

Step-by-Step Tutorials



It's time to jump into the database fast lane! By the time you finish the lessons in this tutorial you'll have a solid foundation in the basic techniques you'll need to use Panorama effectively.

This tutorial is divided into three lessons. Each lesson builds on the previous lessons and introduces more advanced topics. In "[Lesson 1: Building Your First Mailing List Database](#)" on page 2 you'll learn how to create and set up a simple mailing list database. In "[Lesson 2: Building and Organizing a Checkbook](#)" on page 75 you'll not only build a simple checkbook register file but also learn several techniques for organizing and summarizing the checkbook data. In "[Lesson 3: Building an Invoice Database](#)" on page 158 you'll create a simple invoice for creating and tracking orders. Finally, in "[Lesson 4: Building a Price List](#)" on page 175 you'll create a price list and link it to the invoice database. Each lesson should take from 30 minutes to an hour to complete. The lessons are designed so you can easily follow along and actually build each database as you read. There are plenty of illustrations to show what the screen will look like at each step, so you don't need to worry about getting lost.

Before you begin, you'll need to install Panorama on your computer. If you haven't done so already, see "[Installing the Software](#)" on page 85. It's not necessary to activate Panorama to complete the operations in this tutorial. If you haven't purchased Panorama yet you can try out the tutorials before you decide that you want to purchase Panorama (see "[Using Panorama's 'Demo Mode'](#)" on page 104).

I hear the bell—class is about to begin. It's time to get started with your new Panorama career! I hope you have as much fun learning Panorama as we had creating it for you.

Sincerely,

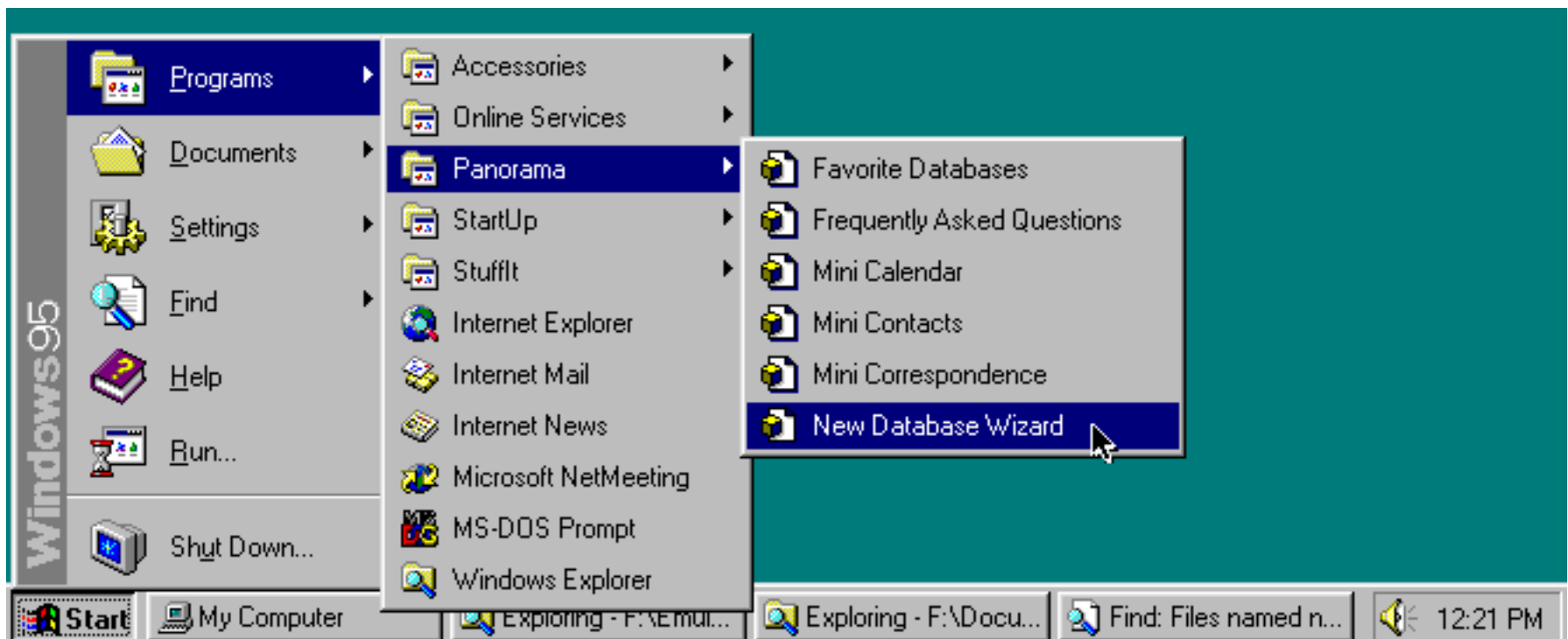


Jim Rea, President

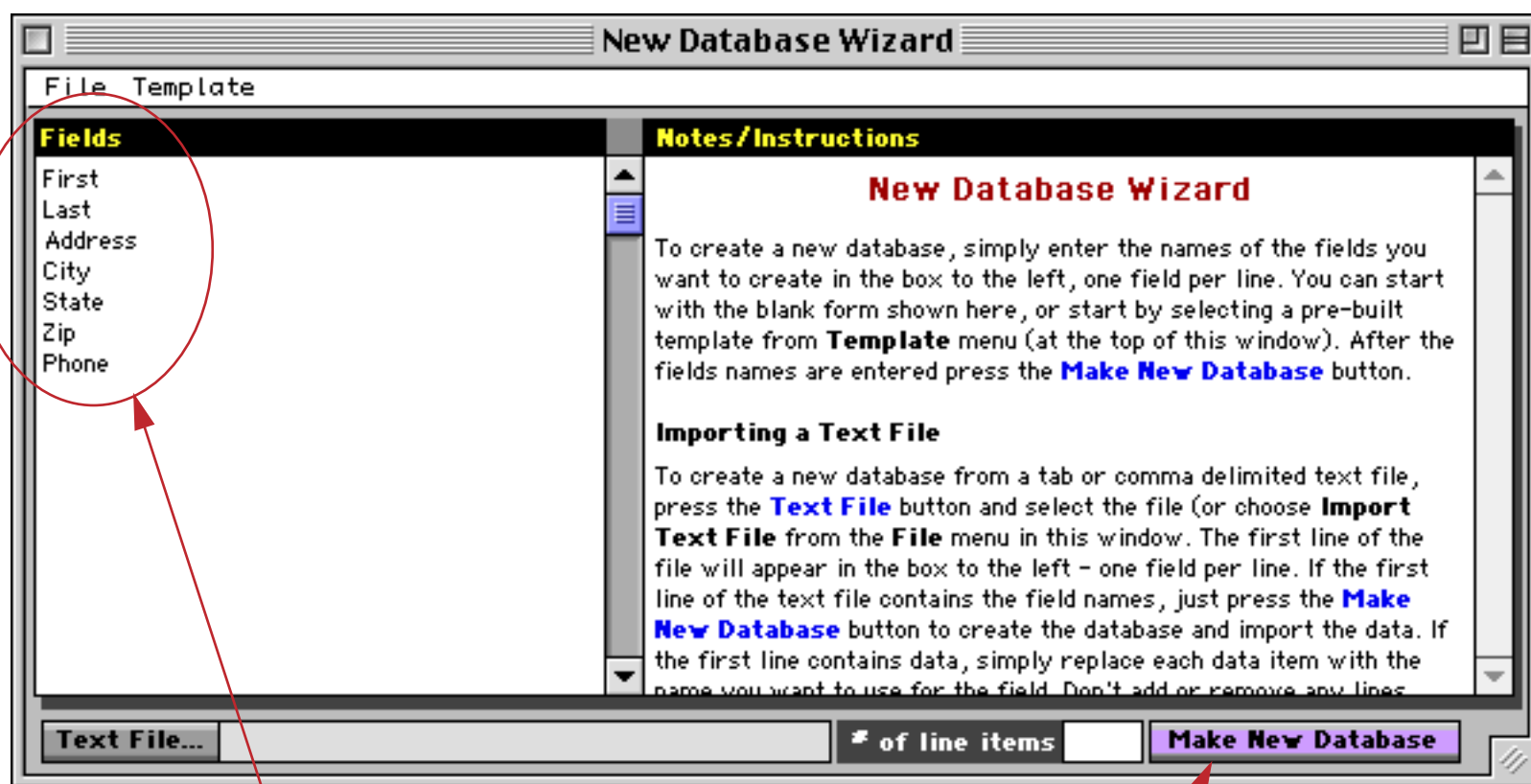
P.S. This tutorial teaches you how to work with Panorama. It assumes, however, you already are familiar with your computer and operating system. You should be able to point, click, and drag selections, and be able to make selections from menus, use scroll bars, and edit text. If you are not familiar with these skills, you should review the tutorial information supplied with your computer.

Lesson 1: Building Your First Mailing List Database

A mailing list for storing names and addresses is one of the most basic database applications, and is very simple to create with Panorama. Start by launching Panorama and the **New Database Wizard**. On Windows systems you can do this with the **Start** menu, on Macintosh systems you'll use the **Apple** menu.



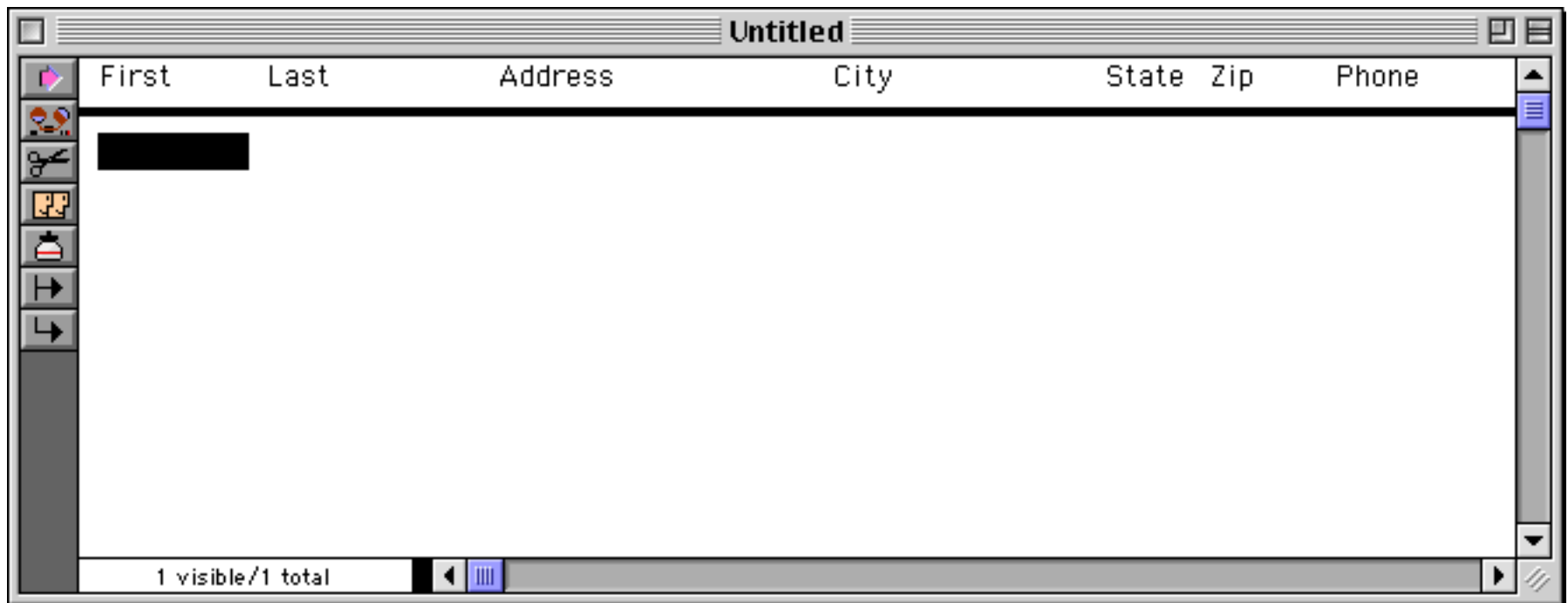
Your new mailing list database will have seven fields — **First**, **Last**, **Address**, **City**, **State**, **Zip** and **Phone**. (See “**Fields**” on page 327 for a complete explanation of fields.) Type in the name of each field into the wizard, with each name on a separate line (press the **Return** key to advance to the next line).



type in field names

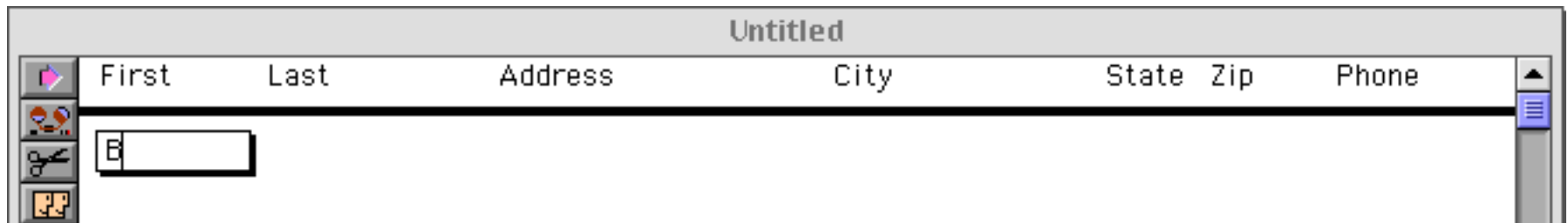
then press this button to create the database

When you press the **Make New Database** button the wizard will create a new database for you. The database is displayed using a row and column format called the **data sheet**. The new database contains one blank record (line) and seven fields (columns).

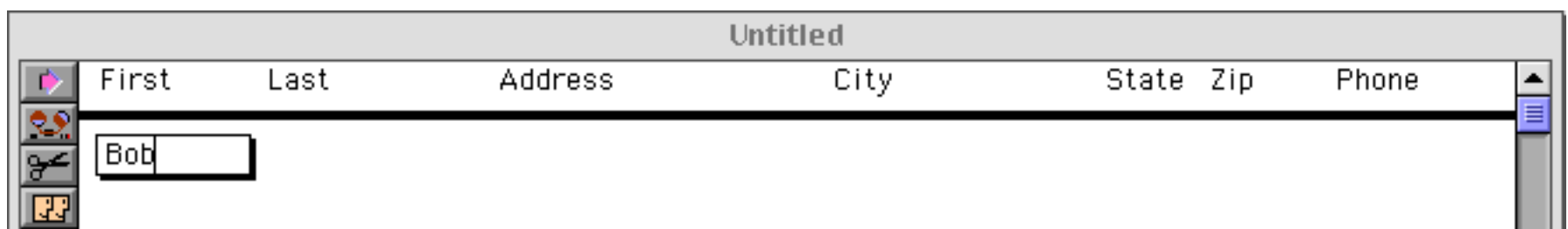


Entering Data Into Your New Database

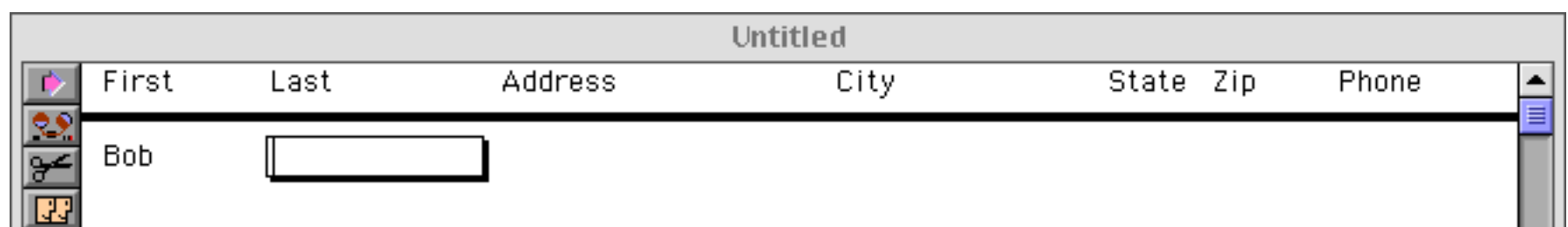
The new database is ready to use immediately — you can just start typing to enter data. For example, to enter the name **Bob** simply start by pressing the **b** key. A small pop-up window will appear over the current cell. This pop-up window is called the **Input Box** and is used for all data entry in the data sheet (see “[The Input Box](#)” on page 376).



Complete the entry of the name by pressing **o****b**. Notice that Panorama automatically capitalized the first letter of the name. We’ll show you how to turn this feature on and off later (see “[Automatic Capitalization](#)” on page 385 if you can’t wait).



When you’ve finished with the first name press the **Tab** key to move on to the last name.



Continue typing and pressing the **Tab** key until you get to the phone number. When you tab into the Phone field you'll notice that Panorama automatically types in the (for you.

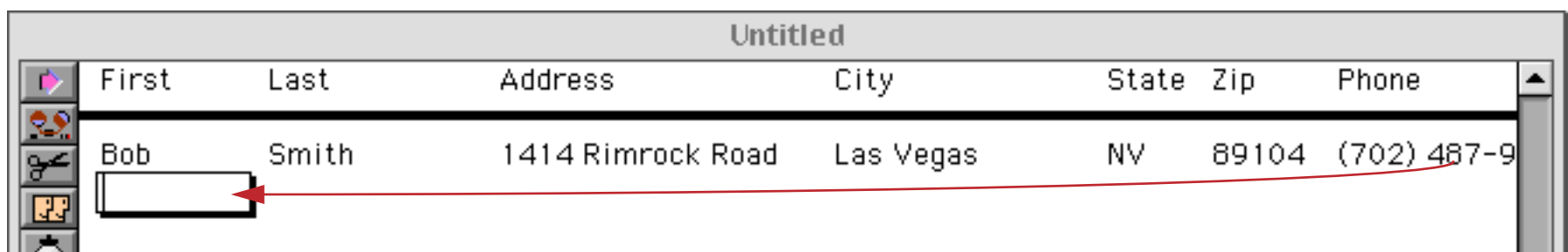


The **New Database Wizard** has set up an **Input Pattern** to make typing the phone number easier (see “[Input Patterns](#)” on page 393). All you have to type is the numbers, for example . Panorama will type in the punctuation for you.

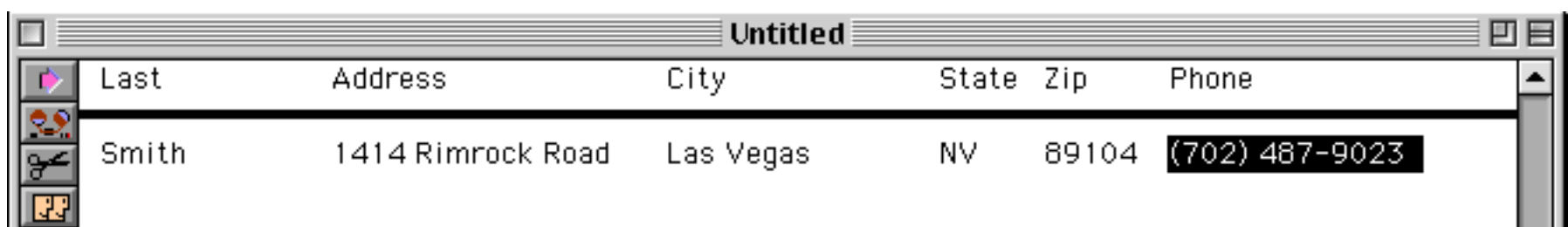


Panorama types in (,), space and - for you

Once you've finished entering the phone number you have a choice to make. Press the **Tab** key if you want to add another line and continue editing data.

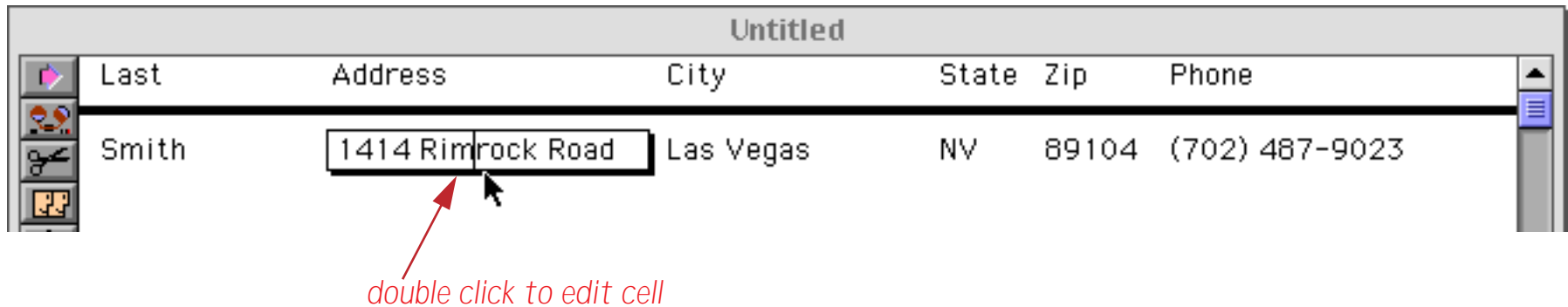


Press **Return** or **Enter** if you are done with data entry for the moment.



Making Corrections

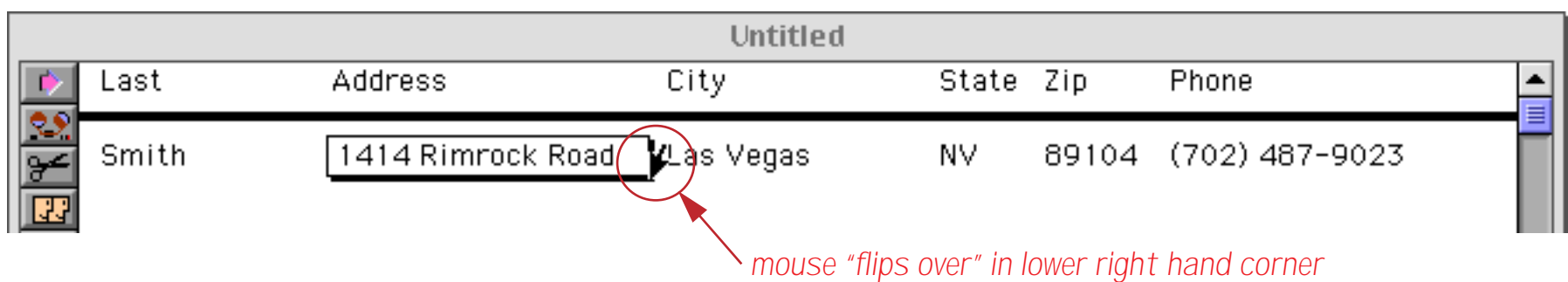
It's easy to change the contents of any cell. Start by double clicking on the cell. This opens the Input Box, allowing you to type in a new value or to make corrections.



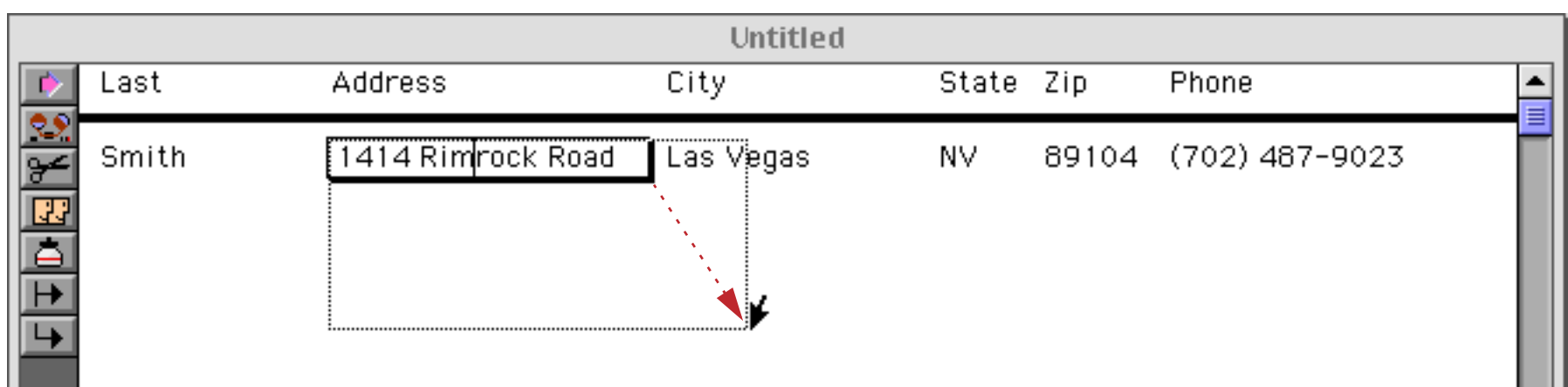
Press the **Enter** key or click on another cell when you are finished. (You can also press the **Tab** key if you want to skip to next cell and edit it too.)

Editing a Multi-Line Cell

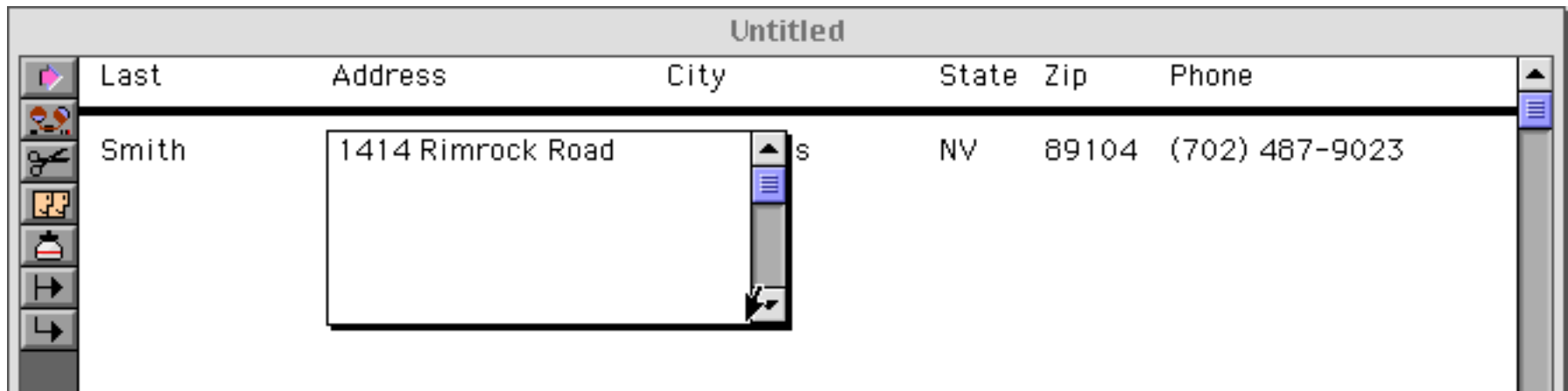
If you need more room to enter your data, you can expand the size of the Input Box. For example, you might need to expand the Input Box to enter an address with more than one line. To expand the Input Box, move the arrow to the lower right hand corner of the box. When the mouse reaches the corner, the arrow will flip over so that it is pointed down instead of up.



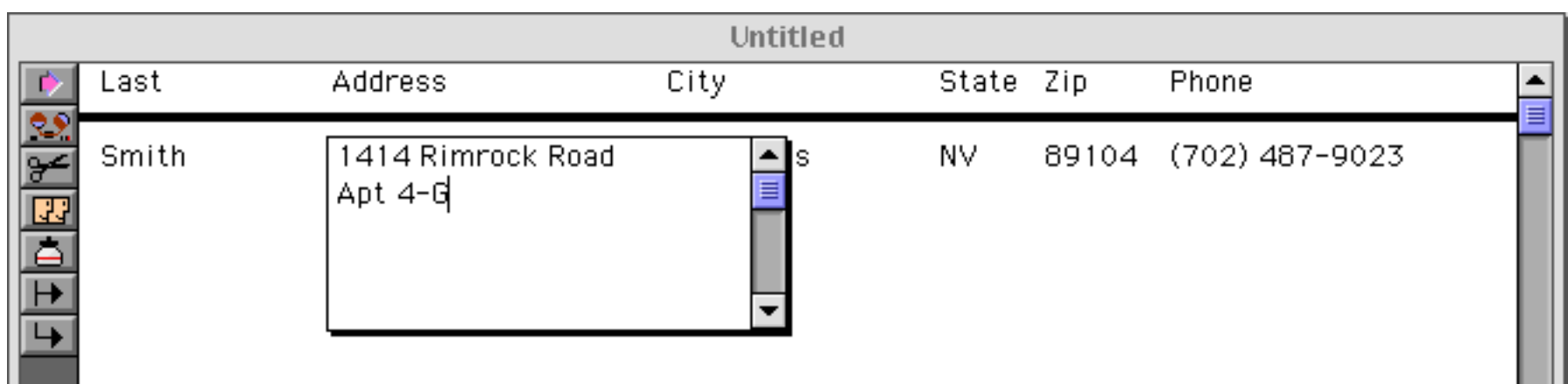
When you see the arrow flip over, press the mouse and drag the corner of the box to the size you want.



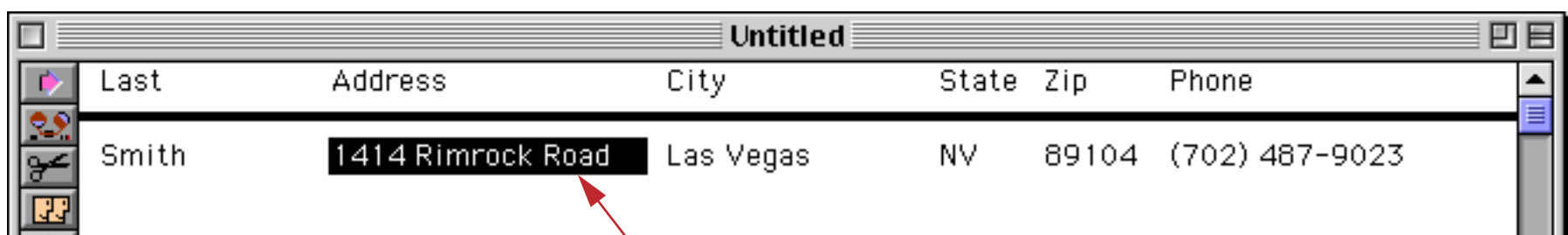
When you release the mouse the Input Box will expand to the new size.



Now that the Input Box has been expanded you can use the **Return** key to add additional lines to the data cell. You can add as many lines as you like.

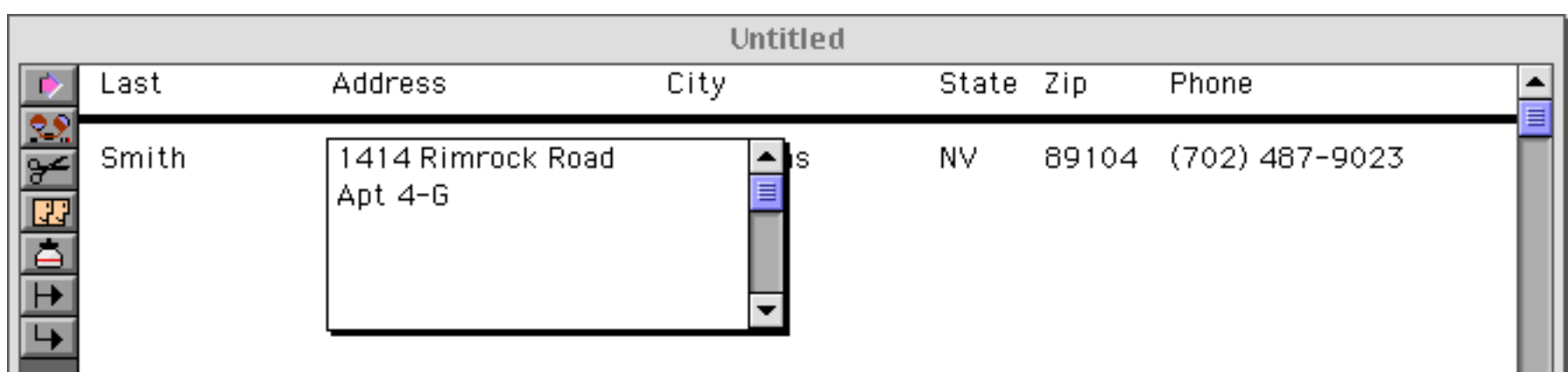


When you are finished editing the address press the **Enter** key. The Input Box closes and now you can only see the first line of the data. (If you want to see more than one line of data in a cell that is not being edited you must use a form, see "[Displaying and Editing Text](#)" on page 637).

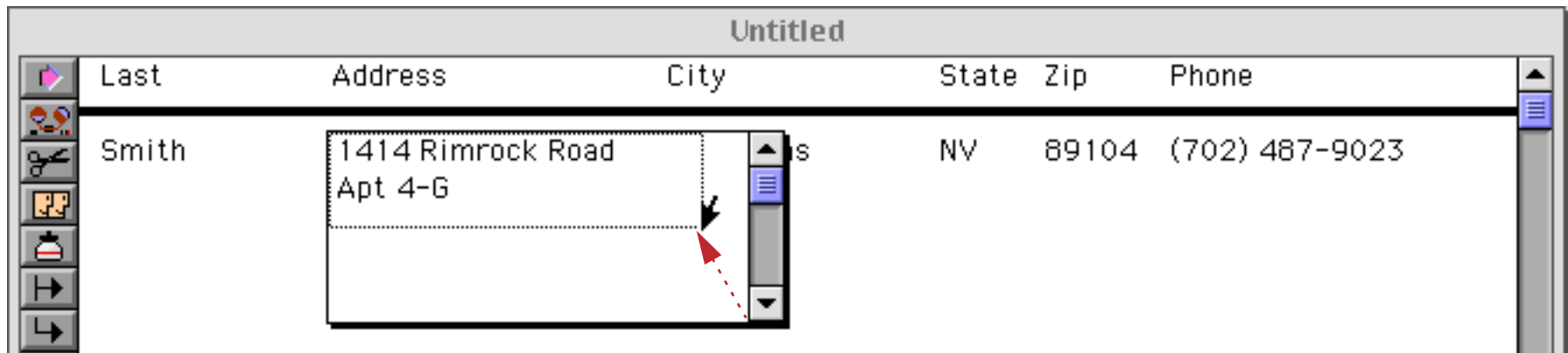


only first line of text is visible in data sheet

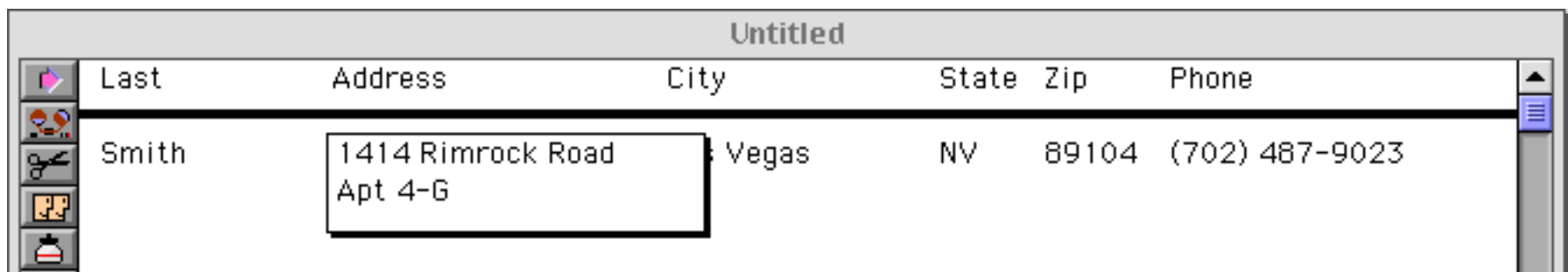
If you double click to edit the data cell again Panorama will remember the new size of the Input Box.



You can adjust the size of the Input Box any time it is open.



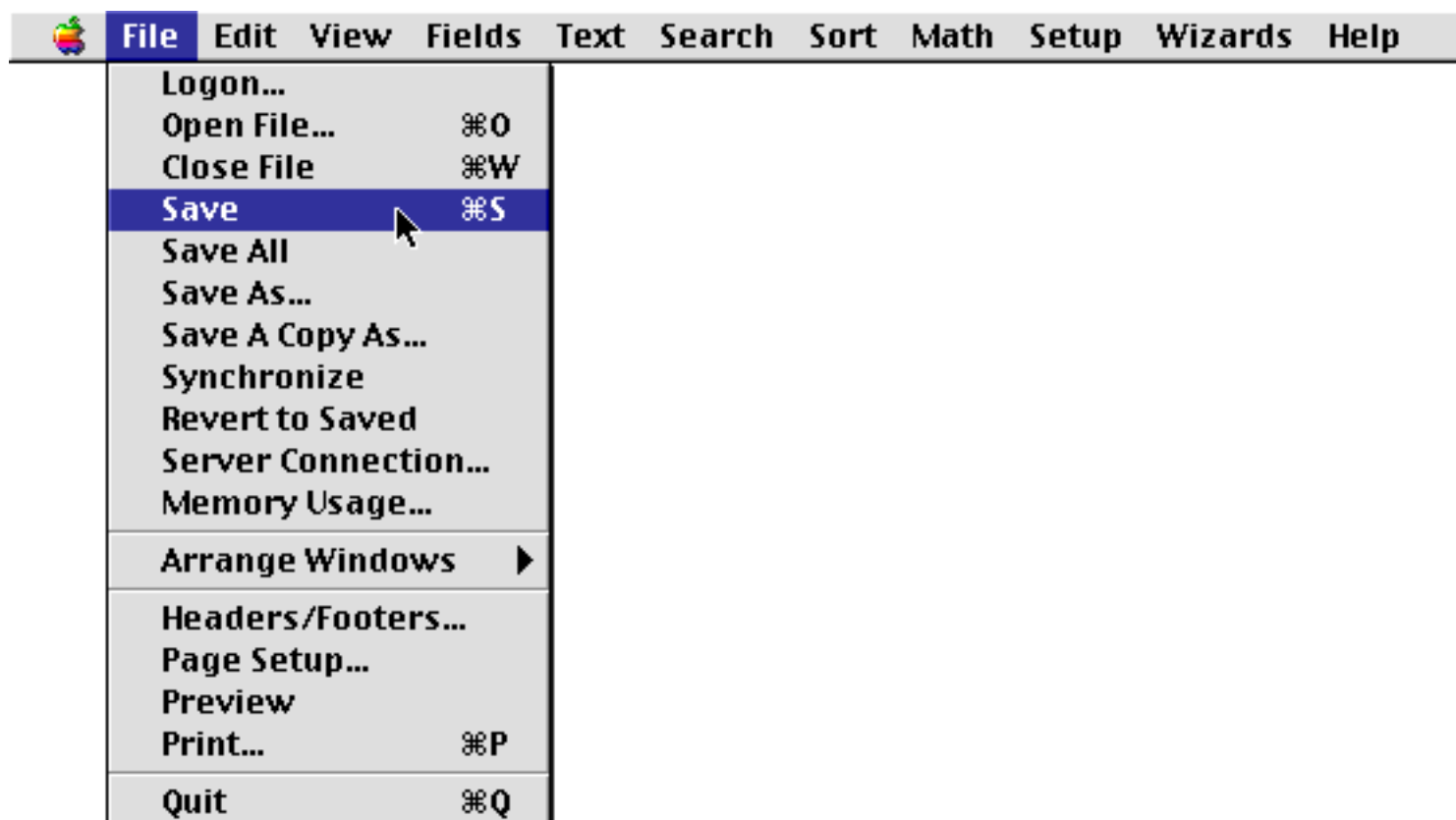
If the Input Box is less than one inch high it won't have a scroll bar.



To learn more about expanding the Input Box see [“Expanding the Input Box”](#) on page 377

Saving Your Work

To permanently store your new database choose the **Save** command from the File menu.



Using the dialog, choose the folder you want to save the database in. Type in the name of the file and check the **Save Window Positions** option (see “[Saving Window Positions](#)” on page 213). When everything is set up press the **Save** button.

select folder you want to save file in

type in name of file

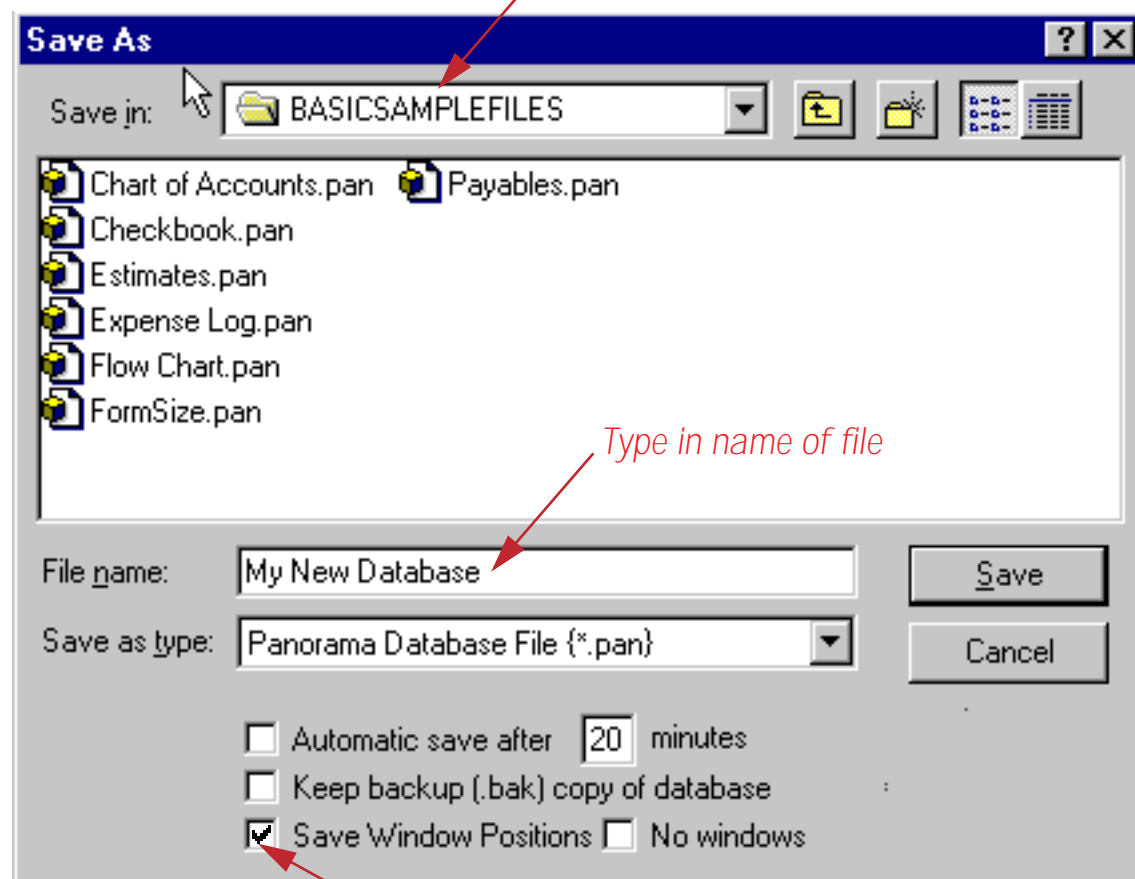


tell Panorama to save window positions

If you are using a Windows PC the dialog looks a little bit different but the procedure is exactly the same.

select folder you want to save file in

Type in name of file



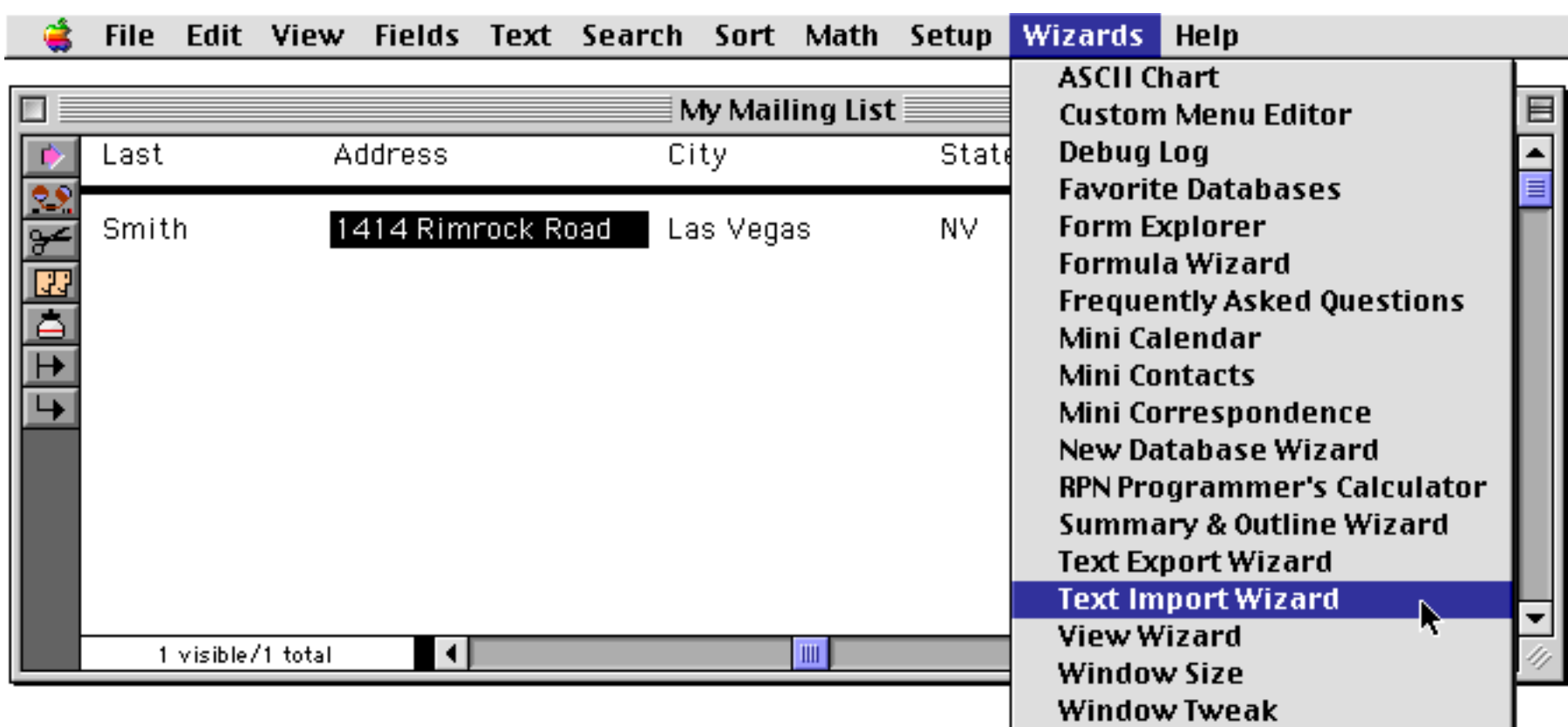
tell Panorama to save window positions

After the file is saved the name of the window will change from **Untitled** to the name of the file, in this case **My Mailing List**.

Last	Address	City	State	Zip	Phone
Smith	1414 Rimrock Road	Las Vegas	NV	89104	(702) 487-9023

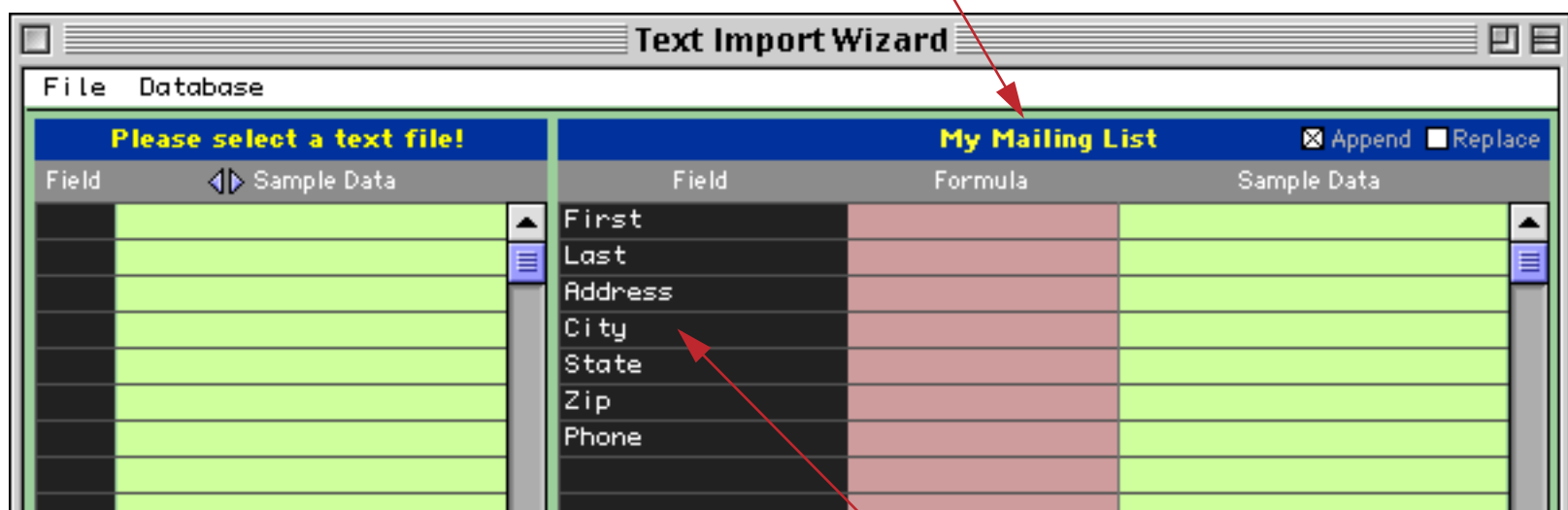
Importing Data Into the Mailing List

If you already have data in another program (FileMaker, Access, Excel, etc.) you can transfer that data to Panorama by exporting it into a text file (tab or comma delimited) and then importing it into Panorama. Panorama includes some text files with sample data, so we'll import one of those files now. Start by choosing **Text Import Wizard** from the **Wizards** menu.



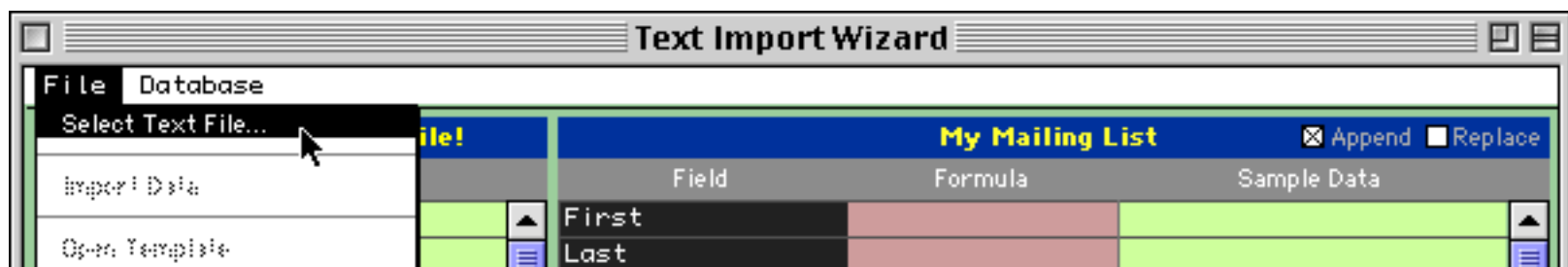
The wizard opens and lists the fields in your database on the right hand side.

name of database data will be imported into.

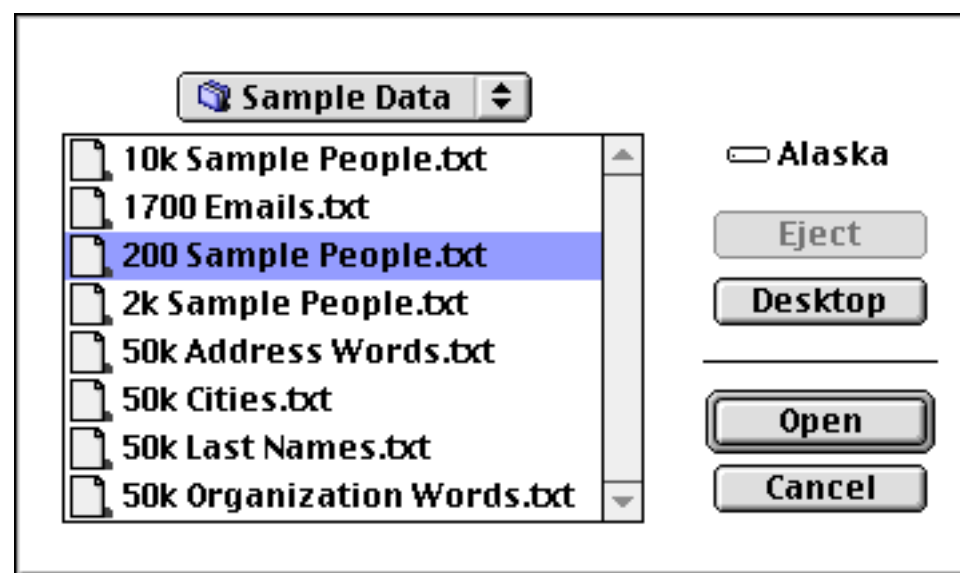


fields in database

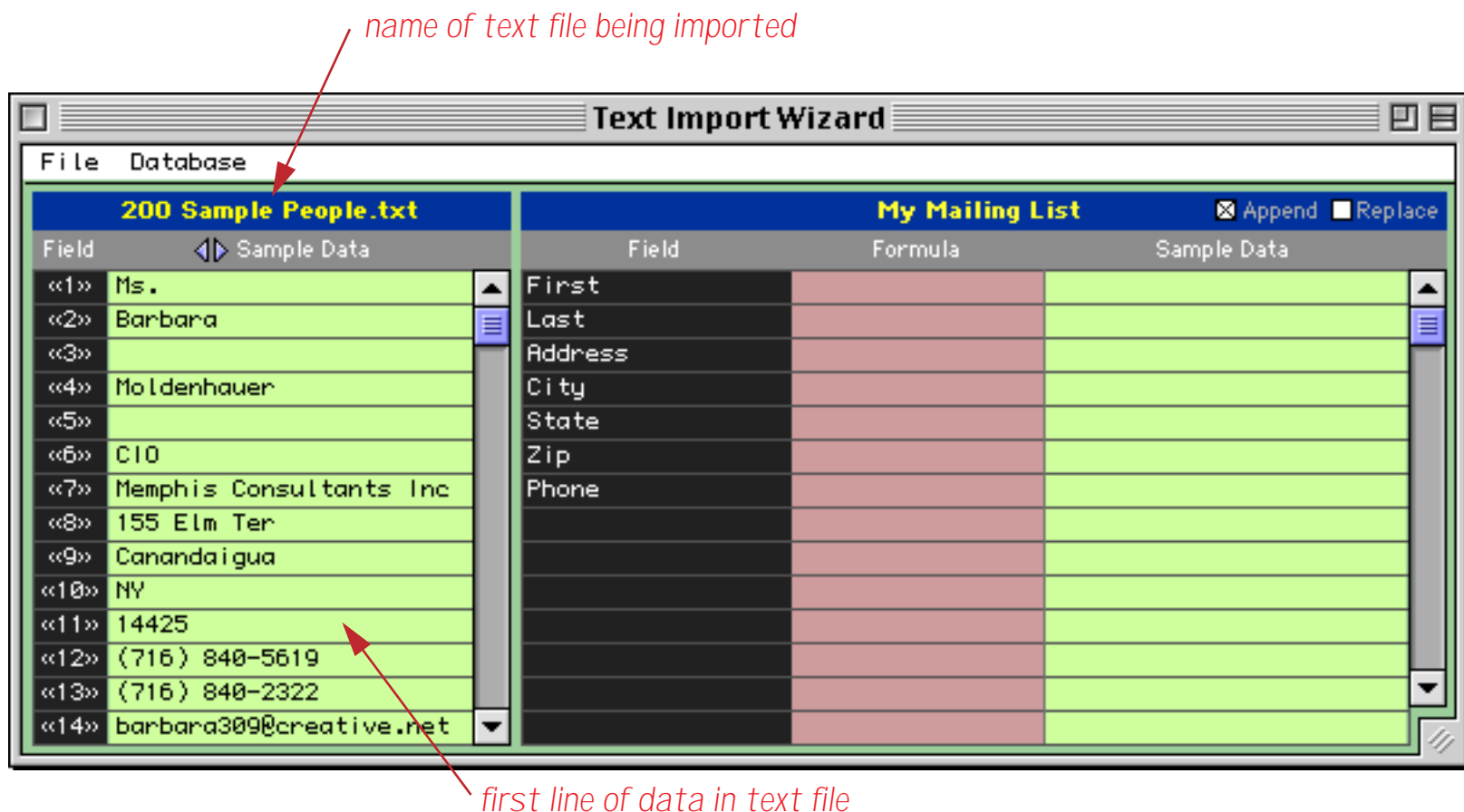
The next step is to select the text file that contains the data to be imported. Choose **Select Text File** from the File menu inside the window.



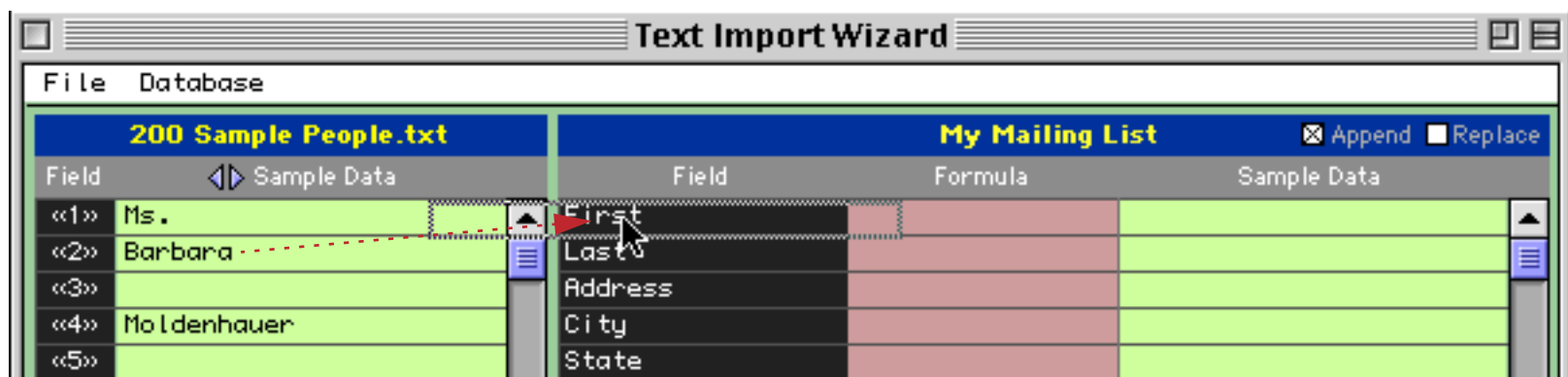
Using the dialog, locate the file **200 Sample People.txt** in the **Sample Data** folder. When you have located the file press the **Open** button.



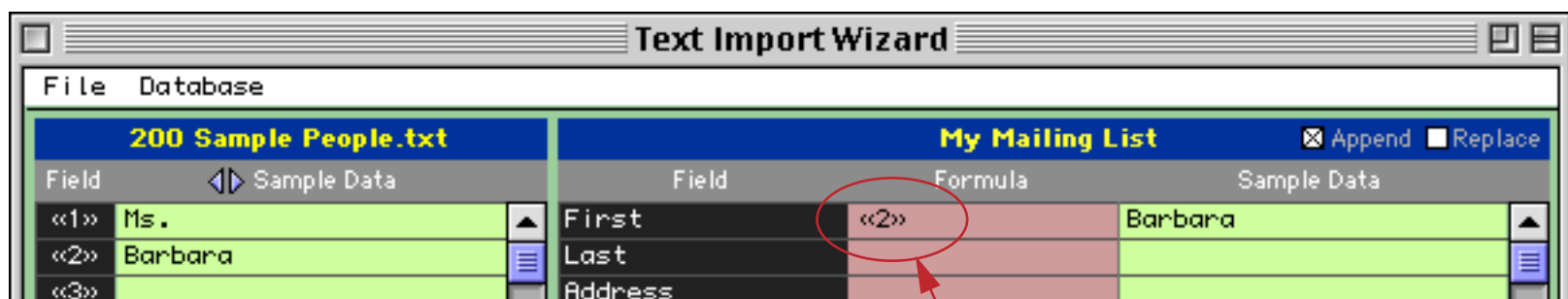
Once the file is selected the wizard will display the fields in the first line of the text file. The text file contains 15 fields, including name, address, phone, fax, email and birthday (not shown).



Before you can import the data you must assign the fields in the text file to fields in the database. Start by dragging **Barbara** to the **First** field.

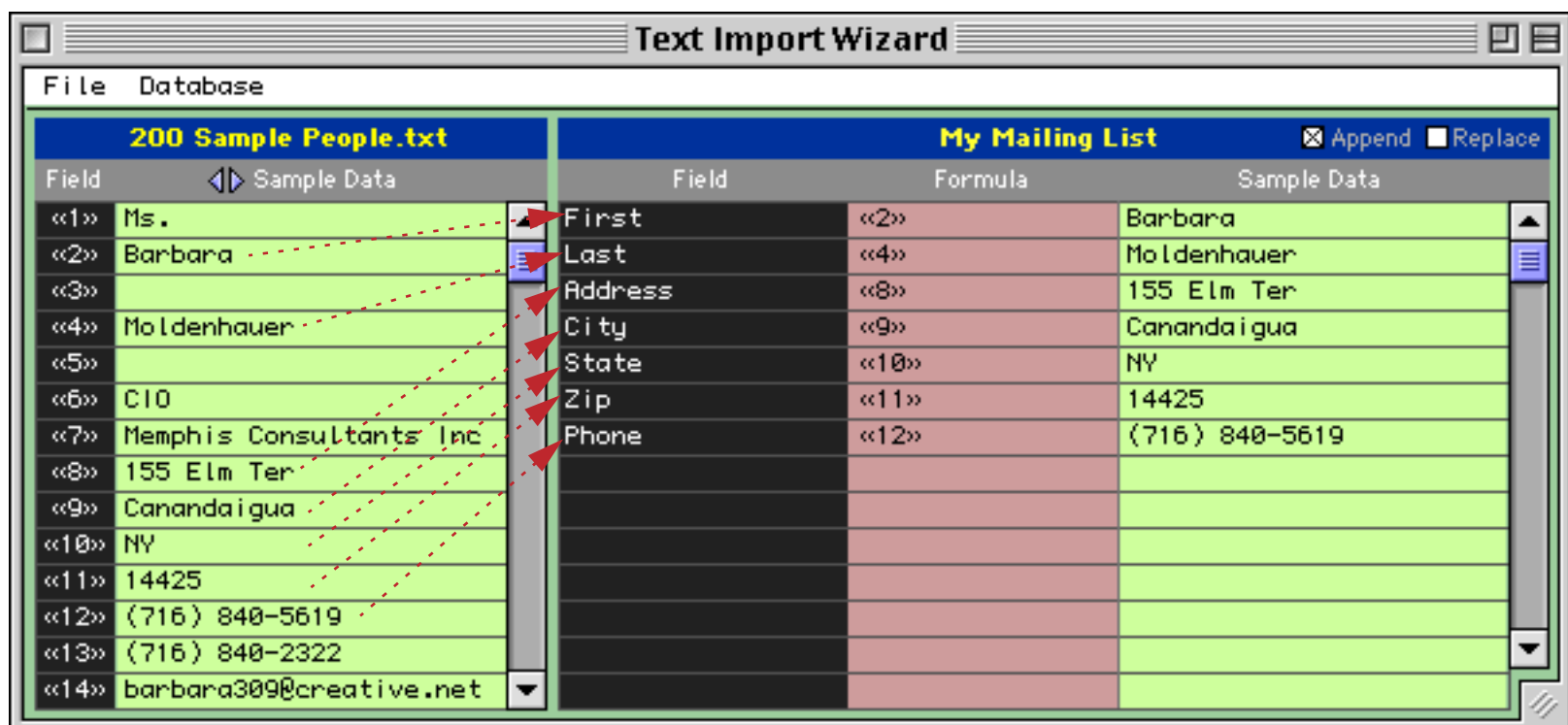


When you release the mouse the wizard will assign the second field from the text file to the **First** field.

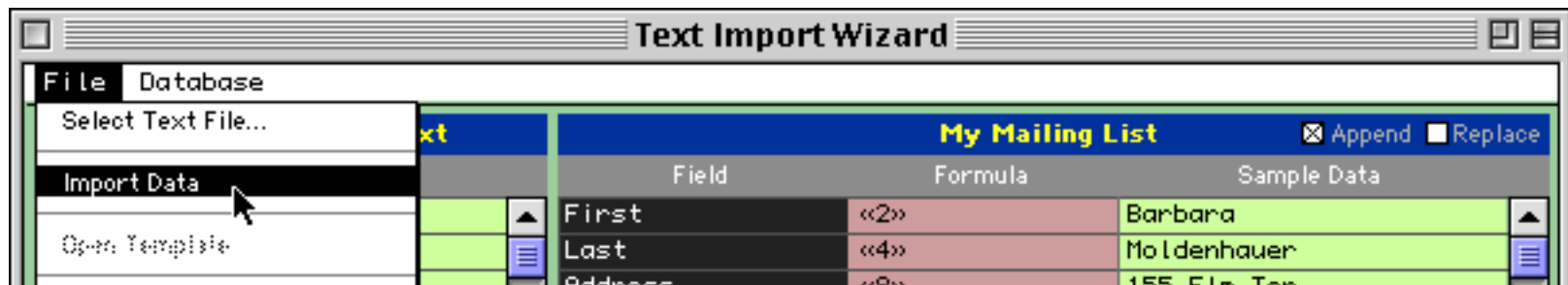


second field of text file assigned to this database field

Drag each of the text fields you want to import onto the corresponding database field. You can check your work by looking at the **Sample Data** column.



Once all of the fields are set up choose **Import Data** from the File menu inside the window.



The wizard will import the data from the text file into the database.



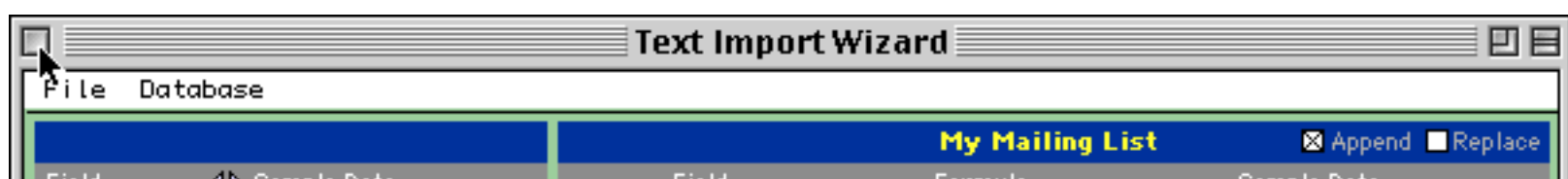
Your database now contains 201 records — the single record you typed in plus the 200 records imported by the Text Import Wizard. The total number of records is displayed in the lower left hand corner of the window.



total number of records in the entire database

Before you go any further you should use the **Save** command (in the File menu) to save the new data in the database. Since you have already saved this file once and given it a name, Panorama will quickly save the file without asking you for the name and location again.

Since we're done with the **Text Import Wizard** for the moment, click on it's window to bring it forward and then close the window.



To learn more about the **Text Import Wizard** see [“Using the Text Import Wizard”](#) on page 234.

Adjusting Column Widths, Font and Size

To adjust the width of a column in the data sheet move the mouse anywhere over the column name. When the mouse is over the name it will turn into a double left/right arrow.

mouse turns into double left/right arrow

First	Last	Address	City	State	Zip	Phone
Barbara	Moldenhauer	155 Elm Ter	Canandaigua	NY	14425	(716) 840-5
Karen	Bryant	3595 E 5Th Blvd.	Garden City	GA	31408	(912) 528-0
Deborah	Wolf	8503 E. Glenbrook Ave	Eureka	CA	95503	(707) 448-9

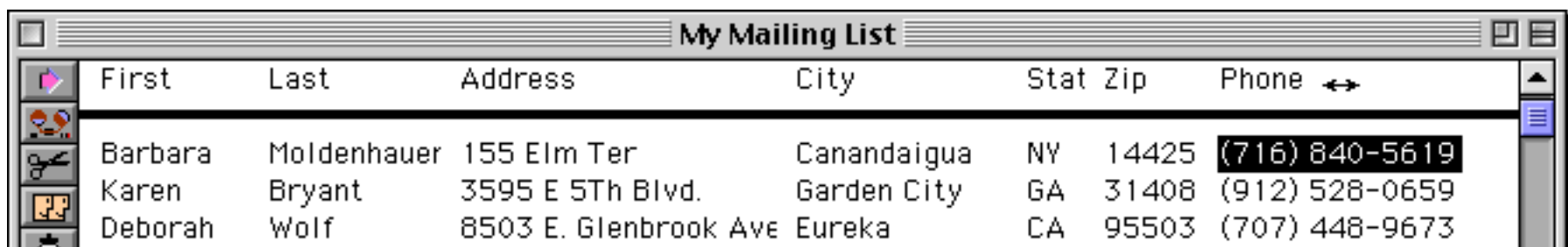
To adjust the column width press and drag to the left or right.

