218  
 specifying for reports 196, 221  
 retrieving data 131  
 rulers, displaying in report workspace 73

## S

Save Form dialog box 40  
 Save Query dialog box 139  
 Save Report dialog box 72, 164  
 saving  
   forms 40  
   graphs 163  
   queries 139  
   reports 72  
 scrollbars, adding to reports in forms 56  
 Select Action dialog box 45  
 Select Form dialog box 32  
 Select Import File dialog box 130  
 Select Query dialog box 147  
 Select Report dialog box 64  
 Select Tables dialog box 101  
 selecting  
   lasso 29, 50  
   multiple objects in reports 27  
 shortcuts, creating for an application 211  
 sorting  
   in queries 144  
   in reports 75  
   in reports in an application 227  
 Specify Retrieval Criteria dialog box 197, 221  
 Specify Sort Columns dialog box 75  
 specifying retrieval criteria for reports 196  
 SQL Anywhere database 99, 109  
 SQL toolbox tab dialogs 137, 141  
 starting InfoMaker 7, 12  
 StyleBar, using 44  
 styles  
   of forms 33  
   of reports 65

## T

Table painter workspace 101, 117  
 tables  
   about 99  
   commenting 108  
   creating 100, 109  
   defining a primary key 105  
   defining columns 101, 103  
   importing data 130  
   saving 109  
 text file, for importing data 130  
 titles  
   adding to forms 49  
   adding to graphs 168  
   adding to reports 87  
 toolbar items, defining for applications 207  
 toolbars  
   about 15  
   defining buttons for 209  
   displaying 17  
   dragging 16  
   making floating 16  
   Objects dropdown toolbar 19  
   showing PowerTips 19  
   showing text 18  
 TUTOR\_IM.PBL 8, 9, 180  
 tutorials  
   requirements for using 8  
   times 8

## U

undoing changes 29  
 updating the database 62, 131, 217

## V

validating data 123  
 validation rules 123

## W

windows

layering 187  
  opening multiple 185  
workspace, Table painter 117