First	Last	Address	City	State	Zip	Phone
Barbara	Moldenhauer	155 Elm Ter	Canandaigua	NY	14425	(716) 840-5
Karen	Bryant	3595 E 5Th Blvd.	Garden City	GA	31408	(912) 528-0
Deborah	Wolf	8503 E. Glenbrook Ave	Eureka	CA	95503	(707) 448-9
Timonthy	Dobbins	639 E Clayton Ln	Jenison	MI	49428	(616) 833-5
Kelly	Gage	677 S. Charlotte Lane	Bloomfield	NJ	07003	(201) 947-6
Marilyn	Pratt	34423 E. Hunt Rt	Montrose	NY	10548	(914) 810-7
Theresa	Tracy	777 W Stewart Way	Sargent Bluff	IA	51054	(712) 547-5
Charles	Lowe	938 West Laura Trail	Winter Park	FL	32793	(407) 544-8
Michelle	Stern	10773 E. Pioneer Dr	Cincinnati	OH	45207	(513) 407-5
Kathy	Root	32104 S 18Th Pkwy	St George	UT	84770	(801) 611-9
George	McMahon	720 S.E. Florence Ter	Brooklyn	NY	11204	(718) 488-9

When you release the mouse the column width will be adjusted.

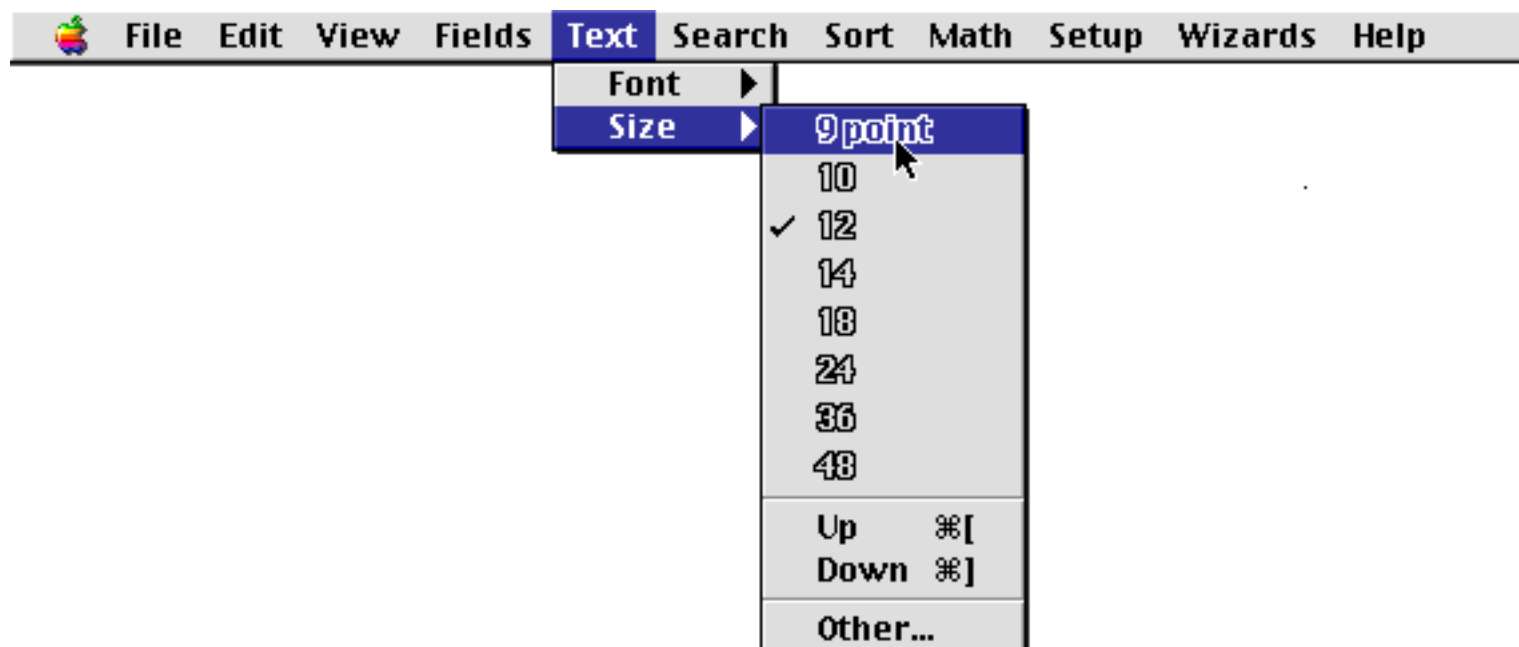
First	Last	Address	City	State	Zip	Phone
Barbara	Moldenhauer	155 Elm Ter	Canandaigua	NY	14425	(716) 840-5
Karen	Bryant	3595 E 5Th Blvd.	Garden City	GA	31408	(912) 528-0
Deborah	Wolf	8503 E. Glenbrook Ave	Eureka	CA	95503	(707) 448-9
Timonthy	Dobbins	639 E Clayton Ln	Jenison	MI	49428	(616) 833-5
Kelly	Gage	677 S. Charlotte Lane	Bloomfield	NJ	07003	(201) 947-6
Marilyn	Pratt	34423 E. Hunt Rt	Montrose	NY	10548	(914) 810-7
Theresa	Tracy	777 W Stewart Way	Sargent Bluff	IA	51054	(712) 547-5
Charles	Lowe	938 West Laura Trail	Winter Park	FL	32793	(407) 544-8
Michelle	Stern	10773 E. Pioneer Dr	Cincinnati	OH	45207	(513) 407-5
Kathy	Root	32104 S 18Th Pkwy	St George	UT	84770	(801) 611-9
George	McMahon	720 S.E. Florence Ter	Brooklyn	NY	11204	(718) 488-9

You can use this technique to adjust the widths of as many columns as you like (see “[Changing the Width of a Field](#)” on page 331).

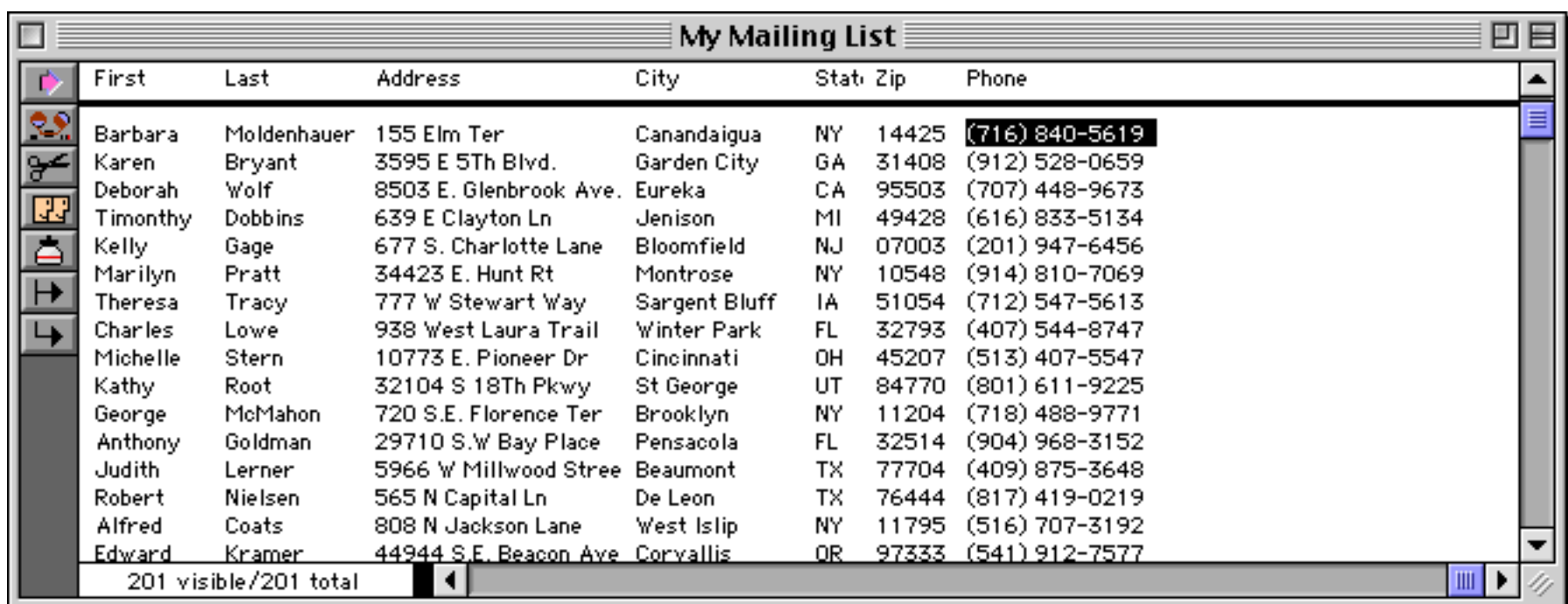


First	Last	Address	City	Stat	Zip	Phone
Barbara	Moldenhauer	155 Elm Ter	Canandaigua	NY	14425	(716) 840-5619
Karen	Bryant	3595 E 5Th Blvd.	Garden City	GA	31408	(912) 528-0659
Deborah	Wolf	8503 E. Glenbrook Ave	Eureka	CA	95503	(707) 448-9673

Use the Text menu to change the font and size of the text displayed in the data sheet.



When you change the size of the text Panorama changes with width of each column proportionally, so that you do not need to adjust the widths of the columns.



First	Last	Address	City	Stat	Zip	Phone
Barbara	Moldenhauer	155 Elm Ter	Canandaigua	NY	14425	(716) 840-5619
Karen	Bryant	3595 E 5Th Blvd.	Garden City	GA	31408	(912) 528-0659
Deborah	Wolf	8503 E. Glenbrook Ave.	Eureka	CA	95503	(707) 448-9673
Timonthy	Dobbins	639 E Clayton Ln	Jenison	MI	49428	(616) 833-5134
Kelly	Gage	677 S. Charlotte Lane	Bloomfield	NJ	07003	(201) 947-6456
Marilyn	Pratt	34423 E. Hunt Rt	Montrose	NY	10548	(914) 810-7069
Theresa	Tracy	777 W Stewart Way	Sargent Bluff	IA	51054	(712) 547-5613
Charles	Lowe	938 West Laura Trail	Winter Park	FL	32793	(407) 544-8747
Michelle	Stern	10773 E. Pioneer Dr	Cincinnati	OH	45207	(513) 407-5547
Kathy	Root	32104 S 18Th Pkwy	St George	UT	84770	(801) 611-9225
George	McMahon	720 S.E. Florence Ter	Brooklyn	NY	11204	(718) 488-9771
Anthony	Goldman	29710 S.W Bay Place	Pensacola	FL	32514	(904) 968-3152
Judith	Lerner	5966 W Millwood Stree	Beaumont	TX	77704	(409) 875-3648
Robert	Nielsen	565 N Capital Ln	De Leon	TX	76444	(817) 419-0219
Alfred	Coats	808 N Jackson Lane	West Islip	NY	11795	(516) 707-3192
Edward	Kramer	44944 S.E. Beacon Ave	Corvallis	OR	97333	(541) 912-7577

201 visible/201 total

Use the Save command (File menu) to save the new configuration.

Sorting the Database

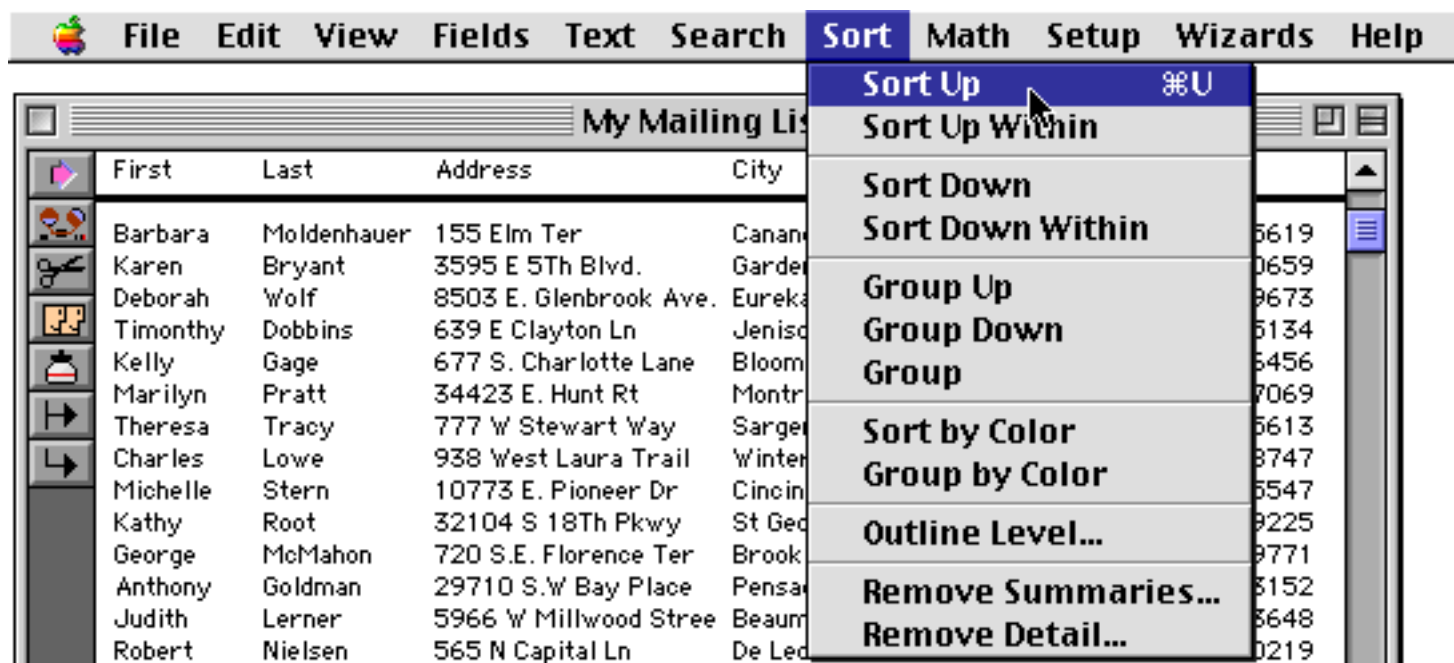
Now that the database is filled with sample data you can try out Panorama's commands for organizing data. To sort by zip code start by clicking anywhere in the **Zip** column.



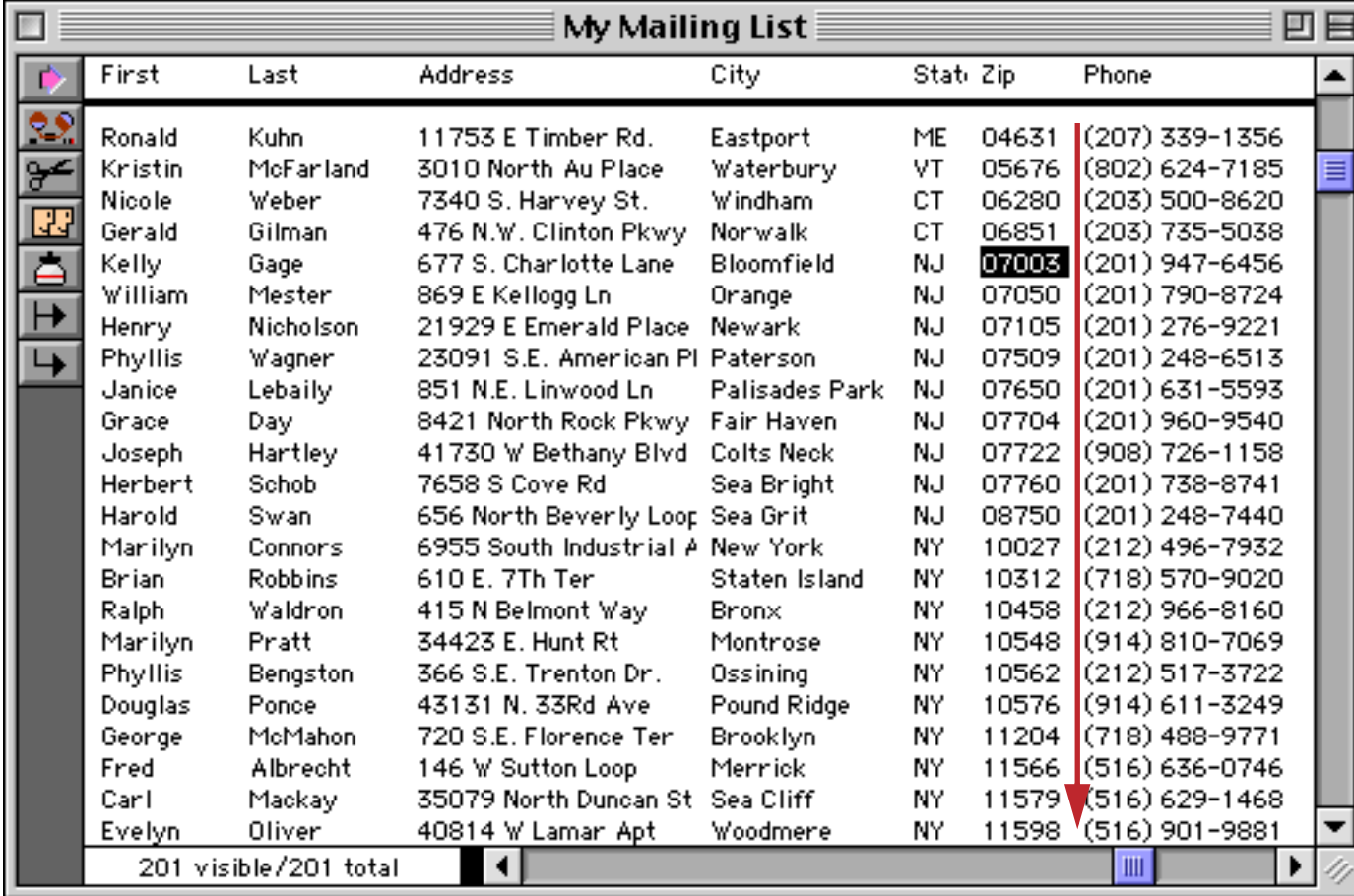
	First	Last	Address	City	Stat	Zip	Phone
	Barbara	Moldenhauer	155 Elm Ter	Canandaigua	NY	14425	(716) 840-5619
	Karen	Bryant	3595 E 5Th Blvd.	Garden City	GA	31408	(912) 528-0659
	Deborah	Wolf	8503 E. Glenbrook Ave.	Eureka	CA	95503	(707) 448-9673
	Timothy	Dobbins	639 E Clayton Ln	Jenison	MI	49428	(616) 833-5134
	Kelly	Gage	677 S. Charlotte Lane	Bloomfield	NJ	07042	(201) 947-6456
	Marilyn	Pratt	34423 E. Hunt Rt	Montrose	NY	10548	(914) 810-7069
	Theresa	Tracy	777 W Stewart Way	Sargent Bluff	IA	51154	(712) 547-5613

click anywhere in this column

Now choose **Sort Up** from the Sort menu.



Panorama will sort the database as soon as you release the mouse. Notice that the zip code you originally clicked on is still highlighted. If you want to see the first zip code you'll need to use the vertical scroll bar to move to the top of the database.



First	Last	Address	City	Stat	Zip	Phone
Ronald	Kuhn	11753 E Timber Rd.	Eastport	ME	04631	(207) 339-1356
Kristin	McFarland	3010 North Au Place	Waterbury	VT	05676	(802) 624-7185
Nicole	Weber	7340 S. Harvey St.	Windham	CT	06280	(203) 500-8620
Gerald	Gilman	476 N.W. Clinton Pkwy	Norwalk	CT	06851	(203) 735-5038
Kelly	Gage	677 S. Charlotte Lane	Bloomfield	NJ	07003	(201) 947-6456
William	Mester	869 E Kellogg Ln	Orange	NJ	07050	(201) 790-8724
Henry	Nicholson	21929 E Emerald Place	Newark	NJ	07105	(201) 276-9221
Phyllis	Wagner	23091 S.E. American Pl	Paterson	NJ	07509	(201) 248-6513
Janice	Lebaily	851 N.E. Linwood Ln	Palisades Park	NJ	07650	(201) 631-5593
Grace	Day	8421 North Rock Pkwy	Fair Haven	NJ	07704	(201) 960-9540
Joseph	Hartley	41730 W Bethany Blvd	Colts Neck	NJ	07722	(908) 726-1158
Herbert	Schob	7658 S Cove Rd	Sea Bright	NJ	07760	(201) 738-8741
Harold	Swan	656 North Beverly Loop	Sea Grit	NJ	08750	(201) 248-7440
Marilyn	Connors	6955 South Industrial A	New York	NY	10027	(212) 496-7932
Brian	Robbins	610 E. 7Th Ter	Staten Island	NY	10312	(718) 570-9020
Ralph	Waldron	415 N Belmont Way	Bronx	NY	10458	(212) 966-8160
Marilyn	Pratt	34423 E. Hunt Rt	Montrose	NY	10548	(914) 810-7069
Phyllis	Bengston	366 S.E. Trenton Dr.	Ossining	NY	10562	(212) 517-3722
Douglas	Ponce	43131 N. 33Rd Ave	Pound Ridge	NY	10576	(914) 611-3249
George	McMahon	720 S.E. Florence Ter	Brooklyn	NY	11204	(718) 488-9771
Fred	Albrecht	146 W Sutton Loop	Merrick	NY	11566	(516) 636-0746
Carl	Mackay	35079 North Duncan St	Sea Cliff	NY	11579	(516) 629-1468
Evelyn	Oliver	40814 W Lamar Apt	Woodmere	NY	11598	(516) 901-9881

Sorting By Two or More Fields

You can sort by as many fields as you like. In this example you will sort by cities within states. The first step is to sort by states. To do this click anywhere in the State field and choose **Sort Up** from the Sort menu.

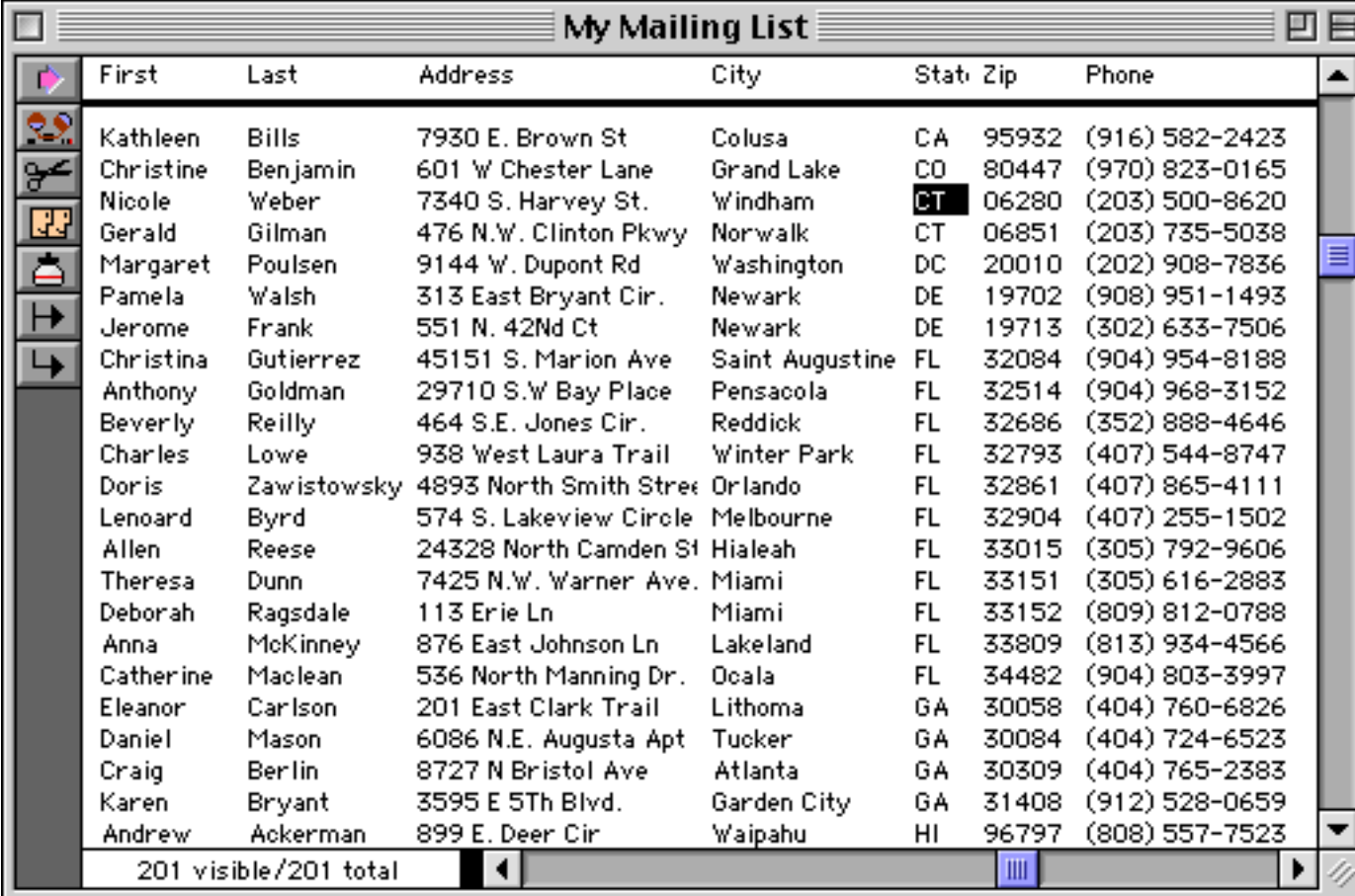


First	Last	Address	City	Stat	Zip	Phone
Ronald	Kuhn	11753 E Timber Rd.	Eastport	ME	04631	(207) 339-1356
Kristin	McFarland	3010 North Au Place	Waterbury	VT	05676	(802) 624-7185
Nicole	Weber	7340 S. Harvey St.	Windham	CT	06280	(203) 500-8620
Gerald	Gilman	476 N.W. Clinton Pkwy	Norwalk	CT	06851	(203) 735-5038
Kelly	Gage	677 S. Charlotte Lane	Bloomfield	NJ	07003	(201) 947-6456
William	Mester	869 E Kellogg Ln	Orange	NJ	07050	(201) 790-8724

click anywhere in State field... then Sort Up



Now the database is sorted by state, but the cities within each state are still out of order. For example, **Hialeah** should be the first state within Florida (FL) and **Atlanta** should be the first city within Georgia (GA).



First	Last	Address	City	Stat	Zip	Phone
Kathleen	Bills	7930 E. Brown St	Colusa	CA	95932	(916) 582-2423
Christine	Benjamin	601 W Chester Lane	Grand Lake	CO	80447	(970) 823-0165
Nicole	Weber	7340 S. Harvey St.	Windham	CT	06280	(203) 500-8620
Gerald	Gilman	476 N.W. Clinton Pkwy	Norwalk	CT	06851	(203) 735-5038
Margaret	Poulsen	9144 W. Dupont Rd	Washington	DC	20010	(202) 908-7836
Pamela	Walsh	313 East Bryant Cir.	Newark	DE	19702	(908) 951-1493
Jerome	Frank	551 N. 42Nd Ct	Newark	DE	19713	(302) 633-7506
Christina	Gutierrez	45151 S. Marion Ave	Saint Augustine	FL	32084	(904) 954-8188
Anthony	Goldman	29710 S.W Bay Place	Pensacola	FL	32514	(904) 968-3152
Beverly	Reilly	464 S.E. Jones Cir.	Reddick	FL	32686	(352) 888-4646
Charles	Lowe	938 West Laura Trail	Winter Park	FL	32793	(407) 544-8747
Doris	Zawistowsky	4893 North Smith Street	Orlando	FL	32861	(407) 865-4111
Lenoard	Byrd	574 S. Lakeview Circle	Melbourne	FL	32904	(407) 255-1502
Allen	Reese	24328 North Camden St	Hialeah	FL	33015	(305) 792-9606
Theresa	Dunn	7425 N.W. Warner Ave.	Miami	FL	33151	(305) 616-2883
Deborah	Ragsdale	113 Erie Ln	Miami	FL	33152	(809) 812-0788
Anna	McKinney	876 East Johnson Ln	Lakeland	FL	33809	(813) 934-4566
Catherine	Maclean	536 North Manning Dr.	Ocala	FL	34482	(904) 803-3997
Eleanor	Carlson	201 East Clark Trail	Lithoma	GA	30058	(404) 760-6826
Daniel	Mason	6086 N.E. Augusta Apt	Tucker	GA	30084	(404) 724-6523
Craig	Berlin	8727 N Bristol Ave	Atlanta	GA	30309	(404) 765-2383
Karen	Bryant	3595 E 5Th Blvd.	Garden City	GA	31408	(912) 528-0659
Andrew	Ackerman	899 E. Deer Cir	Waipahu	HI	96797	(808) 557-7523

To sort the cities within the states first click anywhere in the **City** field, then choose **Sort Up Within** from the Sort menu. Be sure to choose **Sort Up Within**, not **Sort Up**.



First	Last	Address	City	Stat	Zip	Phone
Kathleen	Bills	7930 E. Brown St	Colusa	CA	95932	(916) 582-2423
Christine	Benjamin	601 W Chester Lane	Grand Lake	CO	80447	(970) 823-0165
Nicole	Weber	7340 S. Harvey St.	Windham	CT	06280	(203) 500-8620
Gerald	Gilman	476 N.W. Clinton Pkwy	Norwalk	CT	06851	(203) 735-5038
Margaret	Poulsen	9144 W. Dupont Rd	Washington	DC	20010	(202) 908-7836

click anywhere in the City field... then Sort Up Within



The database is still sorted by state, but now the cities are sorted within each state as well.

First	Last	Address	City	Stat	Zip	Phone
Christine	Benjamin	601 W Chester Lane	Grand Lake	CO	80447	(970) 823-0165
Gerald	Gilman	476 N.W. Clinton Pkwy	Norwalk	CT	06851	(203) 735-5038
Nicole	Weber	7340 S. Harvey St.	Windham	CT	06280	(203) 500-8620
Margaret	Poulsen	9144 W. Dupont Rd	Washington	DC	20010	(202) 908-7836
Pamela	Walsh	313 East Bryant Cir.	Newark	DE	19702	(908) 951-1493
Jerome	Frank	551 N. 42Nd Ct	Newark	DE	19713	(302) 633-7506
Allen	Reese	24328 North Camden St	Hialeah	FL	33015	(305) 792-9606
Anna	McKinney	876 East Johnson Ln	Lakeland	FL	33809	(813) 934-4566
Lenoard	Byrd	574 S. Lakeview Circle	Melbourne	FL	32904	(407) 255-1502
Theresa	Dunn	7425 N.W. Warner Ave.	Miami	FL	33151	(305) 616-2883
Deborah	Ragsdale	113 Erie Ln	Miami	FL	33152	(809) 812-0788
Catherine	Maclean	536 North Manning Dr.	Ocala	FL	34482	(904) 803-3997
Doris	Zawistowsky	4893 North Smith Street	Orlando	FL	32861	(407) 865-4111
Anthony	Goldman	29710 S.W Bay Place	Pensacola	FL	32514	(904) 968-3152
Beverly	Reilly	464 S.E. Jones Cir.	Reddick	FL	32686	(352) 888-4646
Christina	Gutierrez	45151 S. Marion Ave	Saint Augustine	FL	32084	(904) 954-8188
Charles	Lowe	938 West Laura Trail	Winter Park	FL	32793	(407) 544-8747
Craig	Berlin	8727 N Bristol Ave	Atlanta	GA	30309	(404) 765-2383
Karen	Bryant	3595 E 5Th Blvd.	Garden City	GA	31408	(912) 528-0659
Eleanor	Carlson	201 East Clark Trail	Lithonia	GA	30058	(404) 760-6826
Daniel	Mason	6086 N.E. Augusta Apt	Tucker	GA	30084	(404) 724-6523
Andrew	Ackerman	899 E. Deer Cir	Waipahu	HI	96797	(808) 557-7523
Derrick	Berg	8275 E Morris St	Carter Lake	IA	51510	(402) 637-8209

201 visible/201 total

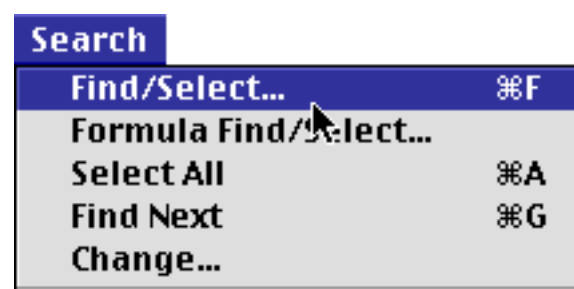
You can use **Sort Up Within** as many times as you wish in your database. For example, you could now sort the last names within each city. To learn more about sorting see “[Sorting](#)” on page 425.

Finding a Person

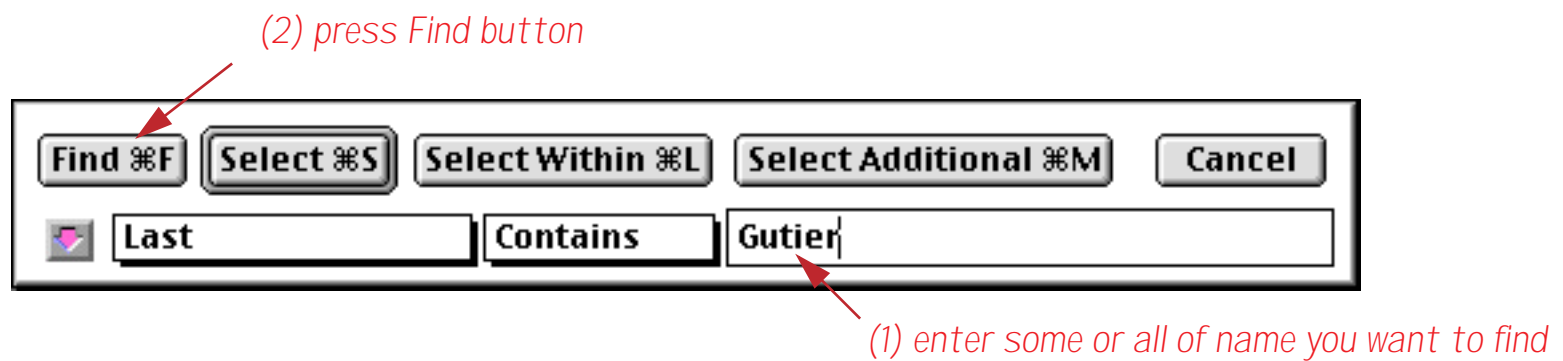
To search for someone’s last name in the database you first need to click somewhere in the **Last** column.

First	Last	Address	City	Stat	Zip	Phone
Christine	Benjamin	601 W Chester Lane	Grand Lake	CO	80447	(970) 823-0165
Gerald	Gilman	476 N.W. Clinton Pkwy	Norwalk	CT	06851	(203) 735-5038
Nicole	Weber	7340 S. Harvey St.	Windham	CT	06280	(203) 500-8620
Margaret	Poulsen	9144 W. Dupont Rd	Washington	DC	20010	(202) 908-7836
Pamela	Walsh	313 East Bryant Cir.	Newark	DE	19702	(908) 951-1493

Now choose the **Find/Select** command from the Search menu.



Type some or all of the name you wish to find into the dialog. In this case we want to search for **Gutierrez** so we will enter the first few letters of the name. (The more of the name you type in the less chance there will be for a false match with someone else.)



When you press the **Find** button Panorama will locate Ms. Gutierrez.

The screenshot shows a window titled "My Mailing List" containing a table with the following data:

First	Last	Address	City	Stat.	Zip	Phone
Christine	Benjamin	601 W Chester Lane	Grand Lake	CO	80447	(970) 823-0165
Gerald	Gilman	476 N.W. Clinton Pkwy	Norwalk	CT	06851	(203) 735-5038
Nicole	Weber	7340 S. Harvey St.	Windham	CT	06280	(203) 500-8620
Margaret	Poulsen	9144 W. Dupont Rd	Washington	DC	20010	(202) 908-7836
Pamela	Walsh	313 East Bryant Cir.	Newark	DE	19702	(908) 951-1493
Jerome	Frank	551 N. 42Nd Ct	Newark	DE	19713	(302) 633-7506
Allen	Reese	24328 North Camden St	Hialeah	FL	33015	(305) 792-9606
Anna	McKinney	876 East Johnson Ln	Lakeland	FL	33809	(813) 934-4566
Lenoard	Byrd	574 S. Lakeview Circle	Melbourne	FL	32904	(407) 255-1502
Theresa	Dunn	7425 N.W. Warner Ave.	Miami	FL	33151	(305) 616-2883
Deborah	Ragsdale	113 Erie Ln	Miami	FL	33152	(809) 812-0788
Catherine	Maclean	536 North Manning Dr.	Ocala	FL	34482	(904) 803-3997
Doris	Zawistowsky	4893 North Smith Street	Orlando	FL	32861	(407) 865-4111
Anthony	Goldman	29710 S.W Bay Place	Pensacola	FL	32514	(904) 968-3152
Beverly	Reilly	464 S.E. Jones Cir.	Reddick	FL	32686	(352) 888-4646
Christina	Gutierrez	45151 S. Marion Ave	Saint Augustine	FL	32084	(904) 954-8188
Charles	Lowe	938 West Laura Trail	Winter Park	FL	32793	(407) 544-8747
Craig	Berlin	8727 N Bristol Ave	Atlanta	GA	30309	(404) 765-2383
Karen	Bryant	3595 E 5Th Blvd.	Garden City	GA	31408	(912) 528-0659
Eleanor	Carlson	201 East Clark Trail	Lithoma	GA	30058	(404) 760-6826
Daniel	Mason	6086 N.E. Augusta Apt	Tucker	GA	30084	(404) 724-6523
Andrew	Ackerman	899 E. Deer Cir	Waipahu	HI	96797	(808) 557-7523
Derrick	Berg	8275 E Morris St	Carter Lake	IA	51510	(402) 637-8209

At the bottom of the window, it says "201 visible/201 total".

Finding Multiple People

Suppose you want to look up someone who's first name is **Alan**, but you're not sure what the last name is. Start by clicking anywhere in the **First** column.

The screenshot shows the same "My Mailing List" window, but with the "First" column selected. The data is as follows:

First	Last	Address	City	Stat.	Zip	Phone
Christine	Benjamin	601 W Chester Lane	Grand Lake	CO	80447	(970) 823-0165
Gerald	Gilman	476 N.W. Clinton Pkwy	Norwalk	CT	06851	(203) 735-5038
Nicole	Weber	7340 S. Harvey St.	Windham	CT	06280	(203) 500-8620
Margaret	Poulsen	9144 W. Dupont Rd	Washington	DC	20010	(202) 908-7836
Jerome	Frank	551 N. 42Nd Ct	Newark	DE	19713	(302) 633-7506
Pamela	Walsh	313 East Bryant Cir.	Newark	DE	19702	(908) 951-1493

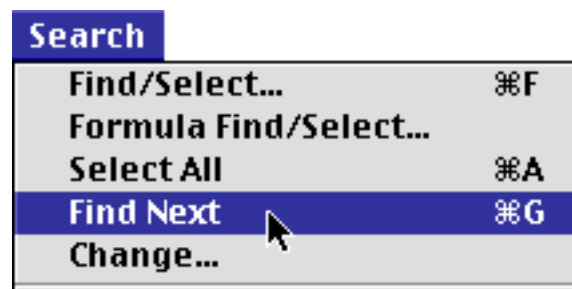
Now choose the **Find/Select** command and type in the name **Alan**.



When you press the **Find** button Panorama will find the first person named **Alan** in the database.

My Mailing List							
	First	Last	Address	City	Stat	Zip	Phone
	Alan	Harrison	93 Morton Ter	San Diego	CA	92123	(619) 783-1965
	Sandra	Cain	3975 S.W 1st Parkway	San Diego	CA	92154	(619) 297-5327
	Edward	Hasson	429 W Harvey Cir	San Gabriel	CA	91776	(818) 990-1793

If this isn't the **Alan** you were looking for choose **Find Next** from the Search menu.



Panorama will skip to the next **Alan** in the database.

My Mailing List							
	First	Last	Address	City	Stat	Zip	Phone
	Alan	Harrison	93 Morton Ter	San Diego	CA	92123	(619) 783-1965
	Sandra	Cain	3975 S.W 1st Parkway	San Diego	CA	92154	(619) 297-5327
	Edward	Hasson	429 W Harvey Cir	San Gabriel	CA	91776	(818) 990-1793
	Margaret	Naylor	7825 N Somerset Stree	San Leandro	CA	94577	(415) 343-9476
	Lawrence	Rodriguez	675 E Shasta Trail	San Pedro	CA	90733	(213) 834-2554
	Anthony	Dorfman	274 South 21st Dr.	Santa Rosa	CA	95405	(707) 910-4598
	Michelle	Schultz	25307 West Fairmount	Sebastopol	CA	95472	(707) 406-2284
	Alan	Lissner	9997 N Adams Rd	Spring Valley	CA	91977	(619) 736-7622
	Philip	Shipley	400 N Dupont Trail	Stockton	CA	95209	(209) 210-8495
	Raymond	Fowler	25027 North Cooper Pa	Wildomar	CA	92595	(909) 769-5153

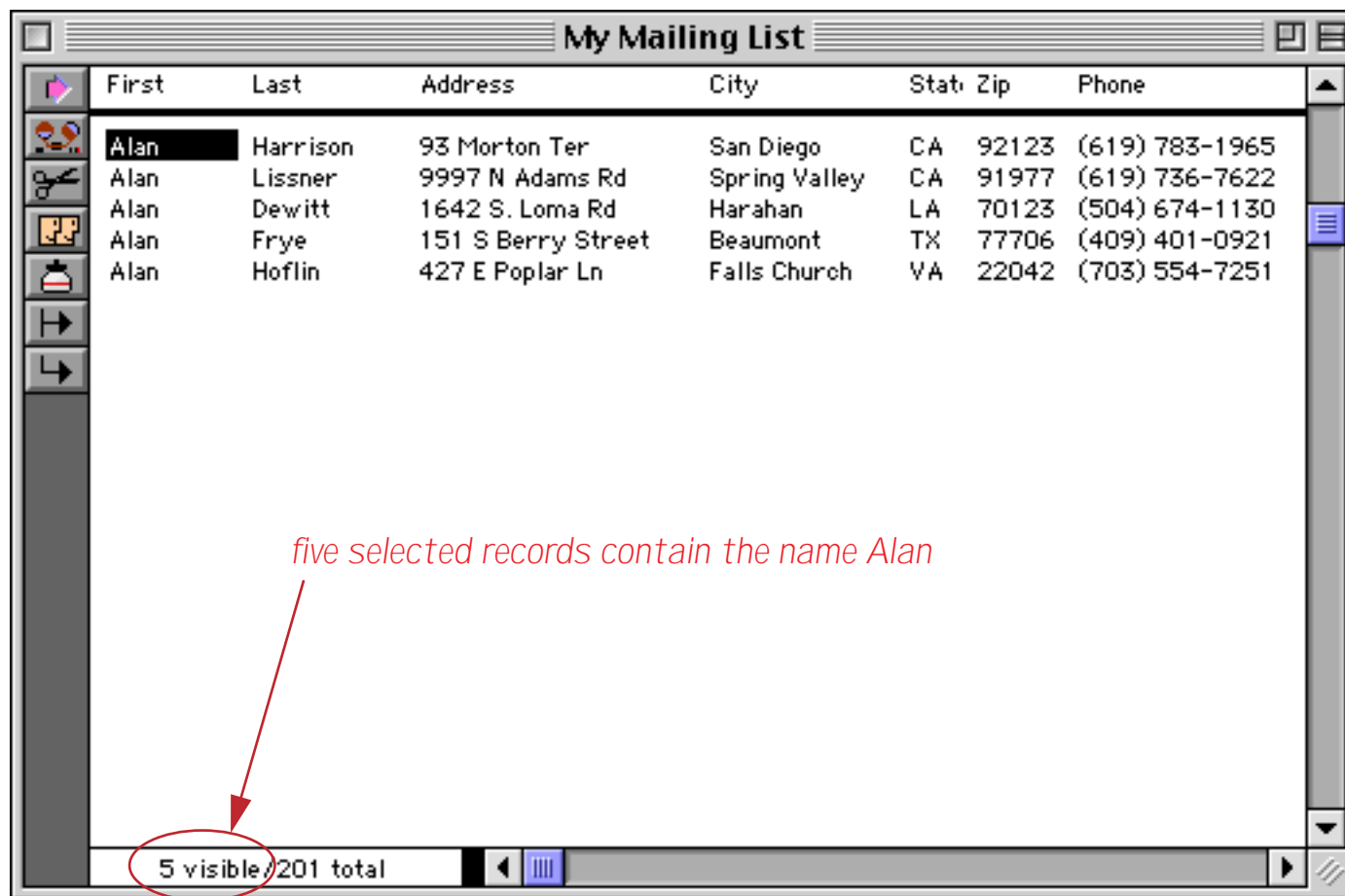
You can continue using the **Find/Next** command until you have located every **Alan** in the database.

Selecting Instead Of Finding

Another way to locate every person named **Alan** is to **select** the information (see "[Finding vs. Selecting](#)" on page 433). To do this click in the **First** column and choose the **Find/Select** command, but press the **Select** button instead of the **Find** button.

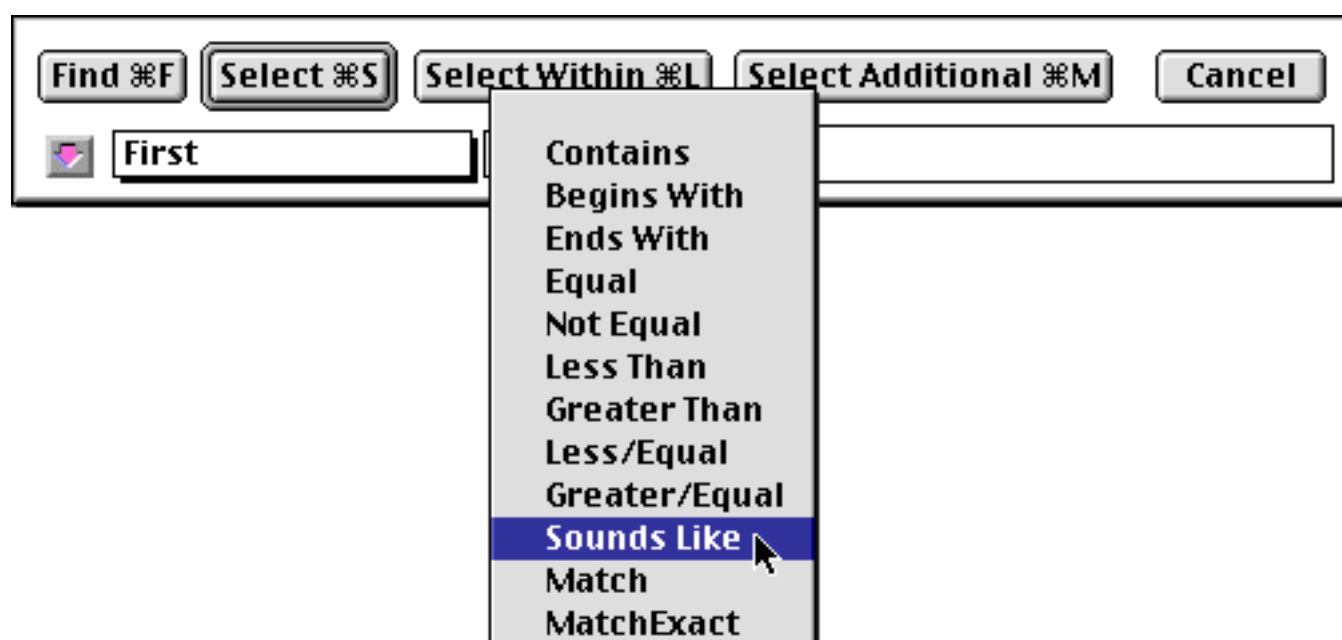


Most of the database will disappear. In fact, only the records containing the first name **Alan** will remain visible (selected). Everything else is temporarily invisible. Panorama displays the number of selected records in the lower left hand corner of the window. In this case five records contain the first name **Alan**. We say that these five records are the **selected** records. The other 196 records are invisible (unselected).



Using the Sounds Like Option

If you don't know exactly how something is spelled you can try using Panorama's **sounds like** option. To use this option open the **Find/Select** dialog and use the middle pop-up menu to select **Sounds Like**. (Shortcut: You can open the **Find/Select** dialog by clicking on the number of records in the lower left hand corner.)



Here's what the dialog looks like after you make this selection.



Panorama now selects six records instead of five, because the name **Allen** “sounds like” **Alan**.

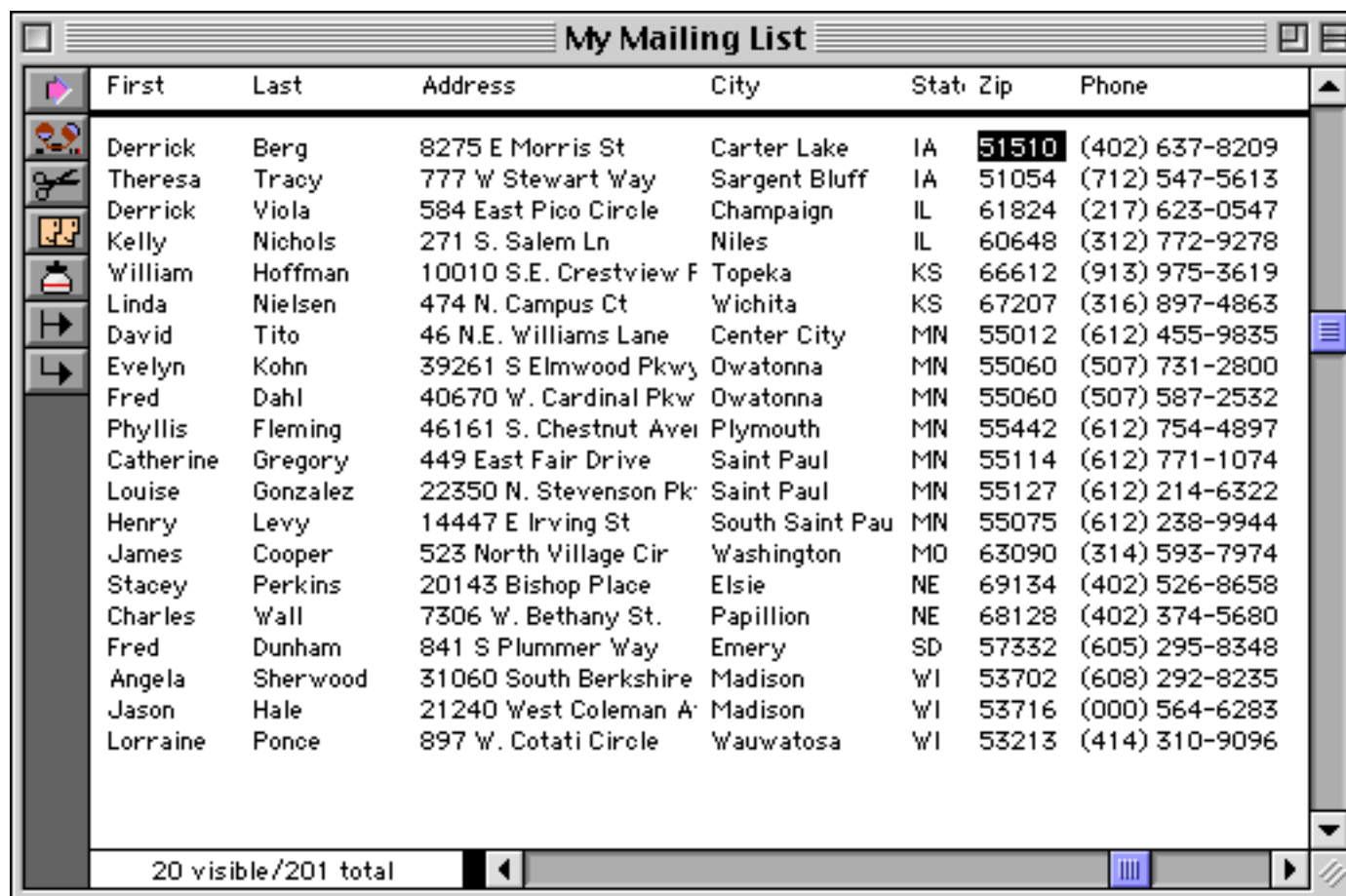
My Mailing List

First	Last	Address	City	Stat	Zip	Phone
Alan	Harrison	93 Morton Ter	San Diego	CA	92123	(619) 783-1965
Alan	Lissner	9997 N Adams Rd	Spring Valley	CA	91977	(619) 736-7622
Allen	Reese	24328 North Camden St	Hialeah	FL	33015	(305) 792-9606
Alan	Dewitt	1642 S. Loma Rd	Harahan	LA	70123	(504) 674-1130
Alan	Frye	151 S Berry Street	Beaumont	TX	77706	(409) 401-0921
Alan	Hoflin	427 E Poplar Ln	Falls Church	VA	22042	(703) 554-7251

6 visible/201 total

The **sounds like** option isn't perfect, but it can find most similar sounds and spellings. You must, however, know the first letter of the word or name you are looking for. For example, the **sounds like** option will never think that the name **Ellen** sounds like **Alan** because the two names start with different letters.

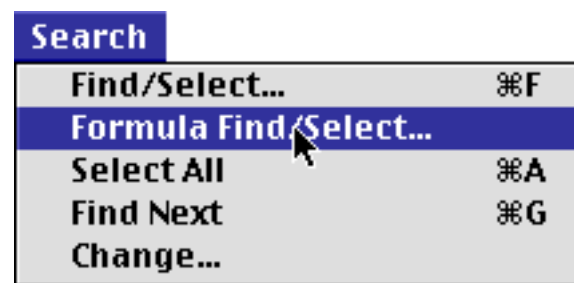
When you press the **Select** button Panorama will select only the records in the requested zip code range, in this case 20 records.



First	Last	Address	City	Stat	Zip	Phone
Derrick	Berg	8275 E Morris St	Carter Lake	IA	51510	(402) 637-8209
Theresa	Tracy	777 W Stewart Way	Sargent Bluff	IA	51054	(712) 547-5613
Derrick	Viola	584 East Pico Circle	Champaign	IL	61824	(217) 623-0547
Kelly	Nichols	271 S. Salem Ln	Niles	IL	60648	(312) 772-9278
William	Hoffman	10010 S.E. Crestview F	Topeka	KS	66612	(913) 975-3619
Linda	Nielsen	474 N. Campus Ct	Wichita	KS	67207	(316) 897-4863
David	Tito	46 N.E. Williams Lane	Center City	MN	55012	(612) 455-9835
Evelyn	Kohn	39261 S Elmwood Pkwy	Owatonna	MN	55060	(507) 731-2800
Fred	Dahl	40670 W. Cardinal Pkw	Owatonna	MN	55060	(507) 587-2532
Phyllis	Fleming	46161 S. Chestnut Ave	Plymouth	MN	55442	(612) 754-4897
Catherine	Gregory	449 East Fair Drive	Saint Paul	MN	55114	(612) 771-1074
Louise	Gonzalez	22350 N. Stevenson Pk	Saint Paul	MN	55127	(612) 214-6322
Henry	Levy	14447 E Irving St	South Saint Pau	MN	55075	(612) 238-9944
James	Cooper	523 North Village Cir	Washington	MO	63090	(314) 593-7974
Stacey	Perkins	20143 Bishop Place	Elsie	NE	69134	(402) 526-8658
Charles	Wall	7306 W. Bethany St.	Papillion	NE	68128	(402) 374-5680
Fred	Dunham	841 S Plummer Way	Emery	SD	57332	(605) 295-8348
Angela	Sherwood	31060 South Berkshire	Madison	WI	53702	(608) 292-8235
Jason	Hale	21240 West Coleman A	Madison	WI	53716	(000) 564-6283
Lorraine	Ponce	897 W. Cotati Circle	Wauwatosa	WI	53213	(414) 310-9096

20 visible/201 total

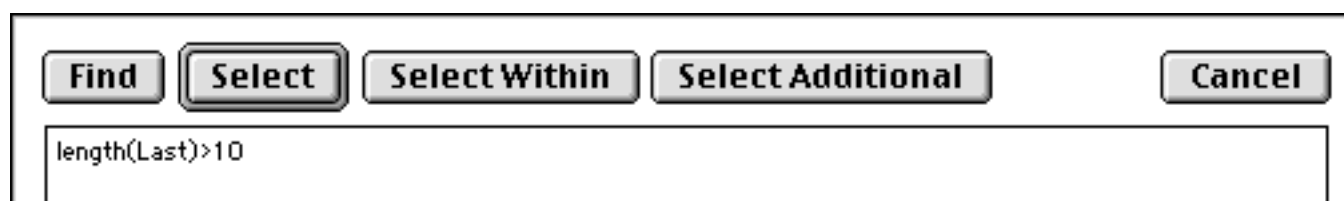
Panorama can also make complex selections based on a formula. To do this use the **Formula Find/Select** command in the Search menu.



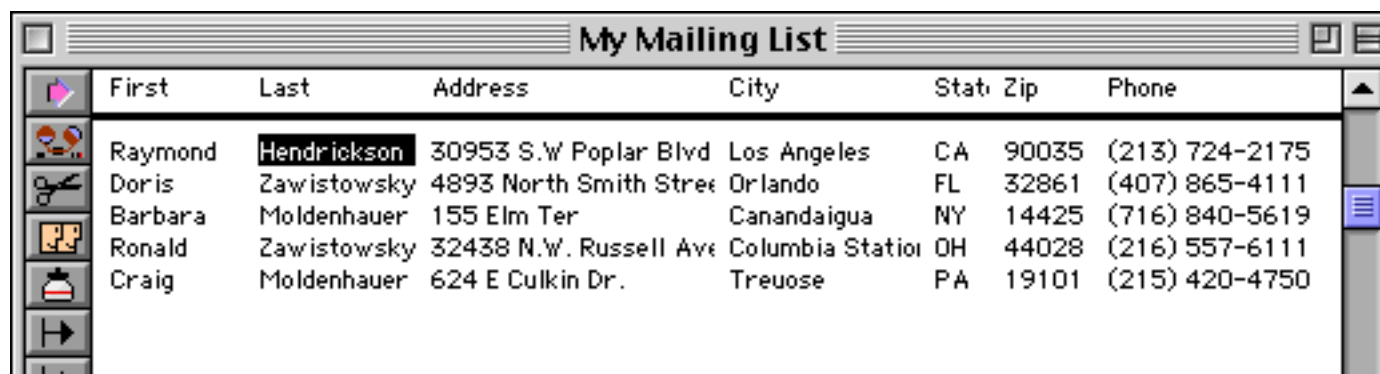
Here is the formula for selecting zip codes in the range from 50000 to 69999.



Here is a formula that will select unusually long last names (more than 10 characters).



When you press the **Select** button Panorama will select the five people in this database with extra-long last names.

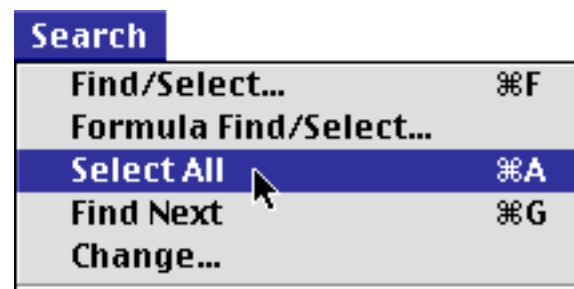


First	Last	Address	City	Stat	Zip	Phone
Raymond	Hendrickson	30953 S.W Poplar Blvd	Los Angeles	CA	90035	(213) 724-2175
Doris	Zawistowsky	4893 North Smith Street	Orlando	FL	32861	(407) 865-4111
Barbara	Moldenhauer	155 Elm Ter	Canandaigua	NY	14425	(716) 840-5619
Ronald	Zawistowsky	32438 N.W. Russell Ave	Columbia Station	OH	44028	(216) 557-6111
Craig	Moldenhauer	624 E Culkin Dr.	Treouse	PA	19101	(215) 420-4750

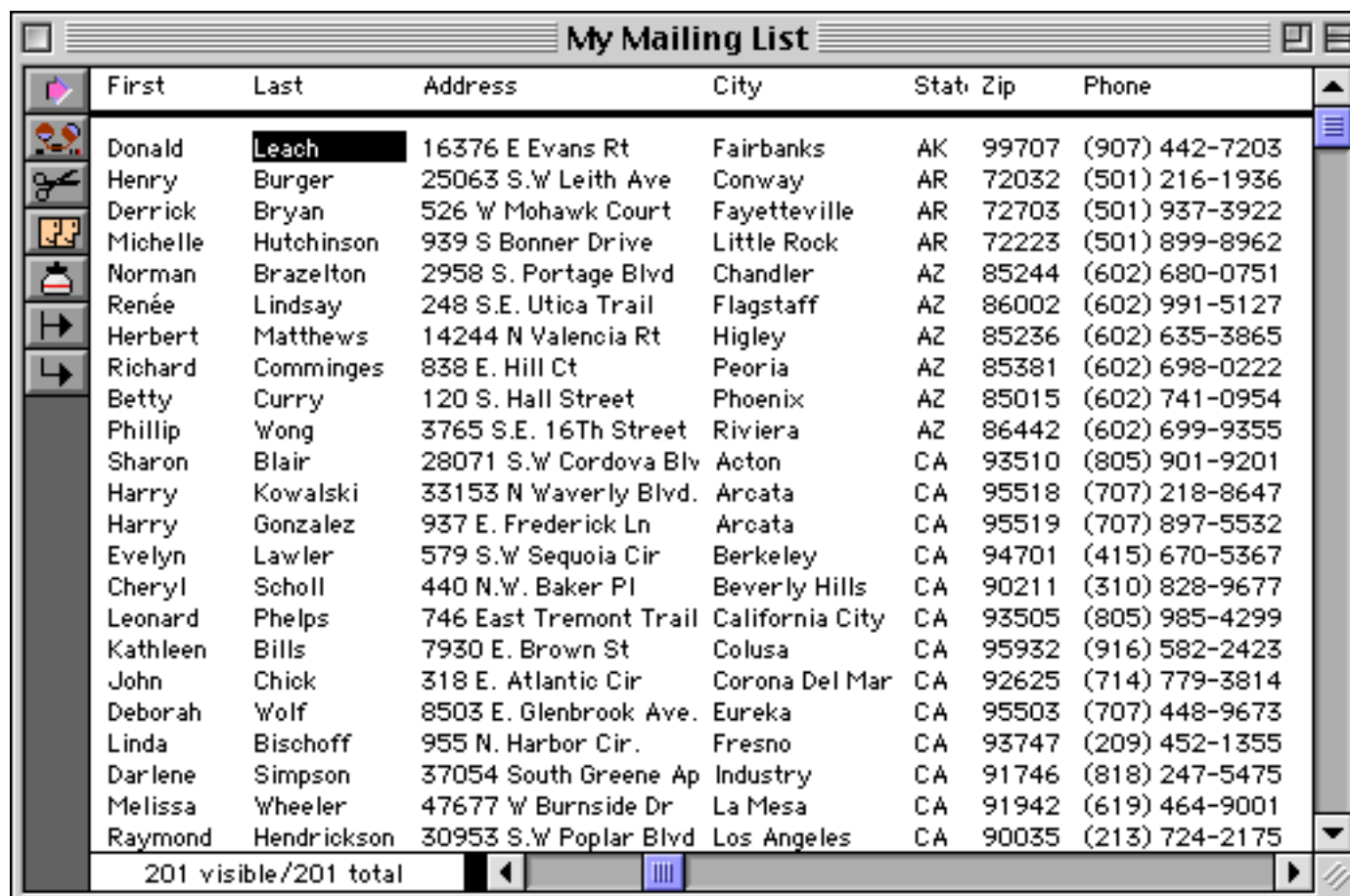
To learn more about selecting with a formula see [“Formula Find/Select”](#) on page 447 and [“True/False Formulas”](#) on page 1282.

Selecting All Records

To make all of the invisible data re-appear choose **Select All** from the Search menu.



Panorama will display all of the data in the database again.



First	Last	Address	City	Stat	Zip	Phone
Donald	Leach	16376 E Evans Rt	Fairbanks	AK	99707	(907) 442-7203
Henry	Burger	25063 S.W Leith Ave	Conway	AR	72032	(501) 216-1936
Derrick	Bryan	526 W Mohawk Court	Fayetteville	AR	72703	(501) 937-3922
Michelle	Hutchinson	939 S Bonner Drive	Little Rock	AR	72223	(501) 899-8962
Norman	Brazelton	2958 S. Portage Blvd	Chandler	AZ	85244	(602) 680-0751
Renée	Lindsay	248 S.E. Utica Trail	Flagstaff	AZ	86002	(602) 991-5127
Herbert	Matthews	14244 N Valencia Rt	Higley	AZ	85236	(602) 635-3865
Richard	Comminges	838 E. Hill Ct	Peoria	AZ	85381	(602) 698-0222
Betty	Curry	120 S. Hall Street	Phoenix	AZ	85015	(602) 741-0954
Phillip	Wong	3765 S.E. 16Th Street	Riviera	AZ	86442	(602) 699-9355
Sharon	Blair	28071 S.W Cordova Blv	Acton	CA	93510	(805) 901-9201
Harry	Kowalski	33153 N Waverly Blvd.	Arcata	CA	95518	(707) 218-8647
Harry	Gonzalez	937 E. Frederick Ln	Arcata	CA	95519	(707) 897-5532
Evelyn	Lawler	579 S.W Sequoia Cir	Berkeley	CA	94701	(415) 670-5367
Cheryl	Scholl	440 N.W. Baker Pl	Beverly Hills	CA	90211	(310) 828-9677
Leonard	Phelps	746 East Tremont Trail	California City	CA	93505	(805) 985-4299
Kathleen	Bills	7930 E. Brown St	Colusa	CA	95932	(916) 582-2423
John	Chick	318 E. Atlantic Cir	Corona Del Mar	CA	92625	(714) 779-3814
Deborah	Wolf	8503 E. Glenbrook Ave.	Eureka	CA	95503	(707) 448-9673
Linda	Bischoff	955 N. Harbor Cir.	Fresno	CA	93747	(209) 452-1355
Darlene	Simpson	37054 South Greene Ap	Industry	CA	91746	(818) 247-5475
Melissa	Wheeler	47677 W Burnside Dr	La Mesa	CA	91942	(619) 464-9001
Raymond	Hendrickson	30953 S.W Poplar Blvd	Los Angeles	CA	90035	(213) 724-2175

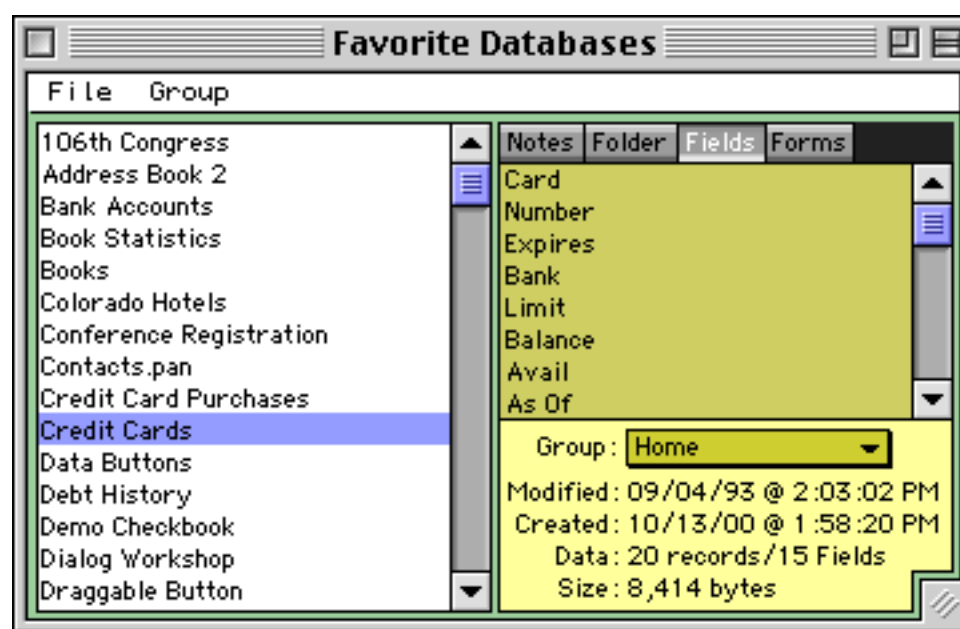
201 visible/201 total

Adding A Database To Your List Of Favorites

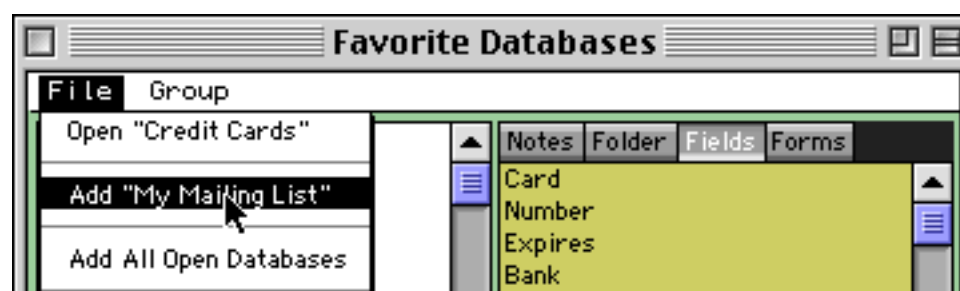
You can use Panorama's **Favorite Databases** wizard to help organize your databases and keep them accessible at your fingertips. To open this wizard choose **Favorite Databases** from the Wizards menu.



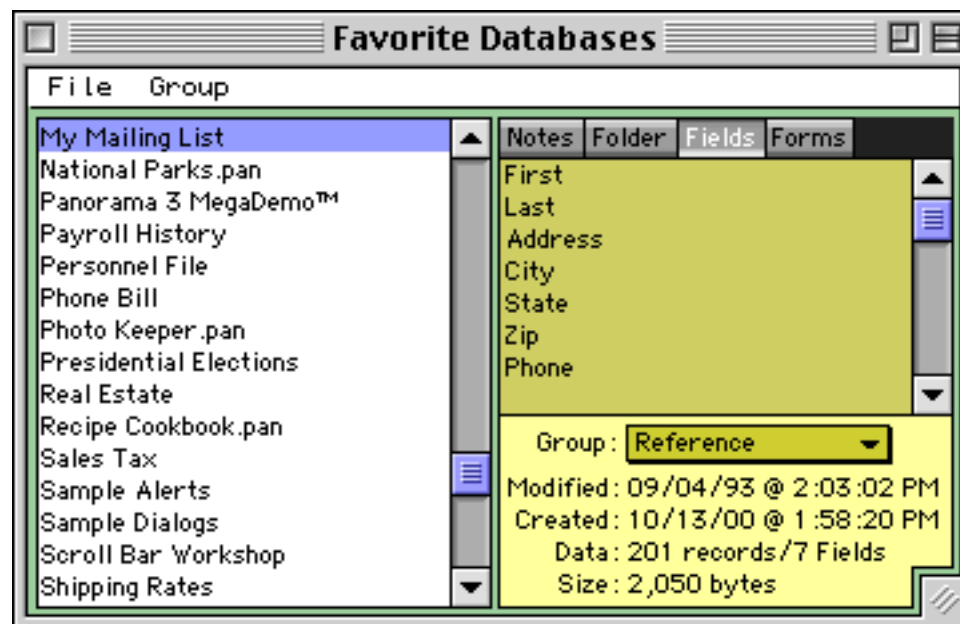
The wizard displays a list of favorite databases on the left. If you click once on a database the wizard will show you information about that database. (Clicking twice opens the database itself.)



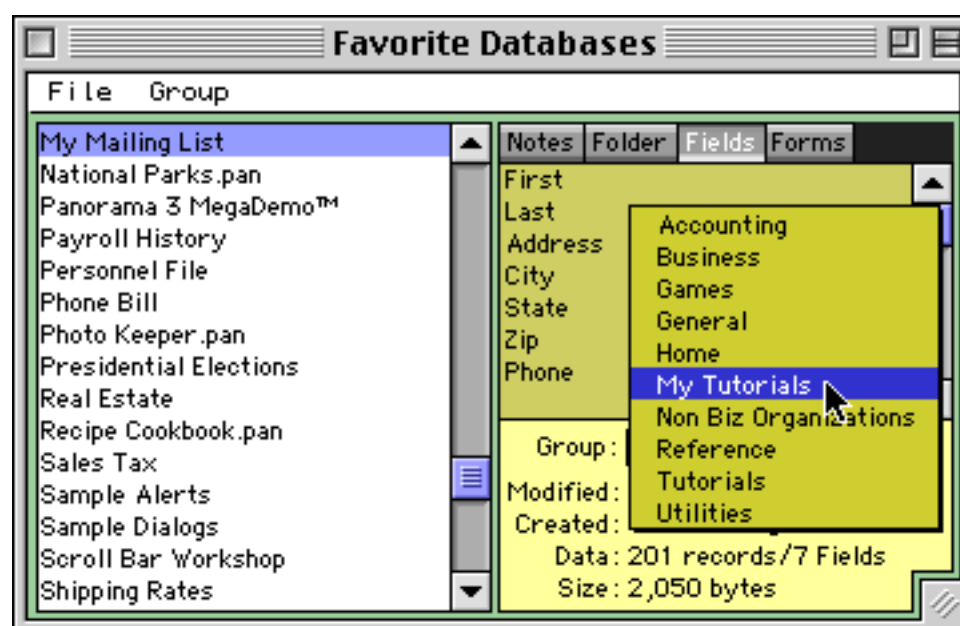
To add your new database to the list of favorites choose **Add "My Mailing List"** from the File menu inside the window.



The wizard will add your new database to the list of favorites.



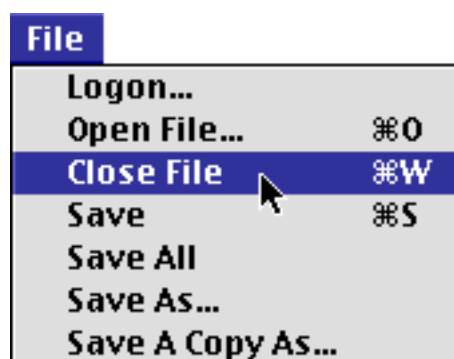
Use the pop-up menu to move the mailing list into the [My Tutorials](#) group.



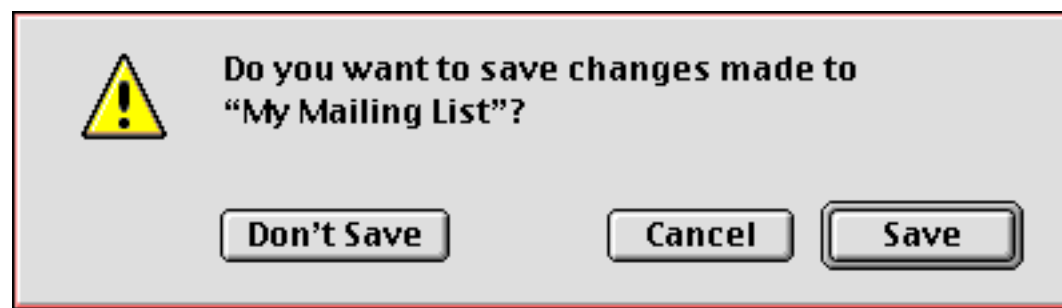
Choose the **Save** command in the File menu and your database is permanently added to the list of favorites (see "[Removing a Favorite Database](#)" on page 193 if you later want to remove this favorite).

Closing a Database

To close a database click on it (to bring it's window to the front). If the database has only one window you can close it by clicking on the window's close box. If the database has more than one window you can close each window individually or you can select the **Close File** command from the File menu. Close the [My Mailing List](#) database now.



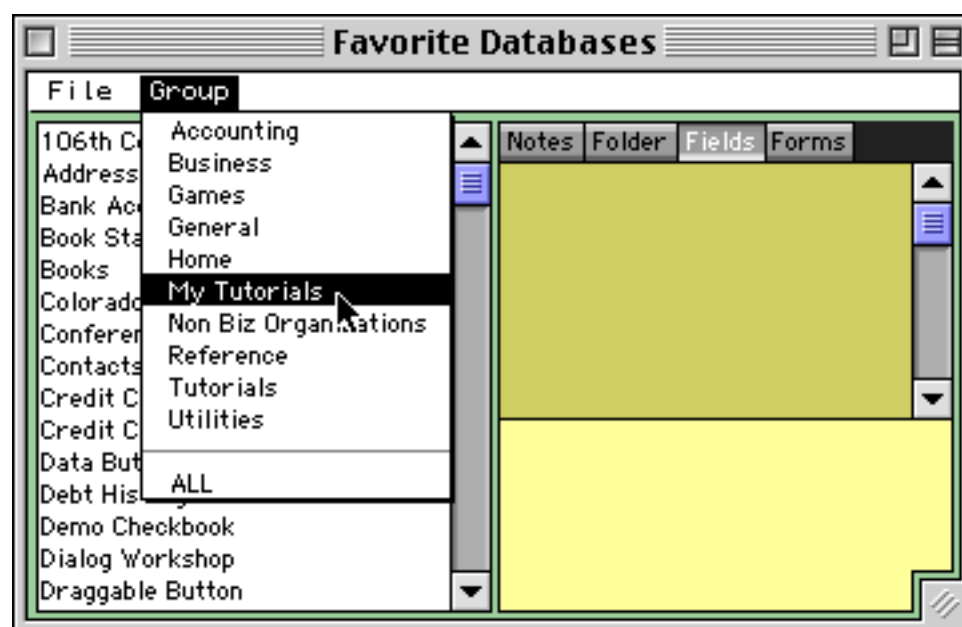
If the database has been modified since the last time it was saved Panorama will ask you if you want to save the changes. Press the **Save** button to save the changes.



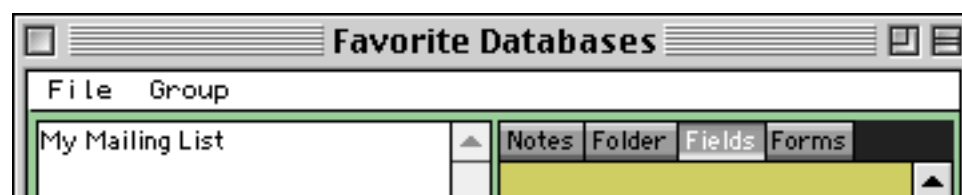
The database is now closed, and the memory it was using is available for use with other databases. See “[Monitoring Memory Usage](#)” on page 267 to learn how to oversee Panorama’s memory usage.

Re-Opening a Favorite File

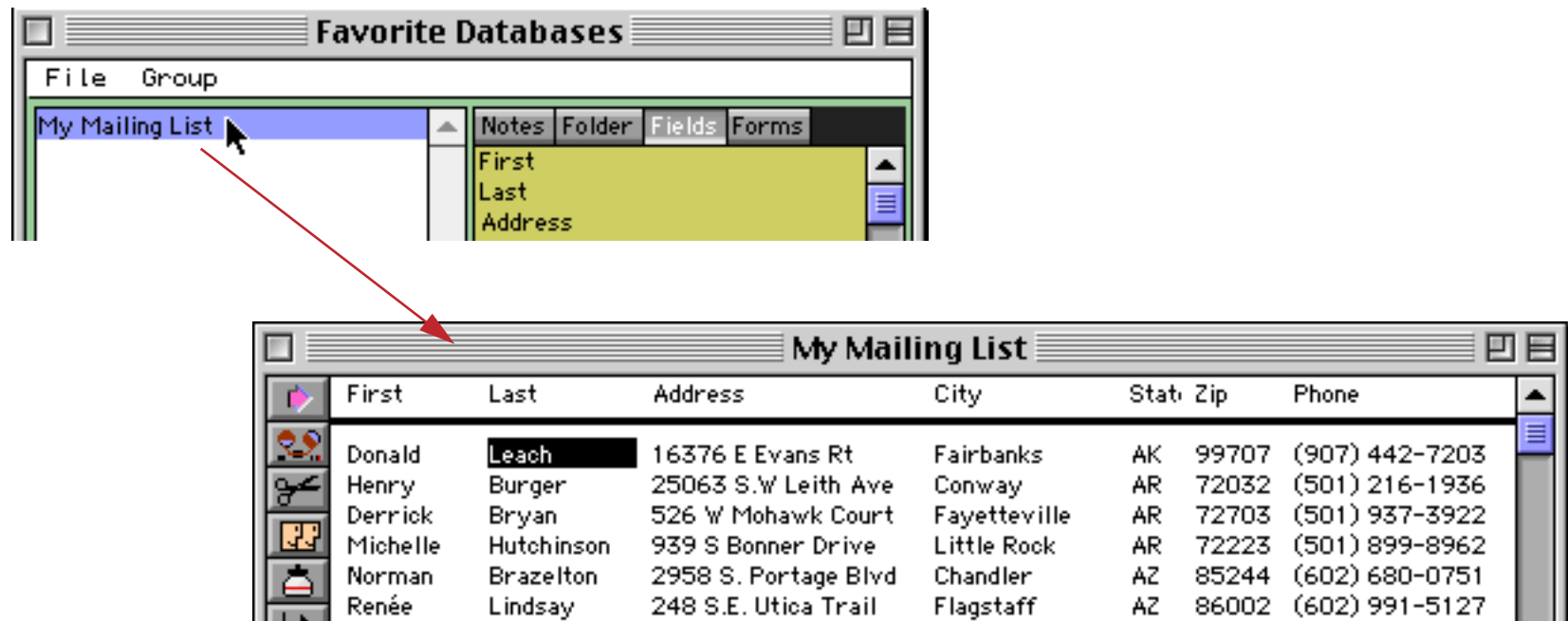
To re-open a favorite file, start by choosing the **Favorite Databases** wizard from the Wizards menu. If the database was assigned to a group you can find it quickly with the **Group** menu inside the window.



Right now the **My Tutorials** group only contains a single file, your new mailing list.



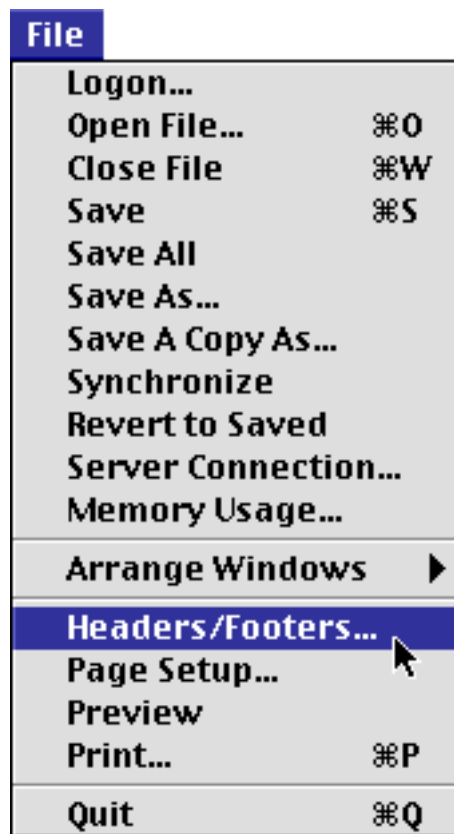
Double click the database name to open it.



To learn more about this wizard see “[The Favorite Databases Wizard](#)” on page 191. Tip: If you hold down the **Control** key (Mac) or double click with the right mouse button (Windows PC) Panorama will automatically close the **Favorite Databases** window after it opens the selected database.

Printing the Data Sheet

Before actually printing the data sheet you’ll set up a page header to print today’s date on the top left and the page number on the top right of each page. To do this choose **Headers/Footers** from the File menu.



This command opens a dialog that allows you designate headers on the top left, center and right and a bottom centered footer.

Headers/Footers

Top Left

Top Center

Top Right

Bottom Center

Page# mm/dd/yy Month dd, YYYY hh:mm:ss

Title Size

Same as Data Sheet, or: pt

Cancel OK

Start with the top left header. Type in the words **Printed on** and then press the **Month dd, YYYY** button.

Headers/Footers

Top Left Printed on «date:Month ddnth, yyyy»

Top Center

Top Right

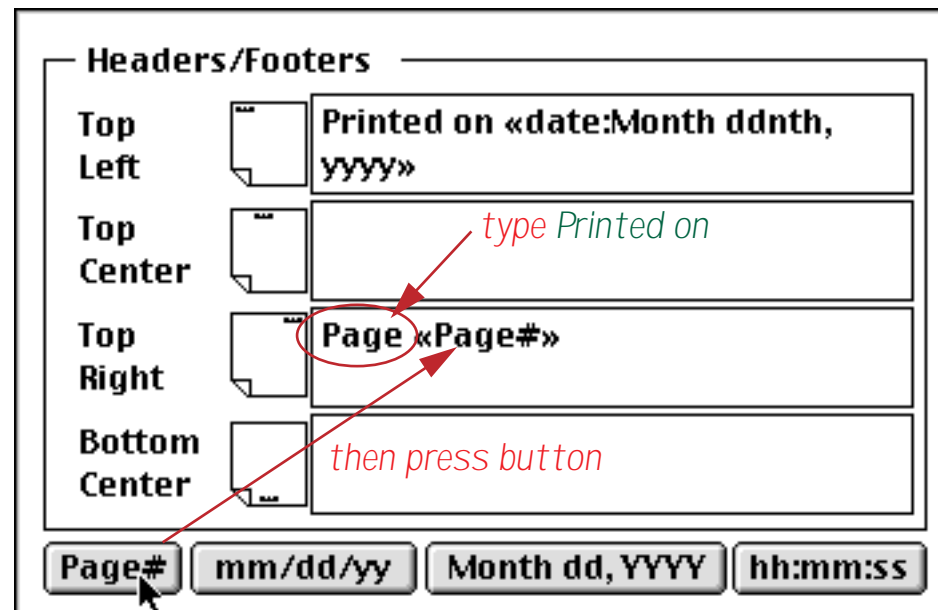
Bottom Center

Page# mm/dd/yy Month dd, YYYY hh:mm:ss

type Printed on

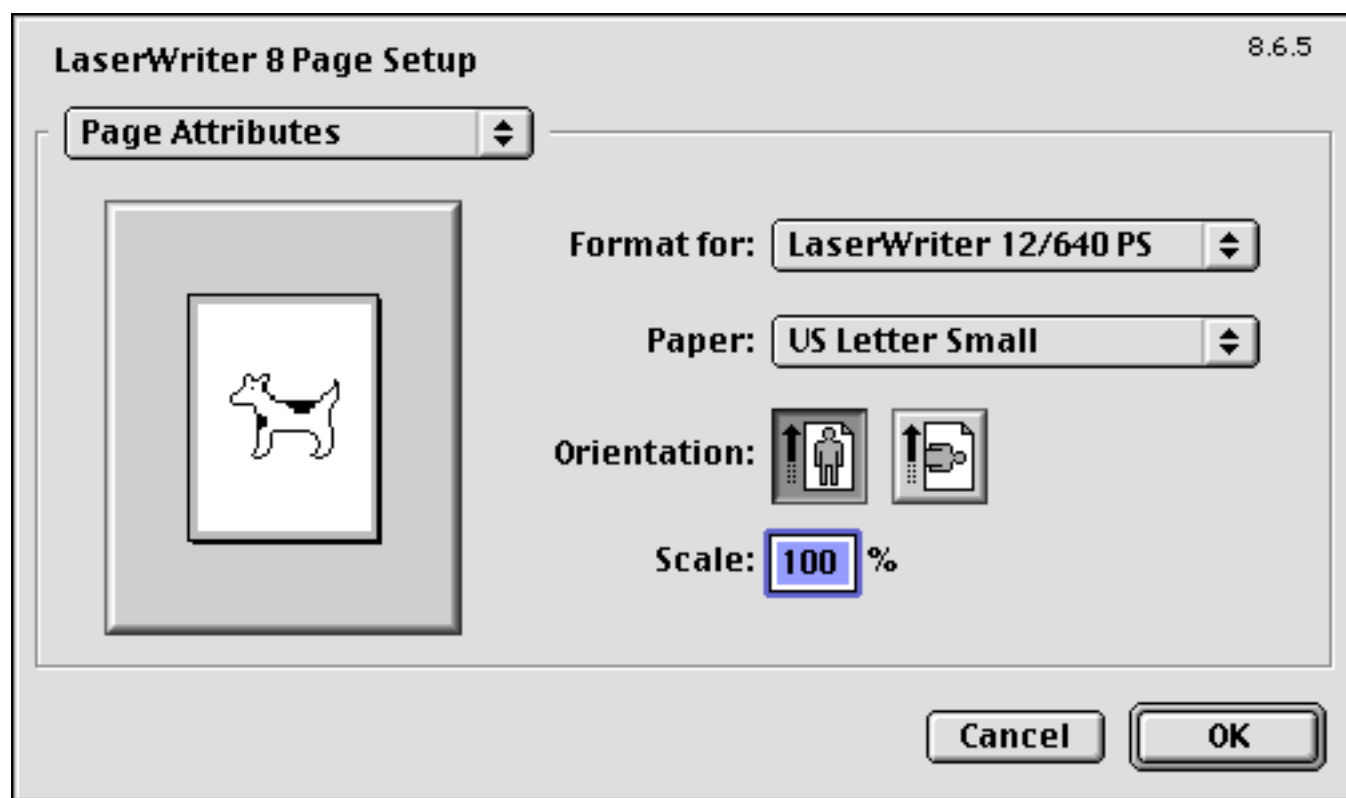
then press button

Now for the top right header. Type **Page** and then press the **Page#** button.

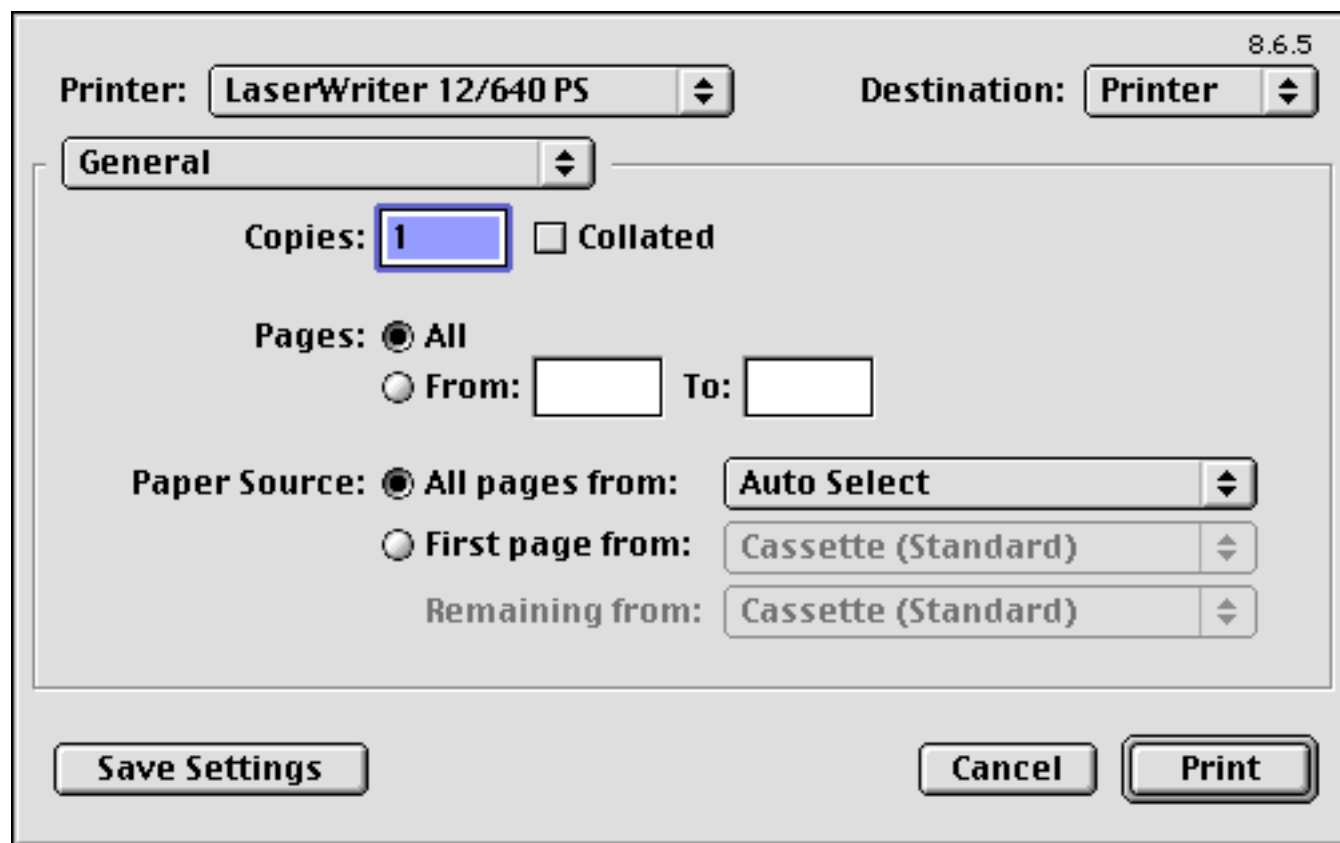


Once both headers are set up press the OK button. (To learn more about the header and footer options available when printing the data sheet see “[Printing Data Sheet Headers & Footers](#)” on page 1056. When printing a form you have complete control over the exact layout of headers and footers — see “[Custom Reports](#)” on page 1067.)

Next, choose the **Page Setup** command from the File menu. (Before you do this, make sure that the printer you want to use is connected to your computer and selected.) The exact options available in the **Page Setup** dialog depend on the operating system and what kind of printer you are using, but in general you can control the page size, orientation (tall or wide), and print reduction factor. Here is a typical **Page Setup** dialog.



Select the printing options you want to use and press the **OK** button. To actually print the data sheet choose **Print** from the File menu. The printing dialog will appear. The exact options available in this dialog depend on the operating system and what kind of printer you are using, but in general you can control which pages to print, how many copies to print, and whether you want to manually feed the paper. Here is a typical **Print** dialog.



For the exact details on the operation of this dialog see the documentation that came with your printer. Press the **Print** button to print the data sheet. Panorama will automatically print as many sheets as necessary.

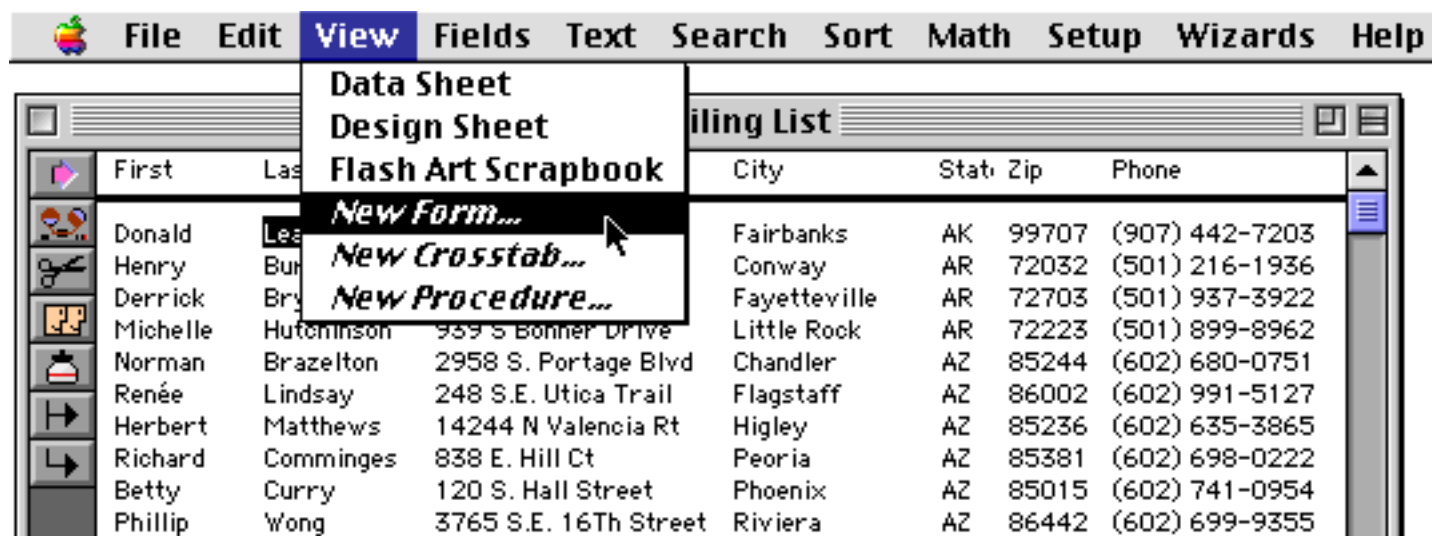
Printed on October 21st, 2000 Page 1

First	Last	Address	City	Stat	Zip	Phone
Donald	Leach	16376 E Evans Rt	Fairbanks	AK	99707	(907) 442-7203
Henry	Burger	25063 S.W Leith Ave	Conway	AR	72032	(501) 216-1936
Derrick	Bryan	526 W Mohawk Court	Fayetteville	AR	72703	(501) 937-3922
Michelle	Hutchinson	939 S Bonner Drive	Little Rock	AR	72223	(501) 899-8962
Norman	Brazelton	2958 S. Portage Blvd	Chandler	AZ	85244	(602) 680-0751
Renée	Lindsay	248 S.E. Utica Trail	Flagstaff	AZ	86002	(602) 991-5127
Herbert	Matthews	14244 N Valencia Rt	Higley	AZ	85236	(602) 635-3865
Richard	Comminges	838 E. Hill Ct	Peoria	AZ	85381	(602) 698-0222
Betty	Curry	120 S. Hall Street	Phoenix	AZ	85015	(602) 741-0954
Phillip	Wong	3765 S.E. 16Th Street	Riviera	AZ	86442	(602) 699-9355
Sharon	Blair	28071 S.W Cordova Bl	Acton	CA	93510	(805) 901-9201
Harry	Kowalski	33153 N Waverly Blvd	Arcata	CA	95518	(707) 218-8647
Harry	Gonzalez	937 E. Frederick Ln	Arcata	CA	95519	(707) 897-5532
Evelyn	Lawler	579 S.W Sequoia Cir	Berkeley	CA	94701	(415) 670-5367
Cheryl	Scholl	440 N.W. Baker Pl	Beverly Hills	CA	90211	(310) 828-9677
Leonard	Phelps	746 East Tremont Trai	California City	CA	93505	(805) 985-4299
Kathleen	Bills	7930 E. Brown St	Colusa	CA	95932	(916) 582-2423

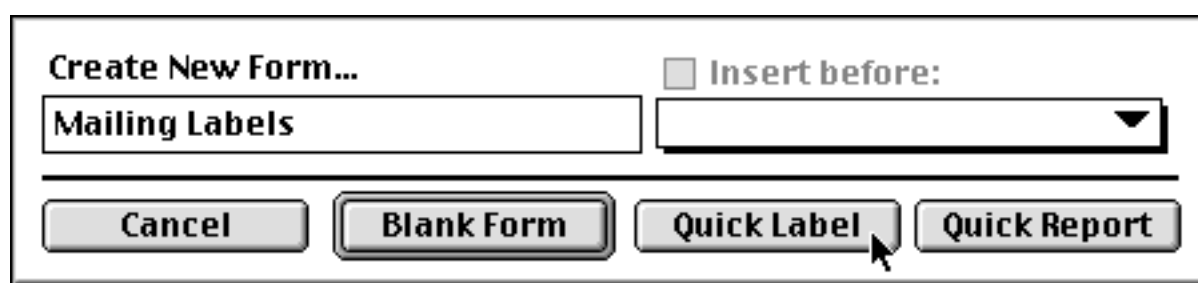
If you want to print only a portion of the database, use the **Select** button in the **Find/Select** dialog to select the data you want before printing the database (see “[Selecting Instead Of Finding](#)” on page 20). Only the visible records will be printed.

Creating a Form for Printing Mailing Labels

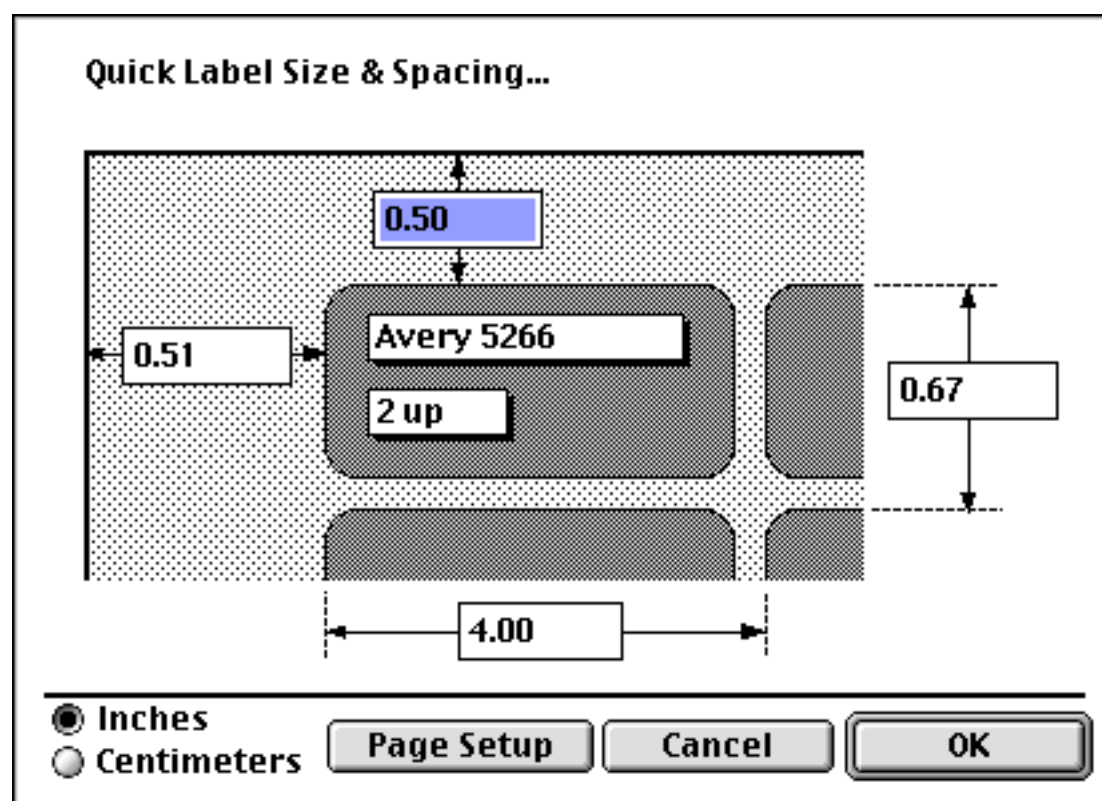
Now let's create a mailing label. Many types of peel-off labels are available commercially. Panorama already knows the dimensions of many popular labels and can do most of the work for you. The first step in setting up a mailing label is to create a **form** to hold the label. A form is like a sheet of paper that you can draw on (see "[Introduction to Forms](#)" on page 539). You can place graphics, text and data on the form to create labels, invoices, statements, or virtually anything else. To create a new form select **New Form** from the View menu.



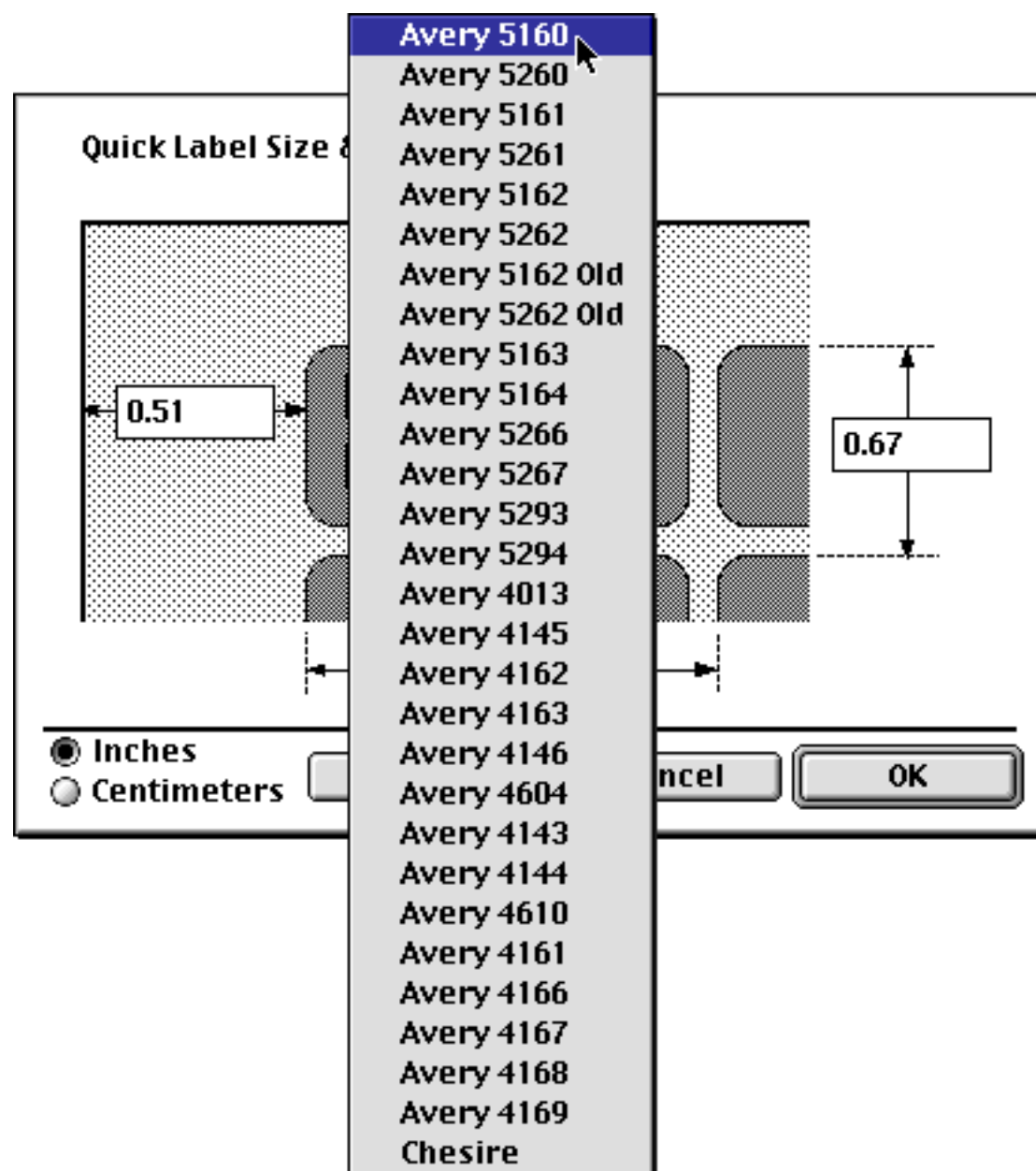
A dialog box appears asking for more information about the new form you want to create. Type in a name for the new form (we used the name **Mailing Labels**, but you can choose any name up to 25 characters long).



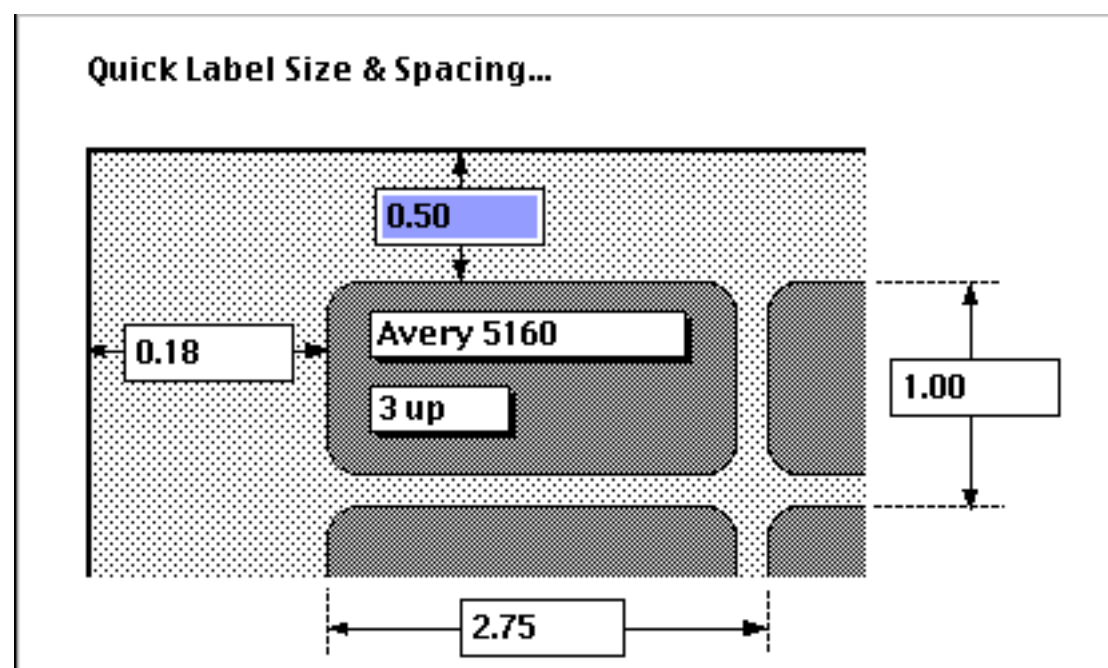
The dialog gives you three options when creating a new form — a blank form, a mailing label and a report. Press the **Quick Label** button. The Quick Label dialog appears, allowing you to define the dimensions of the mailing label you want to print on.



In the center of the dialog is a pop-up menu that lists many popular labels. The most popular label is the Avery 5160 which contains 30 labels per page in three columns of 10 labels.

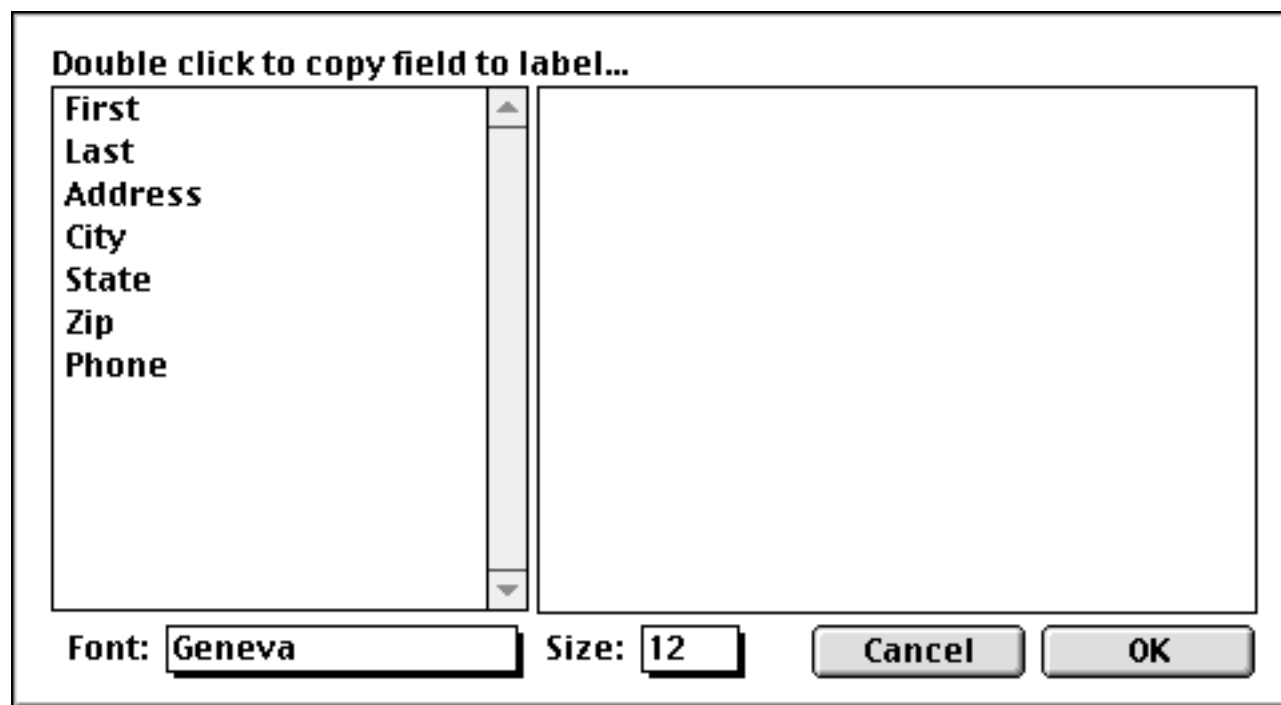


When you release the mouse the updated label dimensions appear. (You may also see an alert telling you that the [Larger Page Area](#) option must be set in the [Page Setup](#) dialog. If you see this message you should make sure Page Setup is configured to use as much of the page as possible, with the minimum possible margins.)

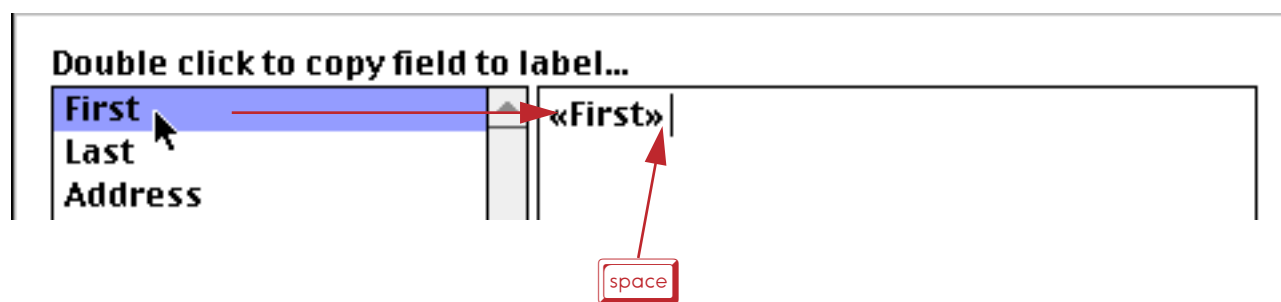


Press the **OK** button after the dimensions are set up.

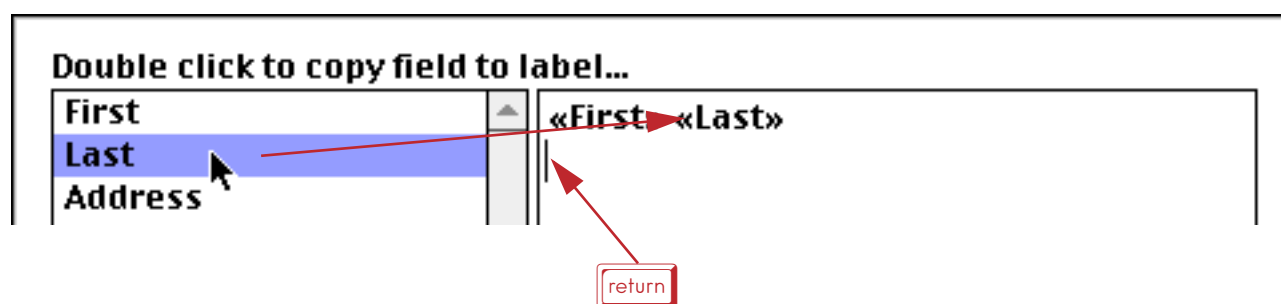
Once the label dimensions are set up, the next step is to set up the text that will be printed on the label. A second dialog box will appear with a list of fields on the left. You'll build the template for your label on the right.



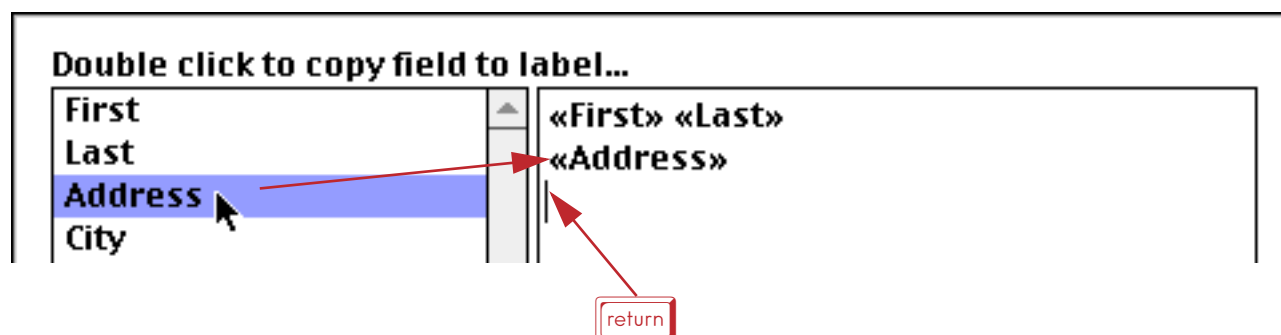
Start by double clicking on the **First** field, then press the **Space Bar**.



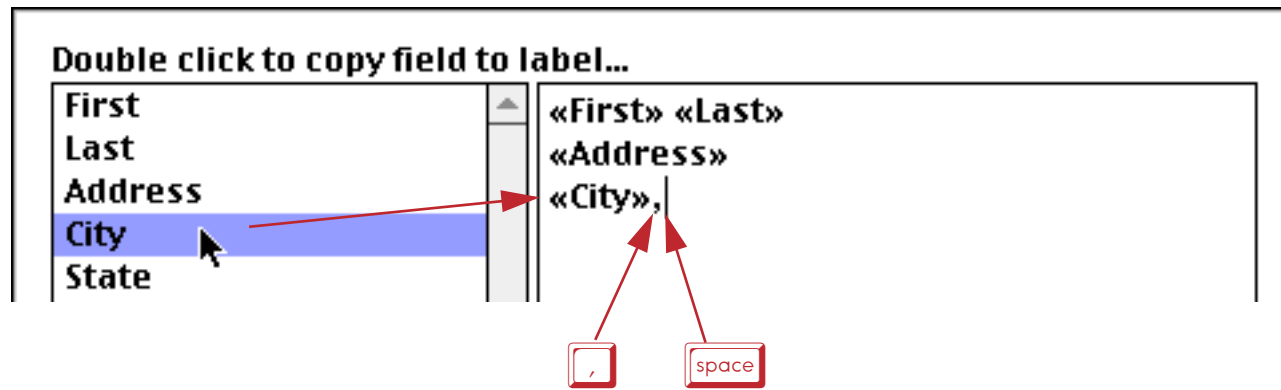
Now double click on the **Last** field, then press the **Return** key.



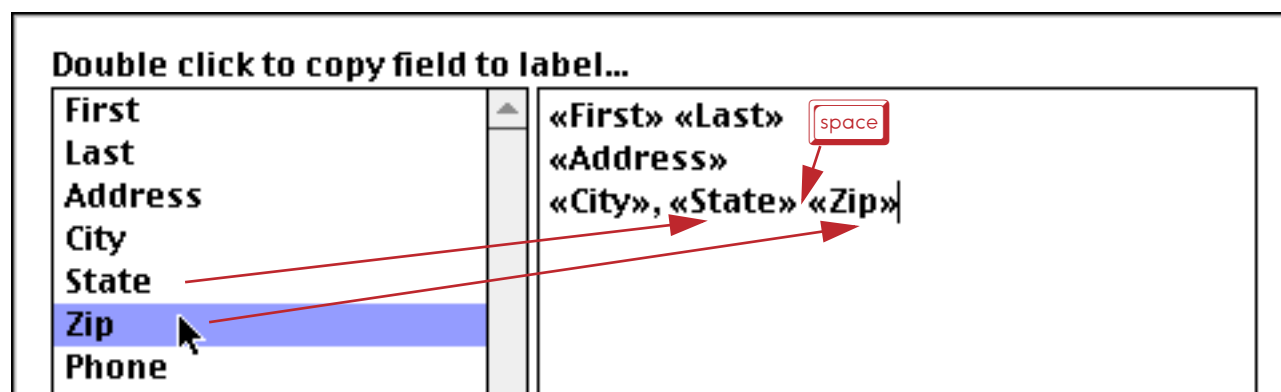
Double click on the **Address** field, then press the **Return** key.



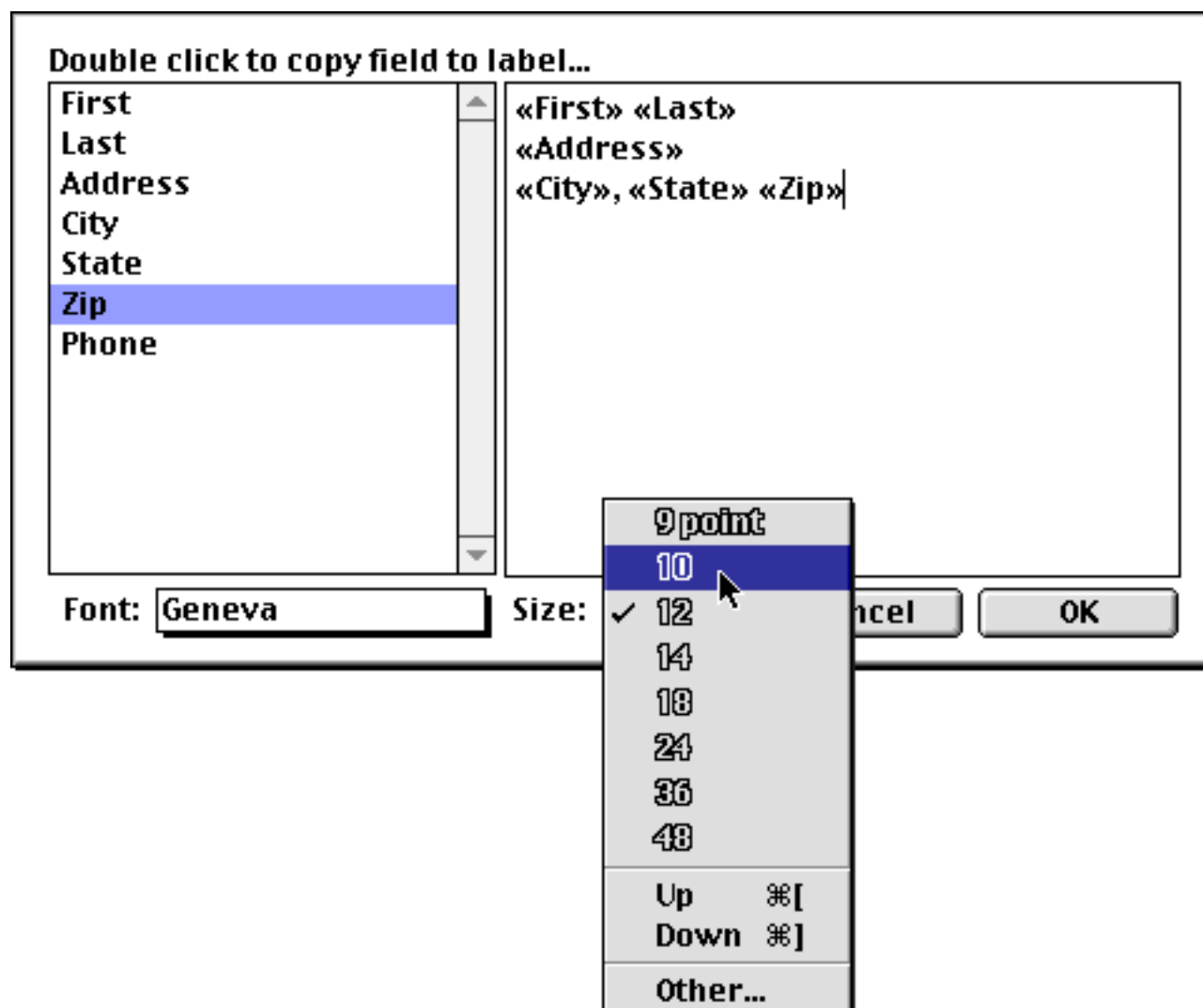
Double click on the **City** field, then press the **comma** key and the **Space Bar**.



Finish the label by double clicking on the **State** field, pressing the **Space Bar** and then double clicking on the **Zip** field.

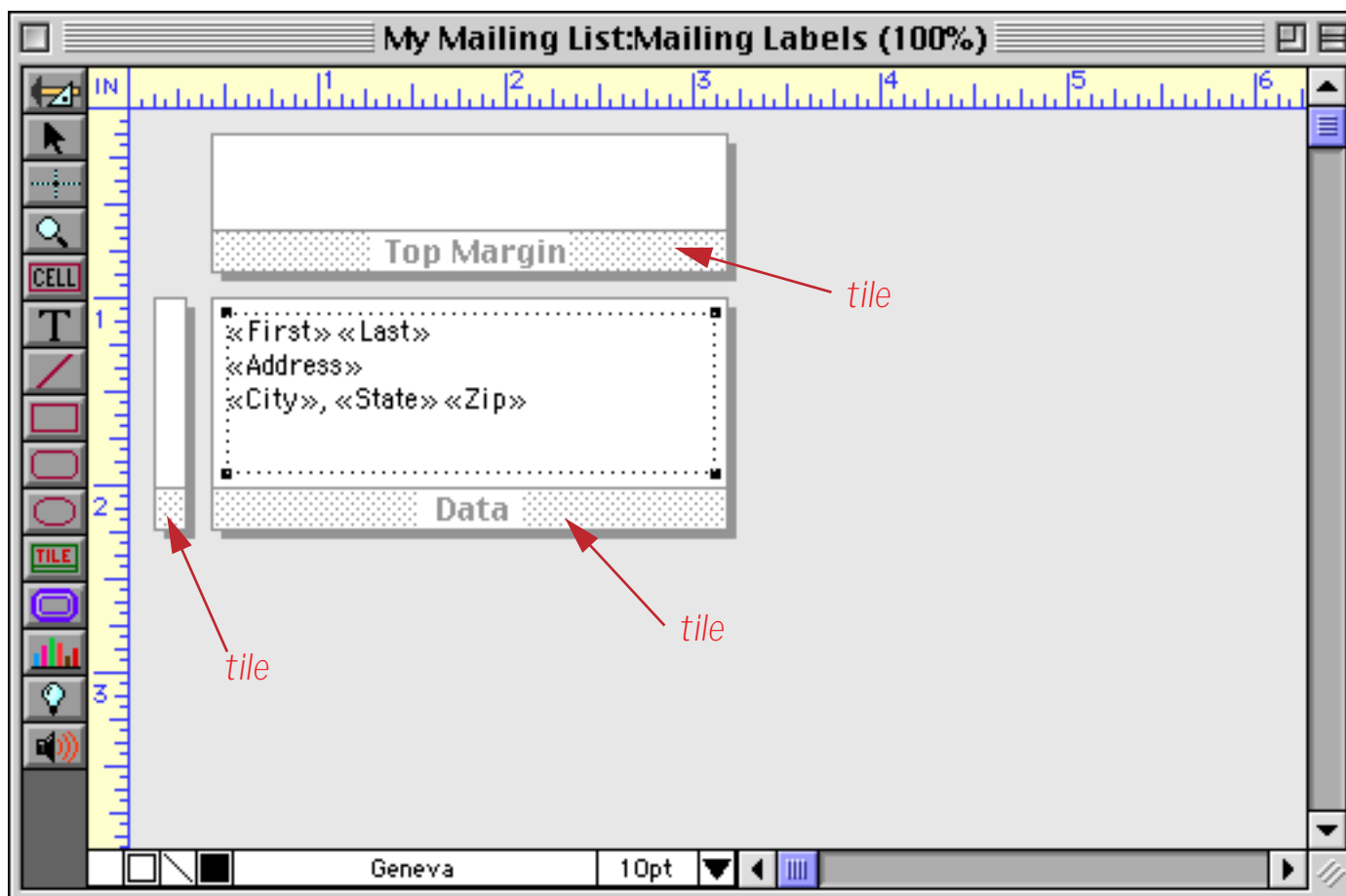


You can choose the font and size you want to use now or later.



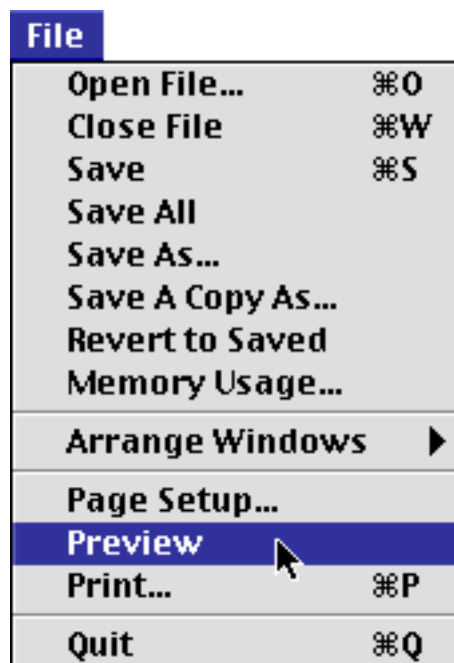
Press **OK** when the label design is complete.

Panorama now shows you the finished template for the label. The label appears on special “tiles” that control the size and spacing of the labels (see “[Tiles In Action](#)” on page 1081).

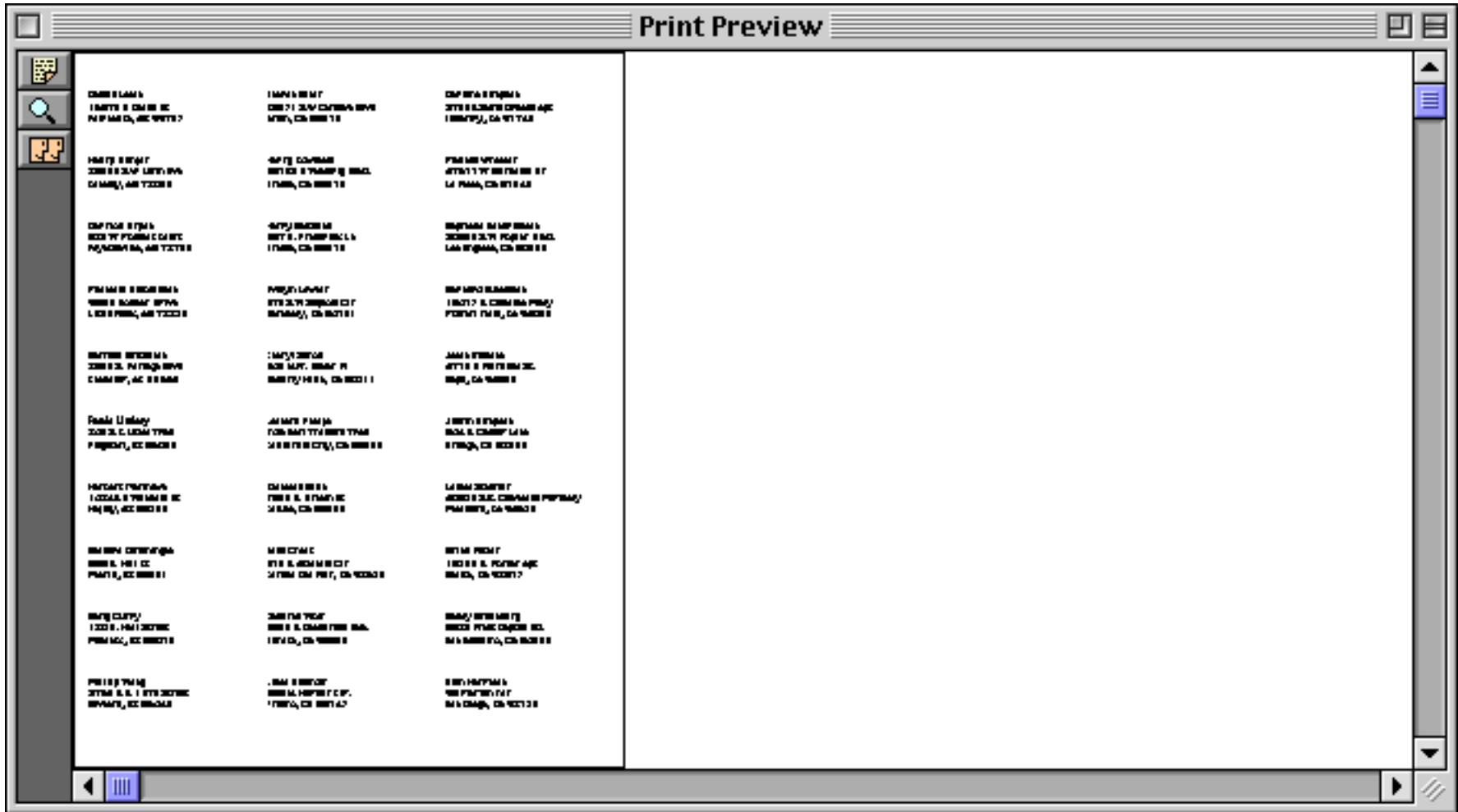


Previewing the Labels

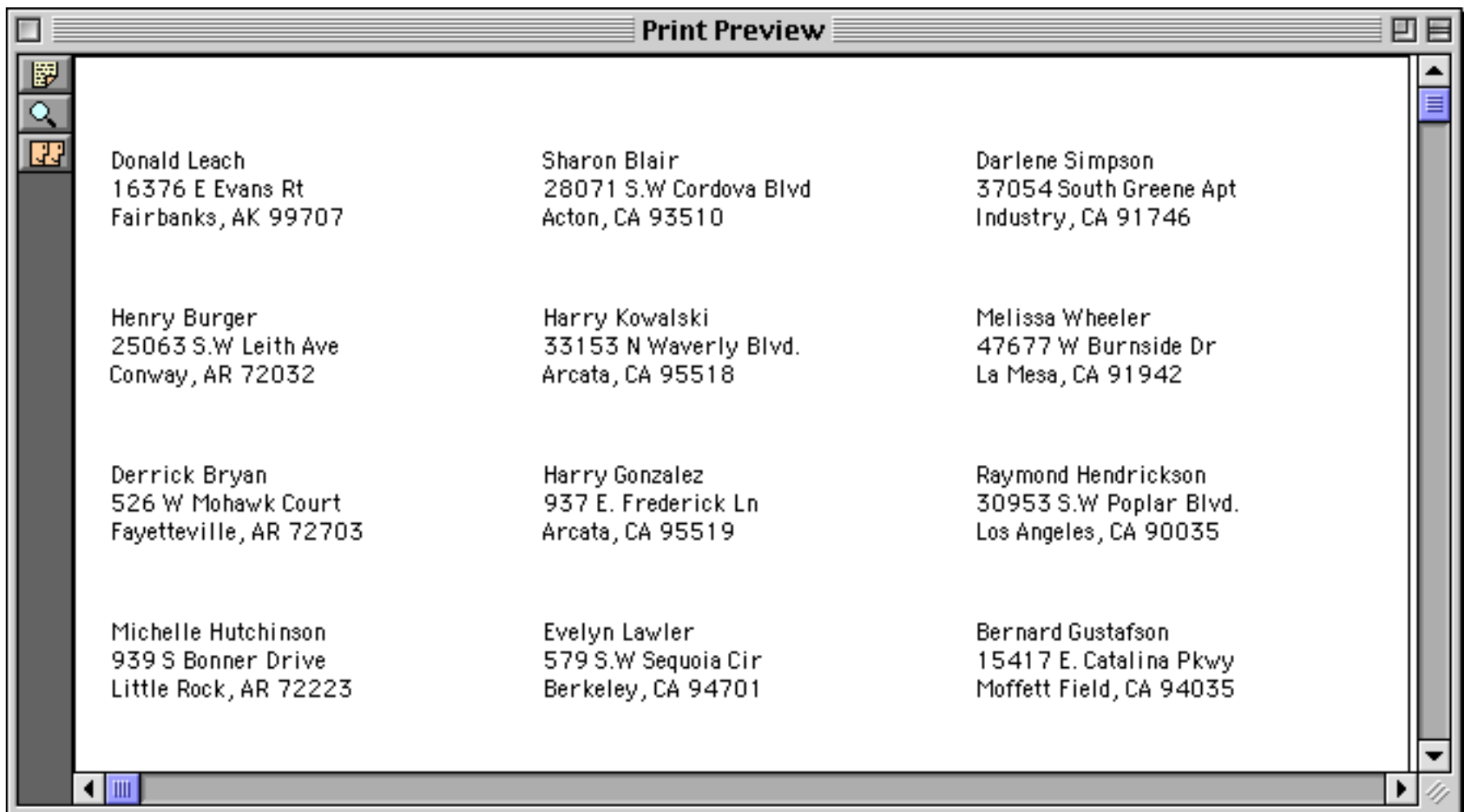
To see how the page of labels would look before printing, choose **Preview** from the File Menu. If this is the first time the labels have been previewed or printed, the **Page Setup** dialog will appear. If this happens, just press **OK** to skip to the preview window.



The [Print Preview](#) window will show a reduced view of an entire page of labels.



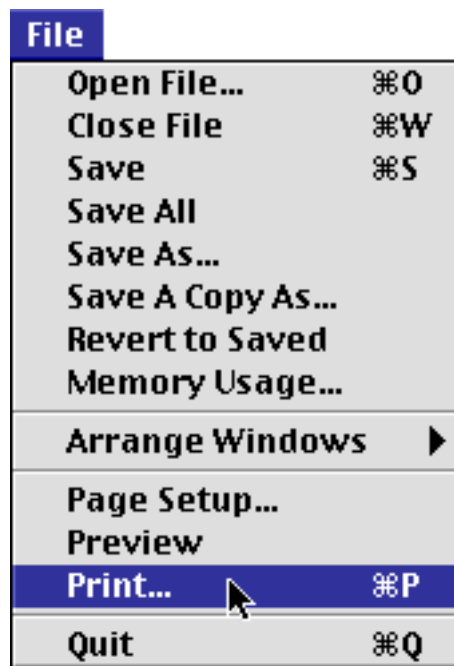
You can click on the magnifying glass tool to see the report life-size, and click on the Next Page tool to preview the next page.



When you are done looking at the preview, click on the window's close box. To learn more about the [Print Preview](#) window see "[Print Preview](#)" on page 1063.

Printing the Labels

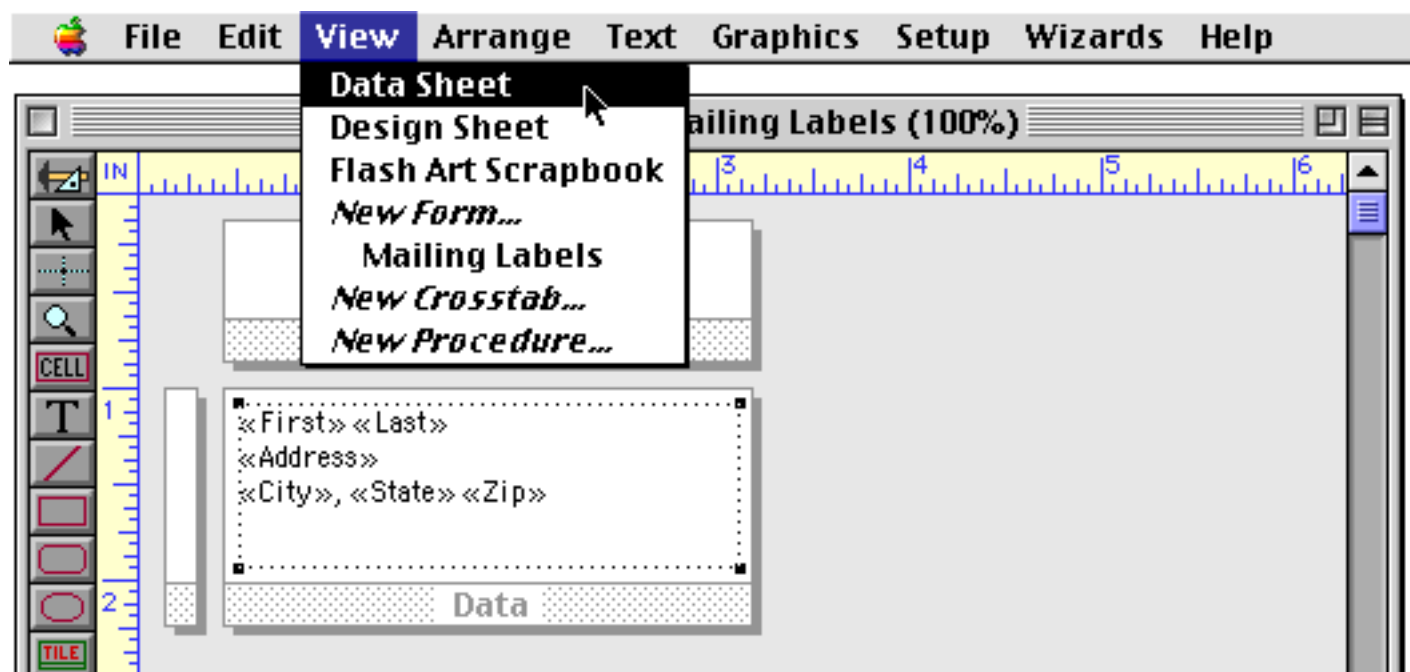
To print your mailing labels, first make sure that the correct printer is selected. Make sure the labels are set up in the printer, then choose **Print** from the File Menu.



If you don't want to print all of the labels, use the **Find/Select** command to select the addresses you do want to print. Use the **Select** button so that only the addresses you want to print are visible (see "[Selecting Instead Of Finding](#)" on page 20). Once the correct addresses are selected, use the **Print** command to print the labels. After the labels are printed, use the **Select All** command (see "[Selecting All Records](#)" on page 25) to make all of the addresses visible again.

Switching Between Forms and the Data Sheet

To switch back to the data sheet select **Data Sheet** from the View menu.

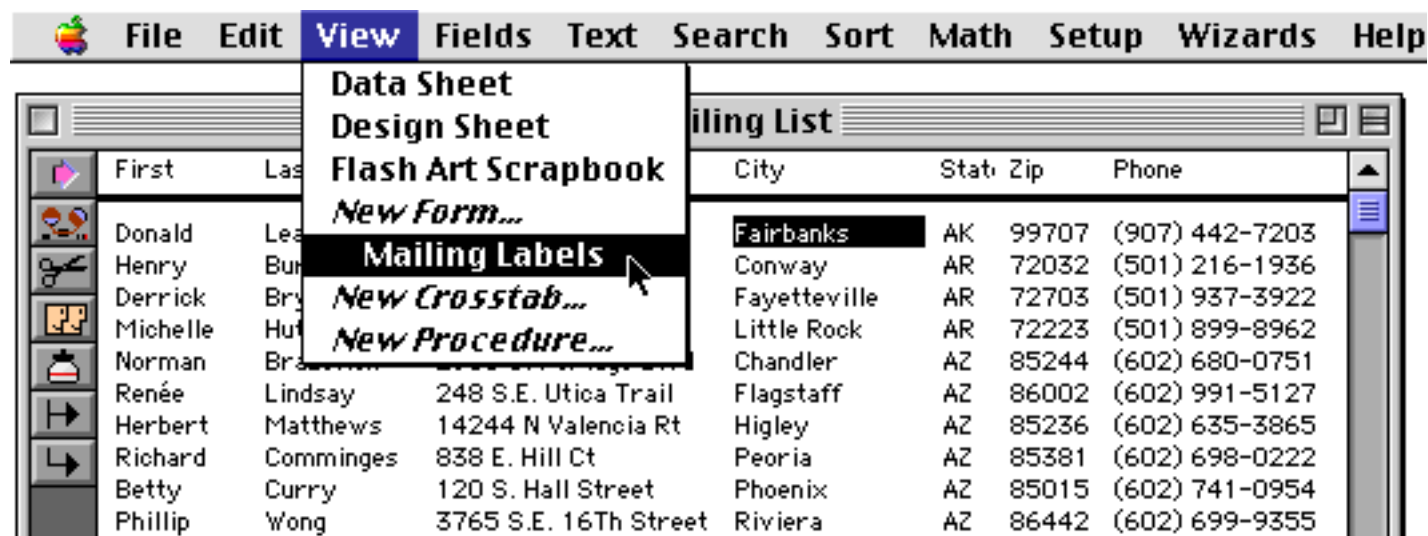


Panorama will switch the window from the mailing label back to the data sheet.



First	Last	Address	City	Stat	Zip	Phone
Donald	Leach	16376 E Evans Rt	Fairbanks	AK	99707	(907) 442-7203
Henry	Burger	25063 S.W Leith Ave	Conway	AR	72032	(501) 216-1936
Derrick	Bryan	526 W Mohawk Court	Fayetteville	AR	72703	(501) 937-3922
Michelle	Hutchinson	939 S Bonner Drive	Little Rock	AR	72223	(501) 899-8962
Norman	Brazelton	2958 S. Portage Blvd	Chandler	AZ	85244	(602) 680-0751
Renée	Lindsay	248 S.E. Utica Trail	Flagstaff	AZ	86002	(602) 991-5127
Herbert	Matthews	14244 N Valencia Rt	Higley	AZ	85236	(602) 635-3865
Richard	Comminges	838 E. Hill Ct	Peoria	AZ	85381	(602) 698-0222
Betty	Curry	120 S. Hall Street	Phoenix	AZ	85015	(602) 741-0954
Phillip	Wong	3765 S.E. 16Th Street	Riviera	AZ	86442	(602) 699-9355
Sharon	Blair	28071 S.W Cordova Blv	Acton	CA	93510	(805) 901-9201
Harry	Kowalski	33153 N Waverly Blvd.	Arcata	CA	95518	(707) 218-8647
Harry	Gonzalez	937 E. Frederick Ln	Arcata	CA	95519	(707) 897-5532
Evelyn	Lawler	579 S.W Sequoia Cir	Berkeley	CA	94701	(415) 670-5367
Cheryl	Scholl	440 N.W. Baker Pl	Beverly Hills	CA	90211	(310) 828-9677
Leonard	Phelps	746 East Tremont Trail	California City	CA	93505	(805) 985-4299
Kathleen	Bills	7930 E. Brown St	Colusa	CA	95932	(916) 582-2423

The pop-up View Menu lists every possible view of your database, and also allows you to create new views. To switch back to the mailing label, choose the name of the form containing the label from the menu.

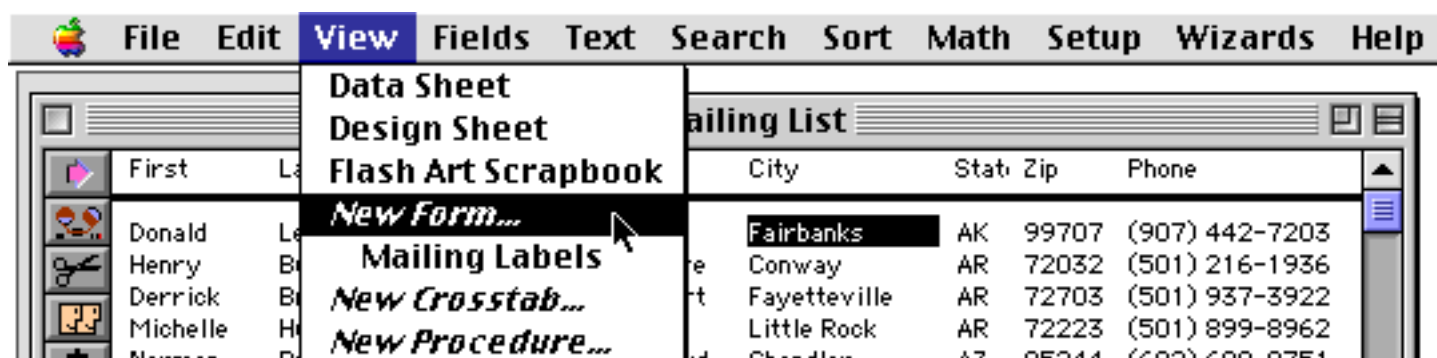


Your database can contain many different forms, each displaying the data a different way (see [“Introduction to Forms”](#) on page 539).

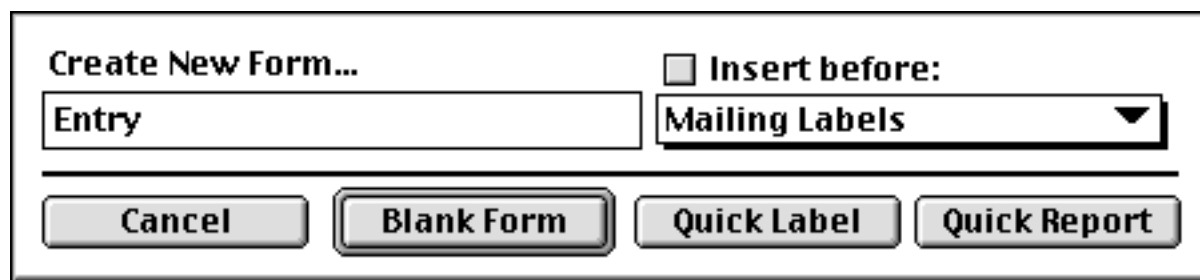
Creating a Data Entry Form

A form is not limited to displaying and printing data, it can also be set up for data entry. Using a form allows you to lay out the fields any way you like. You are not limited to the row and column format used by the data sheet.

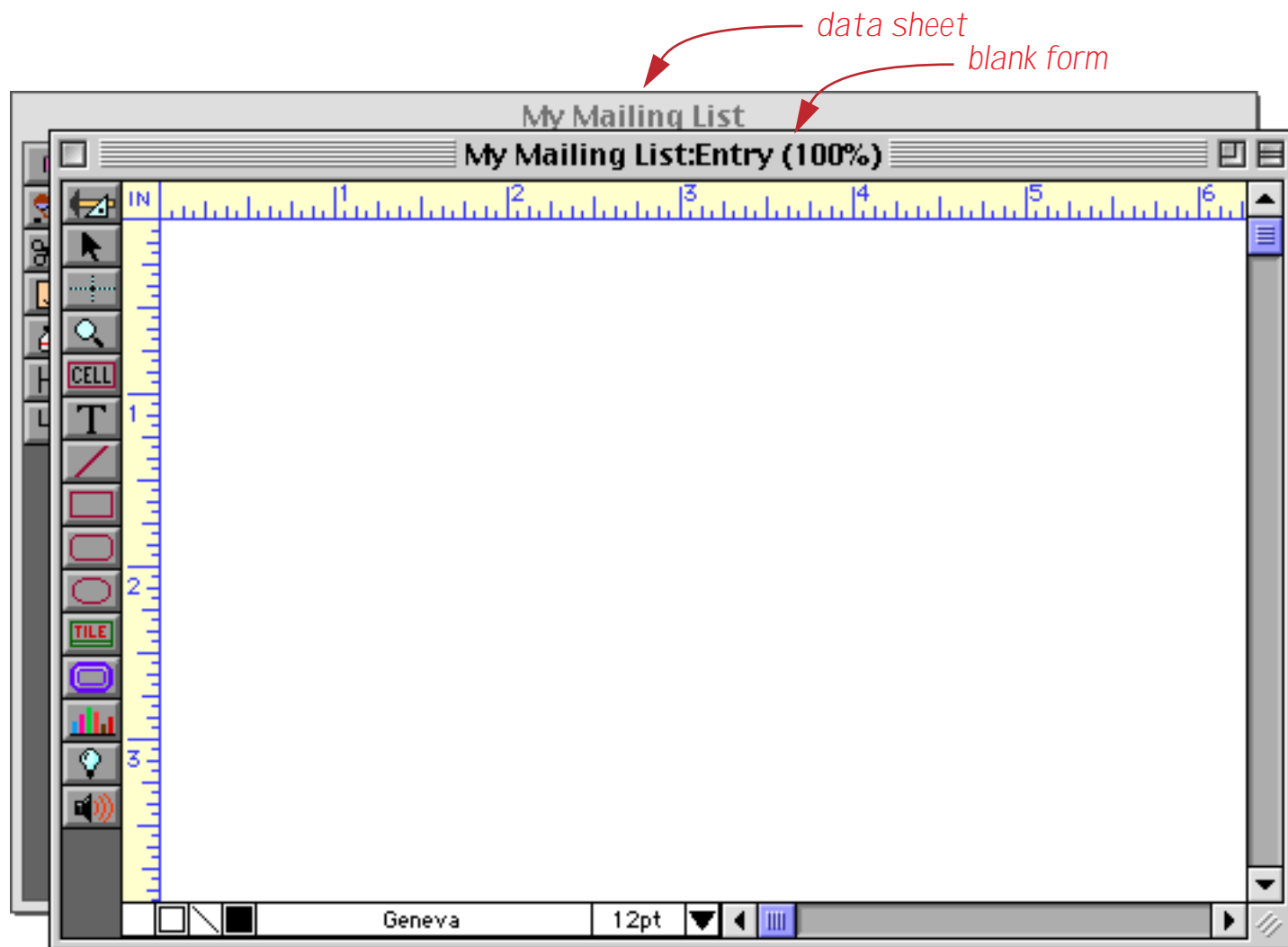
To create a new form view you'll use the View menu. You're going to create the form in a new window. To do this you must hold down the **Alt** key if you are using a Windows PC, if you are using a Macintosh hold down the **Control** key. Either way, select New Form from the View menu.



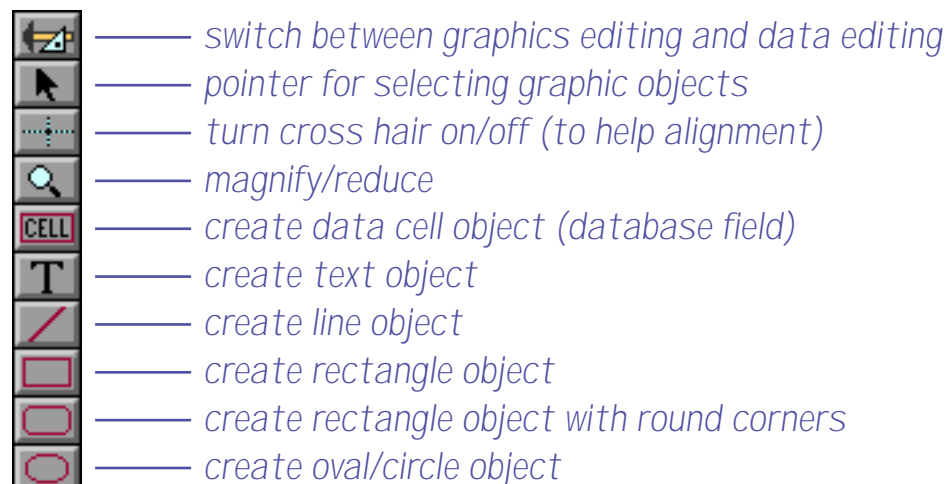
Panorama will ask you for the name of the new form. You can use any name you like up to 25 characters, we chose the name **Entry**.



When you press the **Blank Form** button Panorama will create a new, empty, form. Since you pressed the **Alt** key (PC) or the **Control** key (Mac) when using the **View** menu, Panorama creates the form in a new window, leaving the data sheet also open in the back (see “[Opening More Than One Window Per Database](#)” on page 303).

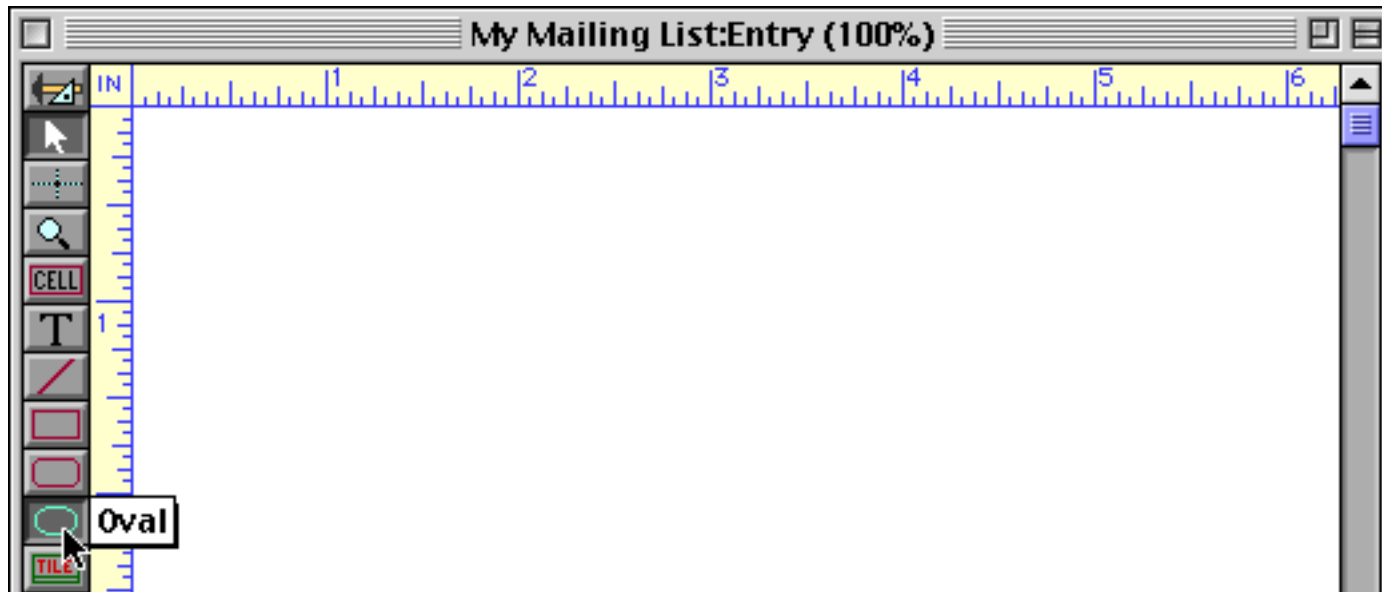


The tool palette on the left side of the window contains tools for creating and manipulating graphic objects on the form. The most commonly used tools are shown below.

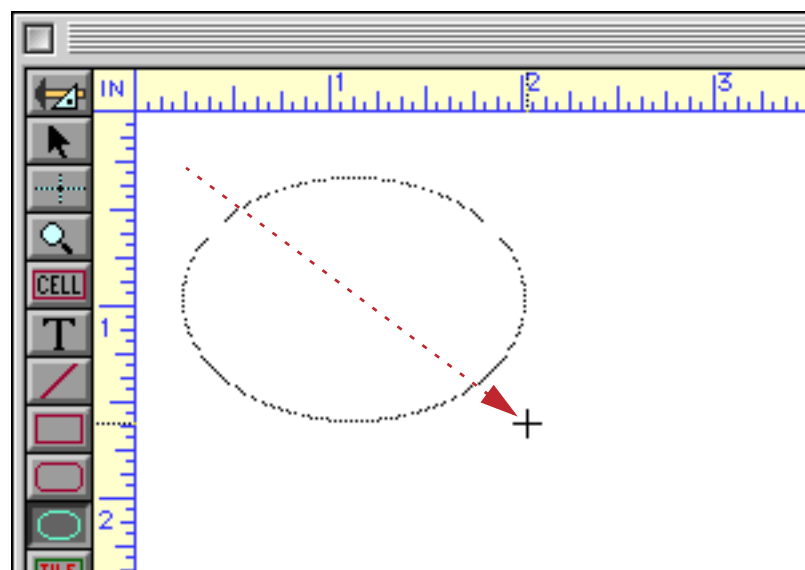


Creating Graphic Objects

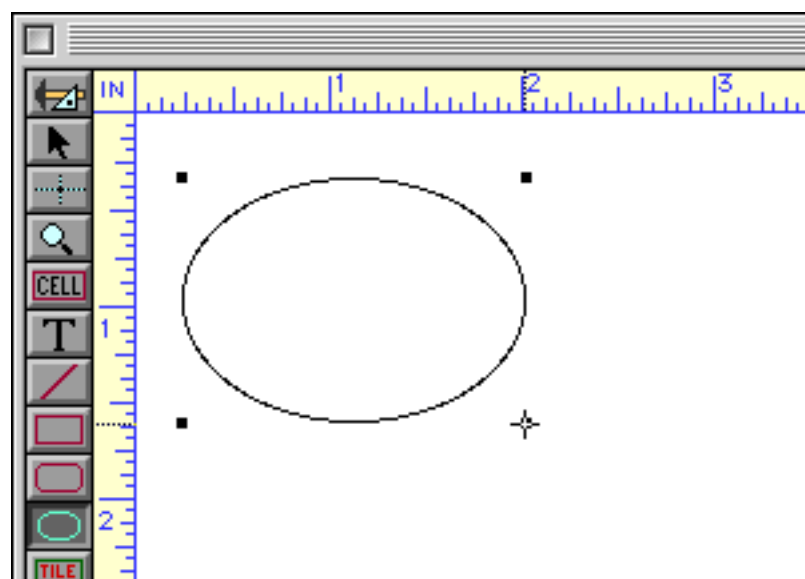
Before you actually start creating the data entry form let's practice a bit with using these tools. Start by selecting the **Oval** tool.



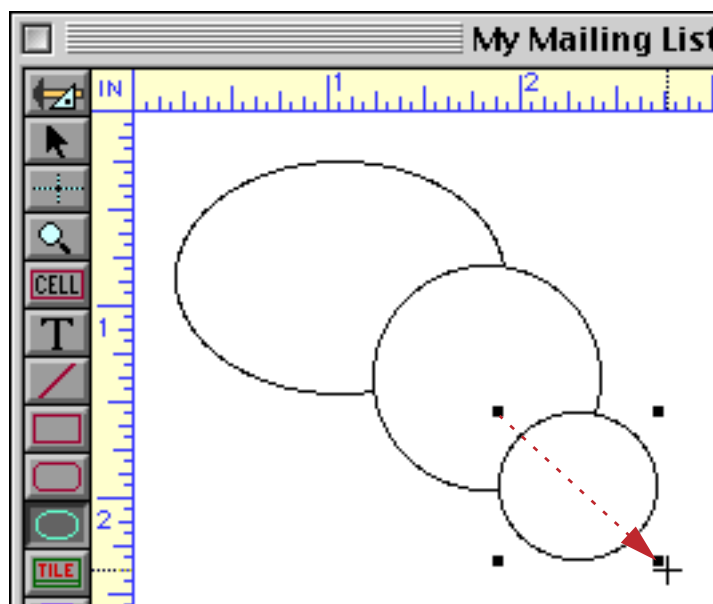
Now move the cursor onto the form and drag the mouse across the surface of the form to define the location and size of the new object (the dragging motion is shown by the dashed arrow in the illustration below). A gray outline of the new object will follow the mouse.



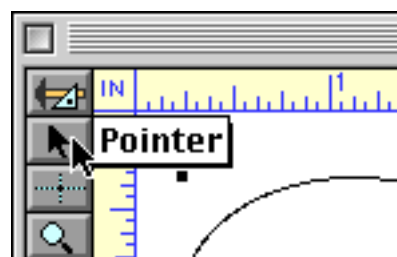
When you release the mouse, the new object will appear.



Each time you drag across the form you will create a new shape. Create several shapes as shown below (these objects are just for experimentation, so don't worry about the exact position and size).



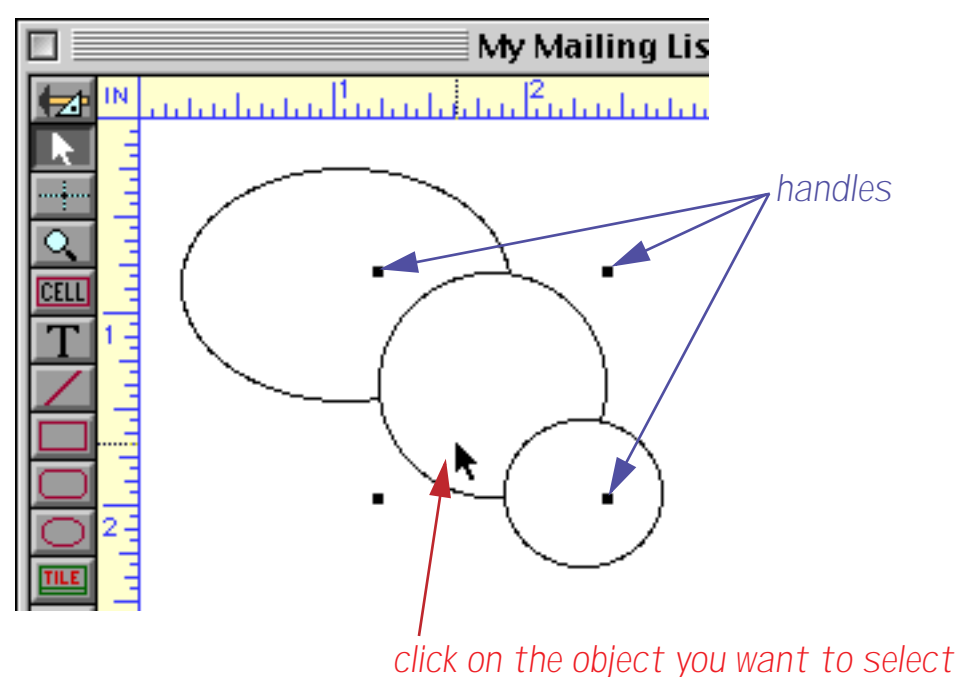
When you are finished creating shapes, click on the **Pointer** tool.



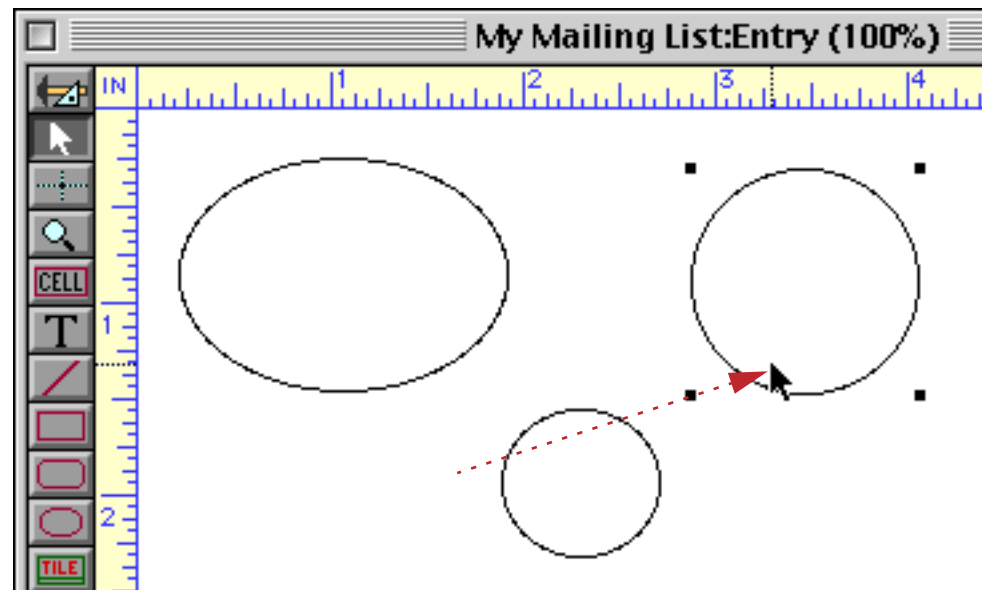
Don't forget to click on the Pointer tool when you are done! If you don't, the next time you click you will create another graphic object. To learn more about creating graphic objects see "[Creating a Graphic Object](#)" on page 552.

Selecting and Moving a Graphic Object

To select a graphic object simply click on it with the **Pointer** tool selected. Four "**handles**" appear at the corners to show that the object is selected (see "[Selecting a Single Object](#)" on page 558).



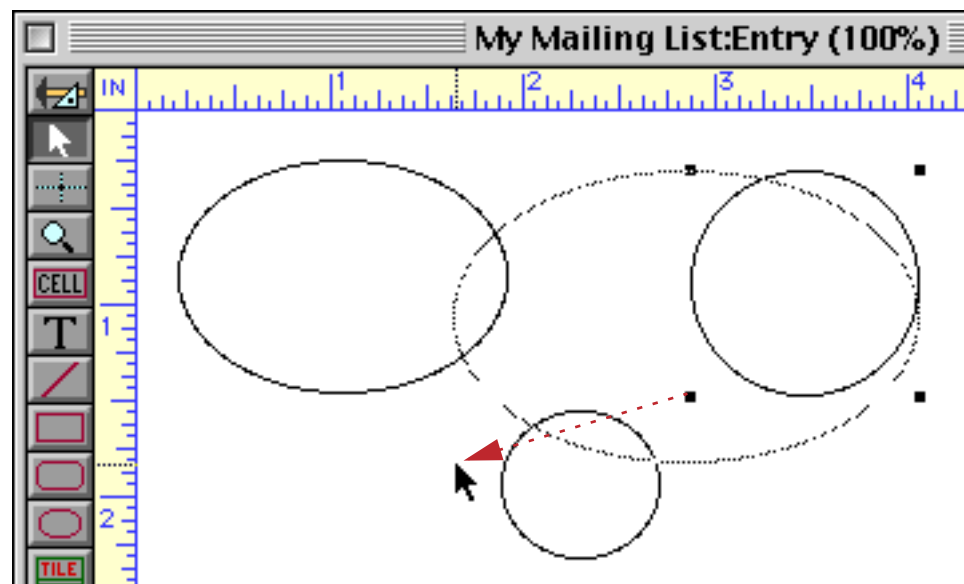
To move an object click on it and drag to the new position (see “[Moving a Single Object](#)” on page 564).



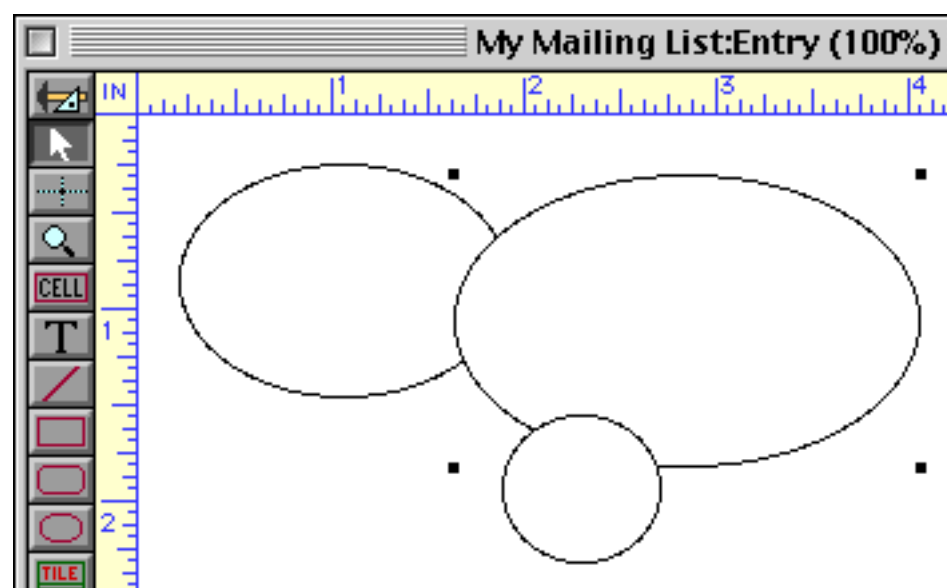
For fine adjustments you can use the arrow keys (←, →, ↓, ↑) to nudge selected objects into position. Each time you press an arrow key, the object (or objects) moves one pixel in the direction of the arrow (see “[Nudging an Object \(or Objects\)](#)” on page 565).





Adjusting the Size of a Graphic Object

To change the size of an object, first select the object with the **Pointer** tool. Then use the mouse to drag one of the corner handles. As you drag the handle, an outline of the object will follow the mouse.



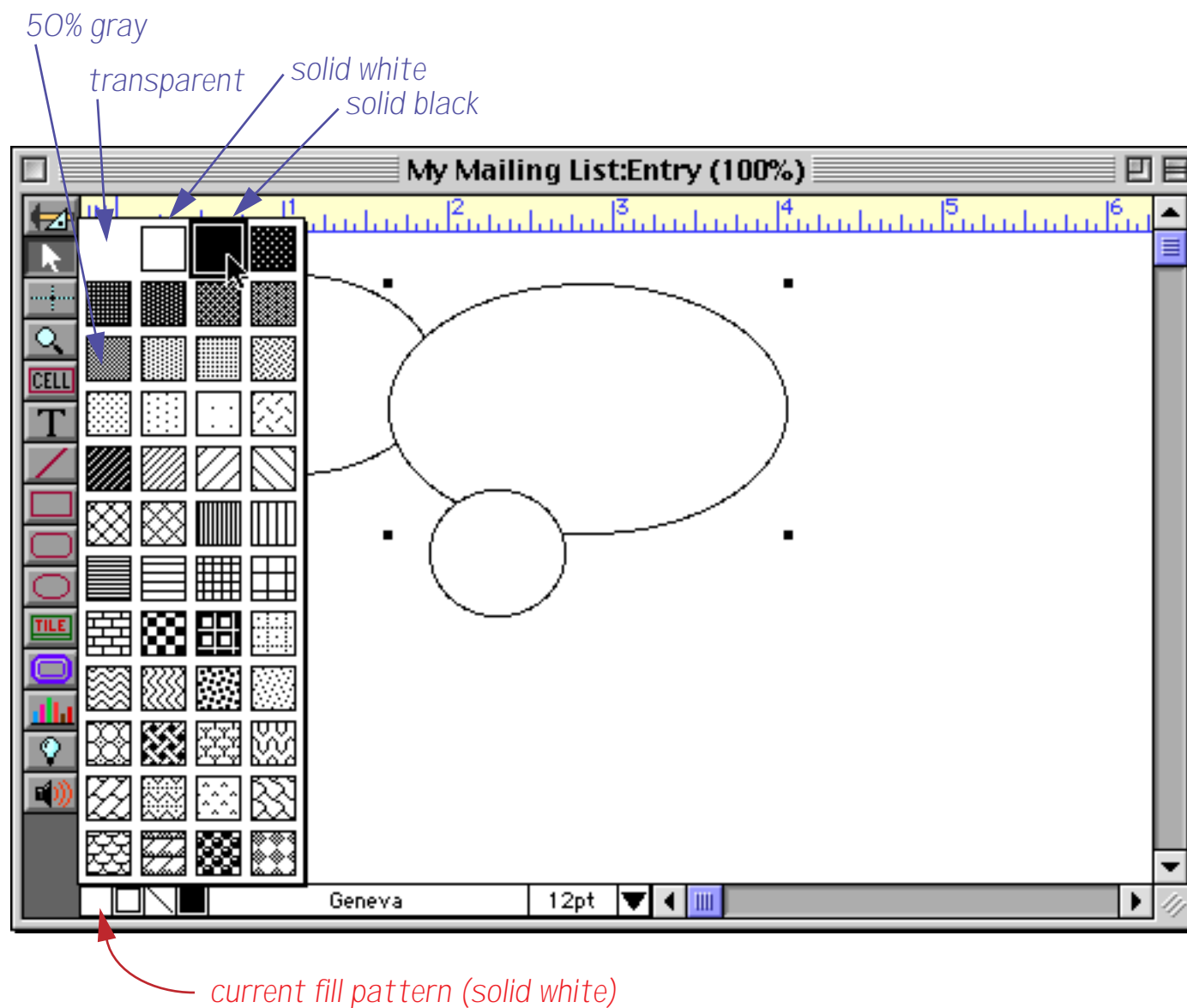
Release the mouse when the corner is in the correct spot (see [“Changing the Size of a Single Object”](#) on page 568).



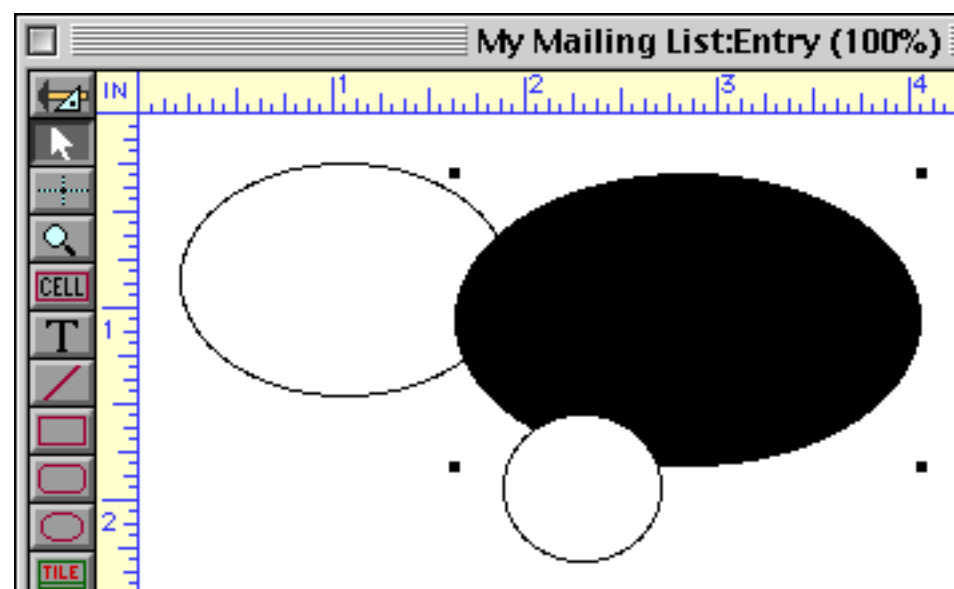
The arrow keys (, , , ) usually nudge the entire object. However, after you click or drag a handle, the arrow keys will nudge just that handle. Each time you press an arrow key the handle will move one pixel in the direction of the arrow. In other words, each time you press an arrow key the object will grow (or shrink) one pixel in the direction of the arrow (see [“Nudging the Size of an Object”](#) on page 568). You can also adjust the position and size of the object numerically with a dialog, see [“Viewing and Setting Exact Object Dimensions”](#) on page 567 to learn how.

Changing an Objects Appearance

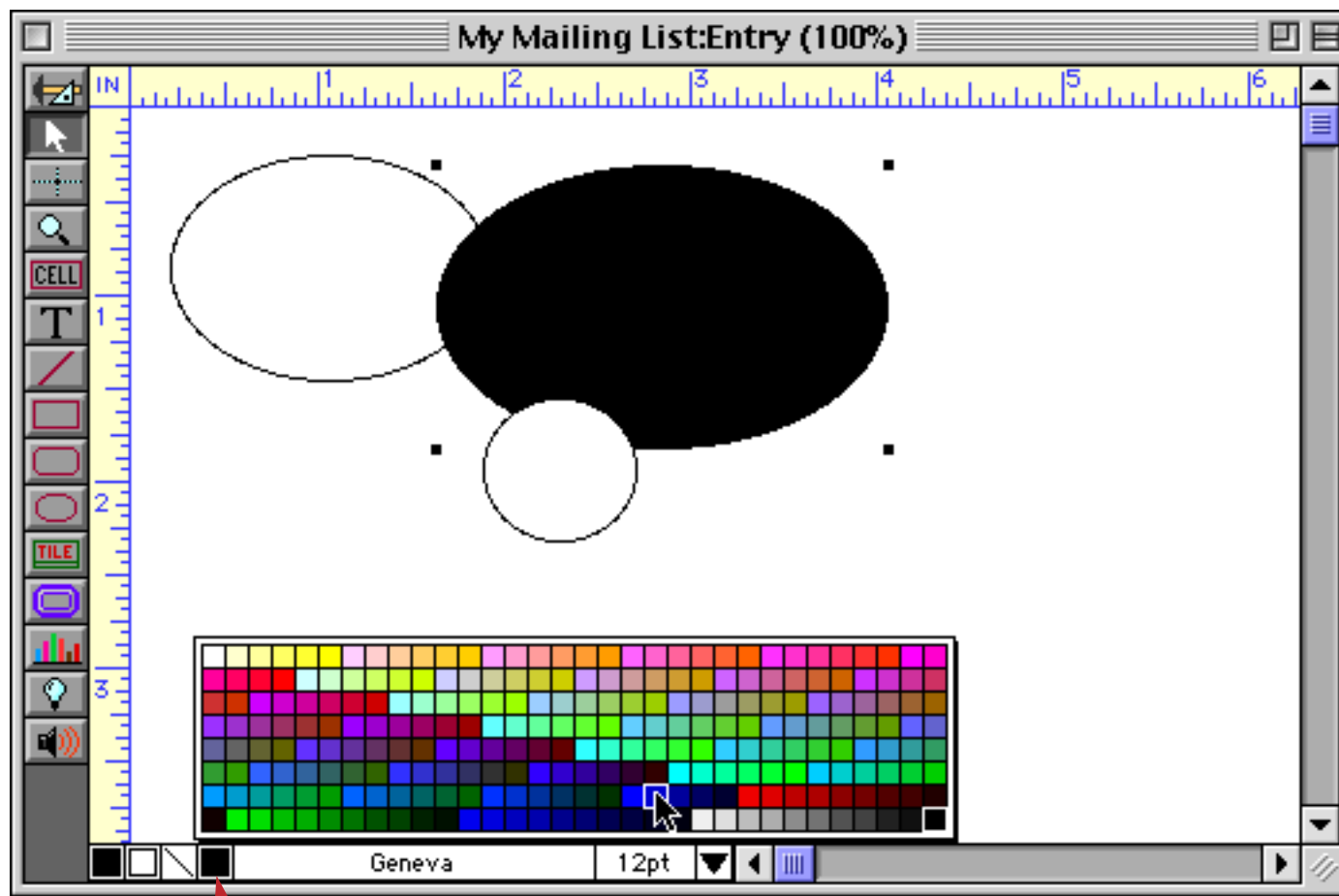
The new objects you have created are white with a black border. You can use the **Graphic Control Strip** (on the bottom of the window next to the horizontal scroll bar, see “[The Graphic Control Strip](#)” on page 562) to change the appearance of the selected objects. To change the selected object to solid black use the fill pattern menu (see “[Fill Pattern](#)” on page 575). This menu has 40 different patterns to choose from.



After you make your selection the object will change to the selected pattern, in this case solid fill.

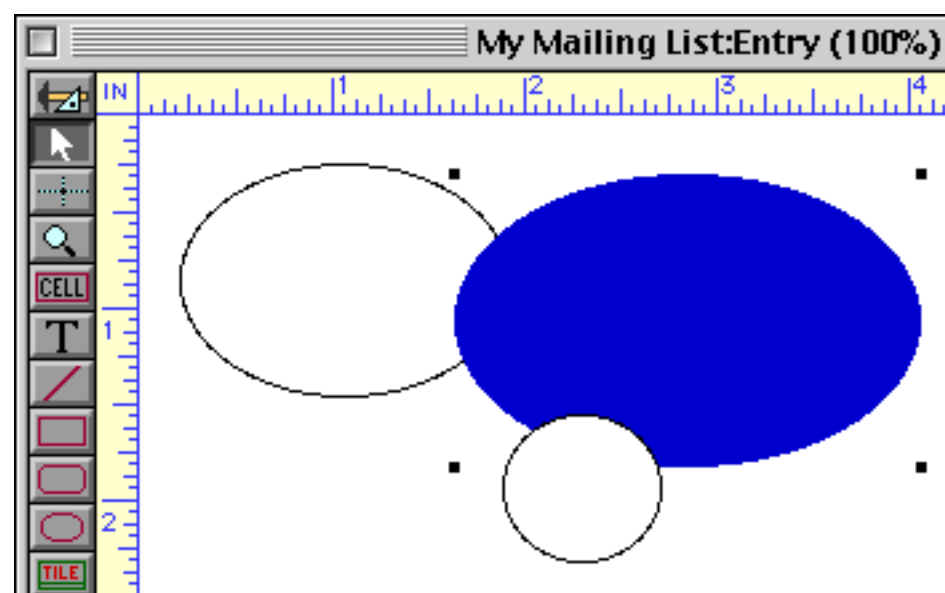


To change the color of the selected object use the color menu (see “[Color](#)” on page 580).



current fill pattern (black)

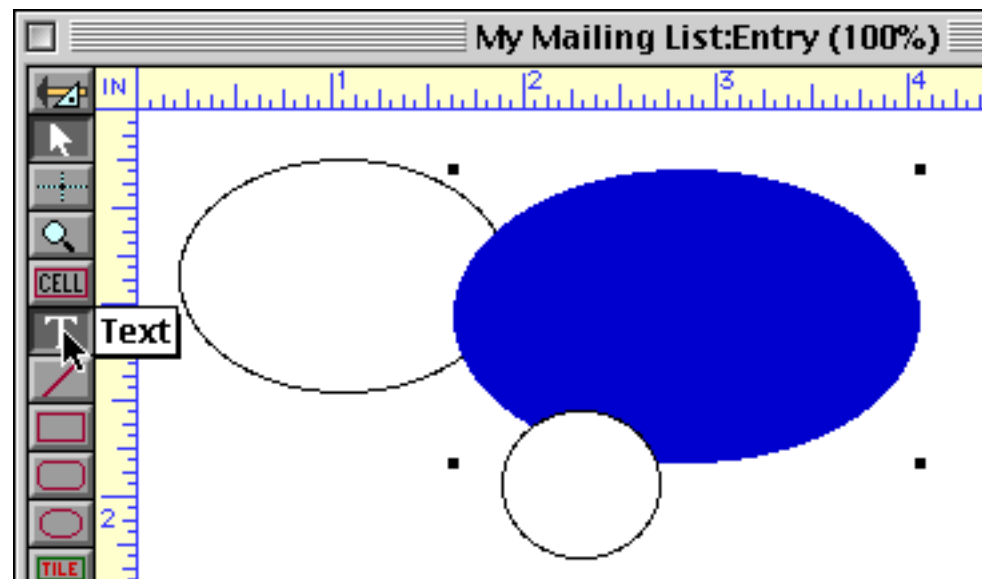
After you make your selection the object will change to the selected color.



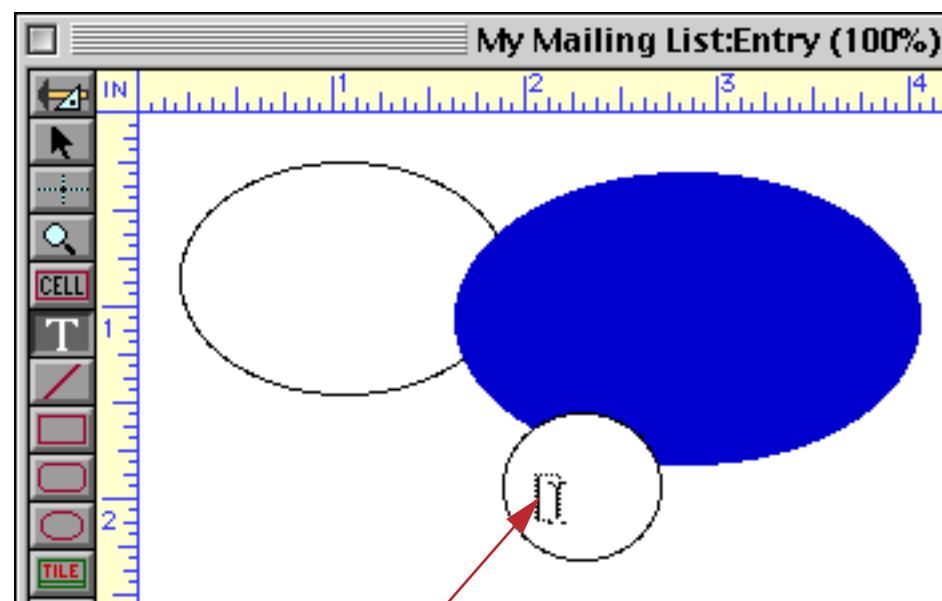
You can also adjust the line pattern (see “[Line Pattern](#)” on page 577) and the line width (see “[Line Width](#)” on page 579) of the selected object(s).

Creating Text Objects

To add a piece of text to your form start by clicking on the Text tool.

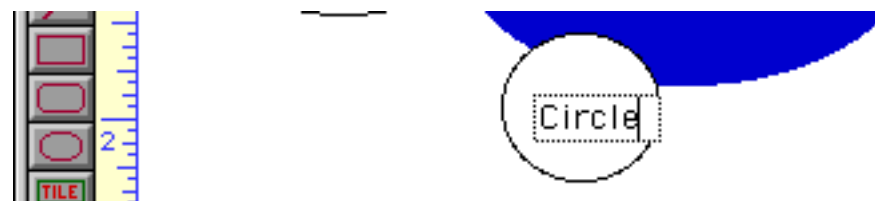


Now move the mouse to the position where you want the text to appear (you can adjust the position later) and click the mouse.



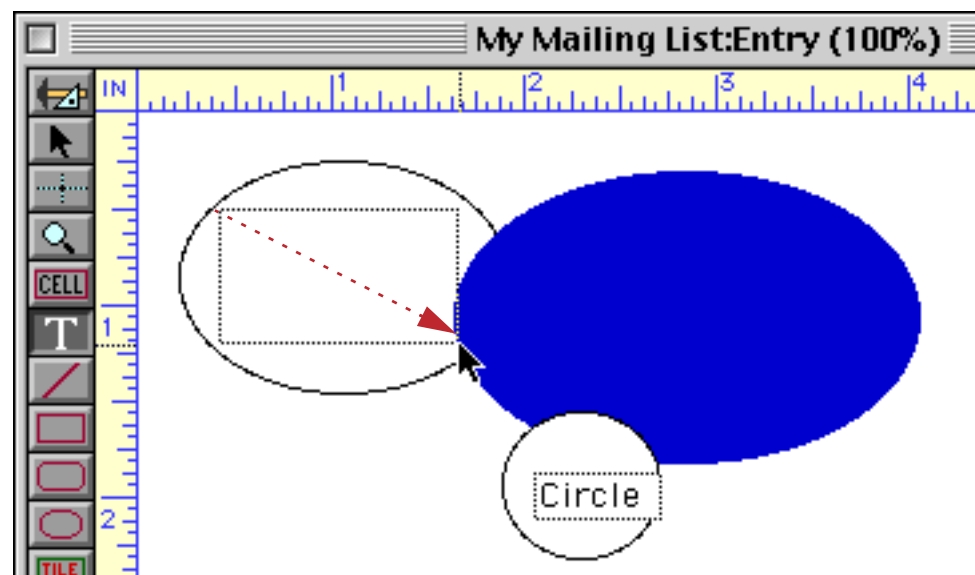
click where you want the text to appear

Now use the keyboard to type in the text.

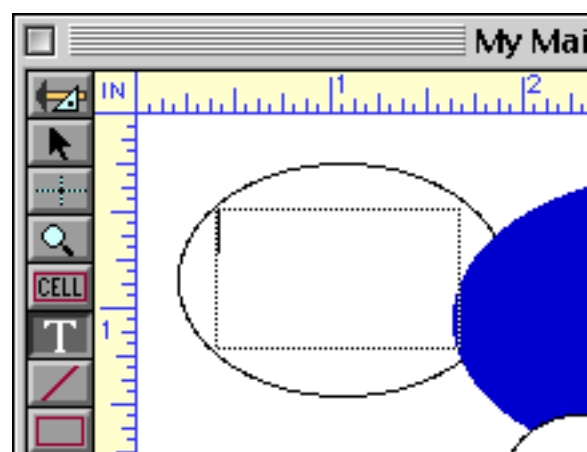


As you type each character, the click text object automatically expands. To add another line of text press the **Return** key. When you're done creating text you can click on another spot to create another text object or you can click on the **Pointer** tool.

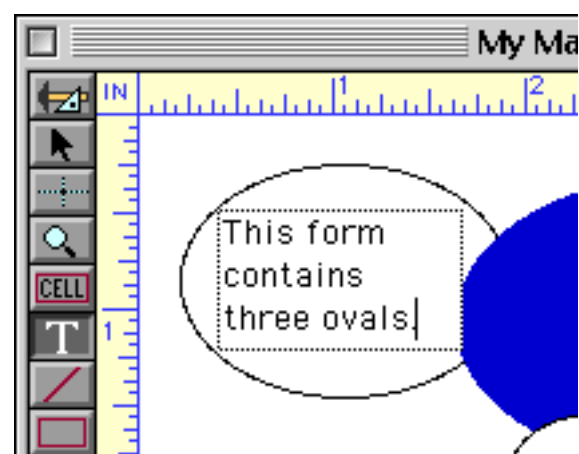
The text object you just created is called **click text**, because you click to create it. Panorama has another type of text object called an **auto-wrap text** object. Instead of expanding automatically as you type an auto-wrap text object is a fixed size, with the text wrapping inside the object. To create an auto-wrap text object click on one corner of where you want the object to appear and then drag to the opposite corner.



When you release the mouse a dotted box appears for you to type into.



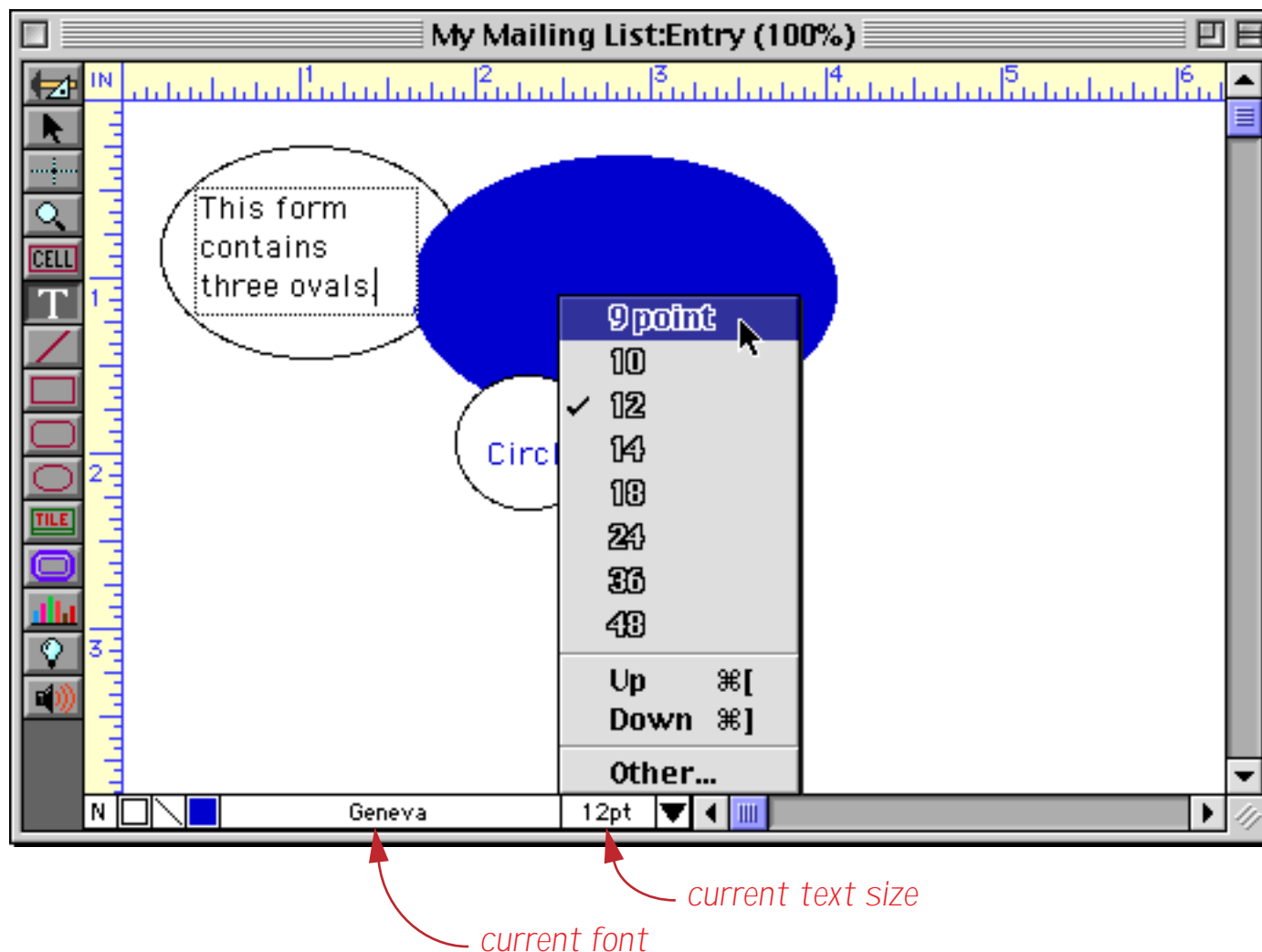
Whatever you type will wrap inside of the box.



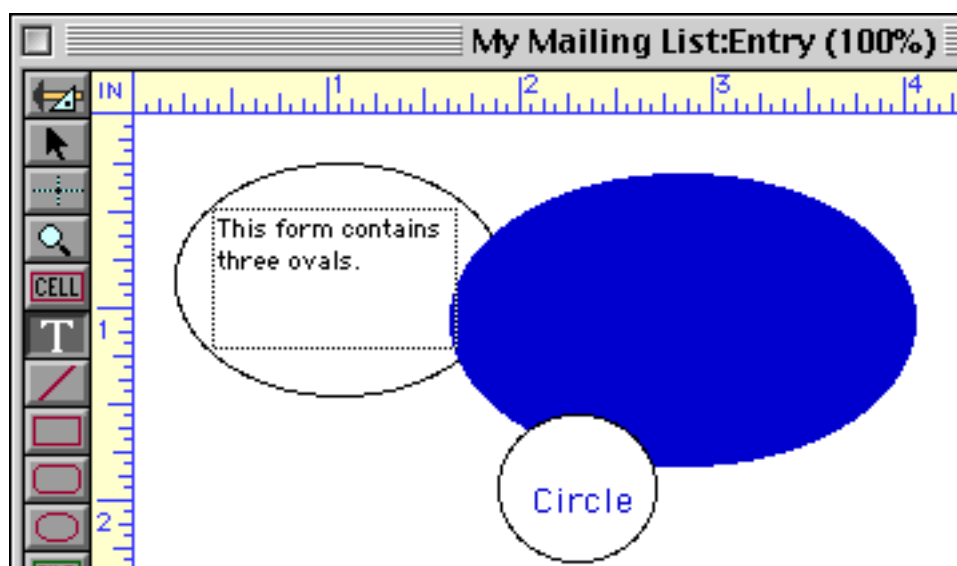
When you're done creating text you can click or click-drag on another spot to create another text object or you can click on the **Pointer** tool.

Changing the Font and Size

To change the font and size of the selected object you can use the **Graphic Control Strip** or you can use the **Text** menu (see “[Text Font, Size and Style](#)” on page 643). The illustration below shows the auto-wrap text object being changed from 12 point to 9 point.



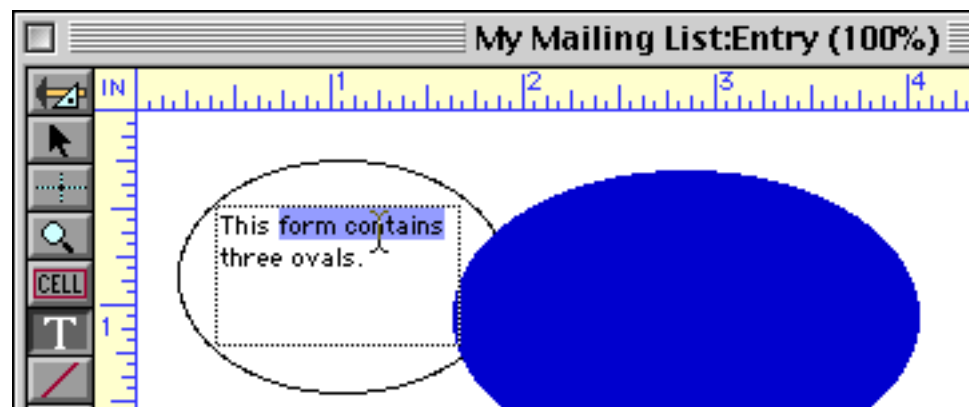
Here's the revised text object.



Within a single text object all of the text must be the same font, size, style and color. If you want to mix different text appearance within a single object you must use Panorama's Word Processor SuperObject (see “[Word Processor SuperObject](#)” on page 720).

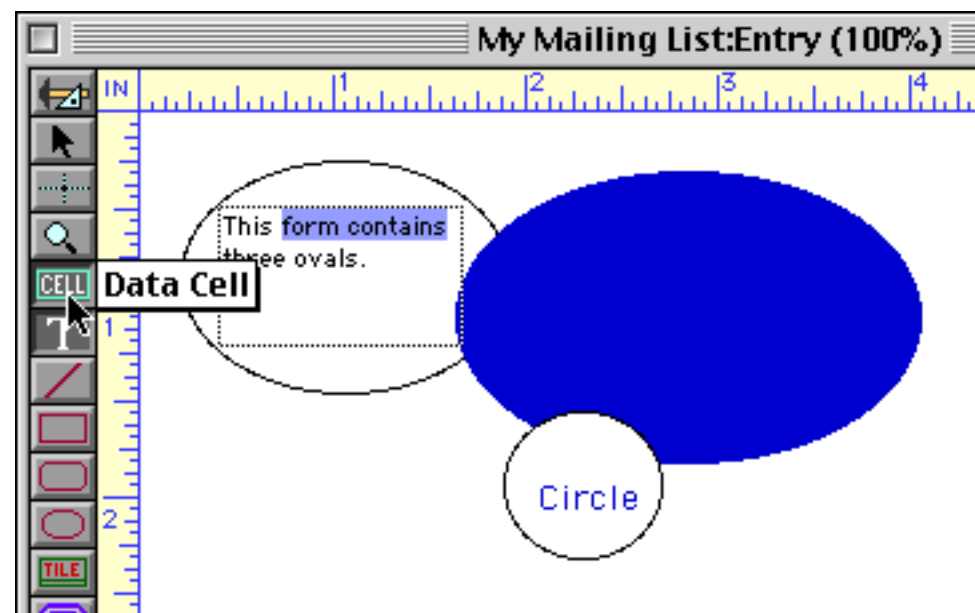
Editing a Text Object

To edit a text object simply select the **Text** tool and click or drag on the object (see “[Editing Fixed Text](#)” on page 640). With this tool you can edit the text object just like any other text - click to select an insertion point, double click to select a word, etc.

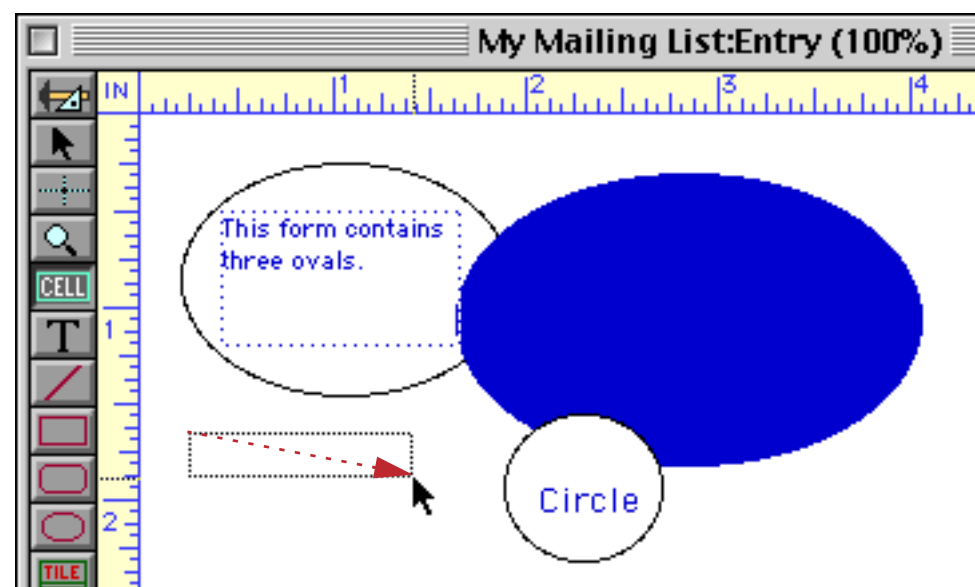


Creating Data Cell Objects

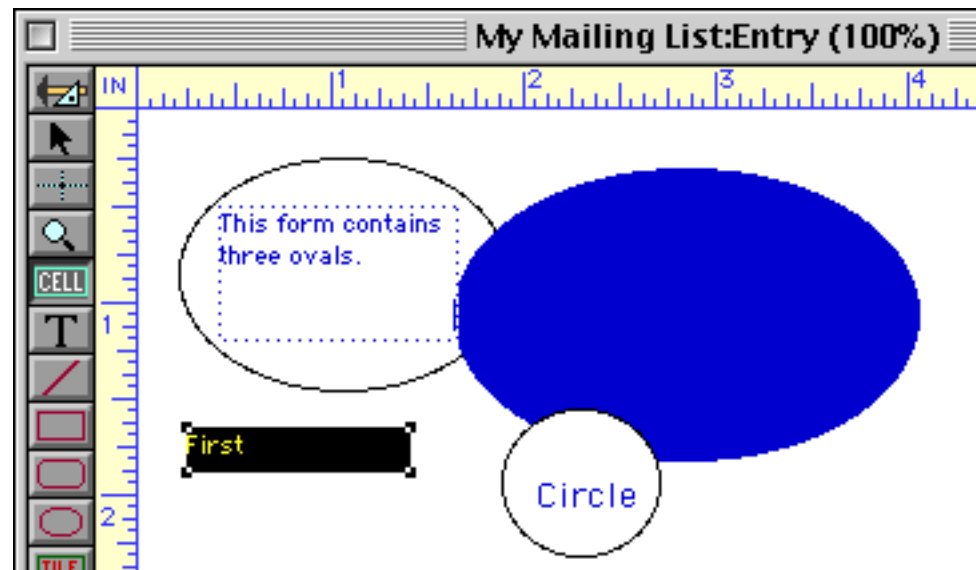
Panorama has two different types of objects for editing data (see “[Types of Data Editing Objects](#)” on page 682). Right now you’re going to learn about data cells, which allow data fields to be edited with a pop-up input box very similar to the data sheet (see “[Entering Data Into Your New Database](#)” on page 3 and “[The Input Box](#)” on page 376). To create a data cell start by selecting the **Data Cell** tool (see “[Working with Data Cell Objects](#)” on page 685).



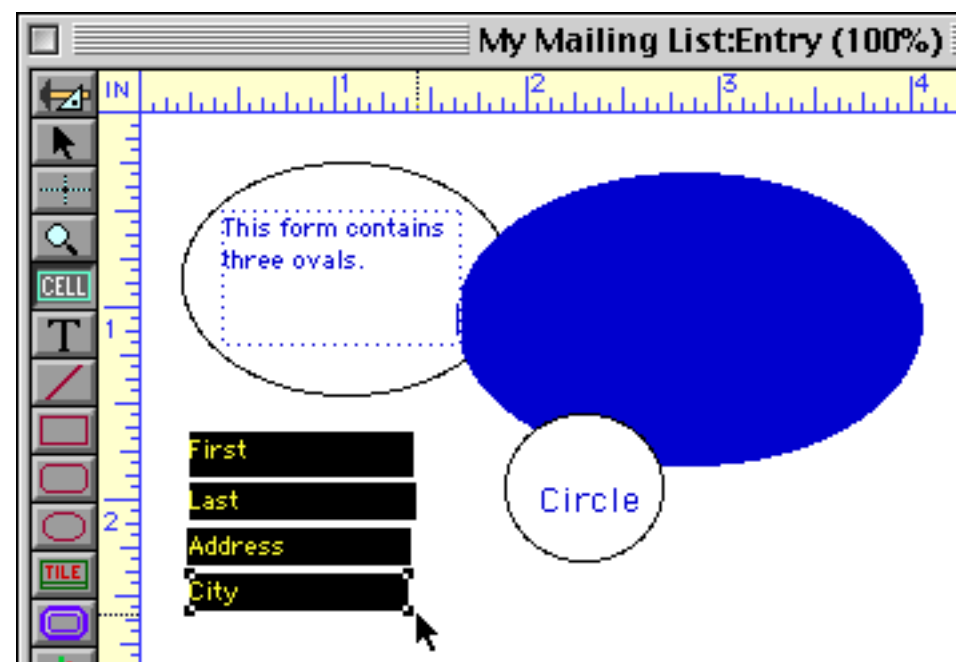
Drag the mouse across the form in the spot where you want to create the data cell.



When you release the mouse the data cell is created. It is automatically assigned to the first field in the database, which in this database is **First**.



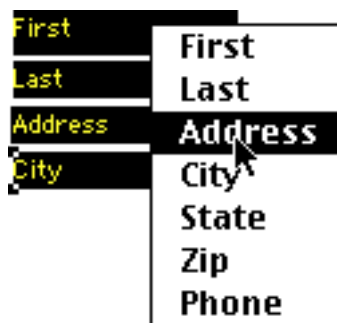
Each additional data cell you create will be assigned to the next available field in the database.



To change the field a data cell is assigned to make sure the **Data Cell** tool is selected and move the mouse over the data cell object. When the mouse is over the object the arrow turns into a little menu icon.



When you see this icon you can press the mouse button to see a pop-up menu of the fields in the database.



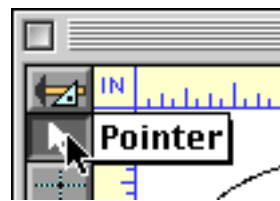
Select the field you want assigned to the data cell from the pop-up menu.



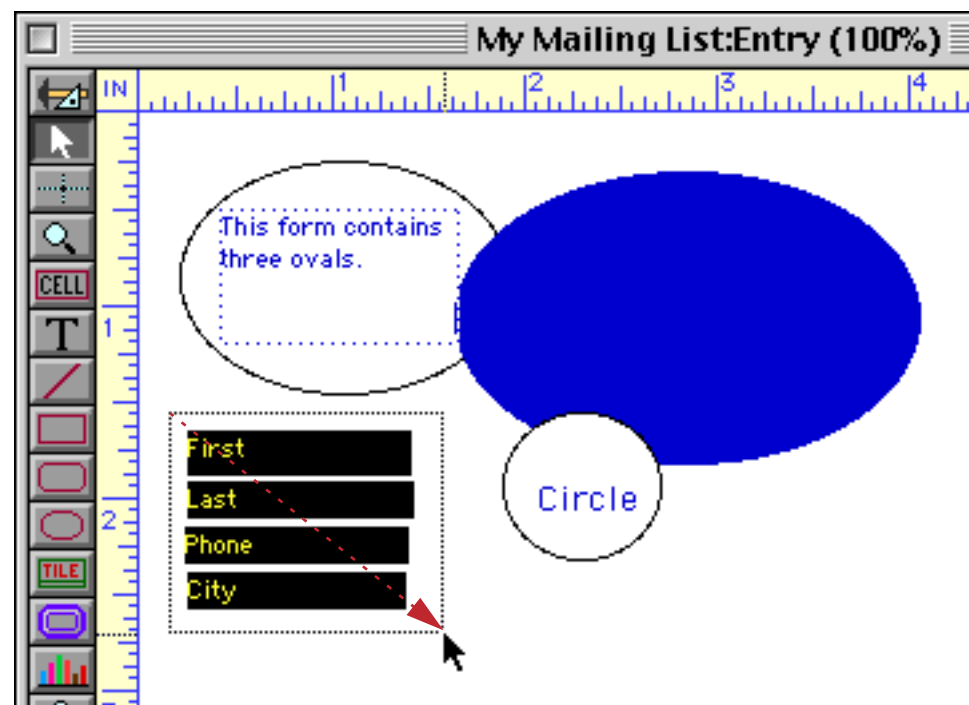
Panorama has another type of graphic object for editing data - the Text Editor SuperObject. To learn more about this type of object see "[Text Editor SuperObject](#)" on page 689.

Aligning Multiple Objects

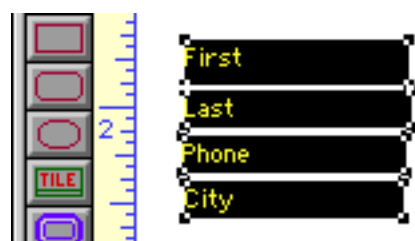
I don't know about you, but those raggedy looking data cells are really bothering me! Fortunately Panorama has tools that can make these objects nice and neat in a hurry. Start by selecting the **Pointer** tool.



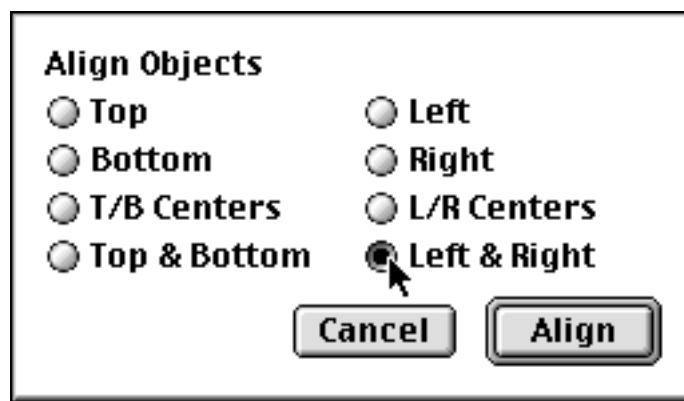
Now start on an empty spot on the form and drag the mouse diagonally across all four objects. The dotted rectangle should surround the objects.



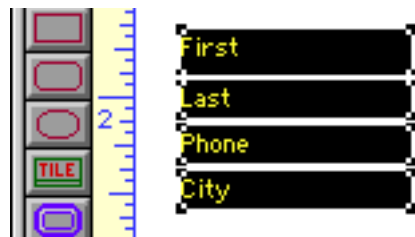
When you release the mouse all four objects will be selected (see "[Selecting Multiple Objects at Once](#)" on page 559).



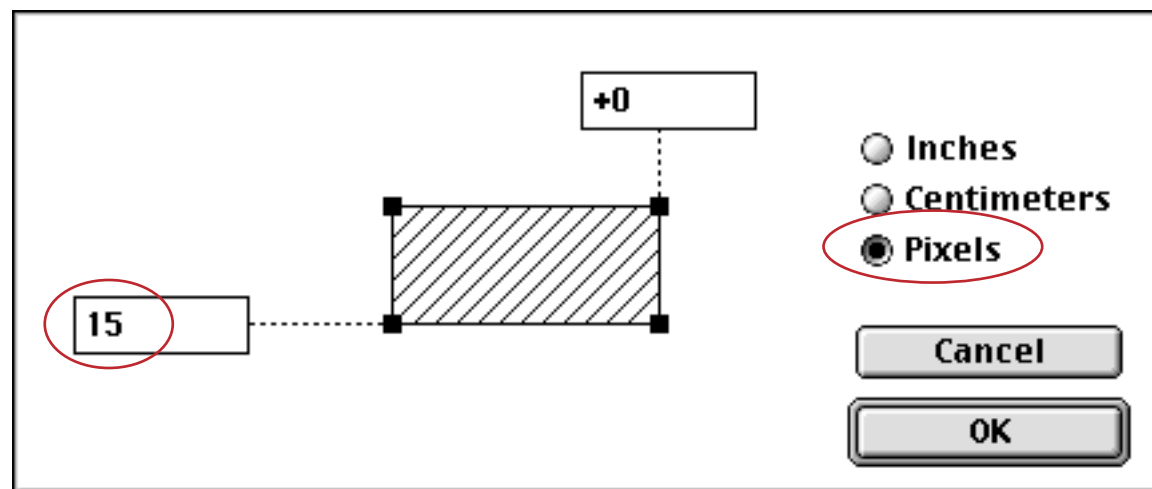
To align the left and right edges of the objects choose **Align Objects** from the Arrange menu (see “[Aligning Objects](#)” on page 605). The dialog gives you eight different alignment choices — pick **Left & Right**.



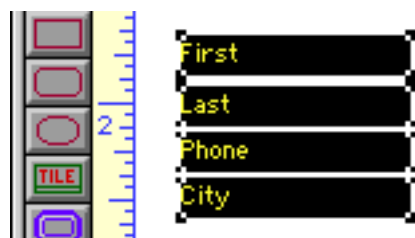
When you press the **Align** button the left and right edges of the objects are brought into perfect alignment.



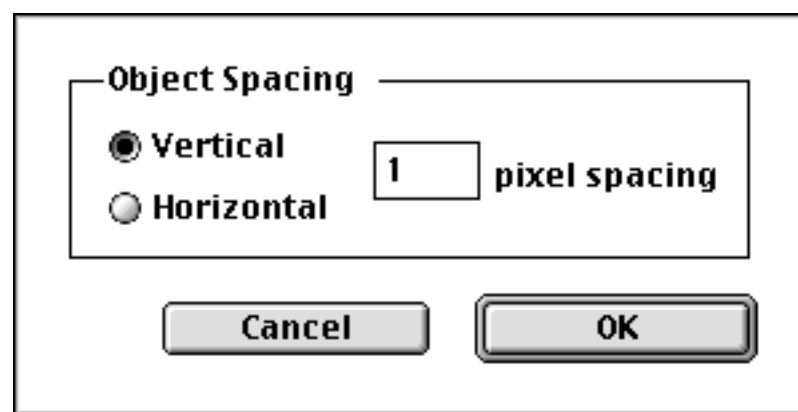
To set the height of all of the objects to 15 pixels choose **Dimensions** from the Edit menu (see “[Setting Exact Dimensions of Multiple Objects](#)” on page 602). Select the **Pixels** radio button and type in **15** for the height (just 15, not +15).



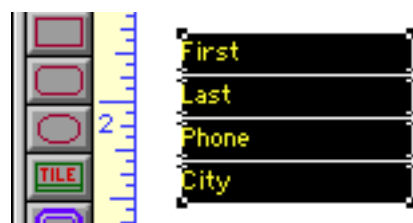
When you press **OK** all of the objects will be adjusted to 15 pixels.



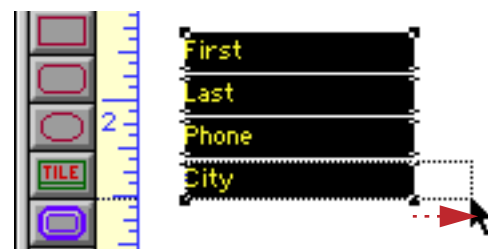
To vertically space the objects evenly choose the **Spacing** command from the Arrange menu (see “[Adjusting Spacing Between Multiple Objects](#)” on page 608). Click on the **Vertical** option and set the spacing you want between each object (a pixel is one screen dot, or 1/72nd of an inch).



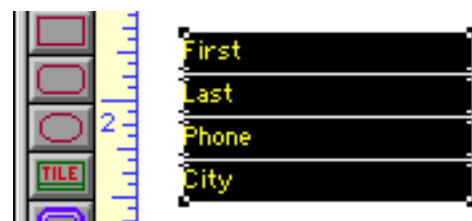
The data cells are now lined up nice and neat.



Before we call it a day let's make one final adjustment. Hold down the **Shift** key and drag the bottom right handle of the bottom object to the right.



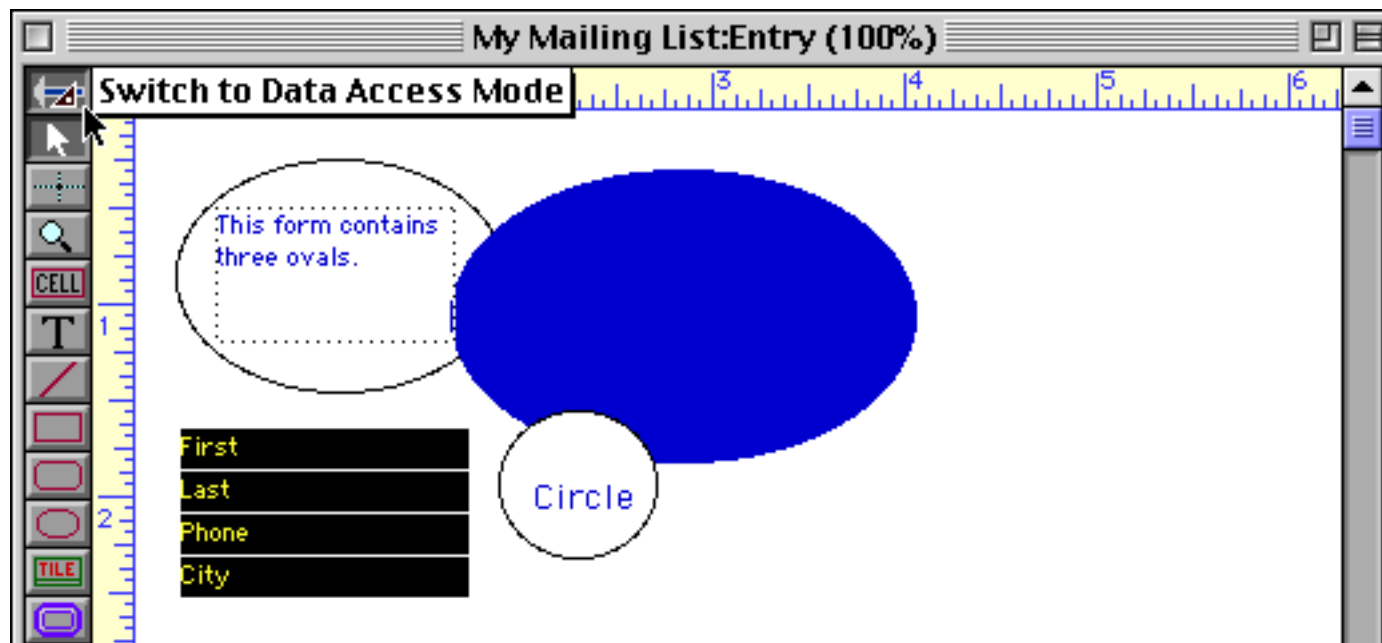
When you release the mouse all four objects will expand. This feature is called **cluster resize** (see “[Cluster Resize](#)” on page 593 for additional examples) and is very handy for adjusting columns of objects.



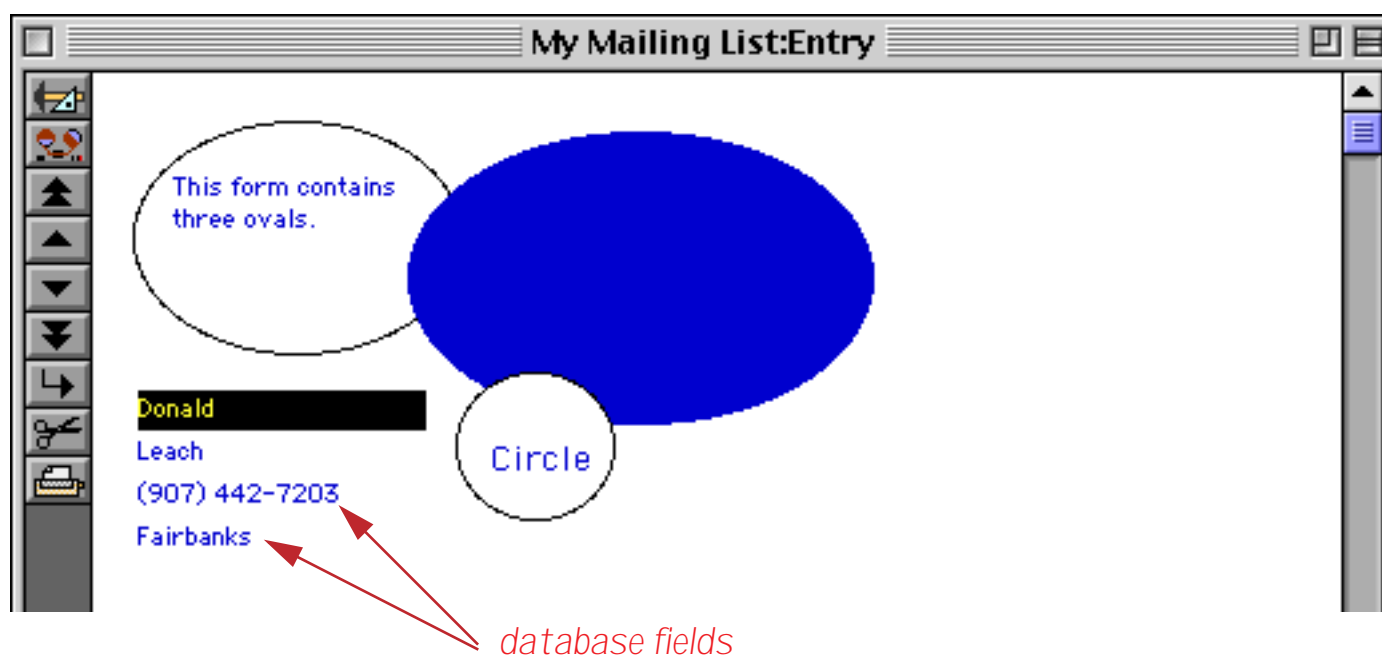
In a few minutes you'll learn a method to create data cell objects in a nice neat column or row in the first place, making the technique shown above unnecessary. However, you'll still find the techniques described above useful in many circumstances.

Using Data Cells to Edit Data

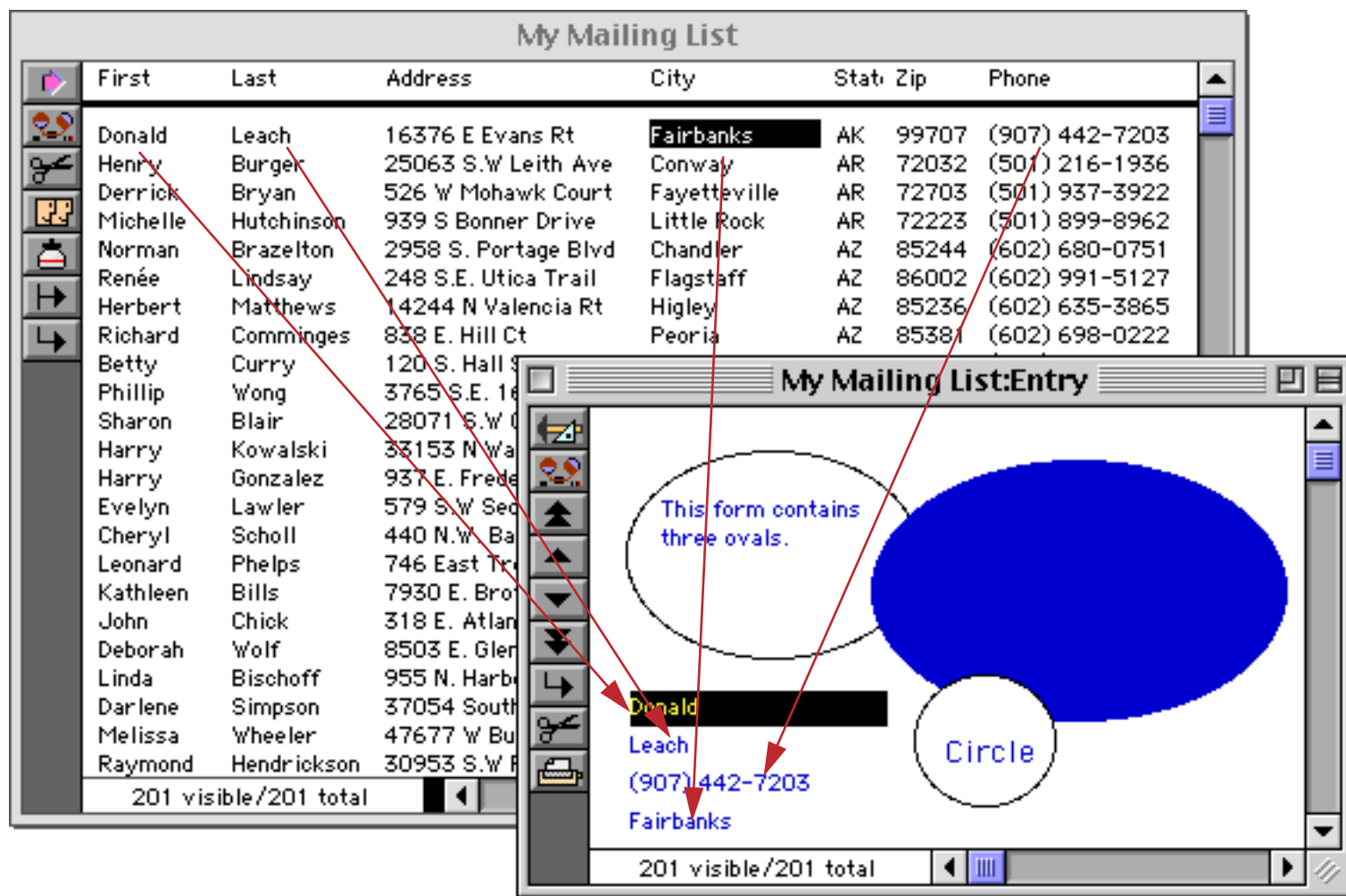
So far you've managed to make four boxes with field names on them — perhaps that doesn't seem very useful. To activate these cells you must switch the form from **Graphic Design Mode** to **Data Access Mode**.



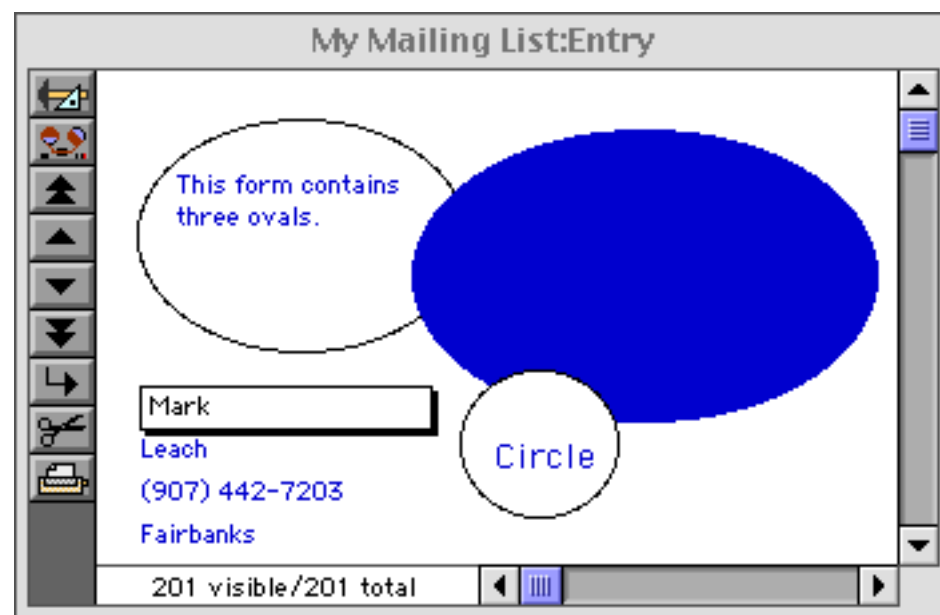
In this mode the rulers disappear and the tool palette switches from graphics tools to data navigation tools (see "[Moving From Record to Record](#)" on page 369 and "[Browsing the Database With a Form](#)" on page 546). Most importantly, the data cells now display information from the database itself.



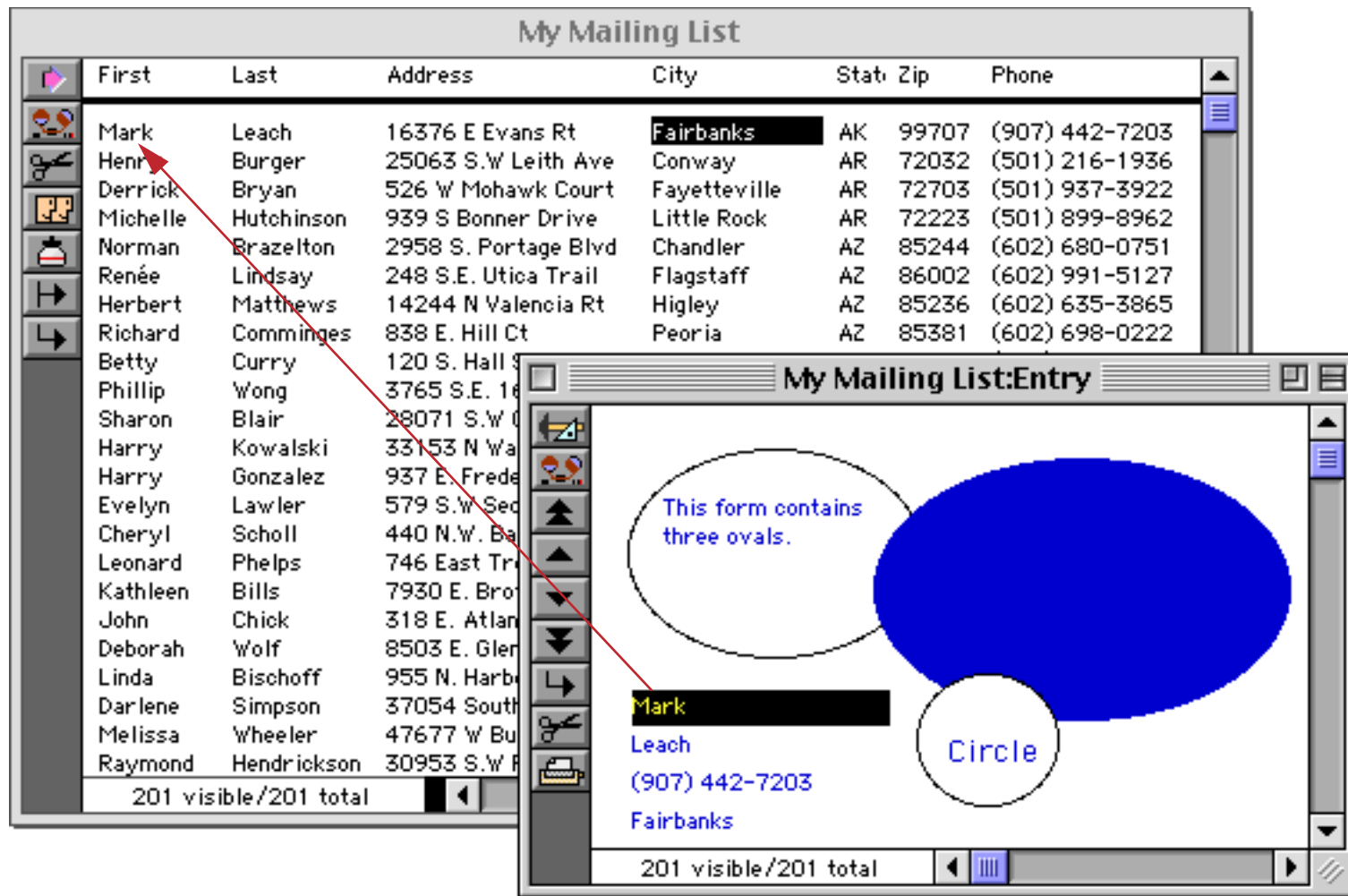
If you adjust the windows so that you can see both the data sheet and the form you can see that the form is displaying the same information that the data sheet is displaying.



If you double click on one of the data cells you can edit the data, just as you could in the data sheet (see "[Entering Data Into Your New Database](#)" on page 3 and "[The Input Box](#)" on page 376).



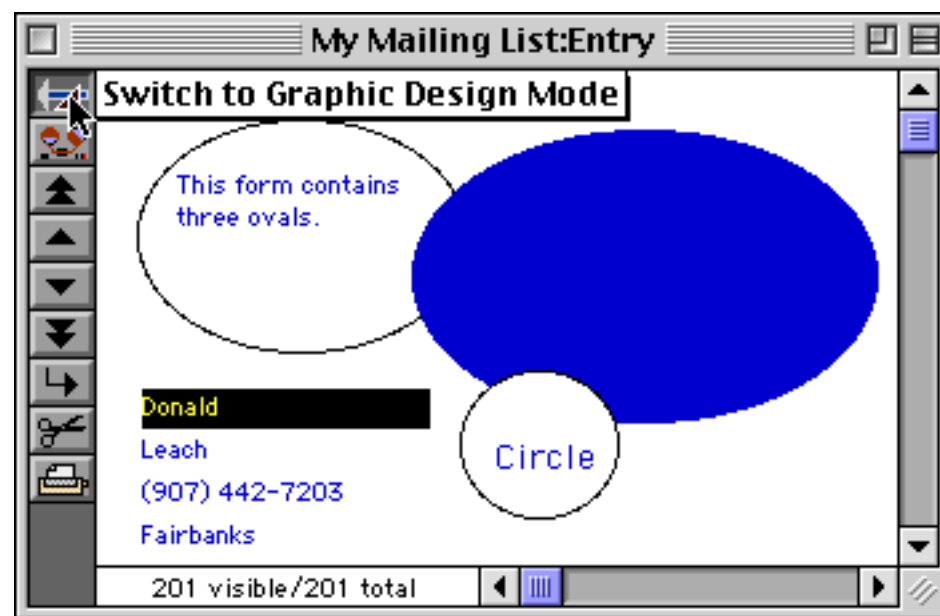
When you press the **Enter** key the new data will appear in both the form and the data sheet.



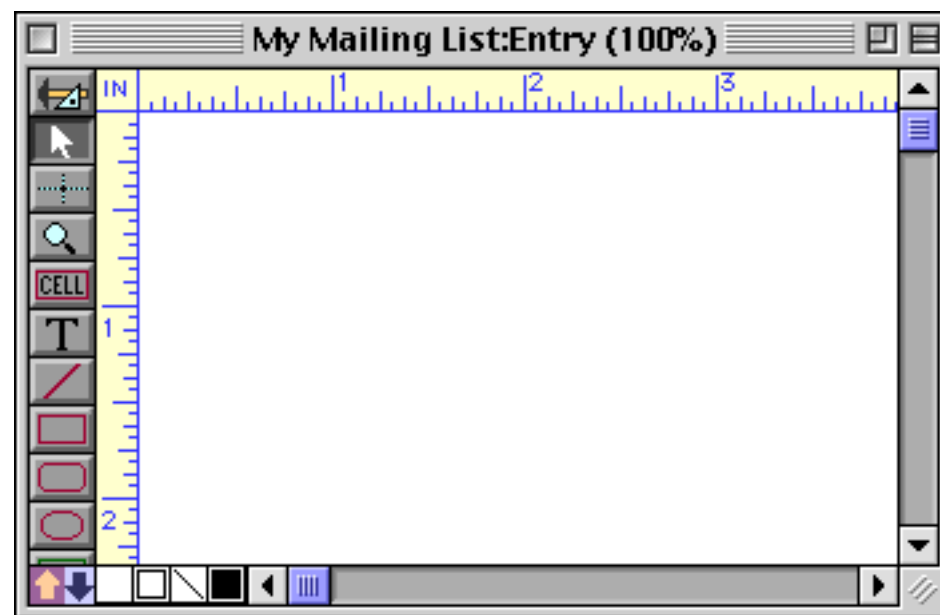
The same process works in reverse also — any data you enter into the data sheet will also appear in any forms that are open.

Building the Data Entry Form

Enough practice — it's time to start building the actual data entry form. Start by switching the form back to **Graphic Design Mode**.



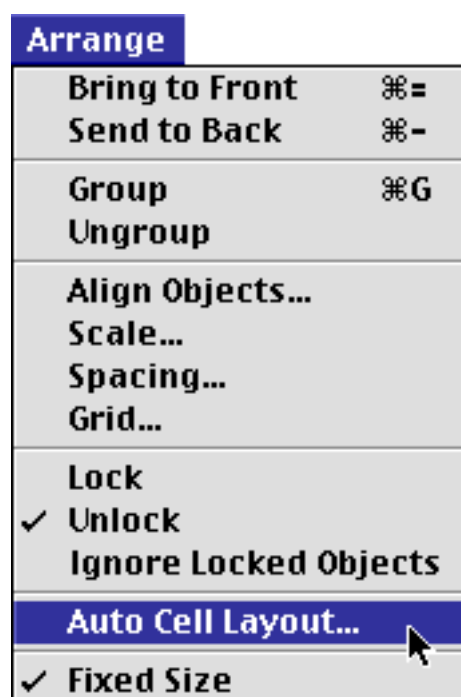
We're going to start over in this form, so the first step is to erase all of the practice objects you have created. To do that choose **Select All Objects** from the Edit menu, then **Clear** from the Edit menu (or press the **Delete** key). Now you've got an empty form.



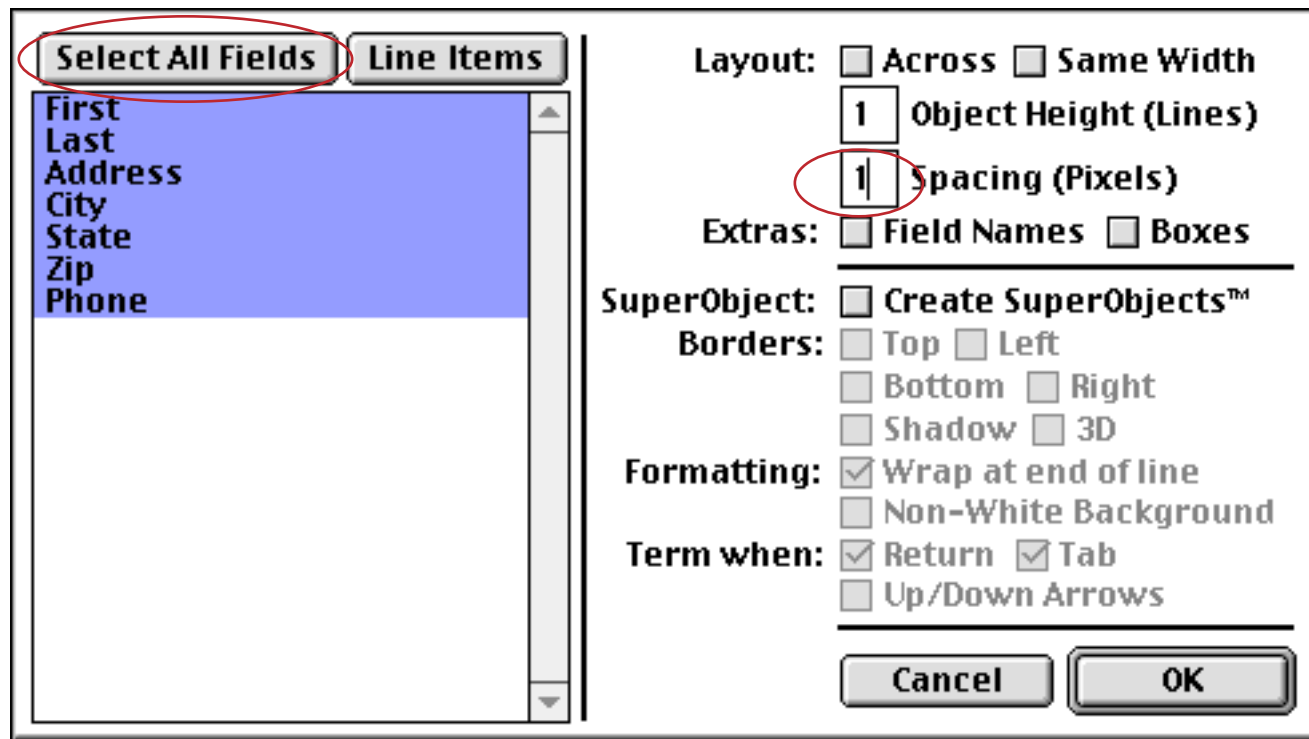
Now click the mouse in the upper left hand corner of the form, about 1/16th of an inch from the top and left hand sides.



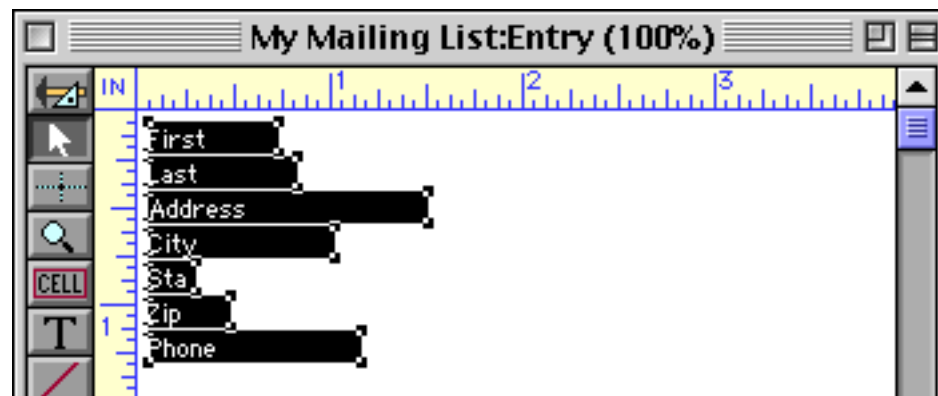
Now choose the **Auto Cell Layout** command from the Arrange menu. This command is going to create a neat column of data cells for us (see "[Automatically Creating Rows or Columns of Data Cells or Text Editor Super-Objects](#)" on page 709).



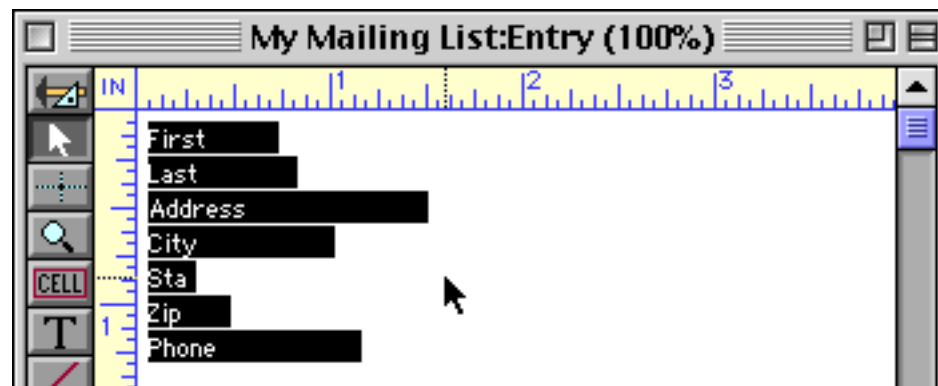
This dialog controls how the data cells are generated. Start by pressing the **Select All Fields** button. Then set the **Spacing (Pixels)** option to 1.



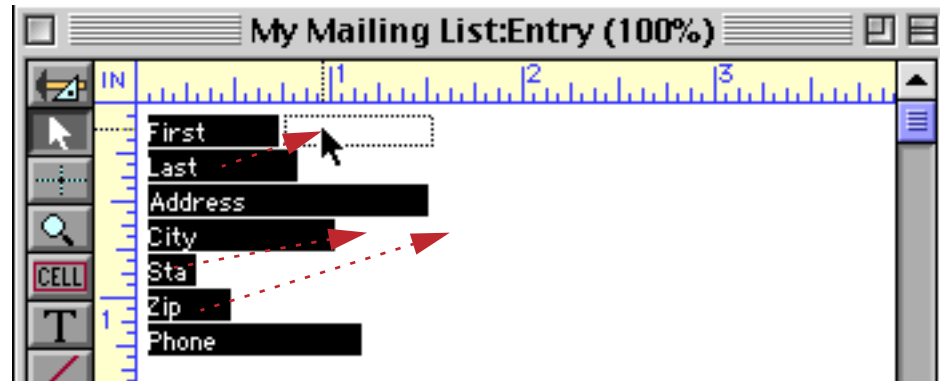
When you press the **OK** button Panorama will automatically create a column of data cells (starting at the point where you clicked the mouse).



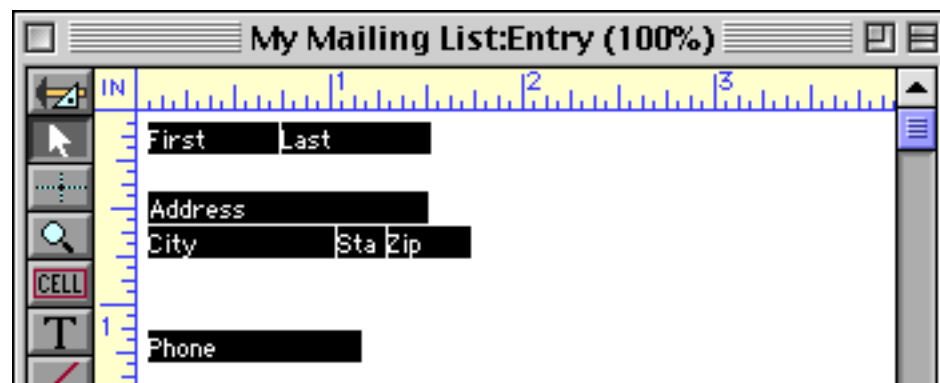
All of the objects are selected. To begin working on the objects separately click on any blank spot to de-select the objects.



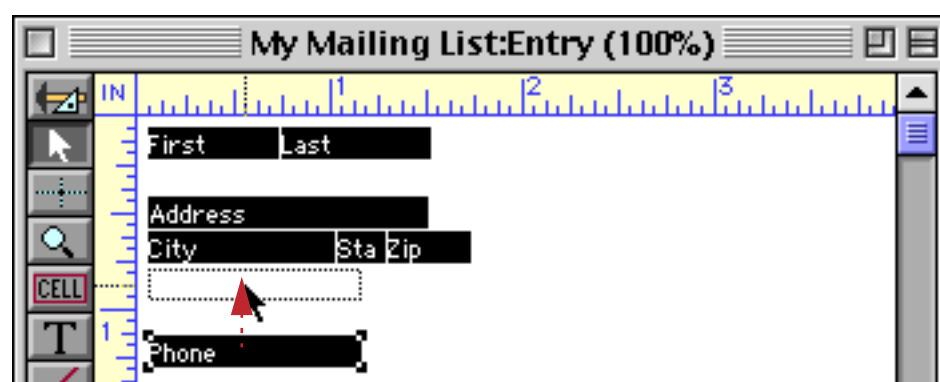
Using a combination of dragging and the arrow keys (←, →, ↓, ↑) move the objects so that the First and Last name objects are on the same line and the City, State and Zip objects are the same line. Usually the best technique is to drag the object approximately into place and then use the arrow keys to nudge it exactly into position. If you need to review the techniques for dragging and nudging objects see “[Moving a Single Object](#)” on page 564 and “[Nudging an Object \(or Objects\)](#)” on page 565. You may also find “[Viewing and Setting Exact Object Dimensions](#)” on page 567 useful.



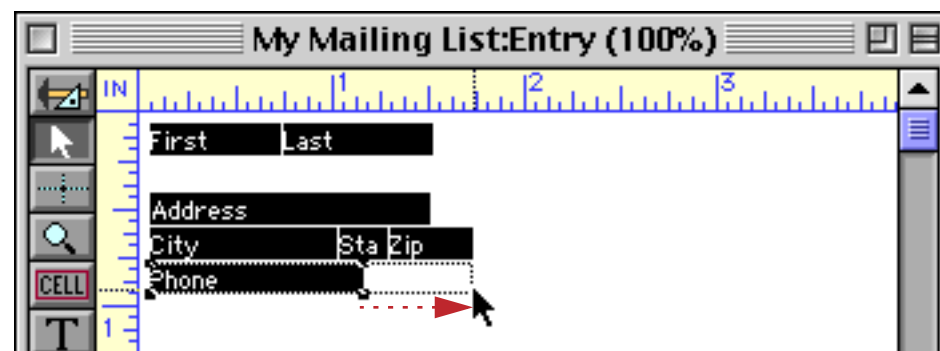
When you are finished the result should look like this.





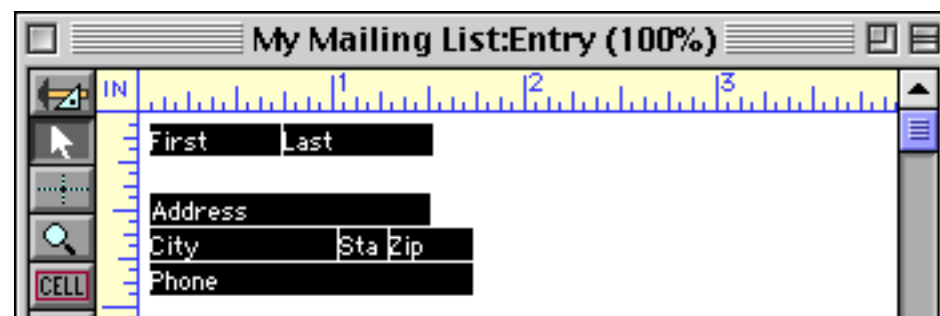
Next drag and nudge the Phone object up under the City, State and Zip objects. When you drag the Phone object hold down the **Shift** key so that Panorama will drag the object straight up with no slip to the left or right (see “[Moving a Single Object](#)” on page 564). Then use the ↓ and ↑ arrow keys to nudge it into final position.



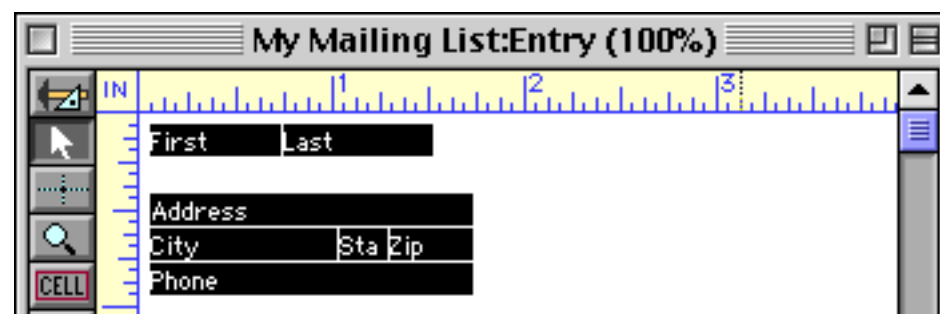
Again holding down the **Shift** key, drag the lower right hand handle to the right, expanding the width of the Phone object.



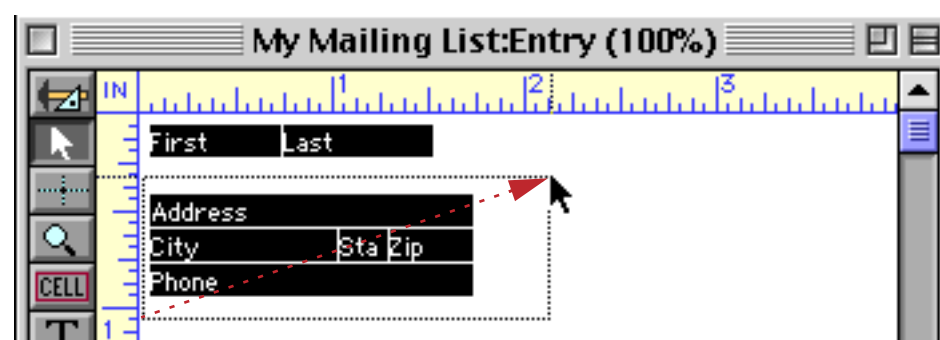
Then use the  and  arrow keys to nudge the width of the object until it matches the combined width of the City, State and Zip objects. You may find it useful to use the crosshair cursor to check the alignment (see [“Nudging to the Crosshair Cursor”](#) on page 570).



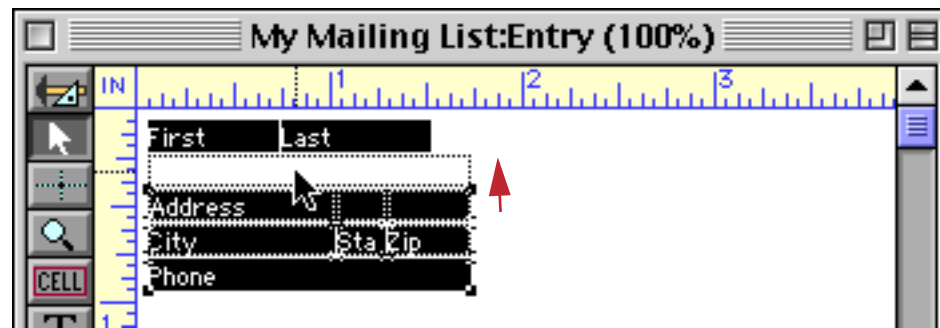
Then use the same techniques to adjust the width of the Address cell. Alternatively you can select the Address and Phone objects (see [“Selecting Multiple Objects at Once”](#) on page 559) and then use the **Align** command with the **Left & Right** option to adjust the width. Either way the form should now look like this.





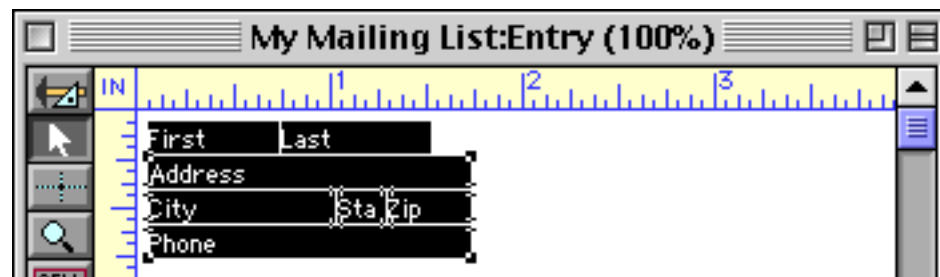
Drag the mouse around the bottom group of objects to select them (see [“Selecting Multiple Objects at Once”](#) on page 559).



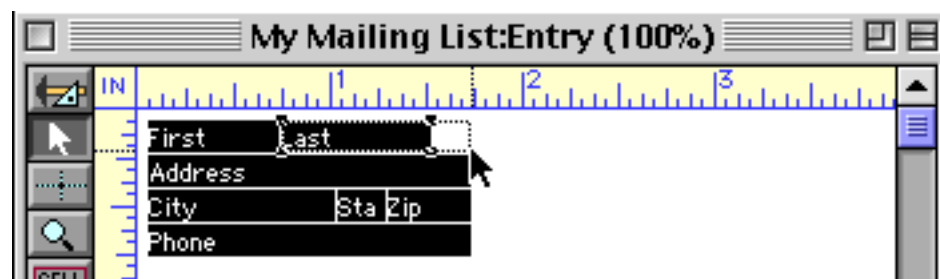
While holding down the **Shift** key drag these objects up underneath the First and Last objects.



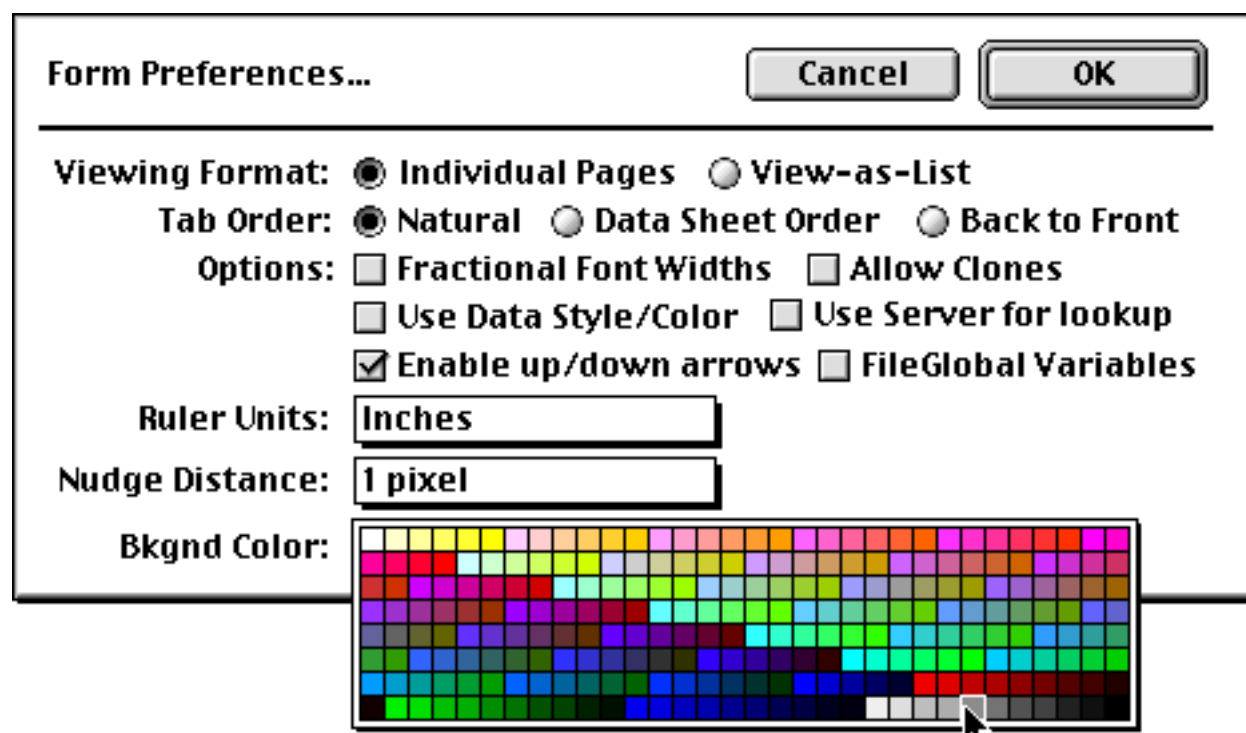
After you've dragged them close use the  and  arrow keys to nudge the objects into final position.



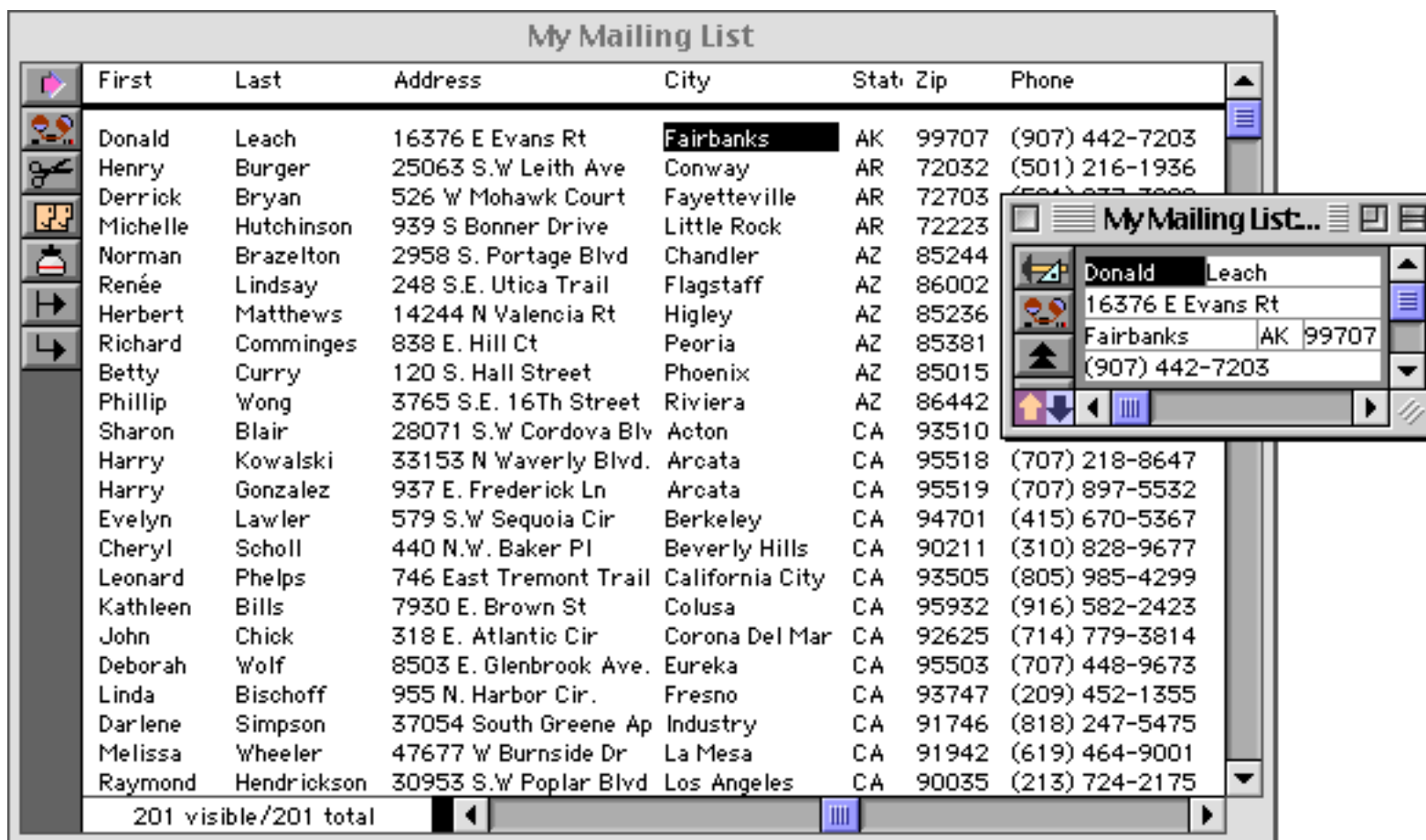
Finally drag and nudge the width of the Last name object to match the other objects.



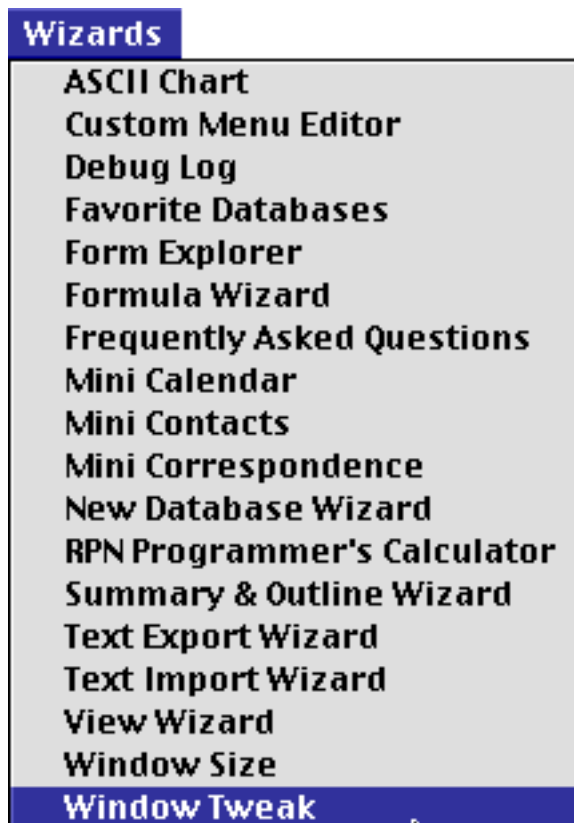
As one last enhancement you'll set the background color of the form. To do this use the **Form Preferences** command in the Setup menu. The background color is set with a pop-up menu at the bottom of this dialog (see "[Form Background Colors](#)" on page 633).



Your new form is now complete. Use the **Switch To Data Access Mode** tool to prepare for displaying and entering data, and adjust the window size and position so that both the data sheet and form are visible at the same time.



The form window has a tool palette and scroll bars that aren't really necessary. To get rid of them select the **Window Tweak** command from the Wizard menu (see "[Turning Window Components On and Off \(Window Tweak Wizard\)](#)" on page 283).



The tool palette and scroll bars are now removed.

The screenshot shows a window titled "My Mailing List" containing a table of mailing information. A pop-up window is overlaid on the table, showing the details for the first row: Donald Leach, 16376 E Evans Rt, Fairbanks, AK 99707, (907) 442-7203.






First	Last	Address	City	Stat	Zip	Phone
Donald	Leach	16376 E Evans Rt	Fairbanks	AK	99707	(907) 442-7203
Henry	Burger	25063 S.W Leith Ave	Conway	AR	72032	(501) 216-1936
Derrick	Bryan	526 W Mohawk Court	Fayetteville	AR	72703	(501) 873-7000
Michelle	Hutchinson	939 S Bonner Drive	Little Rock	AR	72223	
Norman	Brazelton	2958 S. Portage Blvd	Chandler	AZ	85244	
Renée	Lindsay	248 S.E. Utica Trail	Flagstaff	AZ	86002	
Herbert	Matthews	14244 N Valencia Rt	Higley	AZ	85236	
Richard	Comminges	838 E. Hill Ct	Peoria	AZ	85381	
Betty	Curry	120 S. Hall Street	Phoenix	AZ	85015	
Phillip	Wong	3765 S.E. 16Th Street	Riviera	AZ	86442	
Sharon	Blair	28071 S.W Cordova Blv	Acton	CA	93510	(805) 901-9201
Harry	Kowalski	33153 N Waverly Blvd.	Arcata	CA	95518	(707) 218-8647
Harry	Gonzalez	937 E. Frederick Ln	Arcata	CA	95519	(707) 897-5532
Evelyn	Lawler	579 S.W Sequoia Cir	Berkeley	CA	94701	(415) 670-5367
Cheryl	Scholl	440 N.W. Baker Pl	Beverly Hills	CA	90211	(310) 828-9677
Leonard	Phelps	746 East Tremont Trail	California City	CA	93505	(805) 985-4299
Kathleen	Bills	7930 E. Brown St	Colusa	CA	95932	(916) 582-2423
John	Chick	318 E. Atlantic Cir	Corona Del Mar	CA	92625	(714) 779-3814
Deborah	Wolf	8503 E. Glenbrook Ave.	Eureka	CA	95503	(707) 448-9673
Linda	Bischoff	955 N. Harbor Cir.	Fresno	CA	93747	(209) 452-1355
Darlene	Simpson	37054 South Greene Ap	Industry	CA	91746	(818) 247-5475
Melissa	Wheeler	47677 W Burnside Dr	La Mesa	CA	91942	(619) 464-9001
Raymond	Hendrickson	30953 S.W Poplar Blvd	Los Angeles	CA	90035	(213) 724-2175

201 visible/201 total

If you ever need to get the scroll bars and tool palette back again (for example to modify the form) simply select the **Window Tweak** command again. Another option is to close the form window and then re-open it with the **View** menu, which will also restore the tools and scroll bars.


Now that the form is complete be sure to **Save** your work. (In fact it really would have been a good idea to save two or three times while you were working on the form. Since Panorama saves so quickly there's no reason not to save early and often.) Panorama saves the window positions along with the data and graphics (assuming you checked the **Save Window Positions** option when you originally saved the file, see "[Saving Window Positions](#)" on page 213), so if you close the file and then re-open it the form window and data sheet windows will reappear in the same places, ready to go.

The new form you have created only scratches the surface of the capabilities available for building forms. To see a more sophisticated example use the **Favorite Databases** wizard to open the **106th Congress** database. This form uses what is called **view-as-list** mode, which allows a form to display more than one record at a time (kind of a cross between the data sheet and a regular form. See “[View-As-List Forms](#)” on page 917 to learn how to create this type of form.

Member	Party	District	Phone/Fax
	Member Democrat	California 46th District	(202) 225-2965 (202) 225-5859
	Member Republican	California 47th District	(202) 225-5611 (202) 225-9177
	Member Republican	California 48th District	(202) 225-3906 (202) 225-0134
	Member Republican	California 49th District	(202) 225-2040 (202) 225-2948
	Member Democrat	California 50th District	(202) 225-8045 (202) 225-9073

538 visible/538 total

To see an example of a more traditional form press the **Contact Info** or **Bio** button. (See “[Push Buttons](#)” on page 853 to learn how to create a button.) Pressing either button opens a form in a new window.

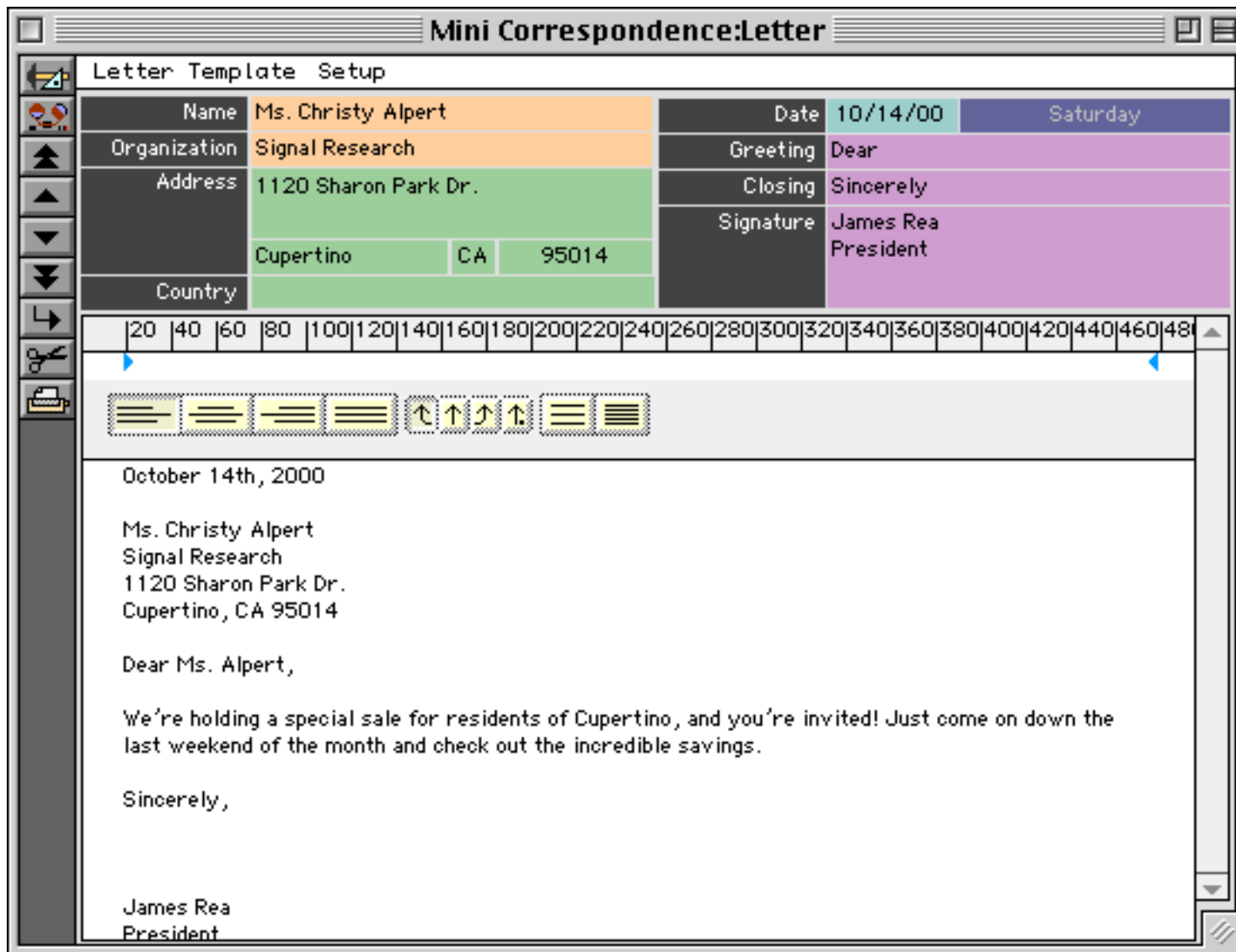
Member	Party	District
	Member Democrat	California 46th District
Leadership		
First Elected	1996	Term 2nd
Committees		
Armed Services Education and the Workforce		
Birthday/Birthplace	01/07/1960	40 yrs Lynwood, CA
Education	BS Chapman University, 1982; MBA American	
Military		
Spouse	Stephen Brixey	Religion Catholic
Previous Job	Investment Banker	Hometown Santa Ana
Previous Offices	no prior elected office	

538 visible/538 total

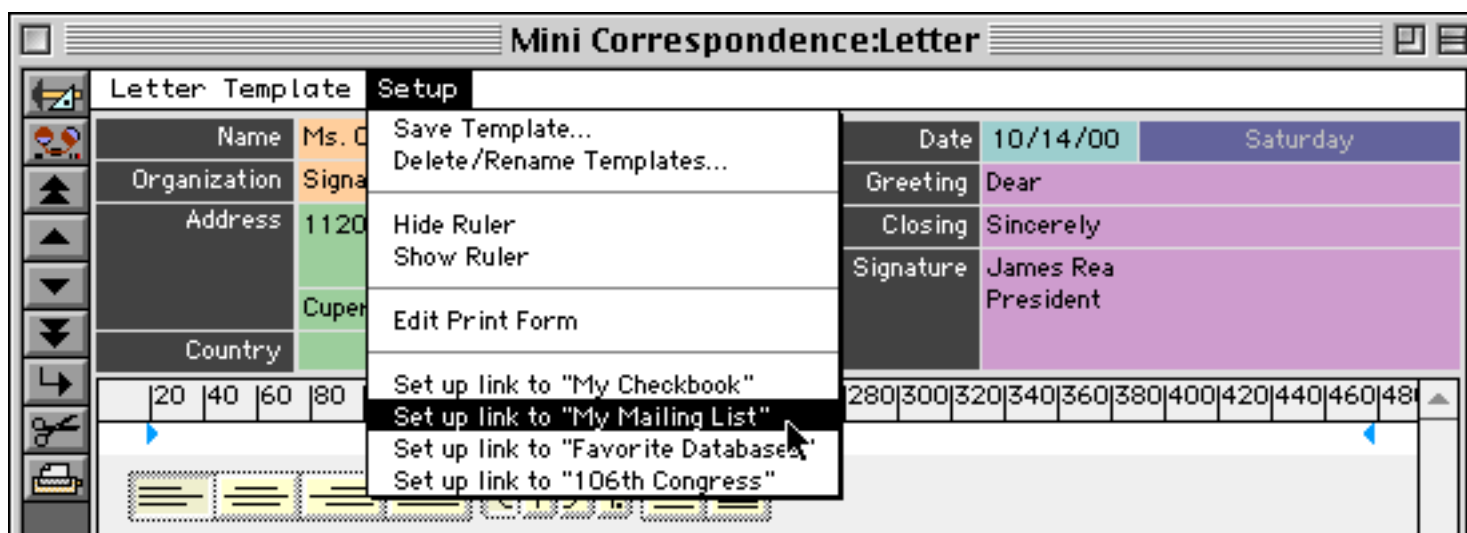
All of these forms use **Flash Art** to display a photograph (see “[Flash Art™](#)” on page 806). You can also show and play a QuickTime movie in a form (see “[Displaying Movies in a Form](#)” on page 850).

Linking the Mailing List with the Mini-Correspondence Wizard

Panorama includes a pre-built database for handling general word processing chores — the **Mini Correspondence** wizard (see “[Using the Mini Correspondence Wizard](#)” on page 776). This database may be used for general correspondence (letters, memos, etc.) and to create mail merge letters that are customized and sent to a group of recipients. The **Mini Correspondence** wizard can be linked with any other database that contains names and addresses (see “[Linking Mini Correspondence to Other Databases](#)” on page 785), so let’s link it with your new mailing list. Start by choosing **Mini Correspondence** from the Wizard menu.



Choose **Set up link to "My Mailing List"** to start setting up the link.



This dialog allows you to specify which fields in the mailing database match corresponding fields in the correspondence database (see “[Linking Mini Correspondence to Other Databases](#)” on page 785).

	Enter formula for each field..	Sample Data (My Mailing List)
Prefix ▾		
First ▾		
Middle ▾		
Last ▾		
Suffix ▾		
Organization ▾		
Address ▾		
City ▾		
State ▾		
Zip ▾		
Country ▾		

Buttons: Clear All, Automatic Formulas, Cancel, OK

Because the field names in your mailing list match the field names in the correspondence database all you have to do is press the **Automatic Formulas** button. (If the names did not match you would have to click on the triangles to use pop-up menus to select the corresponding fields.)

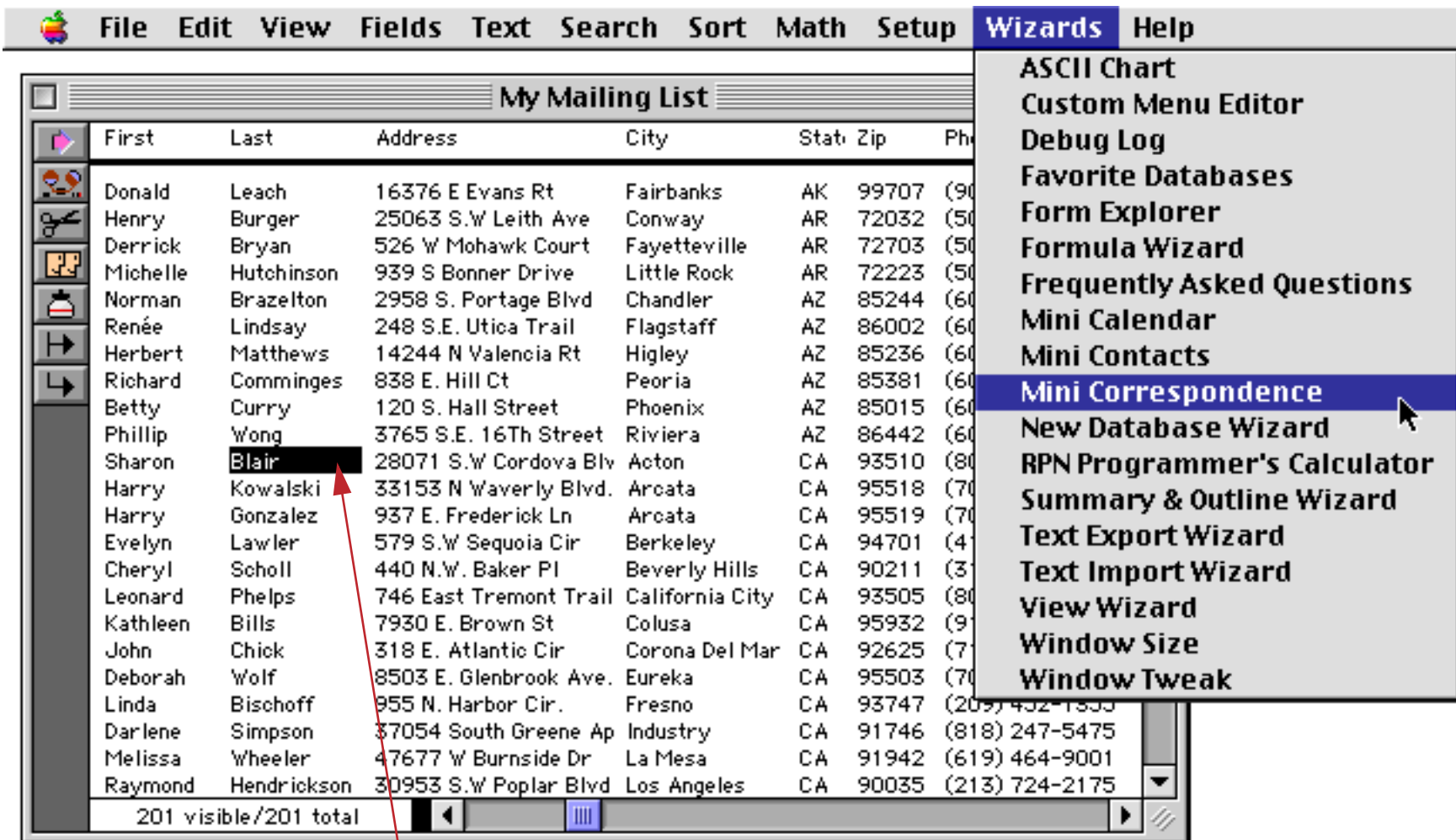
	Enter formula for each field..	Sample Data (My Mailing List)
Prefix ▾		
First ▾	«First»	Donald
Middle ▾		
Last ▾	«Last»	Leach
Suffix ▾		
Organization ▾		
Address ▾	«Address»	16376 E Evans Rt
City ▾	«City»	Fairbanks
State ▾	«State»	AK
Zip ▾	«Zip»	99707
Country ▾		

Buttons: Clear All, Automatic Formulas, Cancel, OK

Press the **OK** button to complete the configuration, then close the **Mini Correspondence** database. The wizard actually stored the new configuration as part of your mailing list database, so **Save** the mailing list database now.

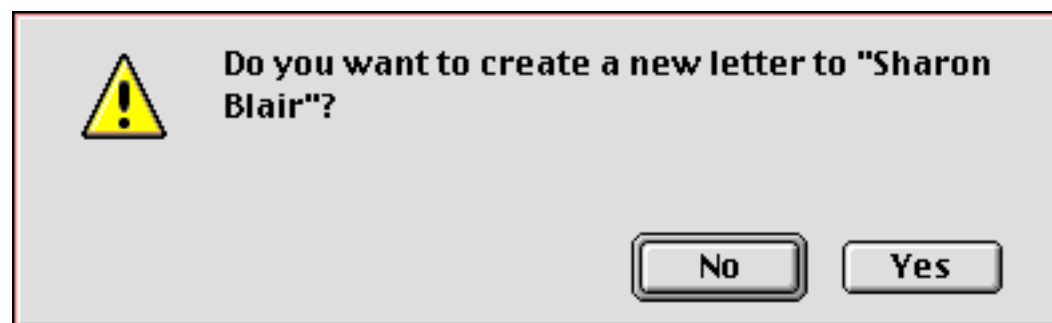
Writing a Letter to Someone in the Mailing List

Once the link is set up you can easily write a letter to anyone in your mailing list file. Start by locating the person you want to write the letter to (for example [Sharon Blair](#)) and then choose Mini Correspondence from the Wizards menu.

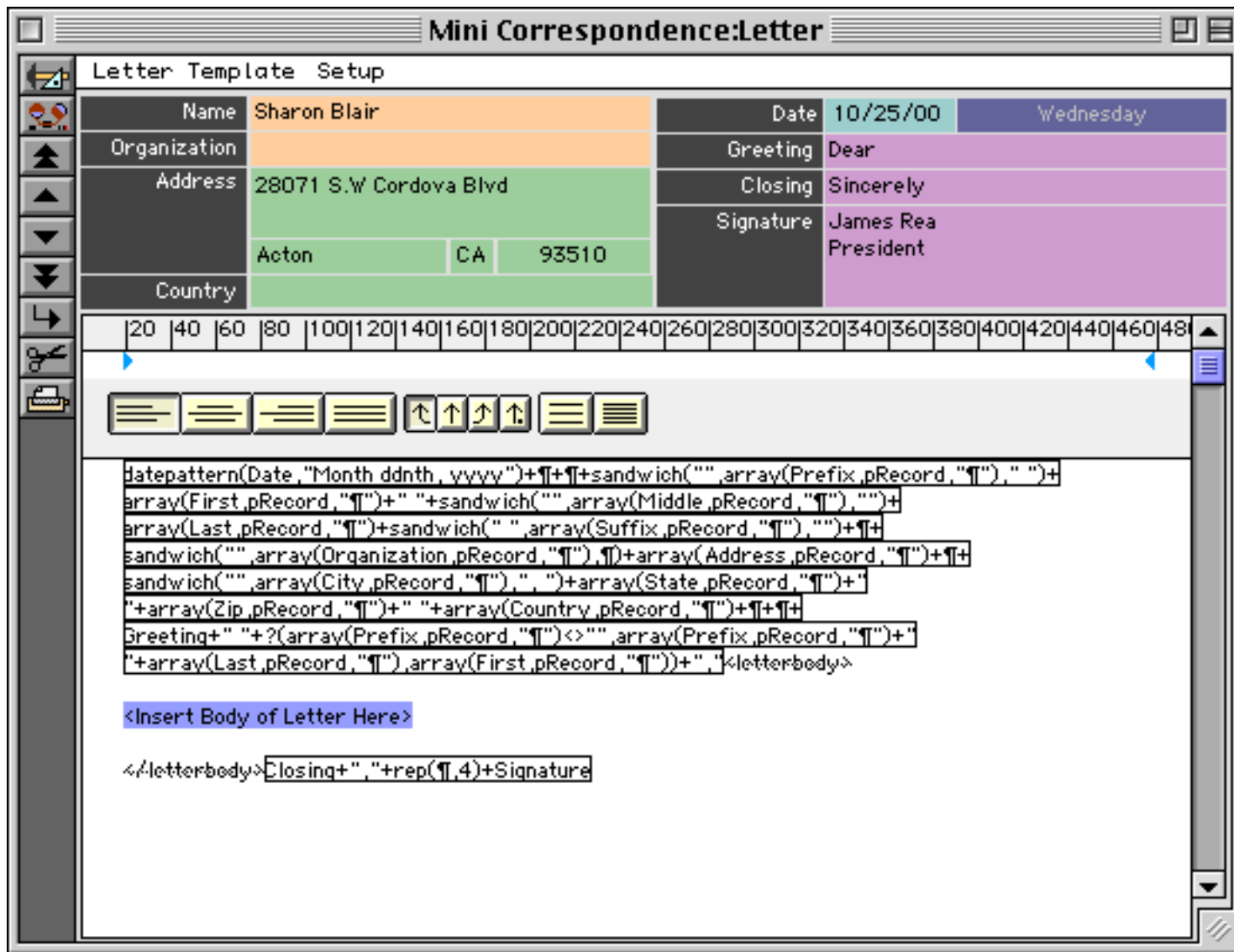


click on the person you want to write a letter to

The wizard will ask you if you want to create a new letter to [Sharon Blair](#).



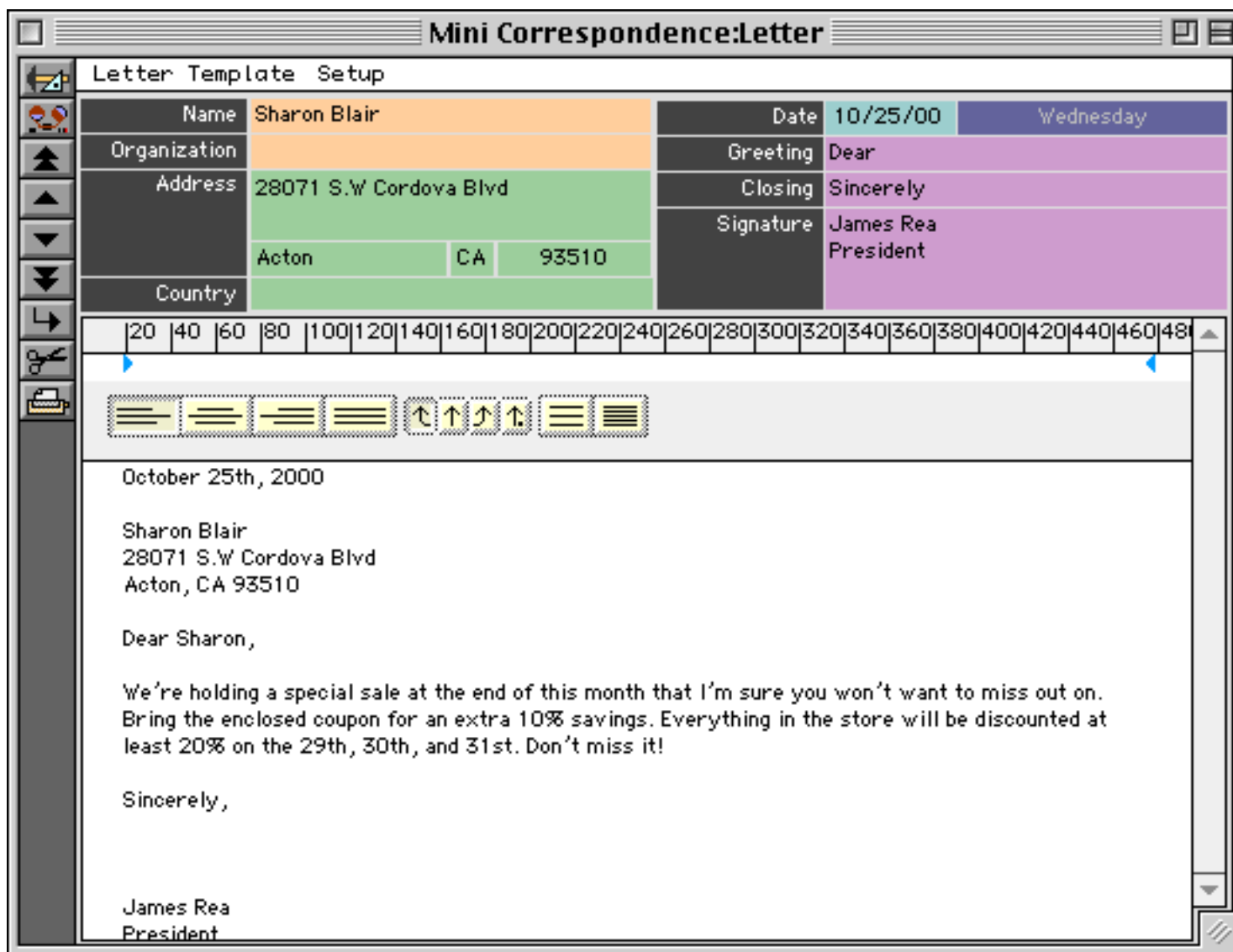
Press the **Yes** button to create the new letter. The wizard will automatically fill in the name and address in the new letter.



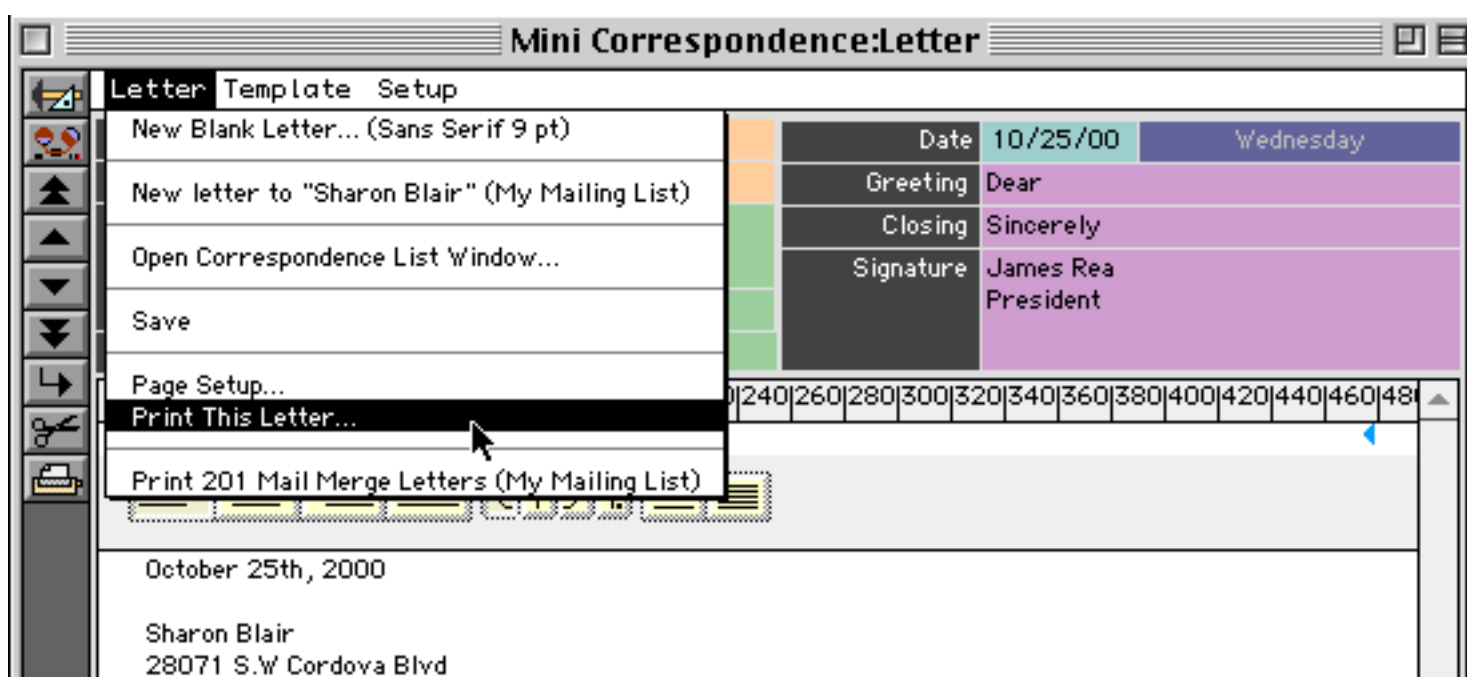
At this point all you need to do is type in the body of the letter. Just start typing.



When you are finished typing in the letter press the **Enter** key. Panorama will display a preview of the actual letter, including the address, greeting and salutation.



If you want to print this letter use the **Print This Letter...** command in the Letter menu (inside the window).



To learn more about editing a word processing document (including setting margins, tabs, fonts, styles and colors) see "[Using the Word Processor](#)" on page 724.

Printing a Mail Merge Letter

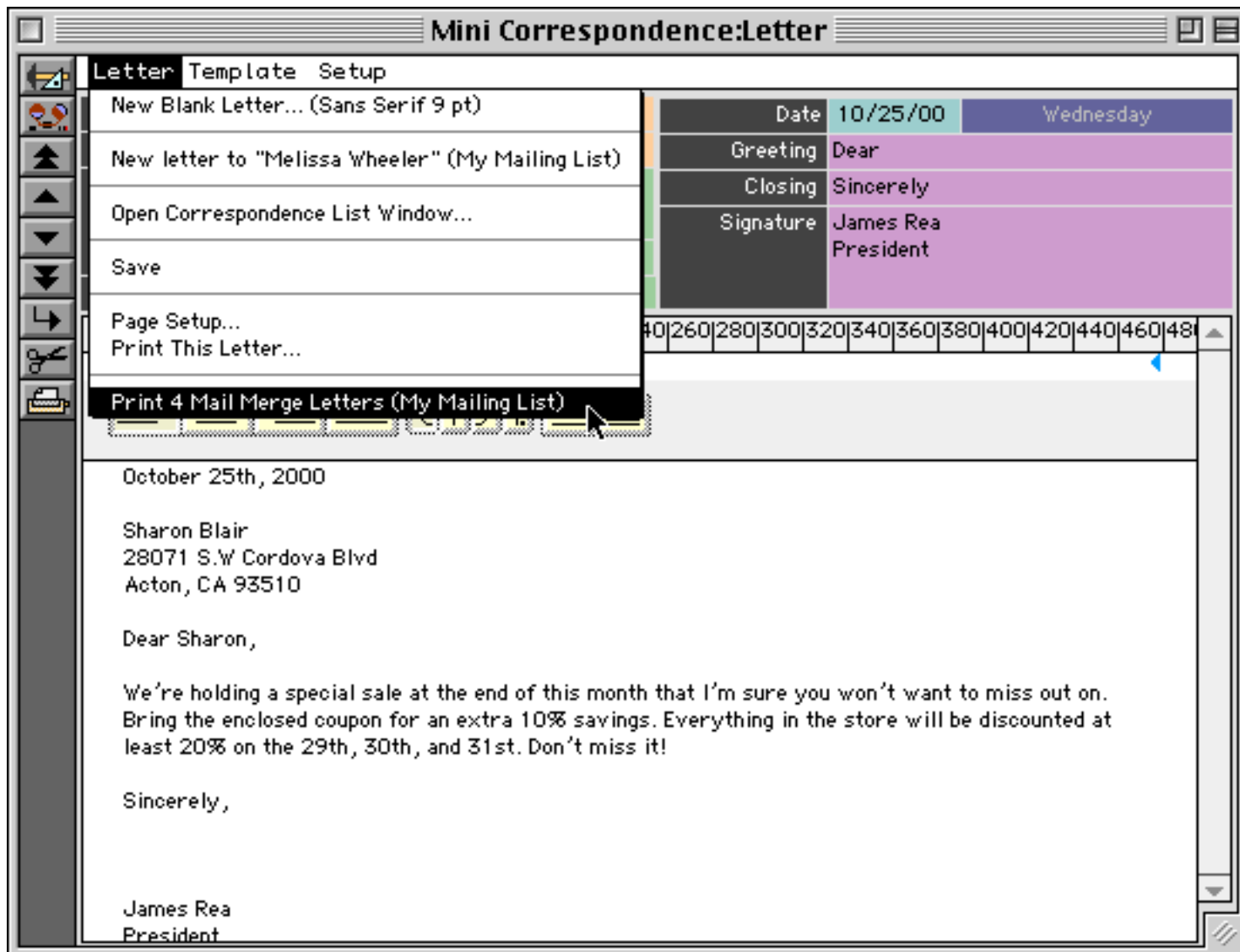
You can take the same letter you just created and send it to multiple recipients — for example we could send it to everyone in the 619 area code. Start by going back to the **My Mailing List** database and selecting the members of congress from California (see “[The Find/Select Dialog](#)” on page 435).



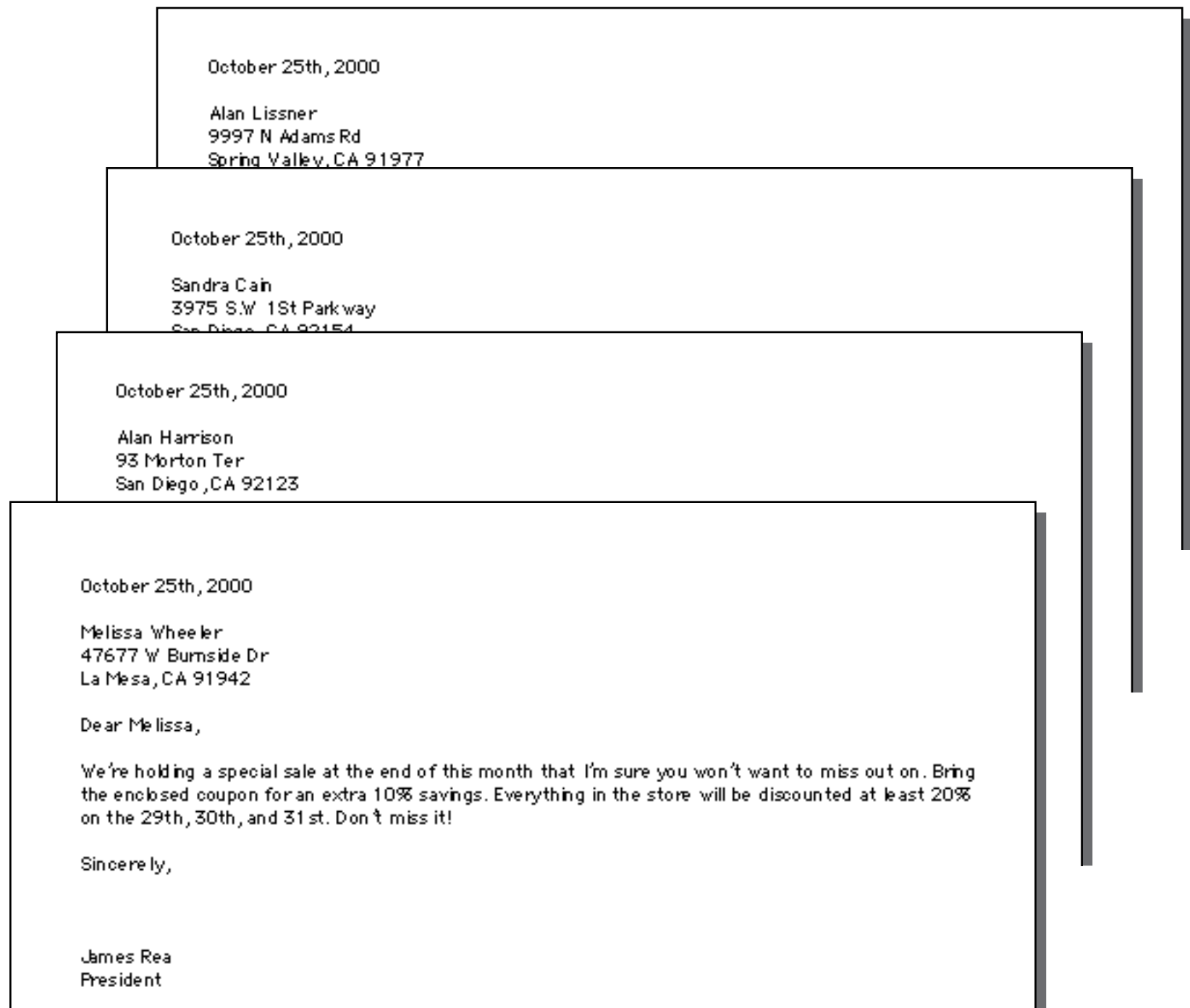
As you can see there are 4 people in this area code in the mailing list.

	First	Last	Address	City	Stat.	Zip	Phone
	Melissa	Wheeler	47677 W Burnside Dr	La Mesa	CA	91942	(619) 464-9001
	Alan	Harrison	93 Morton Ter	San Diego	CA	92123	(619) 783-1965
	Sandra	Cain	3975 S.W 1st Parkway	San Diego	CA	92154	(619) 297-5327
	Alan	Lissner	9997 N Adams Rd	Spring Valley	CA	91977	(619) 736-7622

Now go back to the **Mini Correspondence** database and pull down the **Letter** menu. The last item in this menu will print a customized letter to each selected person in the **My Mailing List** database.



The wizard will print 4 customized letters.



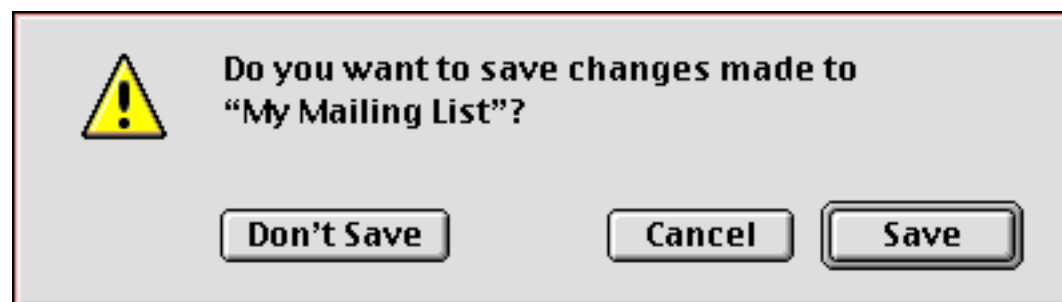
See "[Printing a Mail Merge Letter](#)" on page 782 to learn more about printing mass mailings with Panorama.

Tidying Up

Your mailing list database is complete, so now is the time to save your work permanently. Choose **Quit** from the File Menu.



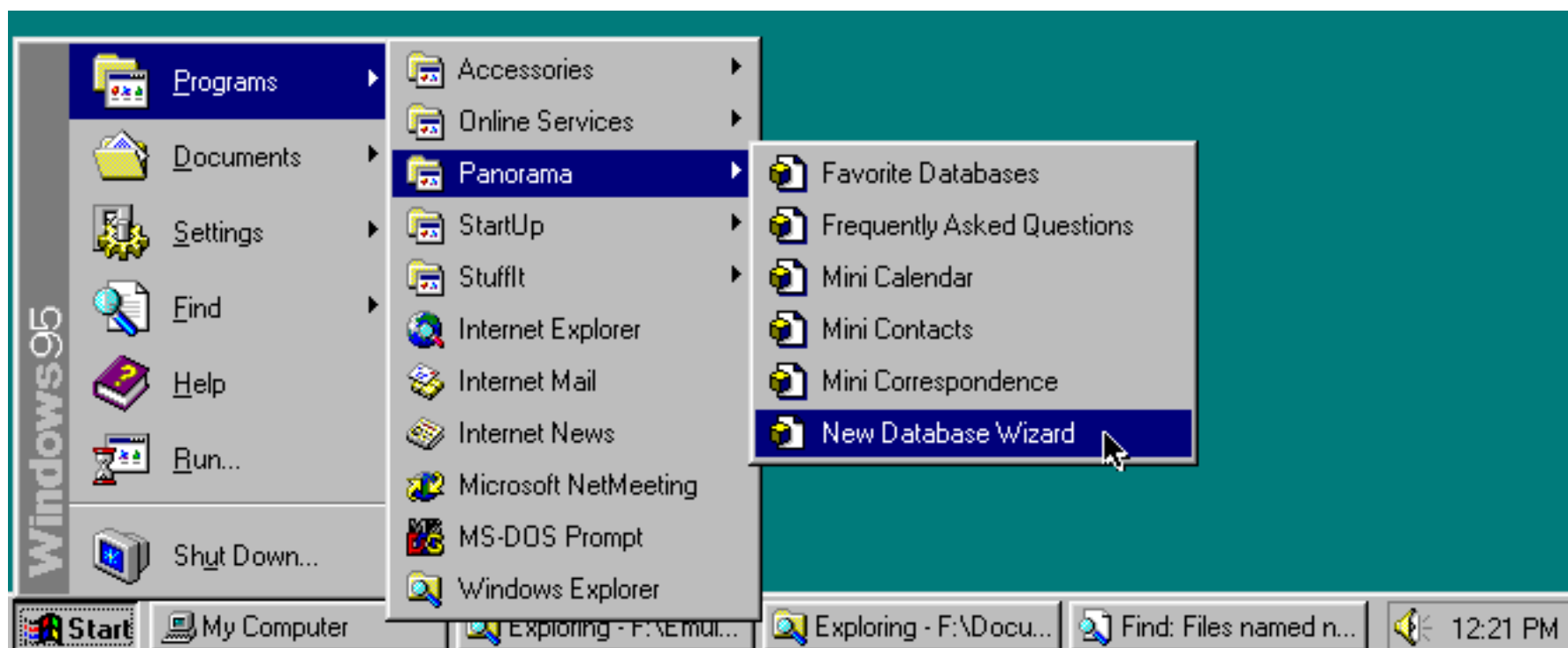
If you have made any changes to your database since the last time it was saved, Panorama will ask you if you wish to save the database. You do, so click the **Save** button.



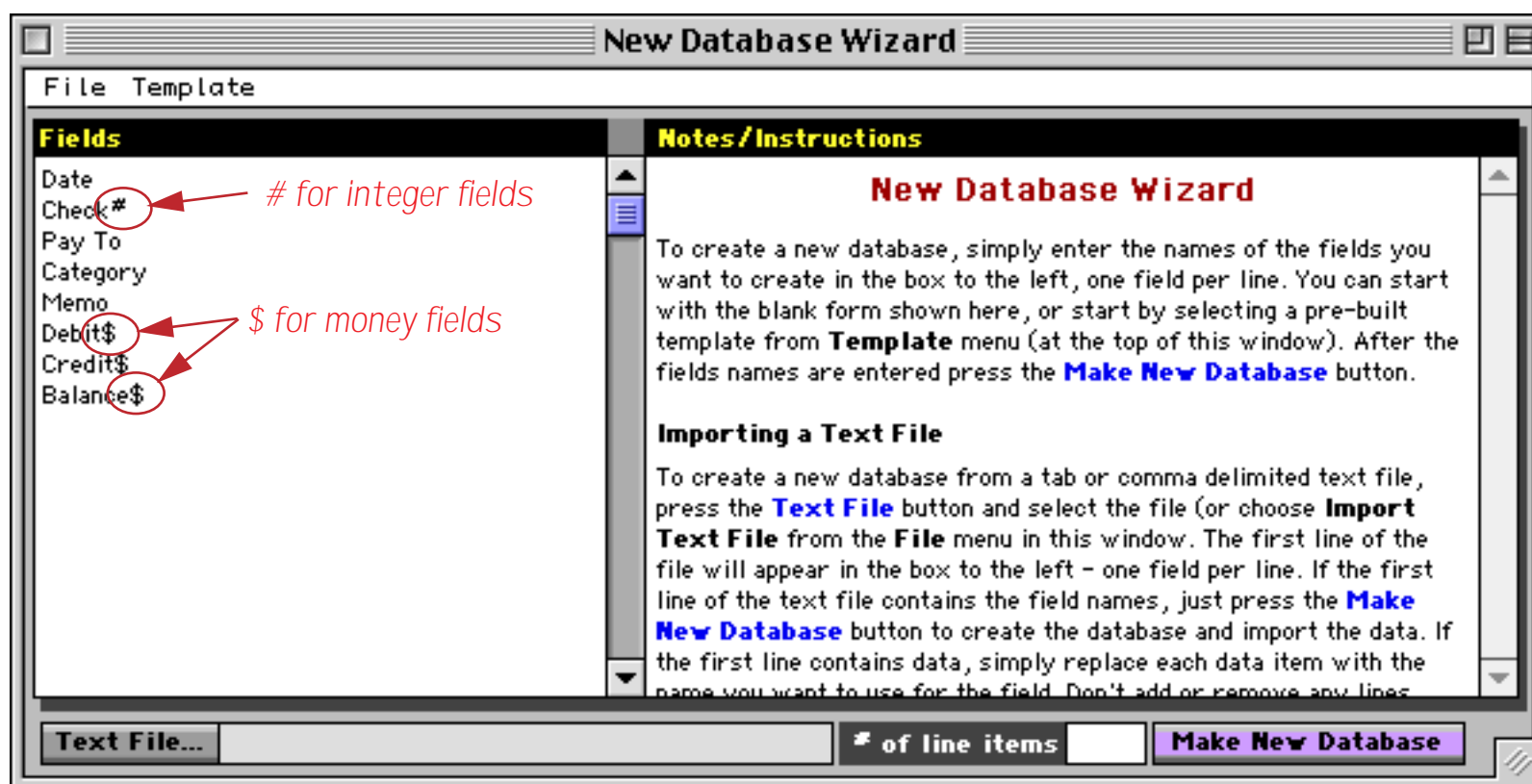
Congratulations! You've successfully created and used your first Panorama database (you were following along on your computer, right?). Now that you've mastered the basics you're ready to move on to some more advanced techniques.

Lesson 2: Building and Organizing a Checkbook

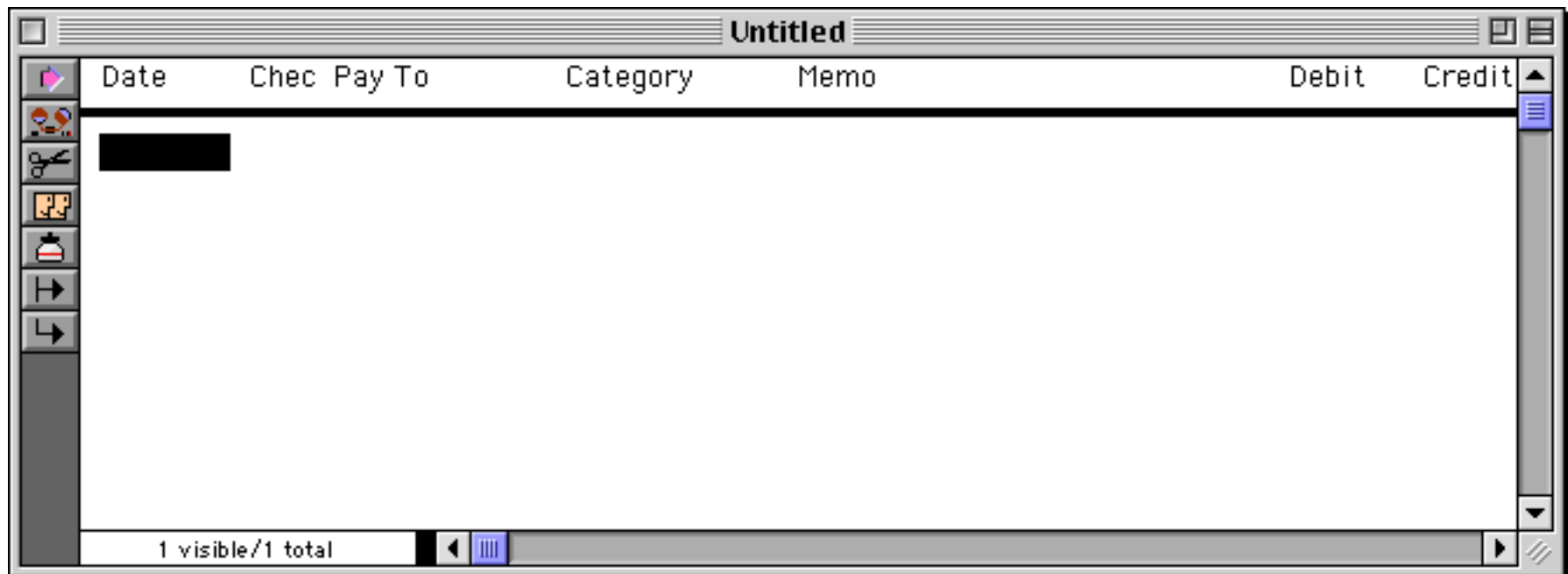
Now that you've created your first simple mailing list database, you're ready to try something more complicated. In this lesson you'll build and use a database for keeping track of a checkbook. Start by launching Panorama and the **New Database Wizard**. On Windows systems you can do this with the **Start** menu, on Macintosh systems you'll use the **Apple** menu.



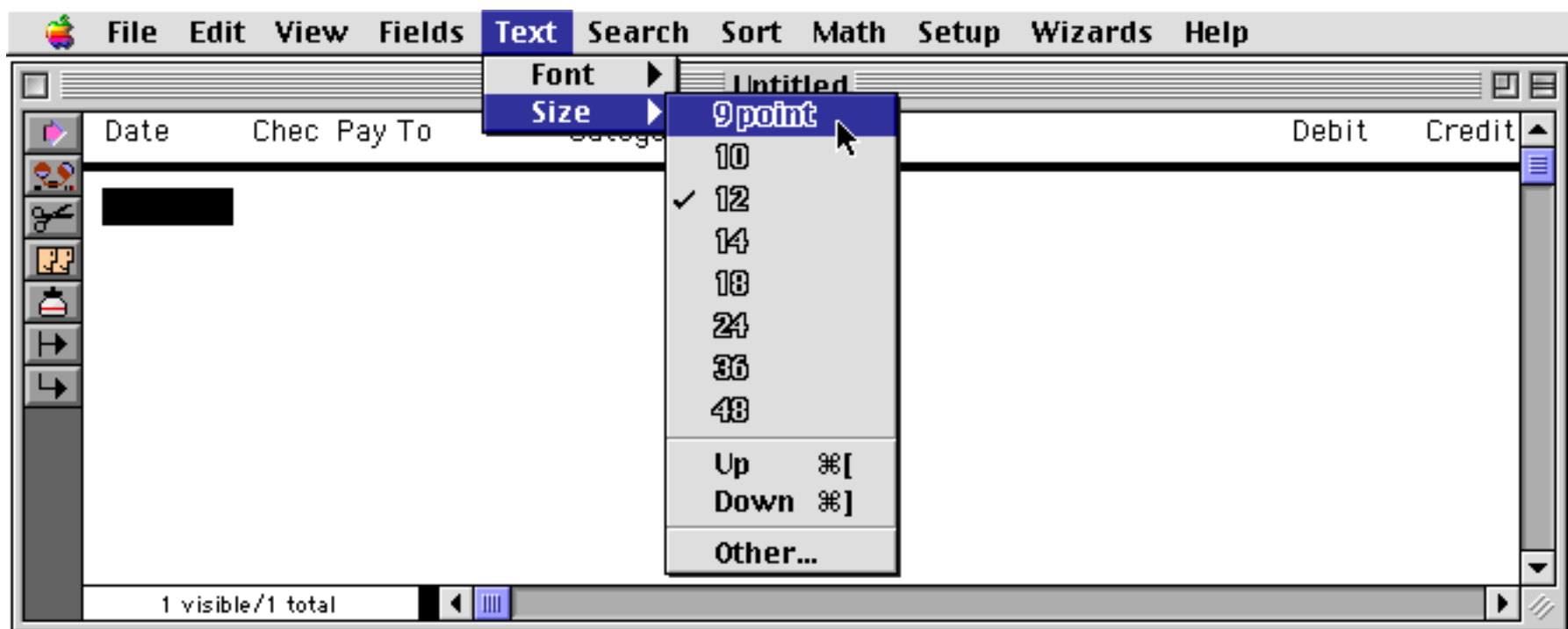
The checkbook database will have eight fields — **Date**, **Check**, **Pay To**, **Category**, **Memo**, **Debit**, **Credit** and **Balance**. (See “[Fields](#)” on page 327 for a complete explanation of fields.) Type in the name of each field into the wizard, with each name on a separate line. The four numeric fields have special suffixes. The **Check** field has a suffix of **#** to tell the wizard to create an integer numeric field (1, 2, 3, etc.). The **Debit**, **Credit** and **Balance** fields have a suffix to create a 2-digit numeric field (12.34, 813.94, 8.43 etc.). (Note: These suffixes are only used when creating databases with the **New Database Wizard** (see “[Creating Numeric and Date Fields](#)” on page 205). When creating fields with the **Add Field** command (see “[Add Field](#)” on page 329) or the Design Sheet (see “[The Design Sheet](#)” on page 332) you can use any field name with any field type you like.)



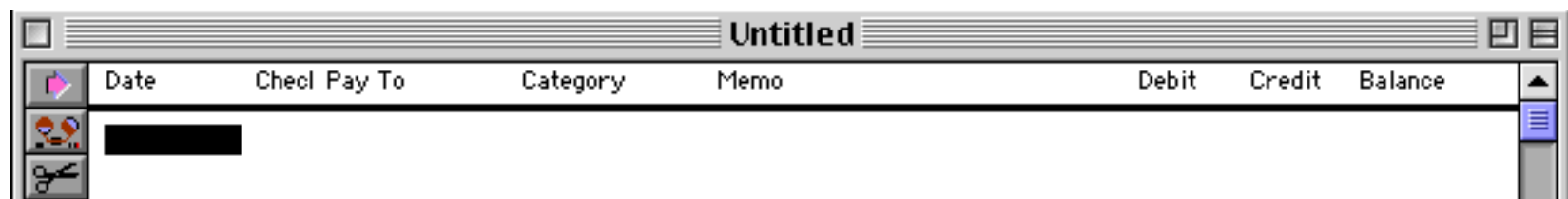
When you press the **Make New Database** button the wizard will create a new database for you. The database is displayed using a row and column format called the **data sheet**. The new database contains one blank record (line) and eight fields (columns).



The eighth column, **Balance**, is not visible. To make it visible reduce the text size to 9 pt.



Now all of the columns are visible within the window.

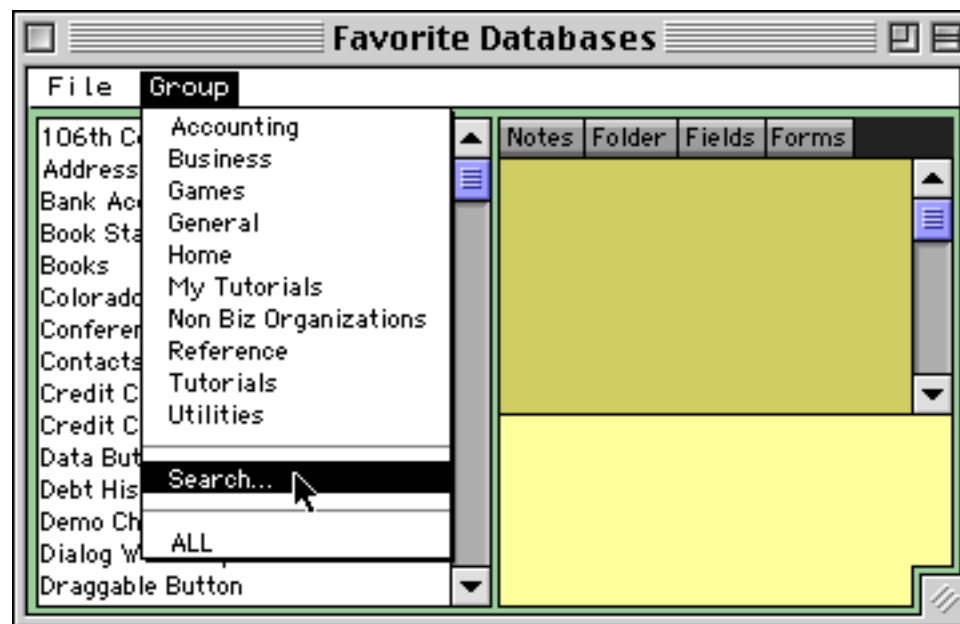


Loading the Data

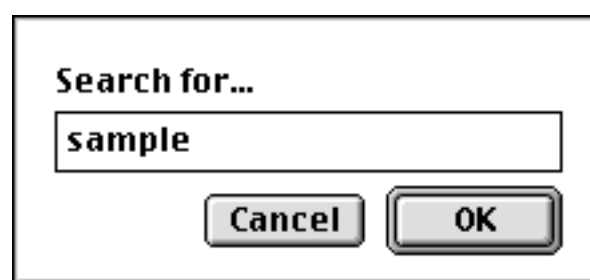
To demonstrate Panorama's organizational features you'll need to type in a bunch of data. That doesn't sound like much fun, does it? Didn't think so. To help you out we've created a database that is programmed to automatically fill your new checkbook database with sample data. Start by choosing **Favorite Databases** from the Wizard menu (see "[The Favorite Databases Wizard](#)" on page 191).



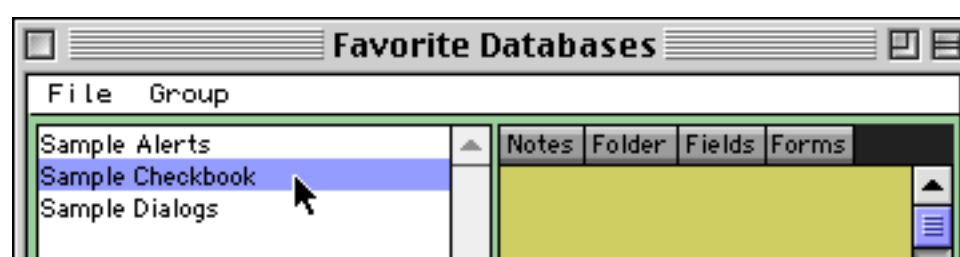
The database you need is called **Sample Checkbook**. To locate it, choose **Search...** from the Group menu (see "[Searching for a File](#)" on page 199). You can also press **Command-F** (Macintosh) or **Control-F** (Windows).



Type in some or all of the name **Sample Checkbook**.



The wizard will show you a short list of files including the one we want.



Double click on the [Sample Checkbook](#) file to open it. A small window will appear briefly. The database has been pre-programmed to automatically transfer one year's worth of sample checkbook data into the new database you have created.

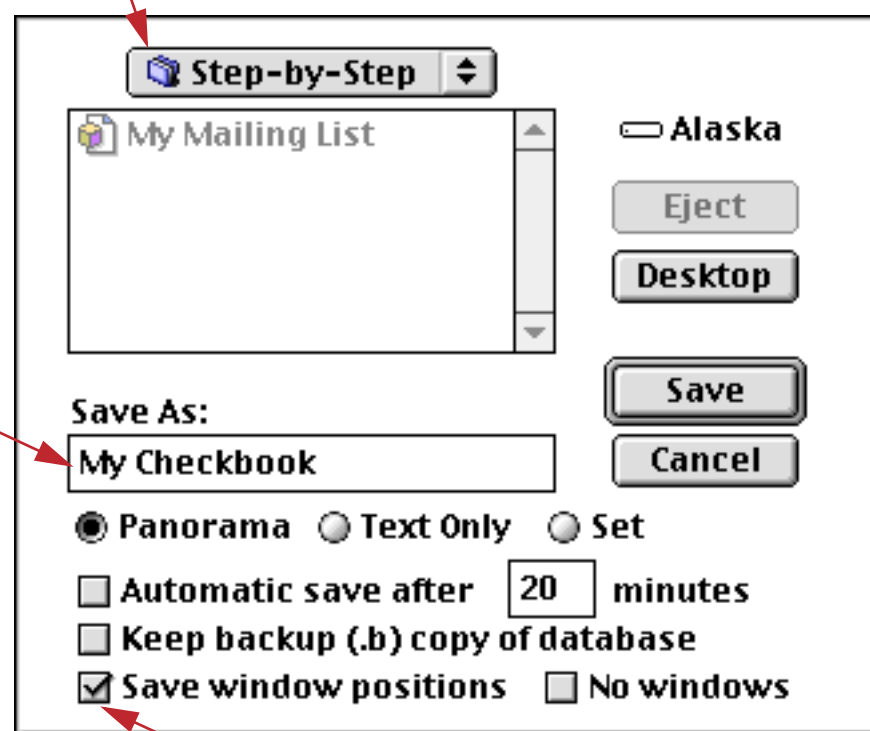
Date	Check	Pay To	Category	Memo	Debit	Credit	Balance
01/01/98		OPENING BALAN	DEPOSIT			12,739.0	12,739.0
01/01/98	100	Sparkletts	Office Supplies		14.20		12,724.8
01/01/98	101	Blue Cross	Insurance	Health Insurance group XBG-87:	975.00		11,749.8
01/01/98	102	Valley Gas	Utilities	Heating	49.90		11,699.9
01/01/98	103	AT&T	Telecom	Long Distance Phone Service	236.24		11,463.6
01/01/98	104	Surf Networks	Telecom	DSL	50.00		11,413.6
01/01/98	105	United Security	Utilities	Alarm	30.00		11,383.6
01/01/98	106	UPS	Shipping		144.02		11,239.6
01/01/98	107	Edison General	Utilities	January Electric	115.55		11,124.1
01/01/98	108	City Services	Utilities	Water	54.39		11,069.7
01/01/98	109	Pacific Properti	Rent	January Rent	1,580.00		9,489.71
01/01/98	110	Valley Bell	Telecom	Local Phone Service	136.95		9,352.76
01/01/98	111	General Casualt	Insurance	Property Insurance policy YX42	187.50		9,165.26

You may want to adjust the widths of some of the columns (see "[Adjusting Column Widths, Font and Size](#)" on page 13).

Before continuing you should use the **Save** command in the File menu to save your new creation. The first time you save any file Panorama will ask you to give it a name. You'll also want to check the **Save Window Positions** option (see "[Saving Window Positions](#)" on page 213). When everything is set up press the **Save** button. (To see what this dialog looks like on the PC see "[Saving Your Work](#)" on page 7.)

select folder you want to save file in

type in name of file



tell Panorama to save window positions

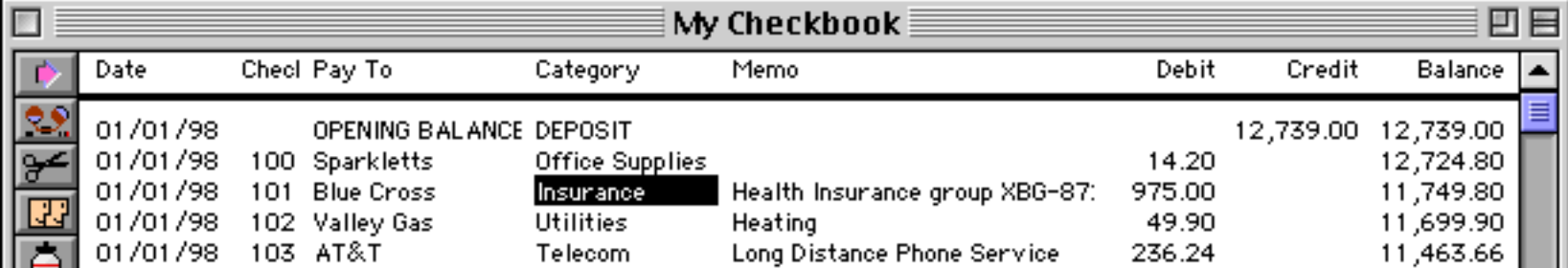
You may also want to add your new file to the **Favorite Database** wizard. See "[Adding A Database To Your List Of Favorites](#)" on page 26 for a refresher on how to do this.

Analyzing the Checkbook

In the next few sections you'll learn several techniques for extracting useful information from any database.

Selecting Data

To select all office supply expenditures, click anywhere in the [Category](#) column.



	Date	Check	Pay To	Category	Memo	Debit	Credit	Balance
	01/01/98		OPENING BALANCE	DEPOSIT			12,739.00	12,739.00
	01/01/98	100	Sparkletts	Office Supplies		14.20		12,724.80
	01/01/98	101	Blue Cross	Insurance	Health Insurance group XBG-87:	975.00		11,749.80
	01/01/98	102	Valley Gas	Utilities	Heating	49.90		11,699.90
	01/01/98	103	AT&T	Telecom	Long Distance Phone Service	236.24		11,463.66

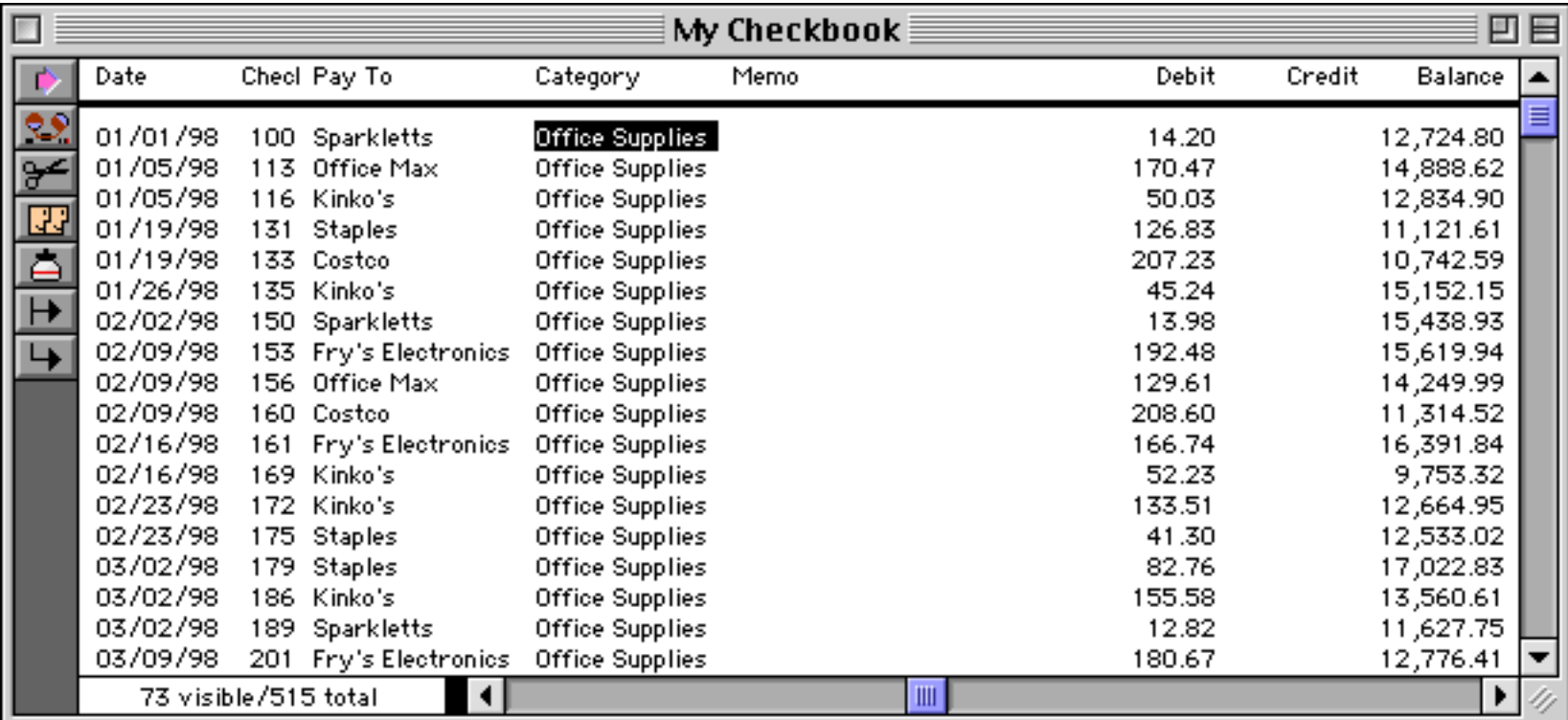
Next, choose **Find/Select** from the Search menu. (You can also open the **Find/Select** dialog by clicking on the number of records in the lower left hand corner of the window). Type [office supplies](#).



Find ⌘F Select ⌘S Select Within ⌘L Select Additional ⌘M Cancel

Category Contains Office Supplies

When you press the **Select** button (or the **Enter** key) Panorama will select the 73 checks for office supplies in the database. All of the other checks will become temporarily invisible.



	Date	Check	Pay To	Category	Memo	Debit	Credit	Balance
	01/01/98	100	Sparkletts	Office Supplies		14.20		12,724.80
	01/05/98	113	Office Max	Office Supplies		170.47		14,888.62
	01/05/98	116	Kinko's	Office Supplies		50.03		12,834.90
	01/19/98	131	Staples	Office Supplies		126.83		11,121.61
	01/19/98	133	Costco	Office Supplies		207.23		10,742.59
	01/26/98	135	Kinko's	Office Supplies		45.24		15,152.15
	02/02/98	150	Sparkletts	Office Supplies		13.98		15,438.93
	02/09/98	153	Fry's Electronics	Office Supplies		192.48		15,619.94
	02/09/98	156	Office Max	Office Supplies		129.61		14,249.99
	02/09/98	160	Costco	Office Supplies		208.60		11,314.52
	02/16/98	161	Fry's Electronics	Office Supplies		166.74		16,391.84
	02/16/98	169	Kinko's	Office Supplies		52.23		9,753.32
	02/23/98	172	Kinko's	Office Supplies		133.51		12,664.95
	02/23/98	175	Staples	Office Supplies		41.30		12,533.02
	03/02/98	179	Staples	Office Supplies		82.76		17,022.83
	03/02/98	186	Kinko's	Office Supplies		155.58		13,560.61
	03/02/98	189	Sparkletts	Office Supplies		12.82		11,627.75
	03/09/98	201	Fry's Electronics	Office Supplies		180.67		12,776.41

73 visible/515 total

To select only the office supply expenditures in October 1998, re-open the Find/Select dialog. Click on the pink arrow in the bottom left corner of the dialog. This expands the dialog, allowing you to specify up to six selection criteria.

The screenshot shows the Find/Select dialog with the following controls and content:

- Buttons: Find ⌘F, Select ⌘S, Select Within ⌘L, Select Additional ⌘M, Cancel
- Criteria 1: Category Contains Office Supplies
- Criteria 2: and Category
- Criteria 3: and Category
- Criteria 4: and Category
- Criteria 5: and Category
- Criteria 6: and Category

A pink arrow points to the bottom-left corner of the dialog box.

Use the pop up menus to change the second line to **Date** and **Equal**, then type in **oct 98**. When you want to select an entire month you must spell out the month, for example **nov 02** or **january 1997**. You can also select a single day, for example **3/7/96** or **August 15, 2001** (see “[Locating Dates by Month, Quarter, or Year](#)” on page 438).

The screenshot shows the Find/Select dialog with the following controls and content:

- Buttons: Find ⌘F, Select ⌘S, Select Within ⌘L, Select Additional ⌘M, Cancel
- Criteria 1: Category Contains Office Supplies
- Criteria 2: and Date Equal oct 98
- Criteria 3: and Category
- Criteria 4: and Category
- Criteria 5: and Category
- Criteria 6: and Category

A pop-up menu is open over the second criteria row, showing the following options:

- Date
- Check
- Pay To
- Category
- Memo
- Debit
- Credit
- Balance

A red arrow points to the 'Date' option in the pop-up menu.

Press the **Select** button (or the **Enter** key) to see the 8 checks for office supply expenses in October 1998.

Date	Check	Pay To	Category	Memo	Debit	Credit	Balance
10/01/98	453	Sparkletts	Office Supplies		12.20		17,730.80
10/05/98	465	Kinko's	Office Supplies		135.46		17,173.39
10/12/98	468	Fry's Electronics	Office Supplies		133.27		20,504.09
10/12/98	469	Office Max	Office Supplies		22.03		20,482.06
10/12/98	472	Kinko's	Office Supplies		89.03		17,620.87
10/19/98	473	Costco	Office Supplies		169.71		21,157.41
10/19/98	476	Office Max	Office Supplies		68.18		19,131.77
10/26/98	485	Staples	Office Supplies		162.37		18,702.39

8 visible/515 total

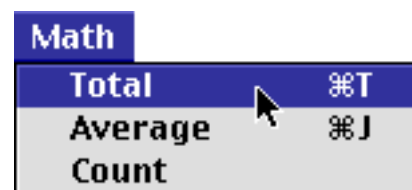
When you want to see all of the checks again, choose **Select All** from the Search menu. You can also undo the sixteen most recent selections with the **Undo** command in the Edit menu (see "[Undo Select](#)" on page 443).

Calculating the Grand Total

To calculate the grand total of all the checks in the database start by clicking anywhere in the **Debit** column.

Date	Check	Pay To	Category	Memo	Debit	Credit	Balance
01/01/98		OPENING BALANCE	DEPOSIT			12,739.00	12,739.00
01/01/98	100	Sparkletts	Office Supplies		14.20		12,724.80
01/01/98	101	Blue Cross	Insurance	Health Insurance group XBG-87:	975.00		11,749.80
01/01/98	102	Valley Gas	Utilities	Heating	49.90		11,699.90
01/01/98	103	AT&T	Telecom	Long Distance Phone Service	236.24		11,463.66

Next, choose the **Total** command from the Math menu.



Panorama will add a new record to the end of the database. This new record is called a summary record (see "[Summary Records](#)" on page 323), and it contains the grand total for all the checks.

12/21/98	559	Fry's Electronics	Office Supplies		189.22		13,684.46
12/25/98		DEPOSIT	DEPOSIT			5,264.90	18,949.36
12/28/98	560	Valley Publication:	Advertising		963.57		17,985.80
12/28/98	561	Poly Payroll Serv	Payroll		1,749.38		16,236.42
					225,67		

516 visible/516 total

summary records displayed with + symbol on left side

grand total

As you can see the column isn't quite wide enough to display the entire grand total. You can drag on the column name to adjust the width (see "[Adjusting Column Widths, Font and Size](#)" on page 13).

Date	Check	Pay To	Category	Memo	Debit	Credit	Balance
12/18/98		DEPOSIT	DEPOSIT			2,643.67	18,54
12/21/98	550	Clark Supply	Purchases	Invoice 6387	308.49		18,23
12/21/98	551	Coast General	Purchases	Invoice 61471	275.72		17,96
12/21/98	552	Office Depot	Office Supplies		72.46		17,88
12/21/98	553	Staples	Office Supplies		74.81		17,81
12/21/98	554	Century Equipmen	Fixed Assets		1,063.90		16,74
12/21/98	555	Stamford Mfg	Purchases	Invoice 19188	472.37		16,27
12/21/98	556	Post Office	Shipping		204.62		16,07
12/21/98	557	Power Printing	Advertising		542.50		15,53
12/21/98	558	Poly Payroll Serv	Payroll		1,656.55		13,87
12/21/98	559	Fry's Electronics	Office Supplies		189.22		13,68
12/25/98		DEPOSIT	DEPOSIT			5,264.90	18,94
12/28/98	560	Valley Publication	Advertising		963.57		17,98
12/28/98	561	Poly Payroll Serv	Payroll		1,749.38		16,23
					225,677.47		

When you are finished looking at the grand total use the **Cut Record** tool to delete it (or press the **Delete** key, see "[Deleting a Record](#)" on page 373).

Calculating Subtotals

To calculate the grand total you created a single summary record at the end of the database. To calculate sub-totals you must create a summary record for every category you want to subtotal. This is done with the **Group Up** command in the Sort menu. As an example you'll create sub-totals for each month, and sub-sub-totals for each category within each month. Start by clicking anywhere in the **Date** column and choosing **Group Up** from the Sort menu.

Date	Check	Pay To	Category	Memo	Debit	Credit	Balance
01/01/98		OPENING BALANCE	DEPOSIT				
01/01/98	100	Sparkletts	Office Supplies				
01/01/98	101	Blue Cross	Insurance				
01/01/98	102	Valley Gas	Utilities				
01/01/98	103	AT&T	Telecom				
01/01/98	104	Surf Networks	Telecom				
01/01/98	105	United Security	Utilities				
01/01/98	106	UPS	Shipping				
01/01/98	107	Edison General	Utilities				
01/01/98	108	City Services	Utilities				
01/01/98	109	Pacific Properties	Rent				
01/01/98	110	Valley Bell	Telecom				
01/01/98	111	General Casualty	Insurance				
01/01/98	112	Hamilton Davis	Insurance				
01/02/98		DEPOSIT	DEPOSIT				
01/05/98	113	Office Max	Office Supplies		170.47		
						5,985.82	15,059.08
							12,739.00
							12,724.80
							11,749.80
							11,699.90
							11,463.66
							11,413.66
							11,383.66
							11,239.65
							11,124.10
							11,069.71
							9,489.71
							9,352.76
							9,165.26
							9,073.26
							5,985.82
							14,888.62

Since the field being grouped contains dates, Panorama will ask what time period you want to use. The **Month** option is already selected, so just press **Group**.



At first it may appear that nothing has happened. However, if you scroll the database down you will see that Panorama has created a summary record after each month. It also creates an extra summary record at the bottom of the database for the grand total. You can identify summary records easily because— 1) they are bold, and 2) they have a little plus sign to the left of the first column.

My Checkbook								
	Date	Chec	Pay To	Category	Memo	Debit	Credit	Balance
	01/26/98	135	Kinko's	Office Supplies		45.24		15,152.15
	01/26/98	136	Poly Payroll Serv	Payroll		1,793.43		13,358.72
	01/30/98		DEPOSIT	DEPOSIT			4,664.34	18,023.06
	+01/30/98							
	02/02/98	137	City Services	Utilities	Water	48.99		17,974.07
	02/02/98	138	Valley Gas	Utilities	Heating	47.99		17,926.08
	02/02/98	139	UPS	Shipping		57.08		17,868.99
	02/23/98	175	Staples	Office Supplies		41.30		12,533.02
	02/27/98		DEPOSIT	DEPOSIT			5,222.99	17,756.01
	+02/27/98							
	03/02/98	176	AT&T	Telecom	Long Distance Phone Service	257.15		17,498.86
	03/02/98	177	General Casualty	Insurance	Property Insurance policy YX42	187.50		17,311.36
	03/30/98	219	Post Office	Shipping		305.84		14,263.45
	03/30/98	220	Airborne	Shipping	Invoice 84971	33.19		14,230.26
	+03/30/98							
	04/01/98	221	City Services	Utilities	Water	49.65		14,180.60
	04/01/98	222	Surf Networks	Telecom	DSL	50.00		14,130.60
	12/21/98	559	Fry's Electronics	Office Supplies		189.22		13,684.46
	12/25/98		DEPOSIT	DEPOSIT			5,264.90	18,949.36
	12/28/98	560	Valley Publication:	Advertising		963.57		17,985.80
	12/28/98	561	Poly Payroll Serv	Payroll		1,749.38		16,236.42
	+12/28/98							
	+							
	528 visible/528 total							

summary record for January 1998

summary record for February 1998

summary record for March 1998

summary record for April 1998

summary record for grand total

Now click anywhere in the **Category** column, then choose **Group Up** from the Sort menu. Panorama will create a summary record after each category within each month.

Date	Chec	Pay To	Category	Memo	Debit	Credit	Balance
01/19/98	130	FedEx	Shipping	Invoice 75951	160.97		11,248.44
01/19/98	132	Champion Trucking	Shipping	Invoice 26309	171.79		10,949.82
Shipping							
01/01/98	103	AT&T	Telecom	Long Distance Phone Service	236.24		11,463.66
01/01/98	104	Surf Networks	Telecom	DSL	50.00		11,413.66
01/01/98	110	Valley Bell	Telecom	Local Phone Service	136.95		9,352.76
Telecom							
01/01/98	102	Valley Gas	Utilities	Heating	49.90		11,699.90
01/01/98	105	United Security	Utilities	Alarm	30.00		11,383.66
01/01/98	107	Edison General	Utilities	January Electric	115.55		11,124.10
01/01/98	108	City Services	Utilities	Water	54.39		11,069.71
Utilities							
+01/30/98							
02/09/98	154	Valley Publication:	Advertising		923.74		14,696.19
02/09/98	159	Power Printing	Advertising		654.04		11,523.12

summary record for January 1998

summary records for categories within January

02/02/98	141	AT&T	Telecom	Long Distance Phone Service	351.56		17,467.43
02/02/98	145	Valley Bell	Telecom	Local Phone Service	113.05		17,044.88
Telecom							
02/02/98	137	City Services	Utilities	Water	48.99		17,974.06
02/02/98	138	Valley Gas	Utilities	Heating	47.99		17,926.07
02/02/98	142	United Security	Utilities	Alarm	30.00		17,437.43
02/02/98	149	Edison General	Utilities	February Electric	109.06		15,452.91
Utilities							
+02/27/98							
03/02/98	190	Valley Publication:	Advertising		1,051.99		10,575.75

summary record for February 1998

summary records for categories within February

03/02/98	193	Valley Bell	Telecom	Local Phone Service	147.80		10,219.54
Telecom							
03/02/98	183	Valley Gas	Utilities	Heating	24.23		13,886.89
03/02/98	185	Edison General	Utilities	March Electric	105.50		13,716.18
03/02/98	191	United Security	Utilities	Alarm	30.00		10,545.75
03/02/98	197	City Services	Utilities	Water	49.23		9,328.83
Utilities							
+03/30/98							
04/13/98	241	Foundation Web Se	Advertising		702.99		15,418.67

summary record for March 1998

summary records for categories within March

12/01/98	534	Valley Bell	Telecom	Local Phone Service	123.25		16,409.15
12/01/98	535	Surf Networks	Telecom	DSL	50.00		16,359.15
Telecom							
12/01/98	526	Edison General	Utilities	December Electric	94.07		18,266.32
12/01/98	532	Valley Gas	Utilities	Heating	39.59		16,589.92
12/01/98	533	City Services	Utilities	Water	57.52		16,532.40
12/01/98	537	United Security	Utilities	Alarm	30.00		14,749.15
Utilities							
+12/28/98							

summary record for March 1998

summary records for categories within March

summary record for grand total

659 visible/659 total

Once the summary records are set up, you're ready to actually calculate the subtotals. Click anywhere in the Debit column and choose **Total** from the Math menu. The **Total** command will calculate a grand total, subtotals for each month, and subtotals for each category within each month.

My Checkbook							
	Date	Chec	Pay To	Category	Memo	Debit	Credit
	01/19/98	130	FedEx	Shipping	Invoice 75951	160.97	11,24
	01/19/98	132	Champion Trucking	Shipping	Invoice 26309	171.79	10,94
				Shipping		540.39	
	01/01/98	103	AT&T	Telecom	Long Distance Phone Service	236.24	11,46
	01/01/98	104	Surf Networks	Telecom	DSL	50.00	11,41
	01/01/98	110	Valley Bell	Telecom	Local Phone Service	136.95	9,35
				Telecom		423.19	
	01/01/98	102	Valley Gas	Utilities	Heating	49.90	11,69
	01/01/98	105	United Security	Utilities	Alarm	30.00	11,38
	01/01/98	107	Edison General	Utilities	January Electric	115.55	11,12
	01/01/98	108	City Services	Utilities	Water	54.39	11,06
				Utilities		249.84	
	+01/30/98					17,202.48	
	02/09/98	154	Valley Publication:	Advertising		923.74	14,69
	02/09/98	159	Power Printing	Advertising		654.04	11,52
	02/02/98	141	AT&T	Telecom	Long Distance Phone Service	351.56	17,46
	02/02/98	145	Valley Bell	Telecom	Local Phone Service	113.05	17,04
				Telecom		514.61	
	02/02/98	137	City Services	Utilities	Water	48.99	17,97
	02/02/98	138	Valley Gas	Utilities	Heating	47.99	17,92
	02/02/98	142	United Security	Utilities	Alarm	30.00	17,43
	02/02/98	149	Edison General	Utilities	February Electric	109.06	15,45
				Utilities		236.05	
	+02/27/98					19,773.29	
	03/02/98	190	Valley Publication:	Advertising		1,051.99	10,57
	03/02/98	193	Valley Bell	Telecom	Local Phone Service	147.80	10,21
				Telecom		454.94	
	03/02/98	183	Valley Gas	Utilities	Heating	24.23	13,88
	03/02/98	185	Edison General	Utilities	March Electric	105.50	13,71
	03/02/98	191	United Security	Utilities	Alarm	30.00	10,54
	03/02/98	197	City Services	Utilities	Water	49.23	9,32
				Utilities		208.95	
	+03/30/98					21,908.19	
	04/13/98	241	Foundation Web Se	Advertising		702.99	15,41
	12/01/98	534	Valley Bell	Telecom	Local Phone Service	123.25	16,40
	12/01/98	535	Surf Networks	Telecom	DSL	50.00	16,35
				Telecom		449.00	
	12/01/98	526	Edison General	Utilities	December Electric	94.07	18,26
	12/01/98	532	Valley Gas	Utilities	Heating	39.59	16,58
	12/01/98	533	City Services	Utilities	Water	57.52	16,53
	12/01/98	537	United Security	Utilities	Alarm	30.00	14,74
				Utilities		221.17	
	+12/28/98					18,053.95	
						225,677.47	
659 visible/659 total							

Jan shipping

Jan telecom

Jan utilities

subtotal for January 1998

Feb telecom

Feb utilities

subtotal for February 1998

Mar telecom

Mar utilities

subtotal for March 1998

Mar telecom

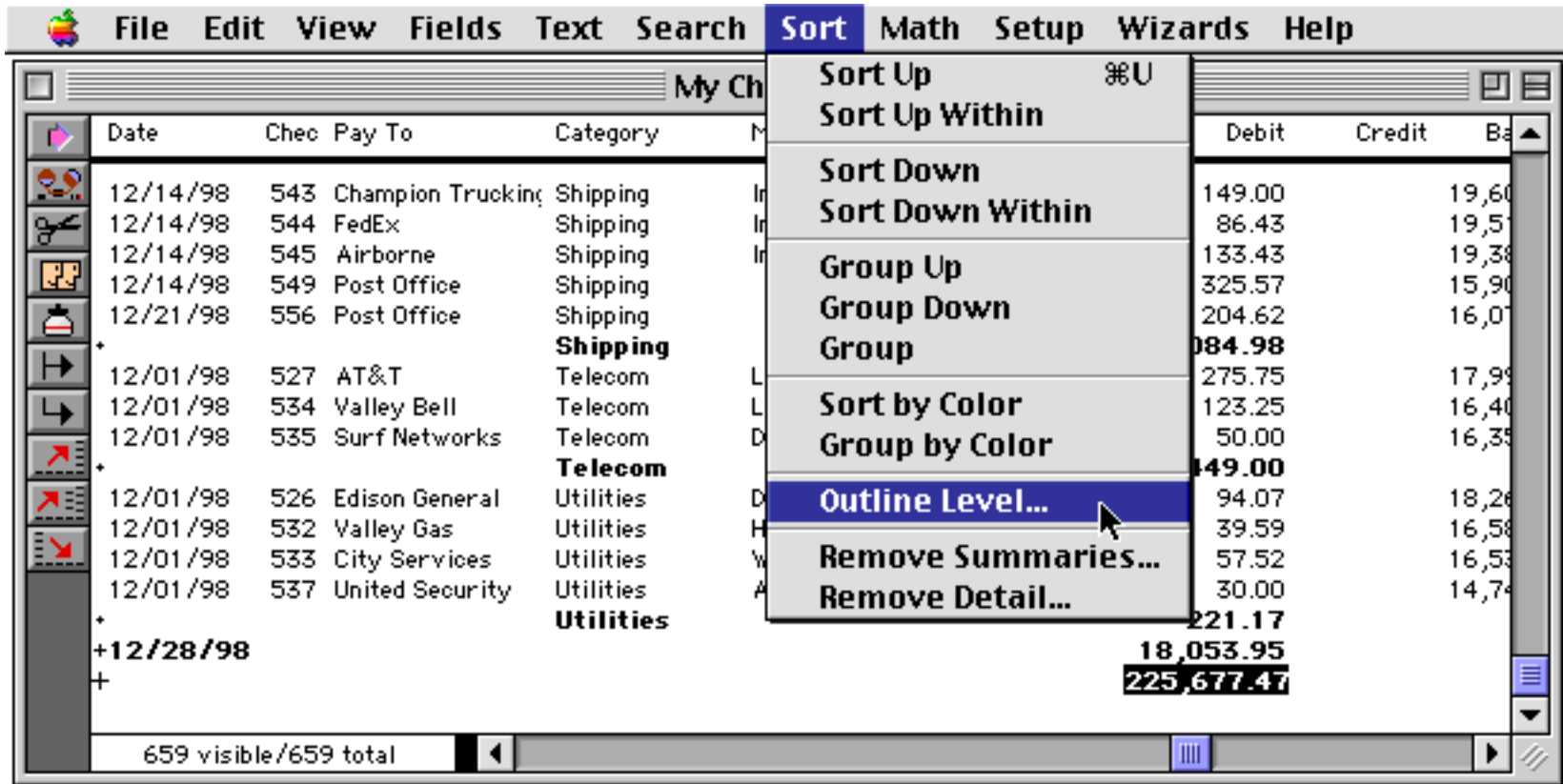
Mar utilities

subtotal for December 1998

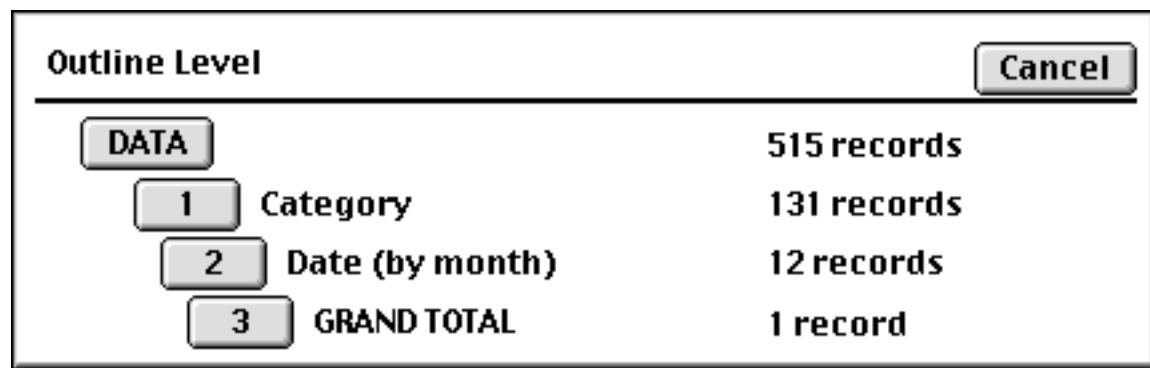
Grand Total

Hiding and Showing Detail

It's difficult to get a feel for the subtotals when they are mixed in with the raw data. To collapse the database so that only the monthly totals are visible, choose the **Outline Level** command in the Sort menu.



The **Outline Level** dialog shows how you have grouped the data. At the top is the raw data, all 515 records. The next level is the **Category**, then the monthly summaries. At the bottom level is the grand total. To collapse the database so that only the monthly totals are visible, press the **2** button.



When you press the button the database collapses so that only the twelve monthly totals and the grand total are visible. Everything else is hidden. You can quickly see that March was the month with the highest spending and July the month with the lowest spending.

Date	Chec	Pay To	Category	Memo	Debit	Credit	Balance
+01/30/98					17,202.48		
+02/27/98					19,773.29		
+03/30/98					21,908.19		
+04/27/98					17,708.77		
+05/29/98					20,072.21		
+06/29/98					18,958.28		
+07/31/98					15,803.58		
+08/31/98					21,410.34		
+09/28/98					16,210.08		
+10/30/98					17,991.62		
+11/30/98					20,584.69		
+12/28/98					18,053.95		
					225,677.47		

13 visible/659 total

Why was the spending almost 22,000 dollars in March? To find out, click anywhere on the March summary record.

Date	Chec	Pay To	Category	Memo	Debit	Credit	Balance
+01/30/98					17,202.48		
+02/27/98					19,773.29		
+03/30/98					21,908.19		
+04/27/98					17,708.77		
+05/29/98					20,072.21		
+06/29/98					18,958.28		

Now click on the Expand tool.

Date	Chec	Pay To	Category	Memo	Debit	Credit	Balance
+01/30/98					17,202.48		
+02/27/98					19,773.29		
+03/30/98					21,908.19		
+04/27/98					17,708.77		
+05/29/98					20,072.21		
+06/29/98					18,958.28		
+07/31/98					15,803.58		
+08/31/98					21,410.34		
+09/28/98					16,210.08		
+10/30/98					17,991.62		
+11/30/98					20,584.69		
+12/28/98					18,053.95		
					225,677.47		

The Expand tool reveals the next level of detail, in this case the **Category** summaries for the month of March.

Date	Chec	Pay To	Category	Memo	Debit	Credit	Balance
+01/30/98					17,202.48		
+02/27/98					19,773.29		
			Advertising		2,202.67		
			DEPOSIT		0.00		
			Fixed Assets		1,363.94		
			Insurance		1,254.50		
			Office Suppli		1,043.33		
			Payroll		9,123.23		
			Purchases		3,447.93		
			Rent		1,580.00		
			Shipping		1,228.69		
			Telecom		454.94		
			Utilities		208.95		
+03/30/98					21,908.19		
+04/27/98					17,708.77		
+05/29/98					20,072.21		
+06/29/98					18,958.28		
+07/31/98					15,803.58		

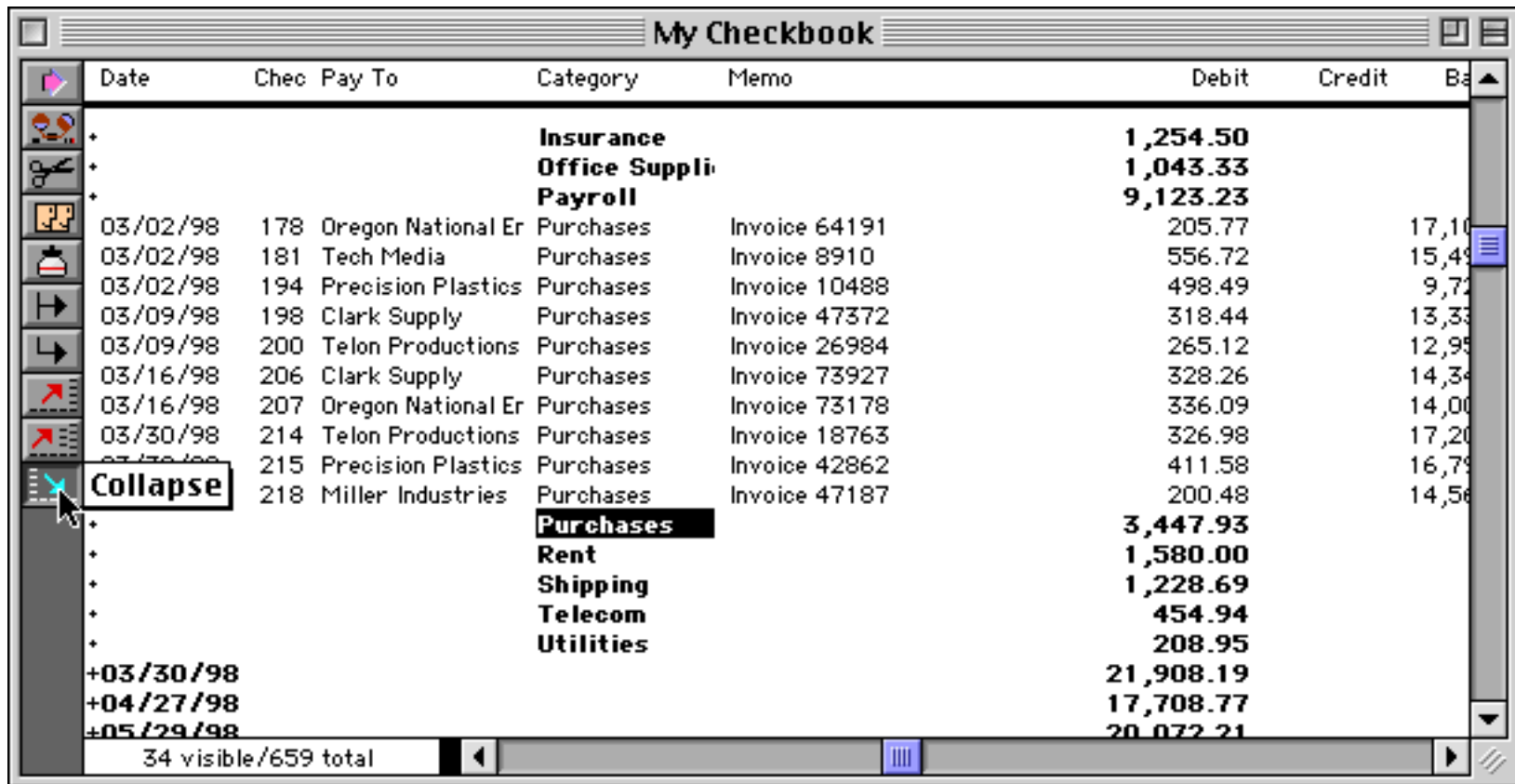
To see the actual checks that make up a particular category, just click on the category and then choose the Expand tool again.

Date	Chec	Pay To	Category	Memo	Debit	Credit	Balance
+01/30/98					17,202.48		
+02/27/98					19,773.29		
			Advertising		2,202.67		
			DEPOSIT		0.00		
			Fixed Assets		1,363.94		
			Insurance		1,254.50		
			Office Suppli		1,043.33		
			Payroll		9,123.23		
			Purchases		3,447.93		
			Rent		1,580.00		
			Shipping		1,228.69		
			Telecom		454.94		
			Utilities		208.95		

Now the actual checks are visible for each purchase in March.

Date	Chec	Pay To	Category	Memo	Debit	Credit	Balance
			Insurance		1,254.50		
			Office Suppli		1,043.33		
			Payroll		9,123.23		
03/02/98	178	Oregon National Er	Purchases	Invoice 64191	205.77		17,10
03/02/98	181	Tech Media	Purchases	Invoice 8910	556.72		15,49
03/02/98	194	Precision Plastics	Purchases	Invoice 10488	498.49		9,72
03/09/98	198	Clark Supply	Purchases	Invoice 47372	318.44		13,33
03/09/98	200	Telon Productions	Purchases	Invoice 26984	265.12		12,95
03/16/98	206	Clark Supply	Purchases	Invoice 73927	328.26		14,34
03/16/98	207	Oregon National Er	Purchases	Invoice 73178	336.09		14,00
03/30/98	214	Telon Productions	Purchases	Invoice 18763	326.98		17,20
03/30/98	215	Precision Plastics	Purchases	Invoice 42862	411.58		16,79
03/30/98	218	Miller Industries	Purchases	Invoice 47187	200.48		14,56
			Purchases		3,447.93		
			Rent		1,580.00		
			Shipping		1,228.69		
			Telecom		454.94		
			Utilities		208.95		
+03/30/98					21,908.19		
+04/27/98					17,708.77		

If you want to hide the detail again use the **Collapse** tool.



Date	Chec	Pay To	Category	Memo	Debit	Credit	Balance
Insurance					1,254.50		
Office Suppli					1,043.33		
Payroll					9,123.23		
03/02/98	178	Oregon National Er	Purchases	Invoice 64191	205.77		17,10
03/02/98	181	Tech Media	Purchases	Invoice 8910	556.72		15,49
03/02/98	194	Precision Plastics	Purchases	Invoice 10488	498.49		9,72
03/09/98	198	Clark Supply	Purchases	Invoice 47372	318.44		13,33
03/09/98	200	Telon Productions	Purchases	Invoice 26984	265.12		12,95
03/16/98	206	Clark Supply	Purchases	Invoice 73927	328.26		14,34
03/16/98	207	Oregon National Er	Purchases	Invoice 73178	336.09		14,00
03/30/98	214	Telon Productions	Purchases	Invoice 18763	326.98		17,20
03/30/98	215	Precision Plastics	Purchases	Invoice 42862	411.58		16,79
03/30/98	218	Miller Industries	Purchases	Invoice 47187	200.48		14,58
Purchases					3,447.93		
Rent					1,580.00		
Shipping					1,228.69		
Telecom					454.94		
Utilities					208.95		
+03/30/98					21,908.19		
+04/27/98					17,708.77		
+05/29/98					20,072.21		

To learn more about expanding and collapsing summaries see “[STEP 3 - OUTLINE](#)” on page 469.

Sorting Summaries by Value

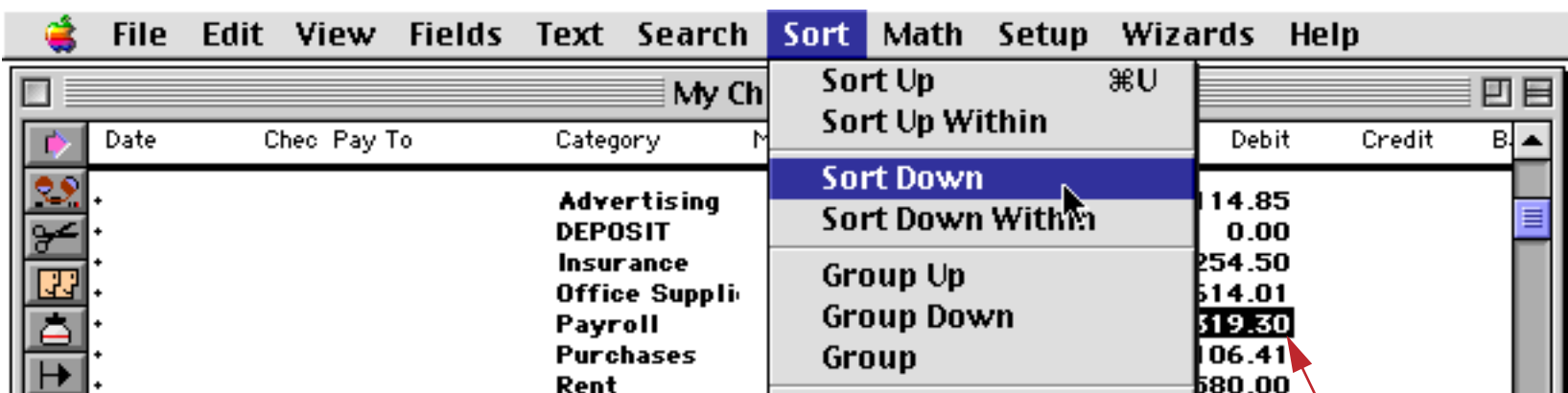
Summary records are normally sorted alphabetically by category, but you can resort them by value to produce a ranked list from highest to lowest. As an example we'll sort the **Category** subtotals within each month to find out the highest spending categories in each month. Start by choosing the **Outline Level** command from the Sort menu, then press the **1** button.

Outline Level		Cancel
DATA		515 records
1	Category	131 records
2	Date (by month)	12 records
3	GRAND TOTAL	1 record

Now both the monthly and category summaries are visible, but the raw data is not visible. The category summaries are sorted alphabetically within each month (the window has been expanded to show three months worth of data).

Date	Category	Debit	Credit
+01/30/98	Advertising	1,114.85	
	DEPOSIT	0.00	
	Insurance	1,254.50	
	Office Suppli	614.01	
	Payroll	7,319.30	
	Purchases	4,106.41	
	Rent	1,580.00	
	Shipping	540.39	
	Telecom	423.19	
	Utilities	249.84	
	17,202.48		
+02/27/98	Advertising	3,874.92	
	DEPOSIT	0.00	
	Fixed Assets	1,974.81	
	Insurance	1,254.50	
	Office Suppli	938.45	
	Payroll	6,966.12	
	Purchases	2,135.08	
	Rent	1,580.00	
	Shipping	298.76	
	Telecom	514.61	
Utilities	236.05		
	19,773.29		
+03/30/98	Advertising	2,202.67	
	DEPOSIT	0.00	
	Fixed Assets	1,363.94	
	Insurance	1,254.50	
	Office Suppli	1,043.33	
	Payroll	9,123.23	
	Purchases	3,447.93	
	Rent	1,580.00	
	Shipping	1,228.69	
	Telecom	454.94	
Utilities	208.95		
	21,908.19		
	Advertising	2,631.00	

Now click anywhere in the Debit column, then choose Sort Down from the Sort menu. We're using Sort Down instead of Sort Up because we want the largest values at the top.



click on Debit field before sorting

Within each month, the **Category** subtotals are now sorted by value from highest to lowest. Now you can easily see that payroll is the largest spending category in each month. Rent and advertising are consistently near the top, while telecom and utilities are consistently near the bottom.

Date	Chec	Pay To	Category	Memo	Debit	Credit	B.
			Payroll		7,319.30		
			Purchases		4,106.41		
			Rent		1,580.00		
			Insurance		1,254.50		
			Advertising		1,114.85		
			Office Suppli		614.01		
			Shipping		540.39		
			Telecom		423.19		
			Utilities		249.84		
			DEPOSIT		0.00		
+01/30/98					17,202.48		
			Payroll		6,966.12		
			Advertising		3,874.92		
			Purchases		2,135.08		
			Fixed Assets		1,974.81		
			Rent		1,580.00		
			Insurance		1,254.50		
			Office Suppli		938.45		
			Telecom		514.61		
			Shipping		298.76		
			Utilities		236.05		
			DEPOSIT		0.00		
+02/27/98					19,773.29		
			Payroll		9,123.23		
			Purchases		3,447.93		
			Advertising		2,202.67		
			Rent		1,580.00		
			Fixed Assets		1,363.94		
			Insurance		1,254.50		
			Shipping		1,228.69		
			Office Suppli		1,043.33		
			Telecom		454.94		
			Utilities		208.95		
			DEPOSIT		0.00		
+03/30/98					21,908.19		
			Payroll		6,726.87		

If you'd like to see more detail about a particular summary just click on it and press the **Expand** tool.

			Telecom		423.19		
			Utilities		249.84		
			DEPOSIT		0.00		
+01/30/98					17,202.48		
			Payroll		6,966.12		
			Advertising		3,874.92		
			Purchases		2,135.08		
			Fixed Assets		1,974.81		
			Rent		1,580.00		
			Insurance		1,254.50		
			Office Suppli		938.45		
			Telecom		514.61		
			Shipping		298.76		

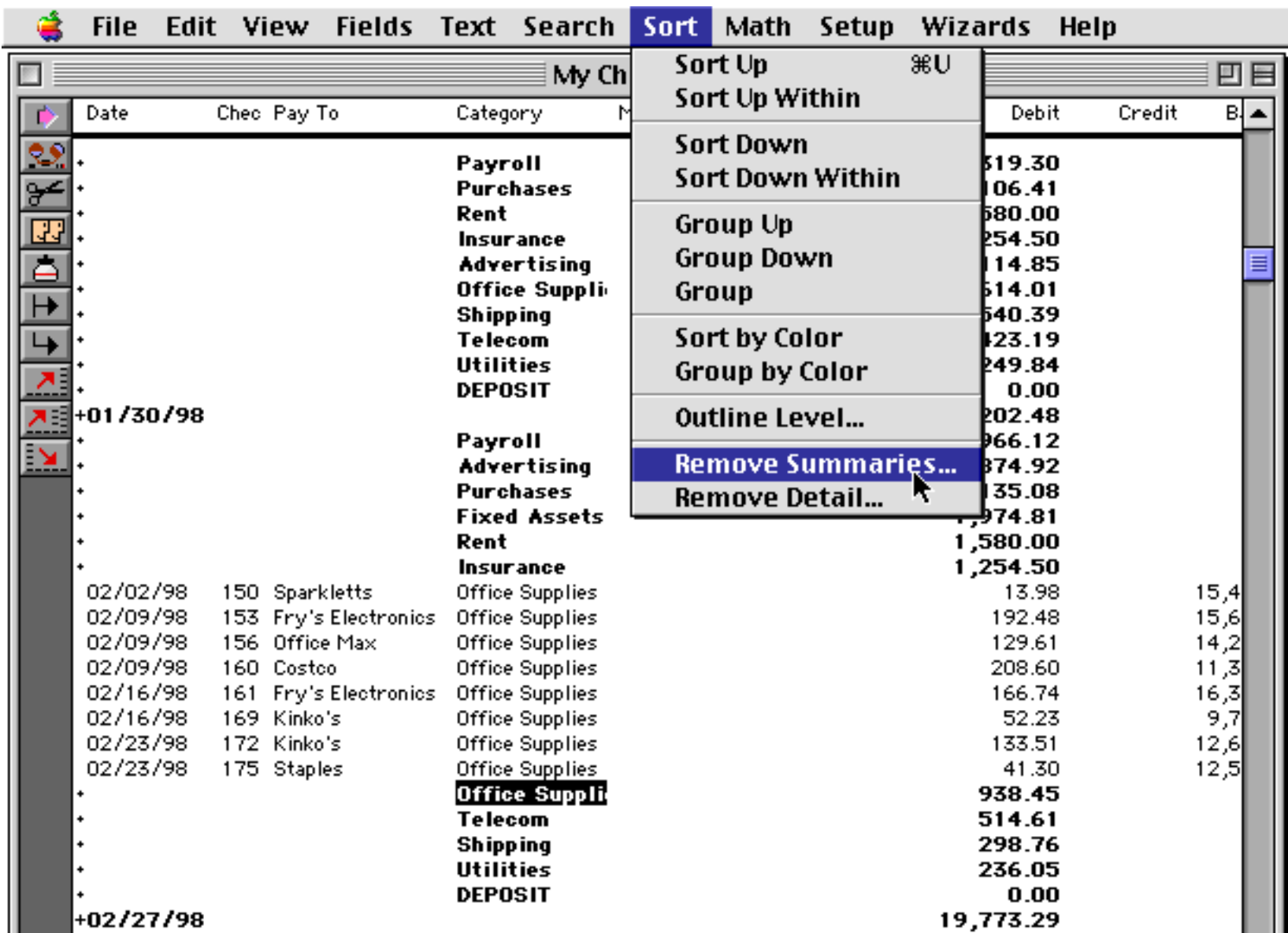
When Panorama sorted the summary records by value it also moved the corresponding data records so that you can expand to see the detail. Within each summary the data records have not been sorted by value, they are still sorted in their original order (by date).

Date	Chec Pay To	Category	Memo	Debit	Credit
		Payroll		7,319.30	
		Purchases		4,106.41	
		Rent		1,580.00	
		Insurance		1,254.50	
		Advertising		1,114.85	
		Office Suppli		614.01	
		Shipping		540.39	
		Telecom		423.19	
		Utilities		249.84	
		DEPOSIT		0.00	
+01/30/98				17,202.48	
		Payroll		6,966.12	
		Advertising		3,874.92	
		Purchases		2,135.08	
		Fixed Assets		1,974.81	
		Rent		1,580.00	
		Insurance		1,254.50	
02/02/98	150 Sparkletts	Office Supplies		13.98	15,4
02/09/98	153 Fry's Electronics	Office Supplies		192.48	15,6
02/09/98	156 Office Max	Office Supplies		129.61	14,2
02/09/98	160 Costco	Office Supplies		208.60	11,3
02/16/98	161 Fry's Electronics	Office Supplies		166.74	16,3
02/16/98	169 Kinko's	Office Supplies		52.23	9,7
02/23/98	172 Kinko's	Office Supplies		133.51	12,6
02/23/98	175 Staples	Office Supplies		41.30	12,5
		Office Suppli		938.45	
		Telecom		514.61	
		Shipping		298.76	
		Utilities		236.05	
		DEPOSIT		0.00	
+02/27/98				19,773.29	
		Payroll		9,123.23	
		Purchases		3,447.93	
		Advertising		2,202.67	
		Rent		1,580.00	
		Fixed Assets		1,363.94	

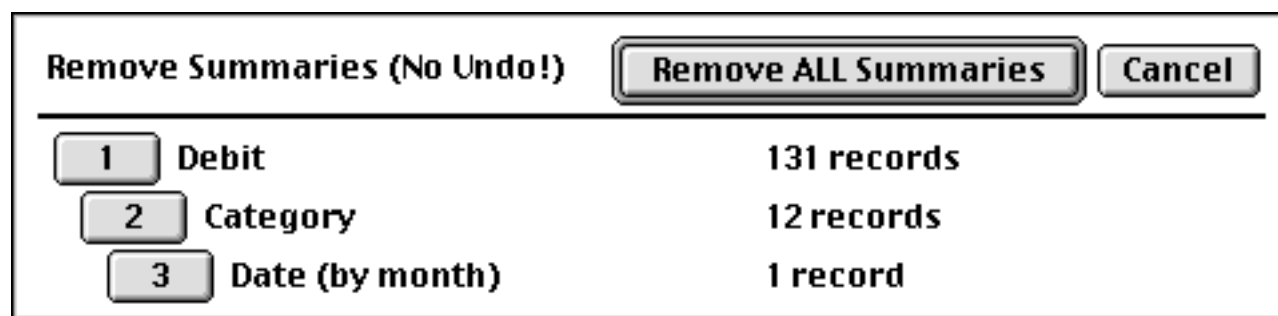
To learn more about sorting summary values see "[Sorting Within Groups](#)" on page 482.

Removing Summary Records

Summary records are designed to be temporary. When you are done examining the summary records you need to remove them to restore the database to its original state. To do this choose the **Remove Summaries** command from the Sort menu. As you can see from the illustration, it doesn't matter whether the summary records are expanded or collapsed when you choose this command.



The **Remove Summaries** dialog allows you to delete some or all of the summary records in the database.



Since you want to remove all of the summary records press the **Remove All Summaries** button (or press the **Enter** key). This removes all of the summary records and leaves only the original data records. (If you want to learn how and why you would delete only some of the summary records see “[Getting Rid of Summary Records](#)” on page 482).

Date	Chec	Pay To	Category	Memo	Debit	Credit	B
01/05/98	114	Poly Payroll Serv	Payroll		1,817.32	13,0	
01/12/98	123	Poly Payroll Serv	Payroll		1,833.80	11,6	
01/19/98	127	Poly Payroll Serv	Payroll		1,874.76	11,6	
01/26/98	136	Poly Payroll Serv	Payroll		1,793.43	13,3	
01/05/98	115	Oregon National Er	Purchases	Invoice 35661	186.36	12,8	
01/05/98	117	Boston Direct	Purchases	Invoice 57540	185.96	12,6	
01/05/98	118	Precision Plastics	Purchases	Invoice 60632	459.86	12,1	
01/05/98	119	Tech Media	Purchases	Invoice 48536	336.67	11,8	
01/05/98	120	Miller Industries	Purchases	Invoice 90513	361.90	11,4	
01/05/98	122	Anderson Manufac	Purchases	Invoice 17730	627.98	9,7	
01/12/98	124	Anderson Manufac	Purchases	Invoice 79066	551.22	11,1	
01/12/98	125	Clark Supply	Purchases	Invoice 91494	387.15	10,7	
01/19/98	126	Tech Media	Purchases	Invoice 77138	350.01	13,5	
01/19/98	129	Clark Supply	Purchases	Invoice 13589	160.71	11,4	
01/26/98	134	Stamford Mfg	Purchases	Invoice 98266	498.59	15,1	
01/01/98	109	Pacific Properties	Rent	January Rent	1,580.00	9,4	
01/01/98	101	Blue Cross	Insurance	Health Insurance group XBG-87:	975.00	11,7	
01/01/98	111	General Casualty	Insurance	Property Insurance policy YX42	187.50	9,1	
01/01/98	112	Hamilton Davis	Insurance	Worker's Comp policy 81722-1	92.00	9,0	
01/05/98	121	Cool Creek Studio	Advertising		1,114.85	10,3	
01/01/98	100	Sparkletts	Office Supplies		14.20	12,7	
01/05/98	113	Office Max	Office Supplies		170.47	14,8	
01/05/98	116	Kinko's	Office Supplies		50.03	12,8	
01/19/98	131	Staples	Office Supplies		126.83	11,1	
01/19/98	133	Costco	Office Supplies		207.23	10,7	
01/26/98	135	Kinko's	Office Supplies		45.24	15,1	
01/01/98	106	UPS	Shipping		144.02	11,2	
01/19/98	128	Airborne	Shipping	Invoice 16582	63.61	11,5	
01/19/98	130	FedEx	Shipping	Invoice 75951	160.97	11,2	
01/19/98	132	Champion Trucking	Shipping	Invoice 26309	171.79	10,9	
01/01/98	103	AT&T	Telecom	Long Distance Phone Service	236.24	11,4	
01/01/98	104	Surf Networks	Telecom	DSL	50.00	11,4	
01/01/98	110	Valley Bell	Telecom	Local Phone Service	136.95	9,3	
01/01/98	102	Valley Gas	Utilities	Heating	49.90	11,6	
01/01/98	105	United Security	Utilities	Alarm	30.00	11,3	
01/01/98	107	Edison General	Utilities	January Electric	115.55	11,1	

515 visible/515 total

Although the summary records are gone, the database still isn't quite back to its original state. Instead of the entries being sorted by date they are still sorted by category within each month. To get back to the original order click anywhere in the **Date** field and choose **Sort Up** from the Sort menu.

Date	Chec	Pay To	Category	Memo	Debit	Credit	B
01/05/98	114	Poly Payroll Serv	Payroll		,817.32	13,0	
01/12/98	123	Poly Payroll Serv	Payroll		,833.80	11,6	
01/19/98	127	Poly Payroll Serv	Payroll		,874.76	11,6	
01/26/98	136	Poly Payroll Serv	Payroll		,793.43	13,3	
01/05/98	115	Oregon National Er	Purchases	In	186.36	12,8	
01/05/98	117	Boston Direct	Purchases	In	185.96	12,6	
01/05/98	118	Precision Plastics	Purchases	In	459.86	12,1	

Sort menu options: Sort Up (⌘U), Sort Up Within, Sort Down, Sort Down Within, Group Up, Group Down, Group

The database still isn't quite back in the original order. Originally the check numbers were sorted within each day.

My Checkbook							
Date	Chec	Pay To	Category	Memo	Debit	Credit	B.
01/01/98	109	Pacific Properties	Rent	January Rent	1,580.00		9,4
01/01/98	101	Blue Cross	Insurance	Health Insurance group XBG-87:	975.00		11,7
01/01/98	111	General Casualty	Insurance	Property Insurance policy YX42	187.50		9,1
01/01/98	112	Hamilton Davis	Insurance	Worker's Comp policy 81722-1	92.00		9,0
01/01/98	100	Sparkletts	Office Supplies		14.20		12,7
01/01/98	106	UPS	Shipping		144.02		11,2
01/01/98	103	AT&T	Telecom	Long Distance Phone Service	236.24		11,4
01/01/98	104	Surf Networks	Telecom	DSL	50.00		11,4
01/01/98	110	Valley Bell	Telecom	Local Phone Service	136.95		9,3
01/01/98	102	Valley Gas	Utilities	Heating	49.90		11,6
01/01/98	105	United Security	Utilities	Alarm	30.00		11,3
01/01/98	107	Edison General	Utilities	January Electric	115.55		11,1
01/01/98	108	City Services	Utilities	Water	54.39		11,0
01/01/98		OPENING BALANCE	DEPOSIT			12,739.00	12,7
01/02/98		DEPOSIT	DEPOSIT			5,985.82	15,0
01/05/98	114	Poly Payroll Serv	Payroll		1,817.32		13,0

To fix this problem click anywhere in the **Check** column and choose **Sort Up Within** (see "[Sorting By Two or More Fields](#)" on page 16).

My Ch							
Date	Chec	Pay To	Category	Memo	Debit	Credit	B.
01/01/98	109	Pacific Properties	Rent		1,580.00		9,4
01/01/98	101	Blue Cross	Insurance		975.00		11,7
01/01/98	111	General Casualty	Insurance		187.50		9,1
01/01/98	112	Hamilton Davis	Insurance		92.00		9,0
01/01/98	100	Sparkletts	Office Supplies		14.20		12,7
01/01/98	106	UPS	Shipping		144.02		11,2
01/01/98	103	AT&T	Telecom		236.24		11,4
01/01/98	104	Surf Networks	Telecom		50.00		11,4
01/01/98	110	Valley Bell	Telecom		136.95		9,3
01/01/98	102	Valley Gas	Utilities		49.90		11,6
01/01/98	105	United Security	Utilities		30.00		11,3
01/01/98	107	Edison General	Utilities		115.55		11,1
01/01/98	108	City Services	Utilities		54.39		11,0
01/01/98		OPENING BALANCE	DEPOSIT			12,739.00	12,7
01/02/98		DEPOSIT	DEPOSIT			5,985.82	15,0
01/05/98	114	Poly Payroll Serv	Payroll		1,817.32		13,0

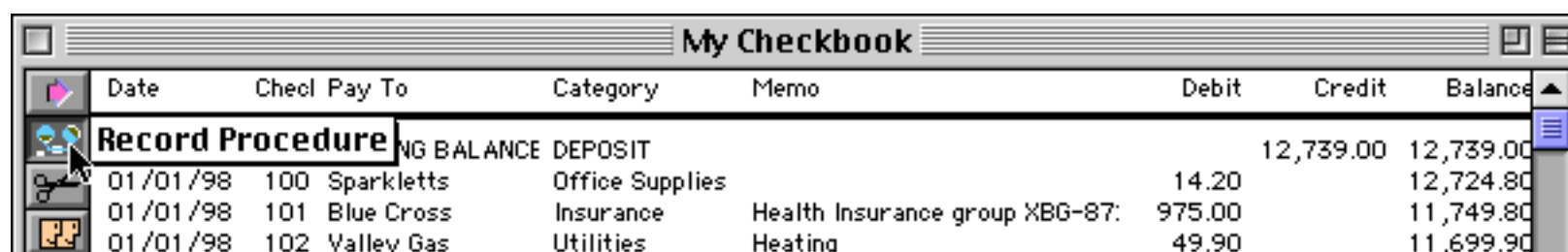
Now all of the data is back to its original order.

Date	Chec	Pay To	Category	Memo	Debit	Credit	B.
01/01/98		OPENING BALANCE	DEPOSIT			12,739.00	12,7
01/01/98	100	Sparkletts	Office Supplies		14.20		12,7
01/01/98	101	Blue Cross	Insurance	Health Insurance group XBG-87:	975.00		11,7
01/01/98	102	Valley Gas	Utilities	Heating	49.90		11,6
01/01/98	103	AT&T	Telecom	Long Distance Phone Service	236.24		11,4
01/01/98	104	Surf Networks	Telecom	DSL	50.00		11,4
01/01/98	105	United Security	Utilities	Alarm	30.00		11,3
01/01/98	106	UPS	Shipping		144.02		11,2
01/01/98	107	Edison General	Utilities	January Electric	115.55		11,1
01/01/98	108	City Services	Utilities	Water	54.39		11,0
01/01/98	109	Pacific Properties	Rent	January Rent	1,580.00		9,4
01/01/98	110	Valley Bell	Telecom	Local Phone Service	136.95		9,3
01/01/98	111	General Casualty	Insurance	Property Insurance policy YX42	187.50		9,1
01/01/98	112	Hamilton Davis	Insurance	Worker's Comp policy 81722-1	92.00		9,0
01/02/98		DEPOSIT	DEPOSIT			5,985.82	15,0
01/05/98	113	Office Max	Office Supplies		170.47		14,8
01/05/98	114	Poly Payroll Serv	Payroll		1,817.32		13,0
01/05/98	115	Oregon National Er	Purchases	Invoice 35661	186.36		12,8
01/05/98	116	Kinko's	Office Supplies		50.03		12,8
01/05/98	117	Boston Direct	Purchases	Invoice 57540	185.96		12,6
01/05/98	118	Precision Plastics	Purchases	Invoice 60632	459.86		12,1
01/05/98	119	Tech Media	Purchases	Invoice 48536	336.67		11,8
01/05/98	120	Miller Industries	Purchases	Invoice 90513	361.90		11,4
01/05/98	121	Cool Creek Studiio	Advertising		1,114.85		10,3
01/05/98	122	Anderson Manufac	Purchases	Invoice 17730	627.98		9,7
01/09/98		DEPOSIT	DEPOSIT			3,772.42	13,5
01/12/98	123	Poly Payroll Serv	Payroll		1,833.80		11,6
01/12/98	124	Anderson Manufac	Purchases	Invoice 79066	551.22		11,1
01/12/98	125	Clark Supply	Purchases	Invoice 91494	387.15		10,7
01/16/98		DEPOSIT	DEPOSIT			3,110.56	13,8
01/19/98	126	Tech Media	Purchases	Invoice 77138	350.01		13,5
01/19/98	127	Poly Payroll Serv	Payroll		1,874.76		11,6
01/19/98	128	Airborne	Shipping	Invoice 16582	63.61		11,5
01/19/98	129	Clark Supply	Purchases	Invoice 13589	160.71		11,4
01/19/98	130	FedEx	Shipping	Invoice 75951	160.97		11,2
01/19/98	131	Staples	Office Supplies		126.83		11,1

With a little bit of advance preparation you can make it much simpler to restore the original database order after grouping summary records (assuming that you care what order the records are in — in many cases you won't). One technique would be to **Save** the database just before using the **Group** command, and then use the **Revert to Saved** command when you are done (see "[Revert to Saved](#)" on page 214). Another technique would be to create an extra field and fill the field with a numeric sequence (1, 2, 3, etc.) using the **Sequence** command (see "[Automatic Numbering](#)" on page 522). After you remove the summaries you can simply sort by this numeric field to restore the original order.

Automating Tasks with Procedures

Right out of the box, Panorama is a very flexible program. Its built in menus and tools bring incredible power to your fingertips. Even better, you can easily create your own commands that can be activated with a menu or button. You can create these commands (called procedures) using Panorama's built in programming language or simply by recording each step with the built in recorder. To start recording a procedure just click on the **Record Procedure** tool. The wheels of the recorder will start to spin to let you know that Panorama is recording your actions (see "[Creating a Procedure with the Recorder](#)" on page 1353).

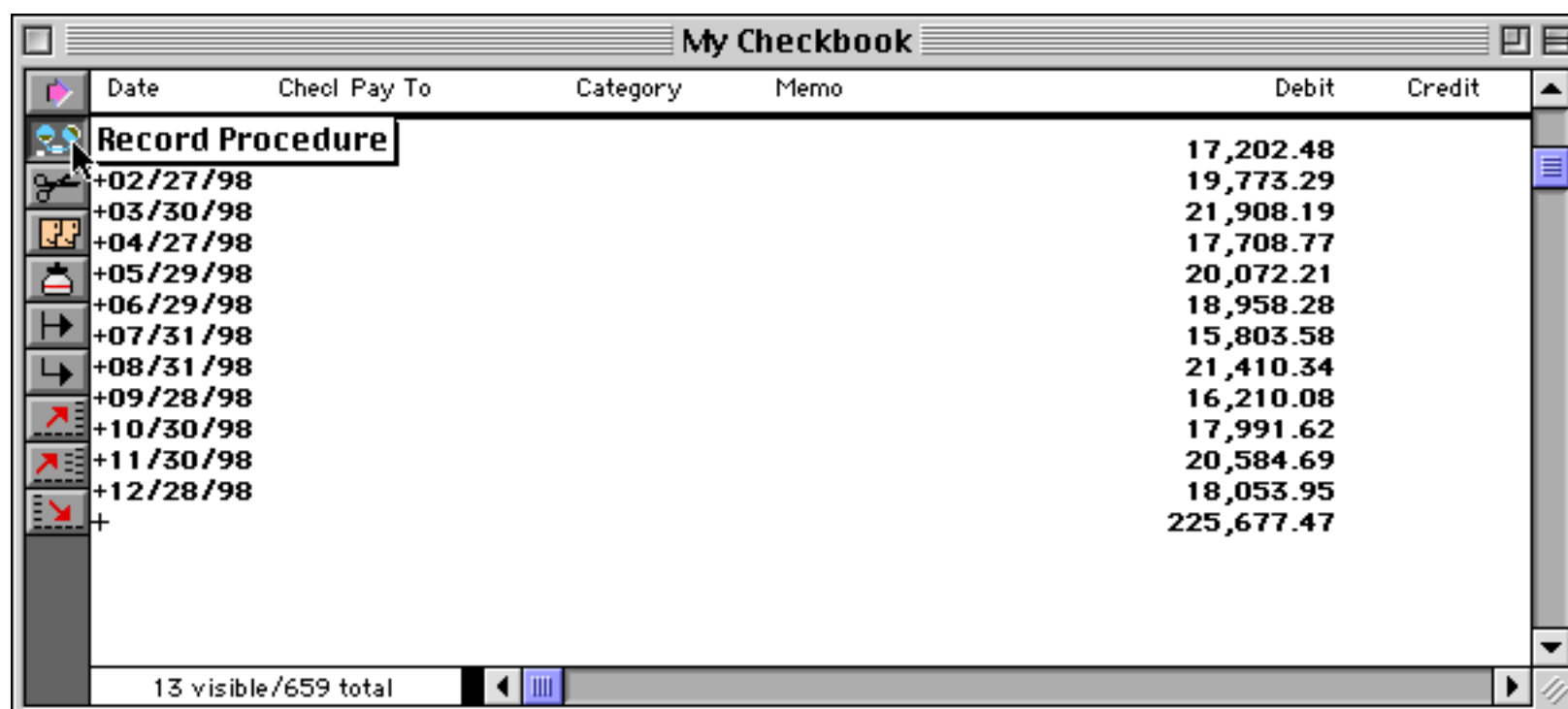


Date	Check	Pay To	Category	Memo	Debit	Credit	Balance
				NG BALANCE DEPOSIT		12,739.00	12,739.00
01/01/98	100	Sparkletts	Office Supplies		14.20		12,724.80
01/01/98	101	Blue Cross	Insurance	Health Insurance group XBG-87:	975.00		11,749.80
01/01/98	102	Valley Gas	Utilities	Heating	49.90		11,699.90

Your job is to create procedures that automate the summary process you just learned. With the recorder running (make sure the reels are spinning) perform the following steps (the same steps you just performed, see "[Calculating Subtotals](#)" on page 82).

Step	Action
1	Click on the Date field.
2	Choose Group Up from the Sort menu.
3	Choose the Month option.
4	Click on the Group button.
5	Click on the Category field.
6	Choose Group Up from the Sort menu.
7	Click on the Debit field.
8	Choose Total from the Math menu.
9	Choose Outline Level from the Sort menu.
10	Click on the 2 button.

When you've finished with these steps press the **Record Procedure** tool again. This stops the recording.



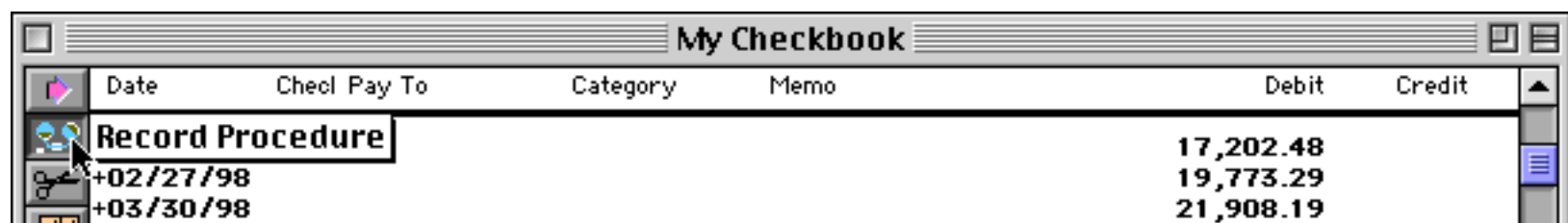
Date	Check	Pay To	Category	Memo	Debit	Credit
					17,202.48	
+02/27/98					19,773.29	
+03/30/98					21,908.19	
+04/27/98					17,708.77	
+05/29/98					20,072.21	
+06/29/98					18,958.28	
+07/31/98					15,803.58	
+08/31/98					21,410.34	
+09/28/98					16,210.08	
+10/30/98					17,991.62	
+11/30/98					20,584.69	
+12/28/98					18,053.95	
					225,677.47	

13 visible / 659 total

After you stop the recorder a dialog box will appear. Type in the name of the new procedure (in this case **Month & Category Totals**) and press the **Create Procedure** button.



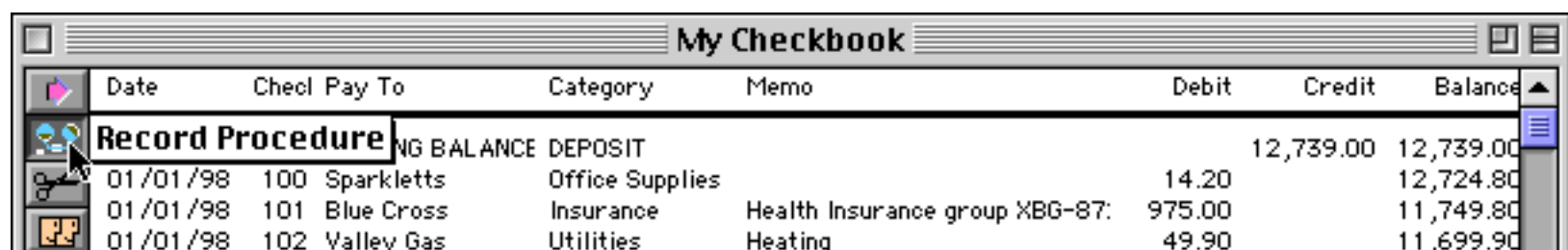
Next you'll create another procedure to remove the summaries and restore the original order of the data (see "[Removing Summary Records](#)" on page 93). Start by turning the recorder back on again.



With the recorder running perform the following steps.

Step	Action
1	Choose Remove Summaries from the Sort menu.
2	Click on the Remove ALL Summaries button.
3	Click on the Date field.
4	Choose Sort Up from the Sort menu.
5	Click on the Check field.
6	Choose Sort Up Within from the Sort menu.

When you've finished with these steps press the **Record Procedure** tool again to stop the recording.



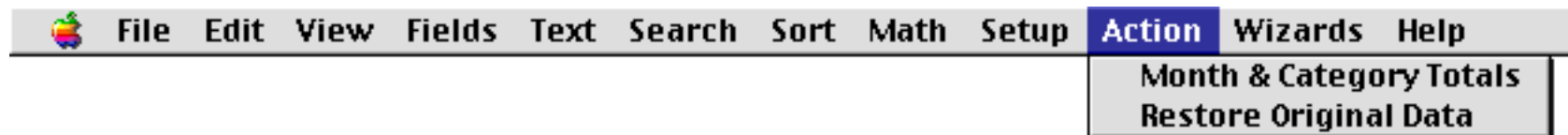
Panorama will ask you to give this procedure a name of its own.



Before you go any further you should **Save** your database with the new procedures you just created.

Using the Action Menu

If you look closely you'll see that a new menu has appeared — the **Action** menu. This menu contains the two procedures you just recorded.



When you choose a command from this menu it replays the steps that were recorded in the procedure. Choose the **Month & Category Totals** command now. Panorama replays the 10 steps in this procedure as fast as it can — zip zip zip.

The screenshot shows the 'My Checkbook' window with a table of transactions for 1998. The table has columns for Date, Check Pay To, Category, Memo, Debit, and Credit. The data is summarized by month, with the total for each month shown in the Debit column.

Date	Check Pay To	Category	Memo	Debit	Credit
+01/30/98				17,202.48	
+02/27/98				19,773.29	
+03/30/98				21,908.19	
+04/27/98				17,708.77	
+05/29/98				20,072.21	
+06/29/98				18,958.28	
+07/31/98				15,803.58	
+08/31/98				21,410.34	
+09/28/98				16,210.08	
+10/30/98				17,991.62	
+11/30/98				20,584.69	
+12/28/98				18,053.95	
+				225,677.47	

13 visible/659 total

Now choose the **Restore Original Data** command to quickly remove the summary records and restore the original data order.

The screenshot shows the 'My Checkbook' window with the original data order restored. The table has columns for Date, Check Pay To, Category, Memo, Debit, and Credit. The data is sorted by date, starting with the opening balance deposit on 01/01/98.

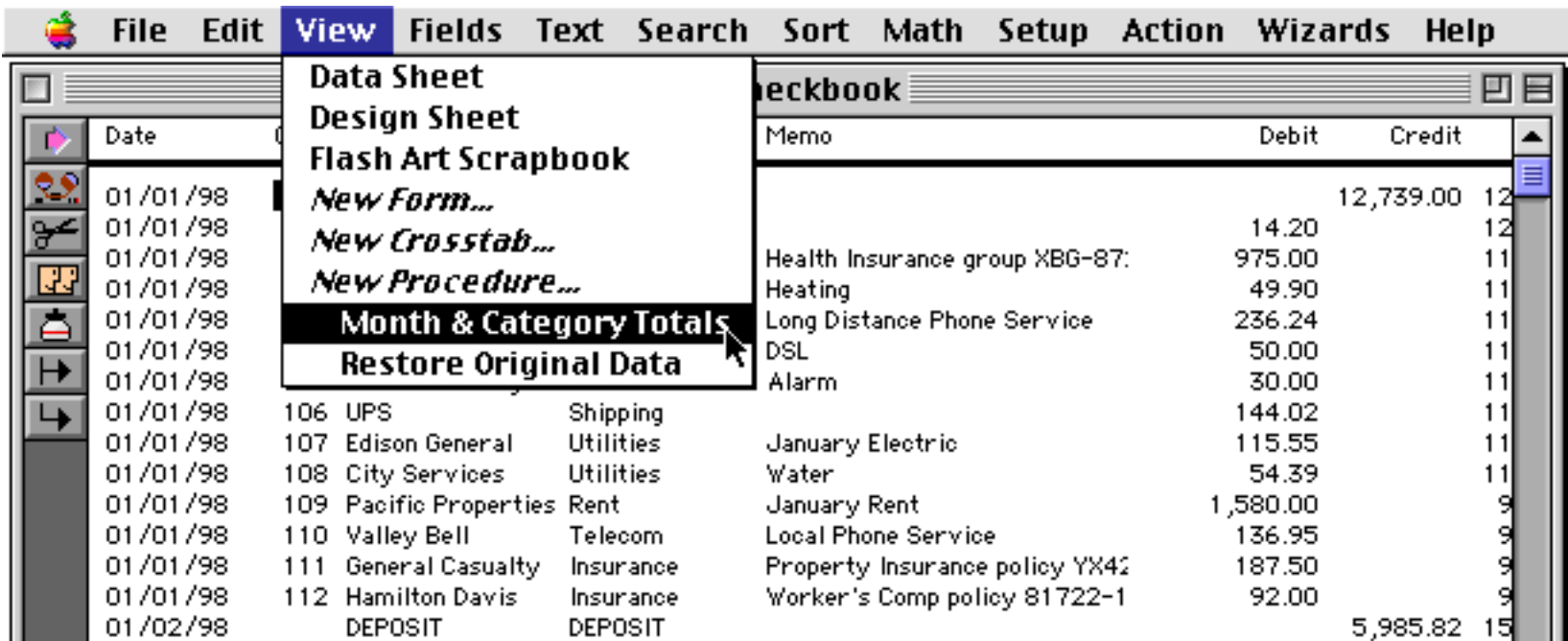
Date	Check Pay To	Category	Memo	Debit	Credit
01/01/98		DEPOSIT			12,739.00
01/01/98	100 Sparkletts	Office Supplies		14.20	
01/01/98	101 Blue Cross	Insurance	Health Insurance group XBG-87:	975.00	
01/01/98	102 Valley Gas	Utilities	Heating	49.90	
01/01/98	103 AT&T	Telecom	Long Distance Phone Service	236.24	
01/01/98	104 Surf Networks	Telecom	DSL	50.00	
01/01/98	105 United Security	Utilities	Alarm	30.00	
01/01/98	106 UPS	Shipping		144.02	
01/01/98	107 Edison General	Utilities	January Electric	115.55	
01/01/98	108 City Services	Utilities	Water	54.39	
01/01/98	109 Pacific Properties	Rent	January Rent	1,580.00	
01/01/98	110 Valley Bell	Telecom	Local Phone Service	136.95	
01/01/98	111 General Casualty	Insurance	Property Insurance policy YX42	187.50	
01/01/98	112 Hamilton Davis	Insurance	Worker's Comp policy 81722-1	92.00	
01/02/98		DEPOSIT			5,985.82
01/05/98	113 Office Max	Office Supplies		170.47	
01/05/98	114 Poly Payroll Serv	Payroll		1,817.32	

515 visible/515 total

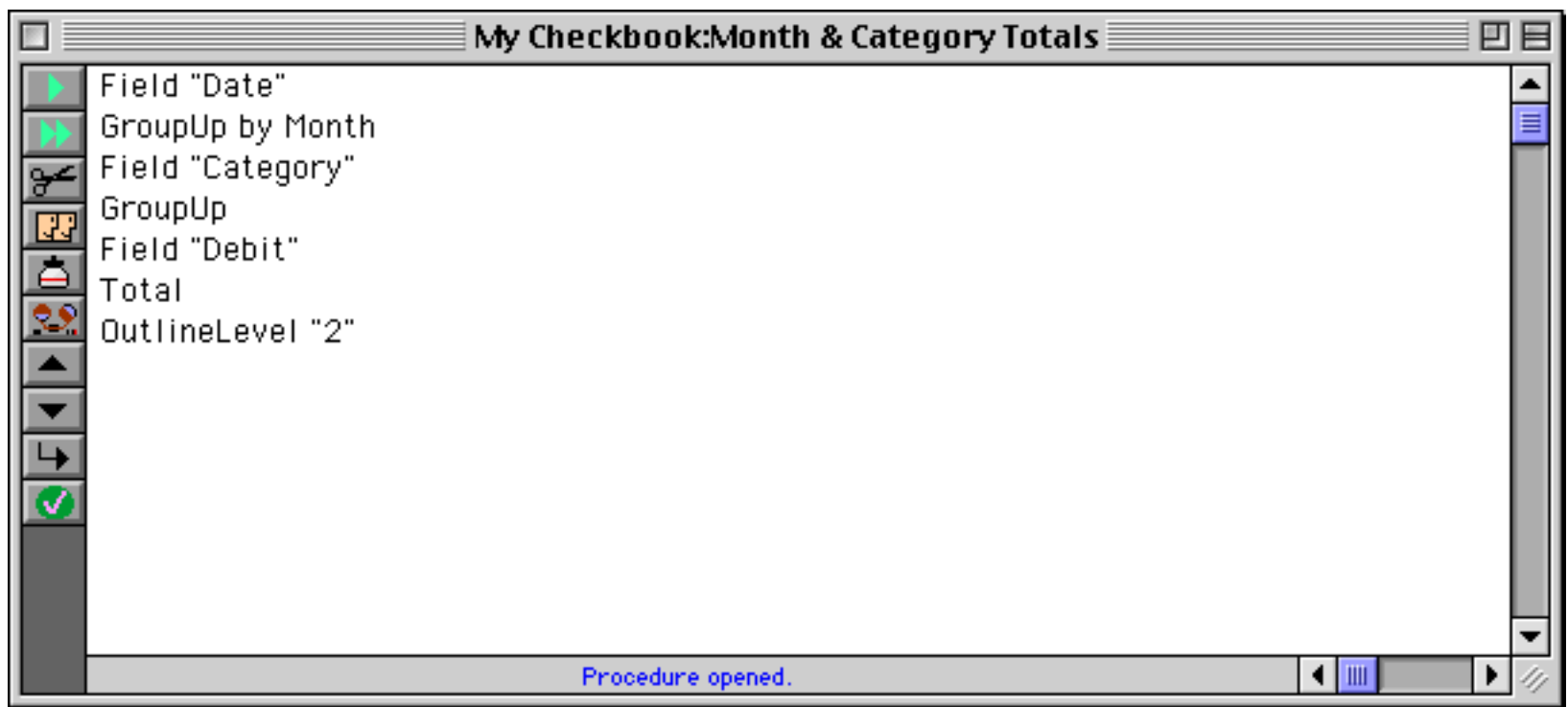
To learn more about the **Action** menu see [“The Action Menu”](#) on page 1442.

Editing a Procedure

To see what is inside a procedure open the procedure with the View Menu.

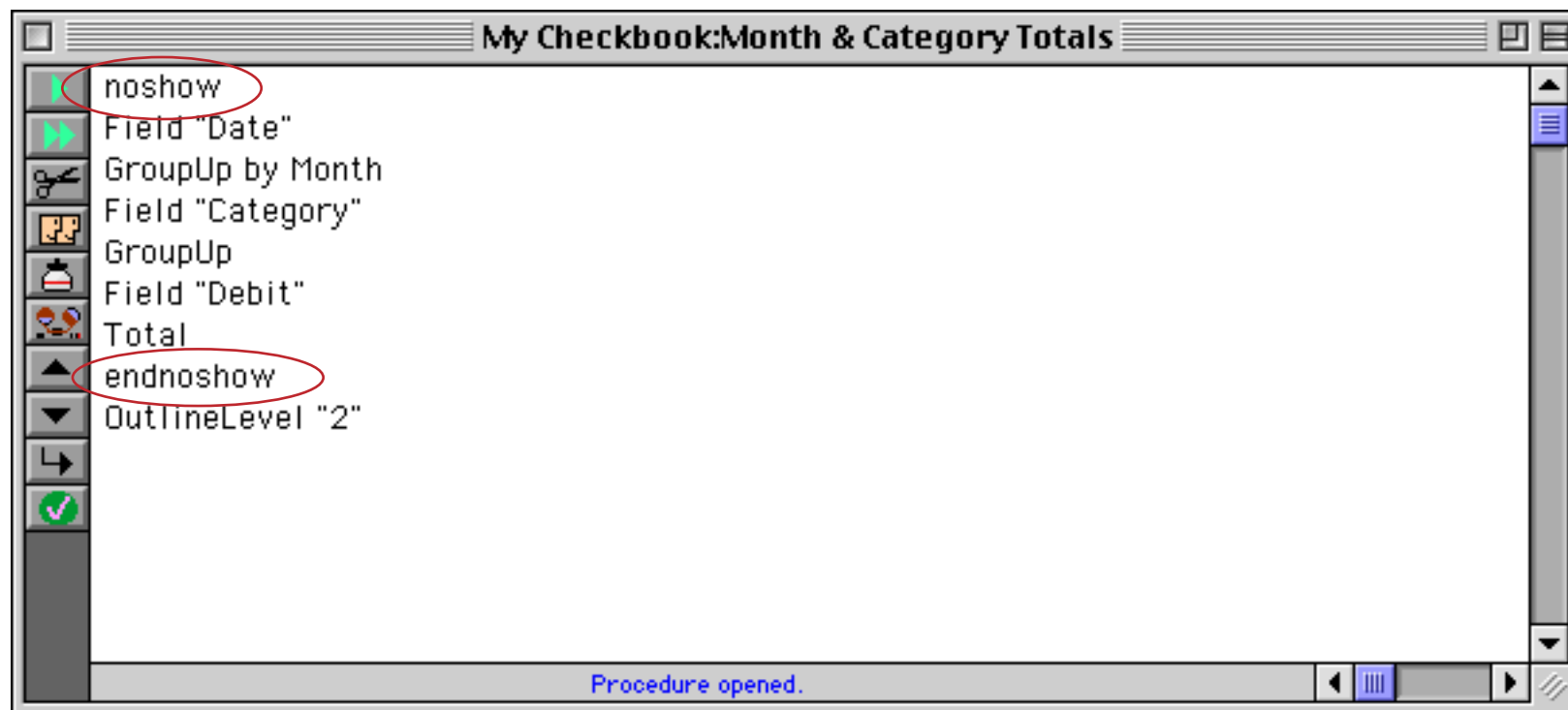


The window switches from the Data Sheet to show the procedure. Each command you recorded appears in a simple English-like format.

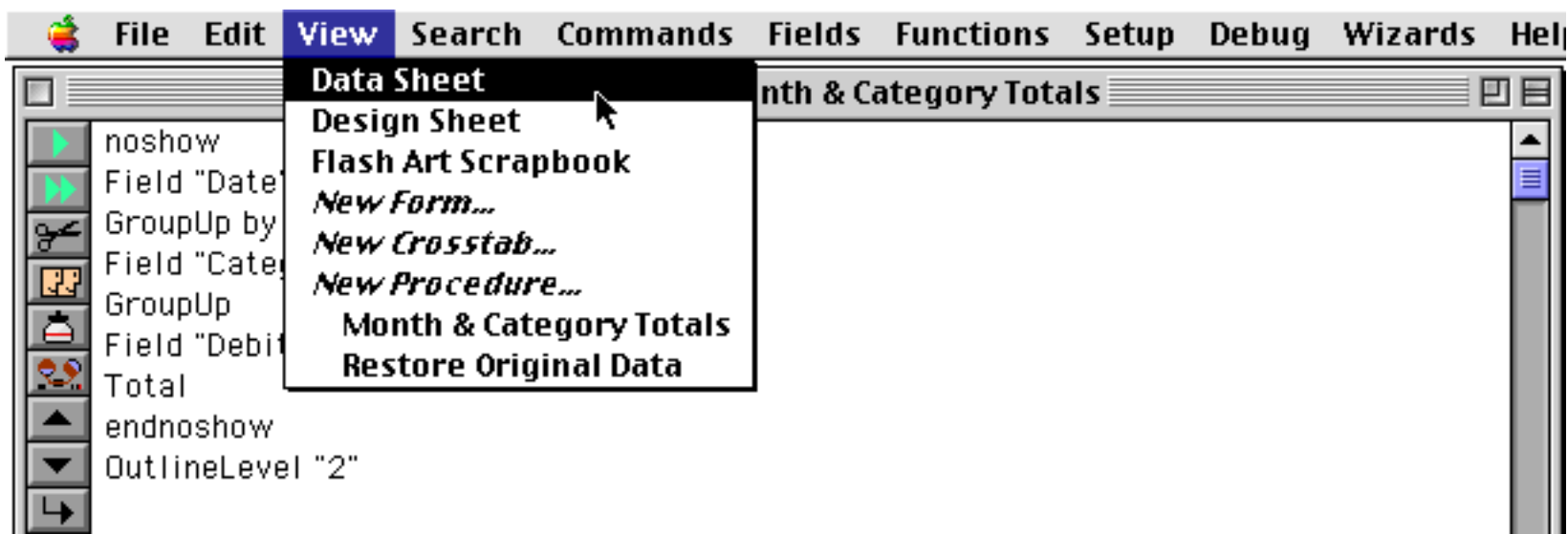


Panorama has hundreds of commands that can be used in a procedure — in fact, it has a complete programming language. The fundamentals of this programming language are described starting with [“Introduction to \(Panorama\) Programming”](#) on page 1345.

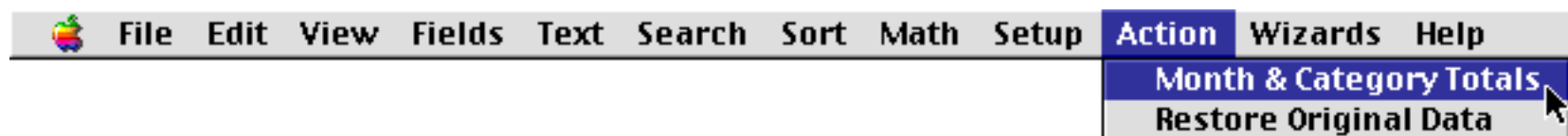
When you used the [Month & Category Totals](#) procedure you may have noticed that the screen flashed over and over again as the commands were performed. By editing the procedure to add two new commands you can eliminate the extra unnecessary flashing. Edit the procedure to add the two new commands shown in the illustration below.



To try out the revised procedure you'll need to use the View menu to switch back to the Data Sheet.



To try out your revised procedure choose it from the Action menu.

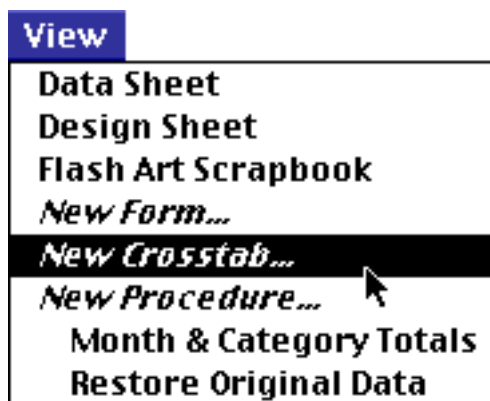


You'll notice that the procedure now runs with a minimum of extra flashing. (Actually, on a fast machine it may be a bit difficult to tell the difference for a procedure as short as this, but it can make a big difference with a slower machine or a longer procedure.)

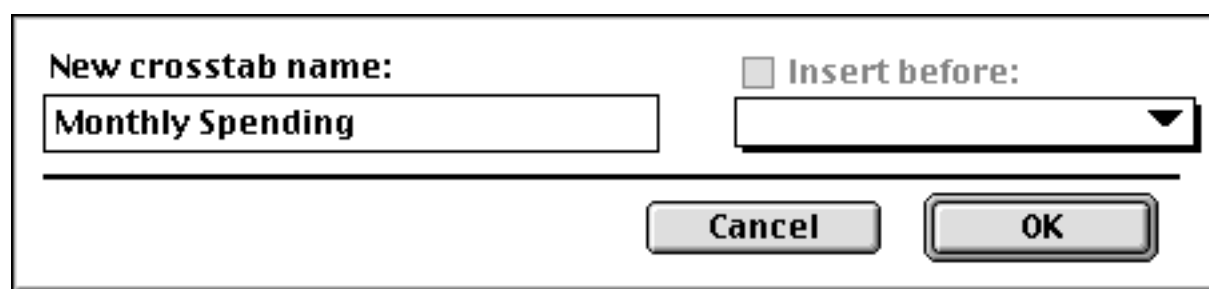
Before moving on to the next step in the tutorial you choose the **Restore Original Data** command and then the **Save** command in the File menu to save the revised procedure.

Analyzing Data with a Crosstab

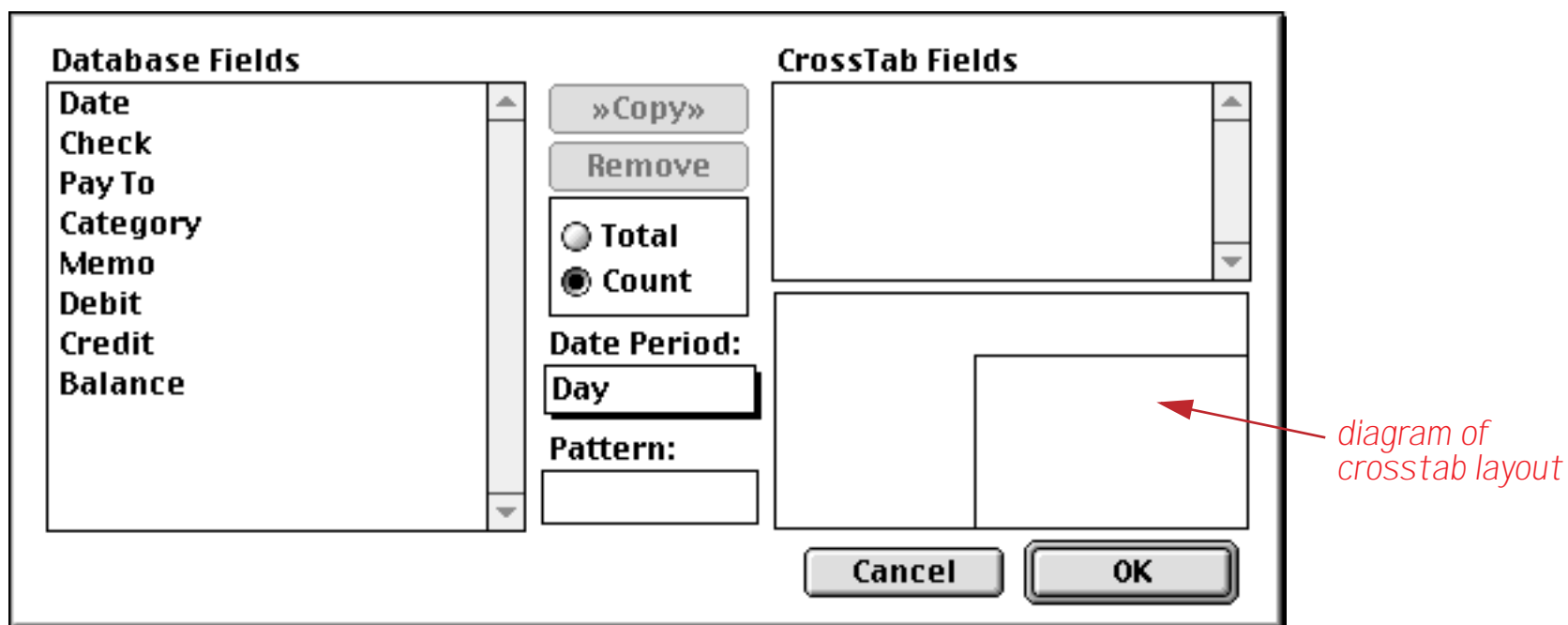
In addition to the **Group** command Panorama has another powerful tool for summarizing data — **crosstabs**. For your next trick you'll create a crosstab table that displays spending by category vs. month. To create a new crosstab view you'll use the **View** menu. If you are using a Windows PC hold down the **Alt** key, if you are using a Macintosh hold down the **Control** key. Either way, select **New Crosstab** from the View menu.



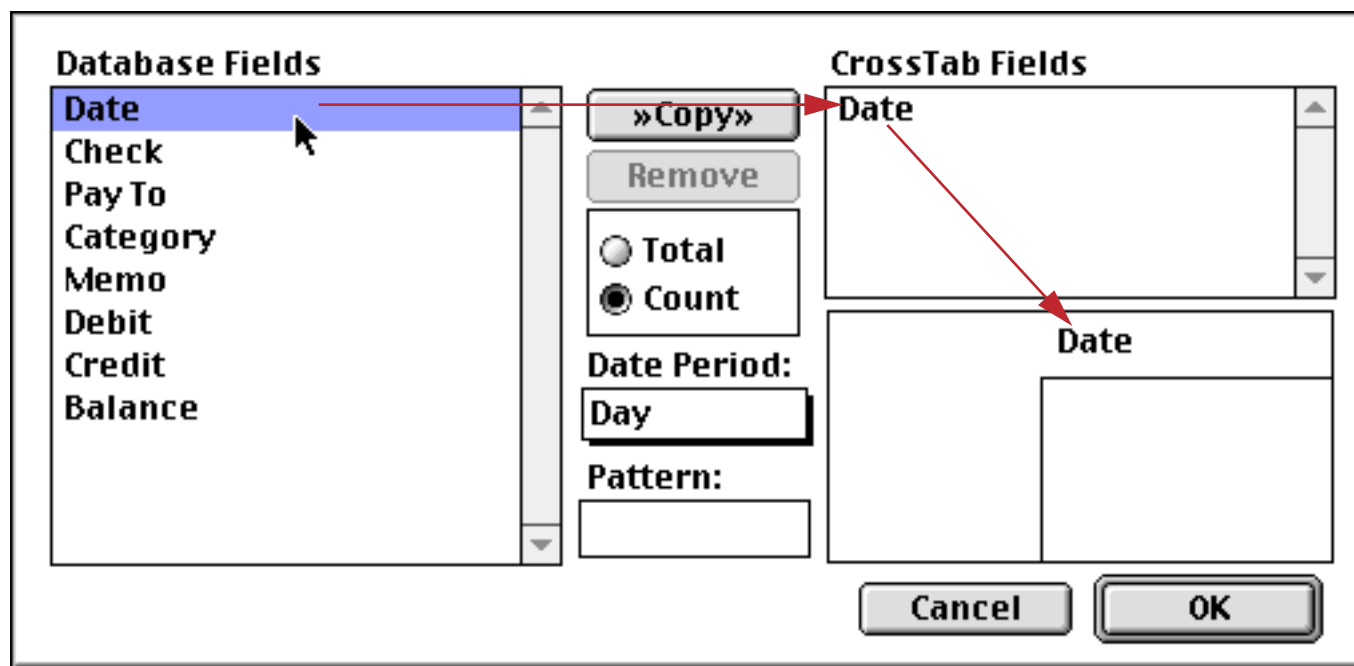
Type in the name of the new crosstab, in this case **Monthly Spending**, and then press the **OK** button.



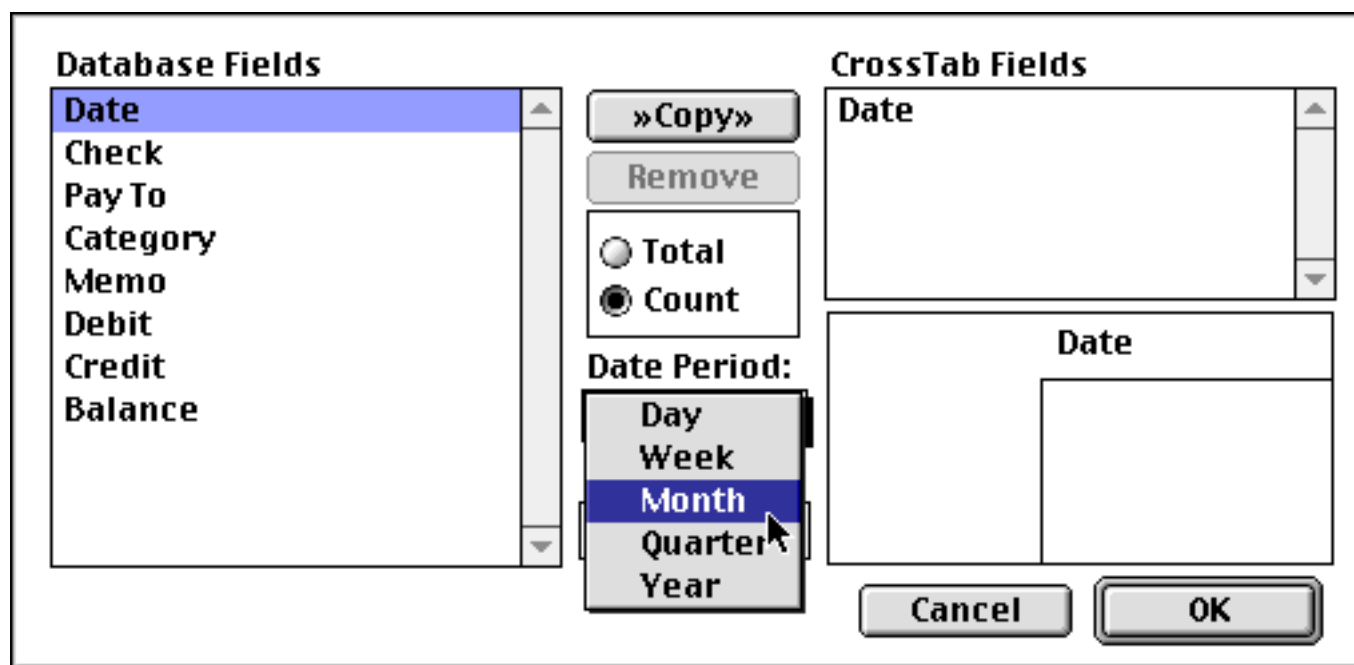
Panorama will create the new crosstab window, and then immediately open the **Crosstab** dialog. This dialog contains a list of the database fields on the left hand side. On the right hand side is a list of fields in the crosstab and a diagram of the crosstab layout (both empty to start).



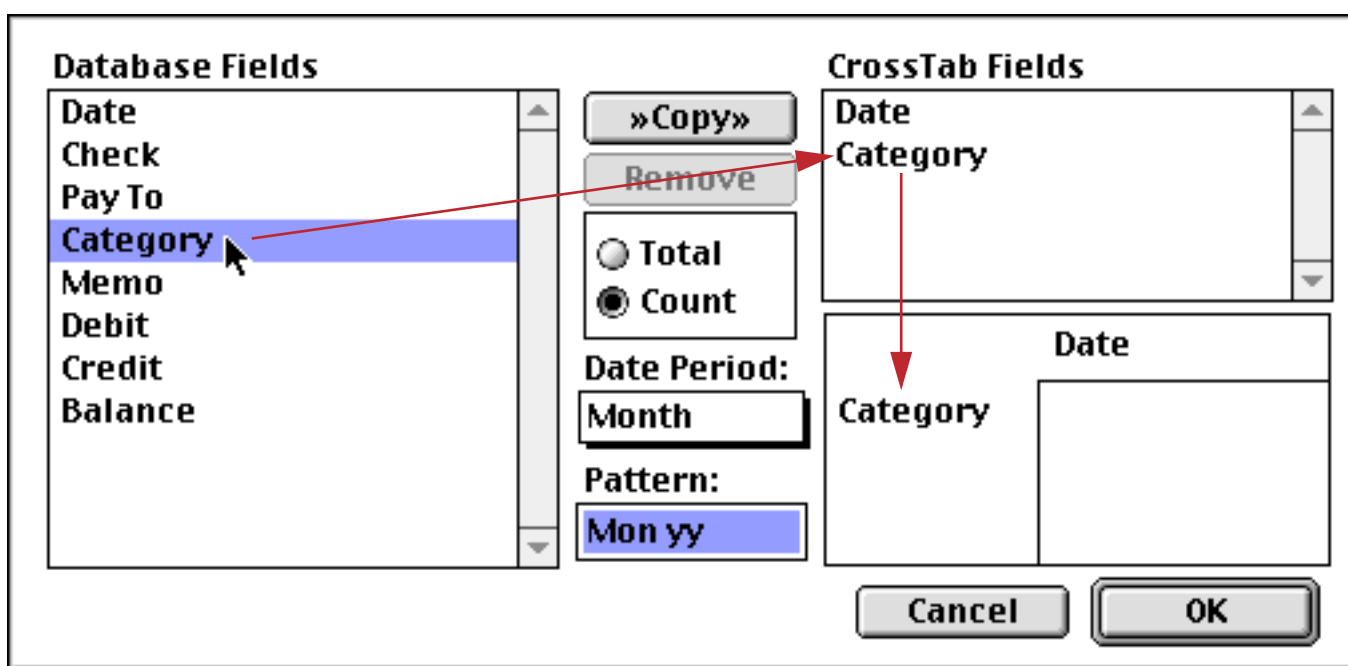
To tell Panorama to list months across the top of the crosstab click on **Date** and then press the **»Copy»** button (or double click on **Date**).



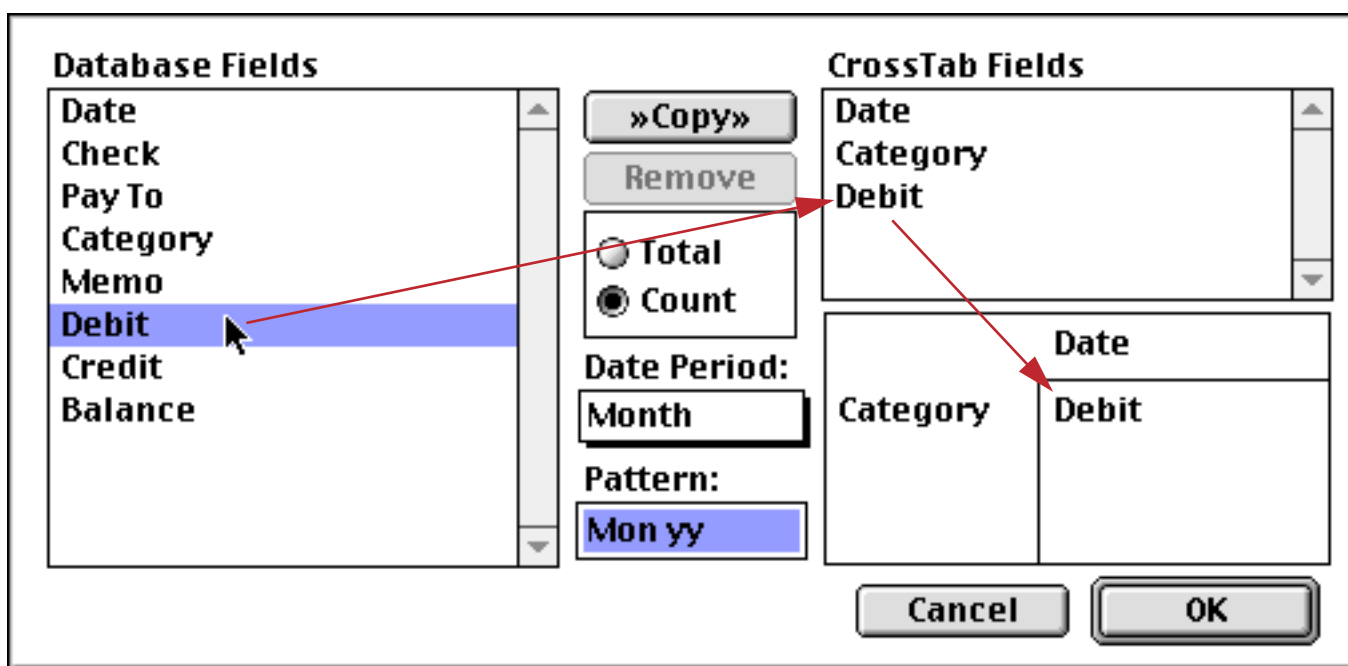
To separate the crosstab into one month per column use the pop-up menu to switch from **Day** to **Month**.



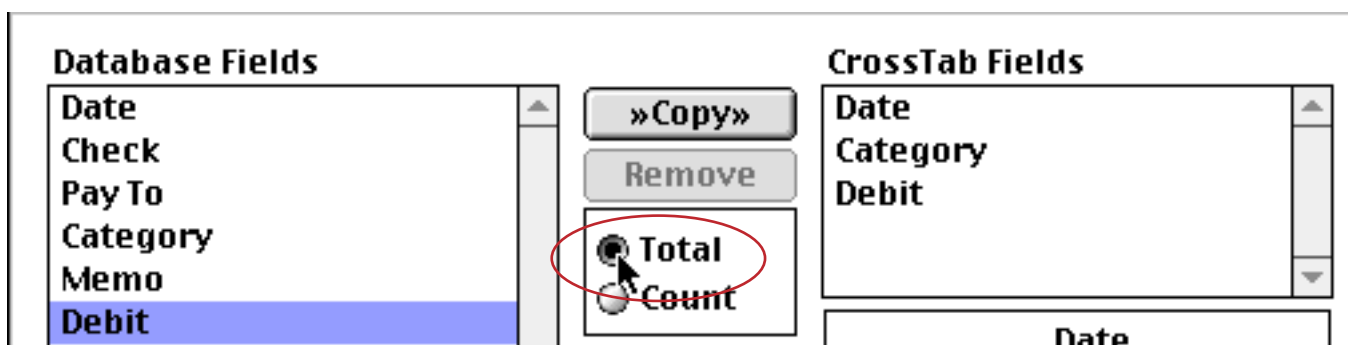
Next you need to specify the field that will appear down the left hand side of the crosstab table. Click on **Category** and then press the **»Copy»** button (or double click on **Category**).



Next you must specify what goes in the middle of the crosstab table. Click on **Debit** and then press the **»Copy»** button (or double click on **Debit**).



Finally, click the **Total** radio button so that the crosstab will add up the checks instead of counting them.



Press the **OK** button. Panorama will think for a few seconds, then the crosstab table will appear in a new window slightly below and to the right of the data sheet window (see “[Opening More Than One Window Per Database](#)” on page 303). The crosstab table displays a summary of the information in the database, showing categories down the left hand side and months across the top (see “[Crosstabs](#)” on page 493).

xtab	Jan 98	Feb 98	Mar 98	Apr 98
Advertising	1,114.85	3,874.92	2,202.67	2,631.00
DEPOSIT	0.00	0.00	0.00	0.00
Fixed Assets		1,974.81	1,363.94	727.11
Insurance	1,254.50	1,254.50	1,254.50	1,254.50
Legal				282.44
Office Supplies	614.01	938.45	1,043.33	752.83
Payroll	7,319.30	6,966.12	9,123.23	6,726.87
Purchases	4,106.41	2,135.08	3,447.93	1,961.64
Rent	1,580.00	1,580.00	1,580.00	1,580.00
Shipping	540.39	298.76	1,228.69	1,106.24
Telecom	423.19	514.61	454.94	451.65
Utilities	249.84	236.05	208.95	234.49
TOTAL	17,000.40	19,773.08	21,008.10	17,708.77

Just as with the Data Sheet you can adjust the text size and column widths of the crosstab table (see “[Adjusting Column Widths, Font and Size](#)” on page 13).

xtab	Jan 98	Feb 98	Mar 98	Apr 98	May 98	Jun 98	Jul 98
Advertising	1,114.85	3,874.92	2,202.67	2,631.00	2,396.43	2,653.66	1,198.08
DEPOSIT	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fixed Assets		1,974.81	1,363.94	727.11	2,828.50		
Insurance	1,254.50	1,254.50	1,254.50	1,254.50	1,254.50	1,254.50	1,254.50
Legal				282.44			
Office Supplies	614.01	938.45	1,043.33	752.83	321.54	481.47	690.04
Payroll	7,319.30	6,966.12	9,123.23	6,726.87	7,172.42	8,966.83	6,956.52
Purchases	4,106.41	2,135.08	3,447.93	1,961.64	2,380.31	2,567.58	2,264.56
Rent	1,580.00	1,580.00	1,580.00	1,580.00	1,580.00	1,580.00	1,580.00
Shipping	540.39	298.76	1,228.69	1,106.24	1,486.10	835.82	1,136.65
Telecom	423.19	514.61	454.94	451.65	417.80	402.95	530.83
Utilities	249.84	236.05	208.95	234.49	234.61	215.48	192.41
TOTAL	17,202.48	19,773.29	21,908.19	17,708.77	20,072.21	18,958.28	15,803.58

You can split the window into two separate panes by dragging the **splitter** to the right. The **splitter** is the small black rectangle to the left of the horizontal scroll bar (see “[Splitting a Window](#)” on page 278).

xtab	Jan 98	Feb 98	Mar 98	Apr 98	May 98	Jun 98	Jul 98
Advertising	1,114.85	3,874.92	2,202.67	2,631.00	2,396.43	2,653.66	1,198.08
DEPOSIT	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fixed Assets		1,974.81	1,363.94	727.11	2,828.50		
Insurance	1,254.50	1,254.50	1,254.50	1,254.50	1,254.50	1,254.50	1,254.50
Legal				282.44			
Office Supplies	614.01	938.45	1,043.33	752.83	321.54	481.47	690.04
Payroll	7,319.30	6,966.12	9,123.23	6,726.87	7,172.42	8,966.83	6,956.52
Purchases	4,106.41	2,135.08	3,447.93	1,961.64	2,380.31	2,567.58	2,264.56
Rent	1,580.00	1,580.00	1,580.00	1,580.00	1,580.00	1,580.00	1,580.00
Shipping	540.39	298.76	1,228.69	1,106.24	1,486.10	835.82	1,136.65
Telecom	423.19	514.61	454.94	451.65	417.80	402.95	530.83
Utilities	249.84	236.05	208.95	234.49	234.61	215.48	192.41
TOTAL	17,202.48	19,773.29	21,908.19	17,708.77	20,072.21	18,958.28	15,803.58

Once the window has been split in two you can horizontally scroll each pane separately. If you scroll all the way to the right you will see the overall totals for each category.

totals for each category

xtab	Jan 98	Feb 98	Mar 98	Nov 98	Dec 98	TOTAL
Advertising	1,114.85	3,874.92	2,202.67	2,607.82	2,528.52	30,011.38
DEPOSIT	0.00	0.00	0.00	0.00	0.00	0.00
Fixed Assets		1,974.81	1,363.94		1,063.90	10,222.66
Insurance	1,254.50	1,254.50	1,254.50	1,254.50	1,254.50	15,054.00
Legal				1,015.09		2,893.63
Office Supplies	614.01	938.45	1,043.33	415.42	349.14	7,425.49
Payroll	7,319.30	6,966.12	9,123.23	9,189.31	7,021.21	92,219.14
Purchases	4,106.41	2,135.08	3,447.93	2,930.92	2,501.53	29,666.43
Rent	1,580.00	1,580.00	1,580.00	1,580.00	1,580.00	18,960.00
Shipping	540.39	298.76	1,228.69	938.68	1,084.98	11,183.63
Telecom	423.19	514.61	454.94	468.80	449.00	5,450.39
Utilities	249.84	236.05	208.95	184.14	221.17	2,590.70
TOTAL	17,202.48	19,773.29	21,908.19	20,584.69	18,053.95	225,677.4

To learn more about crosstabs see “[Crosstabs](#)” on page 493.

Auditing the Crosstab Table

As you examine a crosstab you may find that you need to check out the backup detail behind a certain number. Doing this is easy—just click on the number and then click the **Select Original Data** tool. For example, suppose you want to see the individual checks written for purchases in November of 1998. Simply click on the **Nov 98 Purchases** cell and click on the tool.

My Checkbook

Date	Check	Pay To	Category	Memo	Debit	Credit
01/01/98		OPENING BALANCE	DEPOSIT			12,739.00
01/01/98	100	Sparkletts	Office Supplies		14.20	
01/01/98	101	Blue Cross	Insurance	Health Insurance group XBG-87:	975.00	
01/01/98	102	Valley Gas	Utilities	Heating	49.90	
01/01/98	103	AT&T	Telecom	Long Distance Phone Service	236.24	
01/01/98	104	Surf Networks	Telecom	DSL	50.00	
01/01/98	105	United Security	Utilities	Alarm	30.00	
01/01/98	106	UPS	Shipping		144.02	
01/01/98	107	Edison General	Utilities	January Electric	115.55	
01/01/98	108	City Services	Utilities	Water	54.39	
01/01/98	109	Pacific Properties	Rent	January Rent	1,580.00	

My Checkbook:XTABS:Monthly Spending

xtab	Jan 98	Feb 98	Mar 98	Nov 98	Dec 98	TOTAL
Advertising	1,114.85	3,874.92	2,202.67	2,607.82	2,528.52	30,011.38
Fixed Assets	0.00	0.00	0.00	0.00	0.00	0.00
Insurance	1,254.50	1,254.50	1,254.50	1,254.50	1,254.50	15,054.00
Legal				1,015.09		2,893.63
Office Supplies	614.01	938.45	1,043.33	415.42	349.14	7,425.49
Payroll	7,319.30	6,966.12	9,123.23	9,189.31	7,021.21	92,219.14
Purchases	4,106.41	2,135.08	3,447.93	2,930.92	2,501.53	29,666.43
Rent	1,580.00	1,580.00	1,580.00	1,580.00	1,580.00	18,960.00
Shipping	540.39	298.76	1,228.69	938.68	1,084.98	11,183.63
Telecom	423.19	514.61	454.94	468.80	449.00	5,450.39
Utilities	249.84	236.05	208.95	184.14	221.17	2,590.70
TOTAL	17,202.48	19,773.29	21,908.19	20,584.69	18,053.95	225,677.4

13 visible/13 total

After you click on the tool the data sheet shows the detail for the crosstab cell you clicked on, in this case the nine checks made for purchase in November of 1998.

The image shows two windows from the 'My Checkbook' application. The top window displays a list of checks, and the bottom window shows a detailed crosstab for the month of November 1998.

My Checkbook

Date	Check	Pay To	Category	Memo	Debit	Credit
11/09/98	501	Clark Supply	Purchases	Invoice 34449	182.69	182.69
11/09/98	502	Anderson Manufac	Purchases	Invoice 56817	417.19	417.19
11/09/98	506	Telon Productions	Purchases	Invoice 6559	277.19	277.19
11/16/98	508	Miller Industries	Purchases	Invoice 85486	125.37	125.37
11/23/98	515	Miller Industries	Purchases	Invoice 89312	387.50	387.50
11/23/98	517	Clark Supply	Purchases	Invoice 24343	302.72	302.72
11/23/98	519	Stamford Mfg	Purchases	Invoice 11089	366.13	366.13
11/30/98	521	Anderson Manufac	Purchases	Invoice 38234	646.73	646.73
11/30/98	524	Coast General	Purchases	Invoice 19839	225.40	225.40

My Checkbook:XTABS:Monthly Spending

xtab	Jan 98	Feb 98	Mar 98	Nov 98	Dec 98	TOTAL
Advertising	1,114.85	3,874.92	2,202.67	2,607.82	2,528.52	30,011.38
DEPOSIT	0.00	0.00	0.00	0.00	0.00	0.00
Fixed Assets		1,974.81	1,363.94		1,063.90	10,222.66
Insurance	1,254.50	1,254.50	1,254.50	1,254.50	1,254.50	15,054.00
Legal				1,015.09		2,893.63
Office Supplies	614.01	938.45	1,043.33	415.42	349.14	7,425.49
Payroll	7,319.30	6,966.12	9,123.23	9,189.31	7,021.21	92,219.14
Purchases	4,106.41	2,135.08	3,447.93	2,930.92	2,501.53	29,666.43
Rent	1,580.00	1,580.00	1,580.00	1,580.00	1,580.00	18,960.00
Shipping	540.39	298.76	1,228.69	938.68	1,084.98	11,183.63
Telecom	423.19	514.61	454.94	468.80	449.00	5,450.39
Utilities	249.84	236.05	208.95	184.14	221.17	2,590.70
TOTAL	17,202.48	19,773.29	21,908.19	20,584.69	18,053.95	225,677.4

You can use the **Select Original Data** tool with any cell in the crosstab. In this illustration it has been used to select all **Fixed Assets** regardless of month.

My Checkbook

Date	Check	Pay To	Category	Memo	Debit	Credit
02/16/98	162	Century Equipmen	Fixed Assets		1,974.81	14
03/23/98	211	Sun Computers	Fixed Assets		1,363.94	15
04/06/98	239	Matrix Office Furr	Fixed Assets		727.11	10
05/04/98	274	Sun Computers	Fixed Assets		1,223.27	14
05/18/98	287	Century Equipmen	Fixed Assets		1,055.48	13
05/25/98	291	Sun Computers	Fixed Assets		549.75	14
08/17/98	401	Micro Discount Wa	Fixed Assets		1,076.67	16
08/24/98	410	Century Equipmen	Fixed Assets		984.38	17
09/21/98	440	Matrix Office Furr	Fixed Assets		203.35	21
12/21/98	554	Century Equipmen	Fixed Assets		1,063.90	16

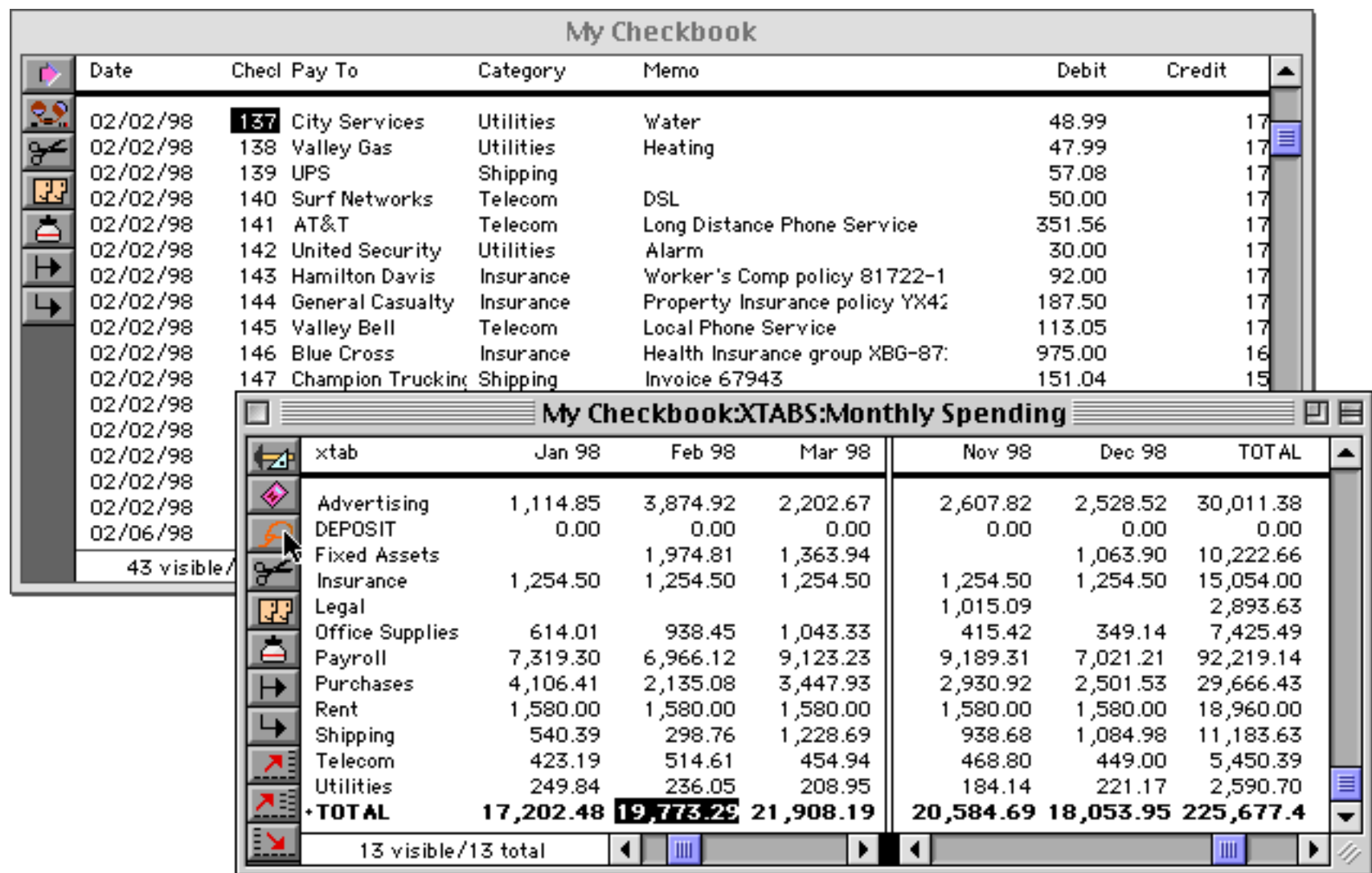
10 visible/

My Checkbook:XTABS:Monthly Spending

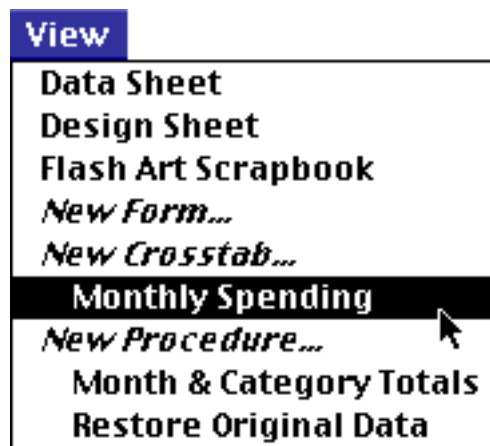
xtab	Jan 98	Feb 98	Mar 98	Nov 98	Dec 98	TOTAL
Advertising	1,114.85	3,874.92	2,202.67	2,607.82	2,528.52	30,011.38
DEPOSIT	0.00	0.00	0.00	0.00	0.00	0.00
Fixed Assets		1,974.81	1,363.94		1,063.90	10,222.66
Insurance	1,254.50	1,254.50	1,254.50	1,254.50	1,254.50	15,054.00
Legal				1,015.09		2,893.63
Office Supplies	614.01	938.45	1,043.33	415.42	349.14	7,425.49
Payroll	7,319.30	6,966.12	9,123.23	9,189.31	7,021.21	92,219.14
Purchases	4,106.41	2,135.08	3,447.93	2,930.92	2,501.53	29,666.43
Rent	1,580.00	1,580.00	1,580.00	1,580.00	1,580.00	18,960.00
Shipping	540.39	298.76	1,228.69	938.68	1,084.98	11,183.63
Telecom	423.19	514.61	454.94	468.80	449.00	5,450.39
Utilities	249.84	236.05	208.95	184.14	221.17	2,590.70
TOTAL	17,202.48	19,773.29	21,908.19	20,584.69	18,053.95	225,677.4

13 visible/13 total

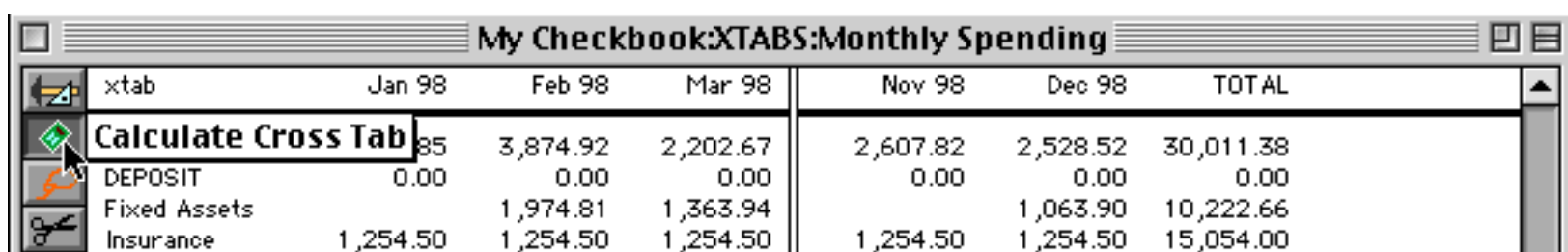
If you click on one of the cells in the bottom line and use the **Select Original Data** tool Panorama will select an entire month of checks, in this case all 43 checks written in February of 1998.



When you are done with the crosstab close the window and, if necessary, use **Select All** in the Search menu to make all the records in the data sheet visible again (see “[Selecting All Records](#)” on page 25). You can open the crosstab again later using the View menu.



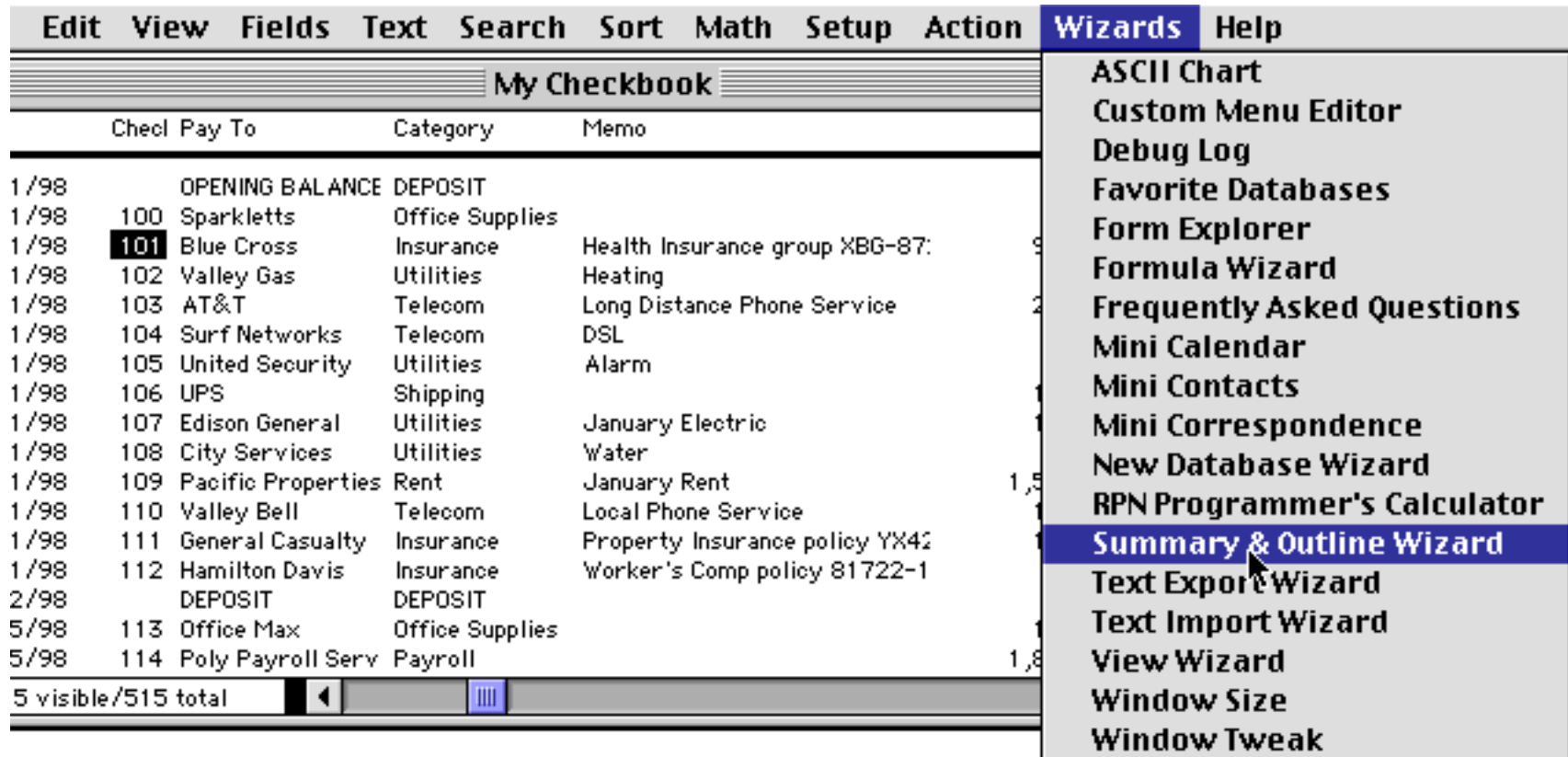
If the data has changed use the Calculate Crosstab tool to re-calculate the table values.



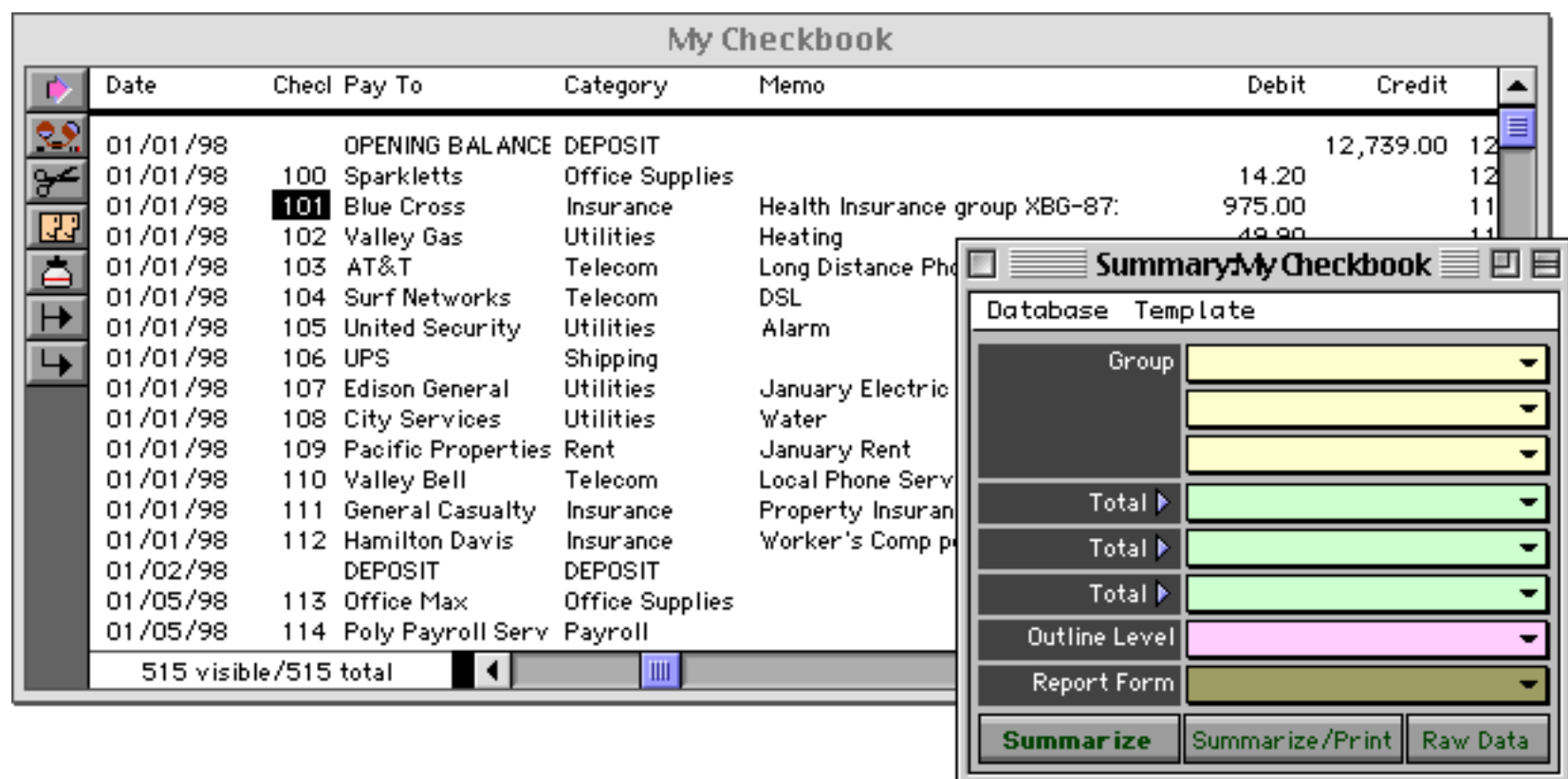
To learn more about crosstabs see “[Crosstabs](#)” on page 493.

Making a Bar Chart

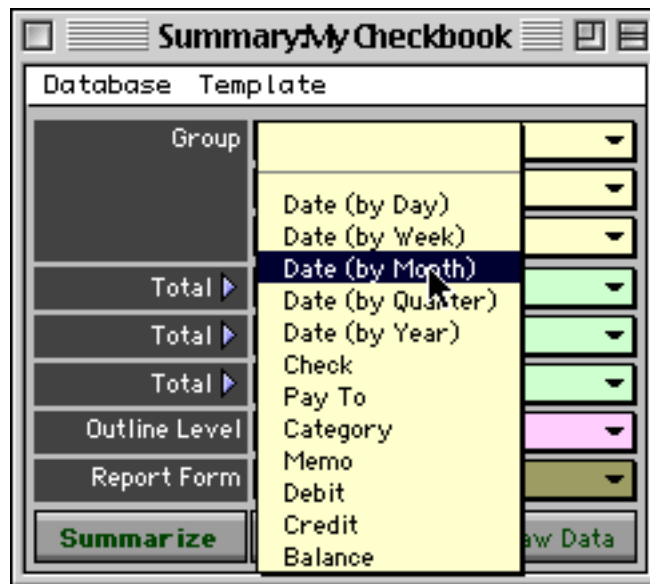
Someone once said that a chart is worth a thousand numbers. Ok, that's not quite what they said, but let's create a chart anyway. Charts are usually displayed from summary records in the database (see "[Calculating Subtotals](#)" on page 82). These can be created with the **Group** and **Total** commands you learned about before. They can also be created with the **Summary & Outline Wizard**. To open this wizard choose **Summary & Outline Wizard** from the Wizard menu.



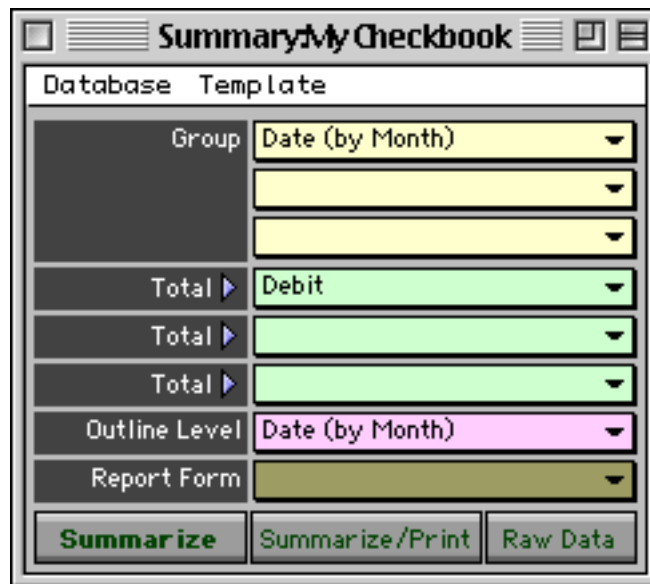
The wizard contains eight pop-up menus that allow you to specify how to summarize the database.



We'll make a chart to display spending per month, so choose **Date (by Month)** from the first **Group** pop-up menu.



Using the pop-up menus set the first **Total** option to **Debit** and the **Outline Level** to **Date (by Month)**.



When these three options are set up press the **Summarize** button. Panorama will group, total, and collapse the database just as if you had performed these operations manually (see “[Calculating Subtotals](#)” on page 82 and “[Hiding and Showing Detail](#)” on page 86). To learn more about this wizard see “[The Summaries & Outlines Wizard](#)” on page 483.

Date	Check Pay To	Category	Memo	Debit	Credit
+01/30/98				17,202.48	
+02/27/98				19,773.29	
+03/30/98				21,908.19	
+04/27/98				17,708.77	
+05/29/98				20,072.21	
+06/29/98				18,958.28	
+07/31/98				15,803.58	
+08/31/98				21,410.34	
+09/28/98				16,210.08	
+10/30/98				17,991.62	
+11/30/98				20,584.69	
+12/28/98				18,053.95	
+				225,677.47	

View: J:\wiz\1998\1998total.

The next step in building a chart is to create a new form. If you are using a Windows PC hold down the **Alt** key, if you are using a Macintosh hold down the **Control** key. Either way, select **New Form** from the View menu (see “[Creating a New Form](#)” on page 545).



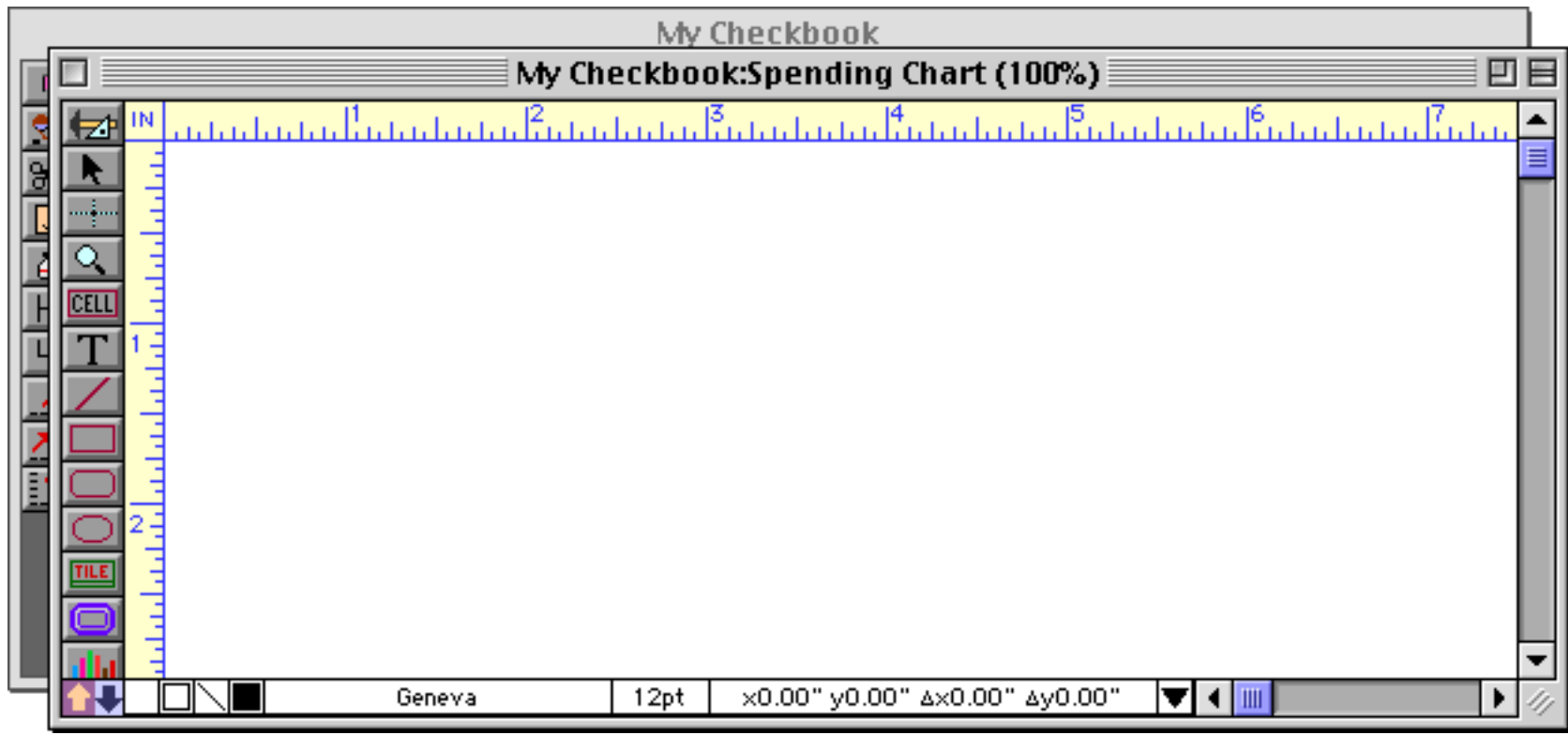
You know the drill by now — type in the name of the new form (up to 25 characters).

Create New Form... Insert before:

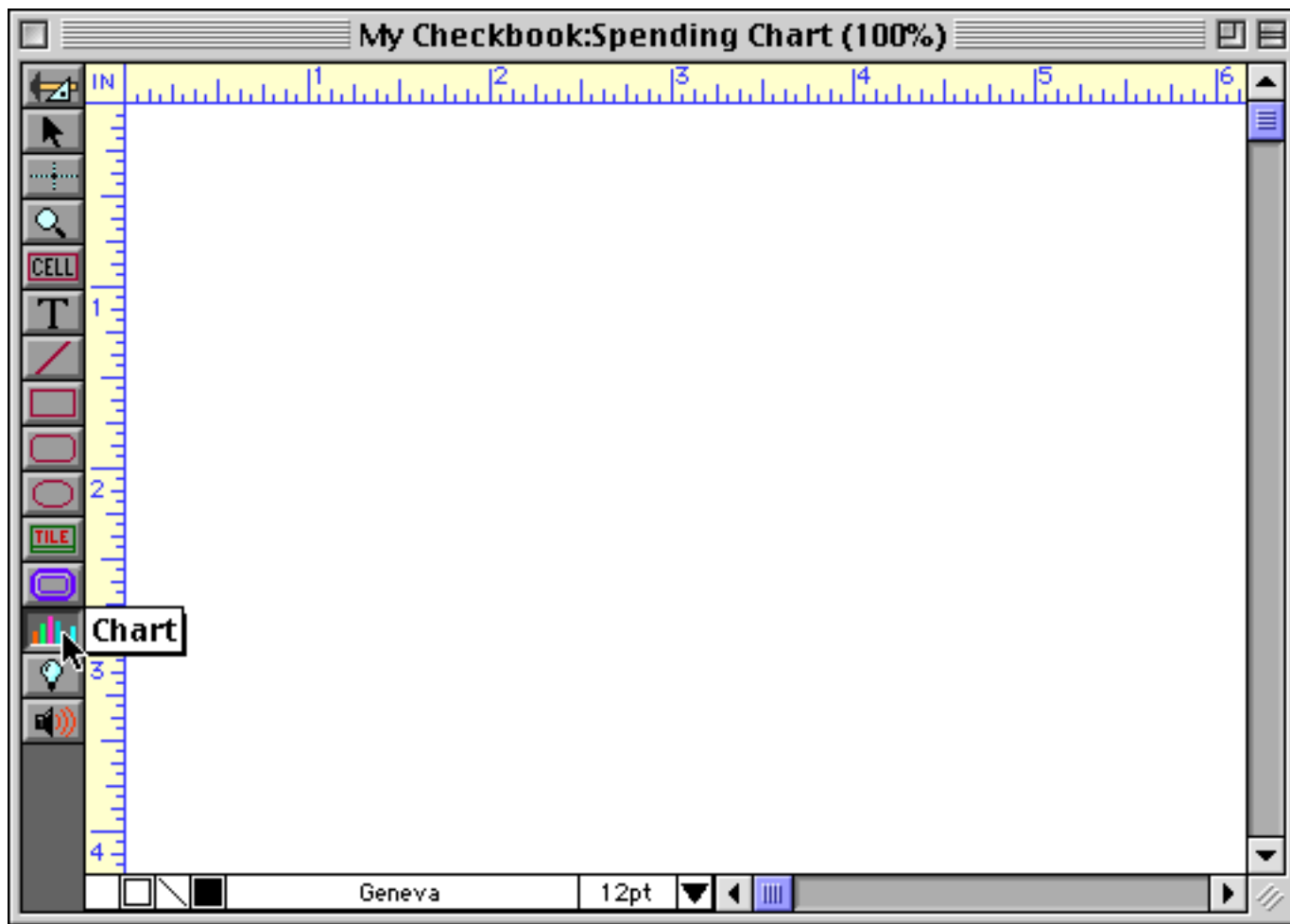
Spending Chart

Cancel Blank Form Quick Label Quick Report

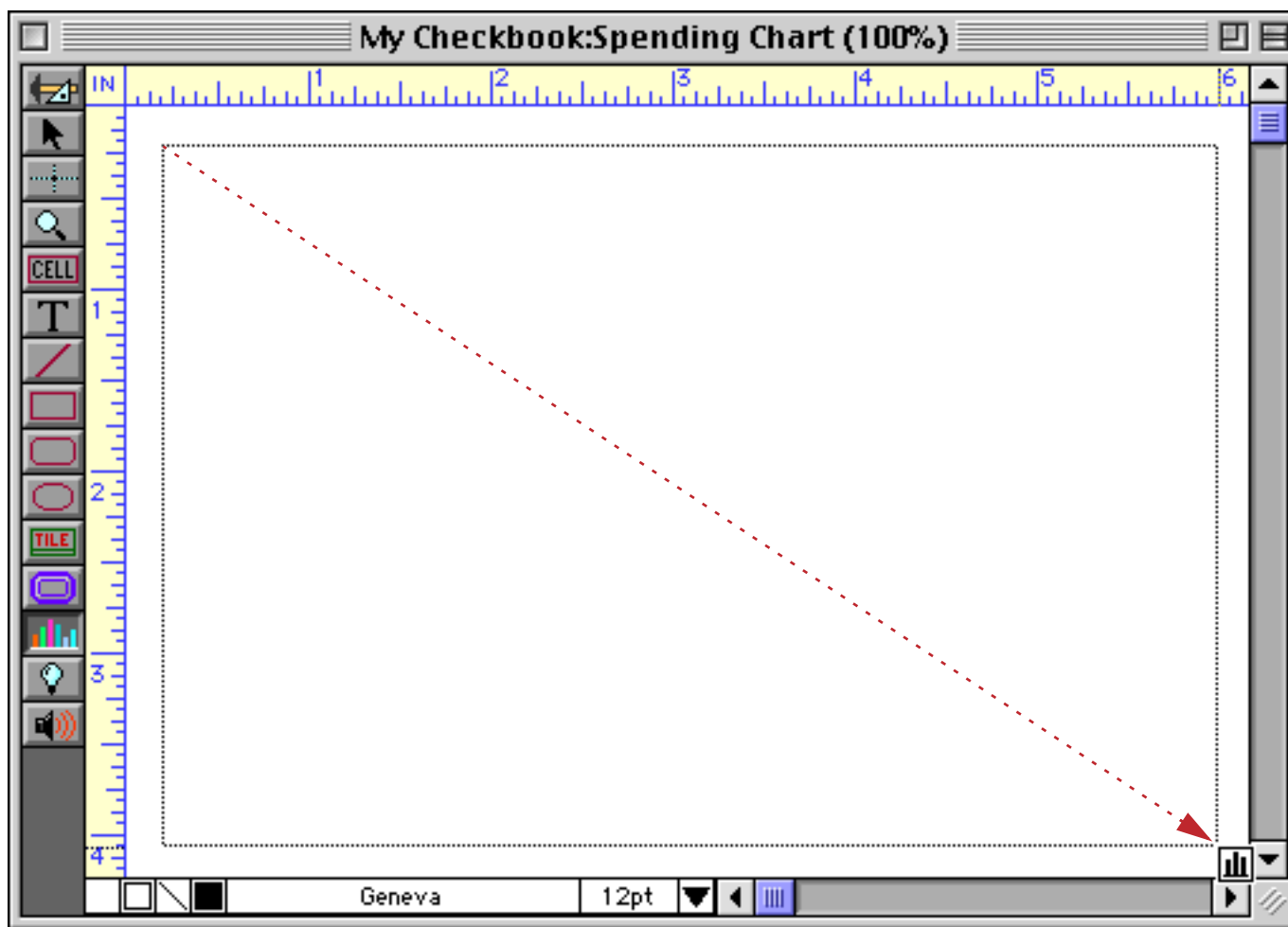
Press the **Blank Form** button to create the new form.



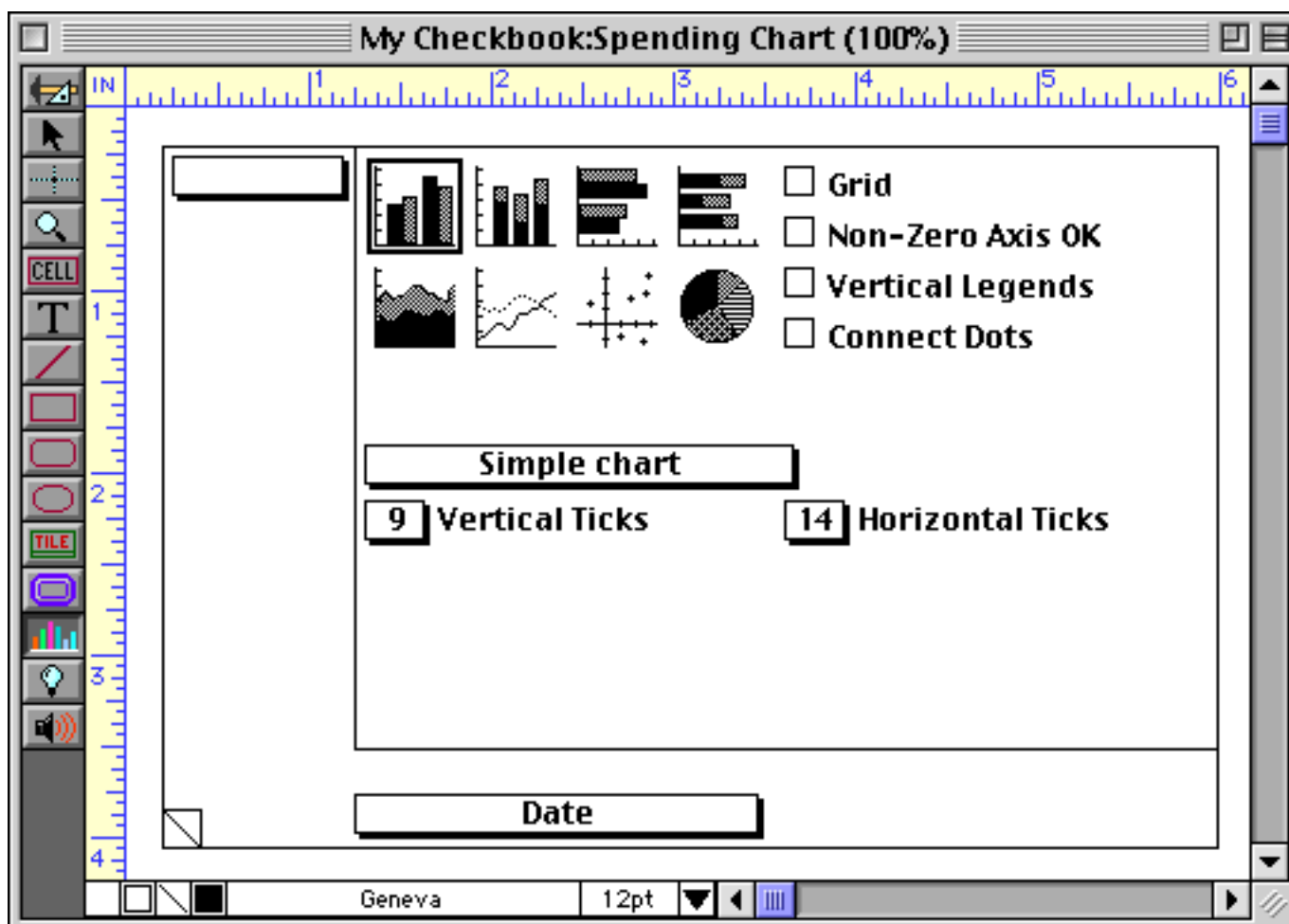
Adjust the window size to approximately the size of the chart you want to make, then click on the **Chart** tool.



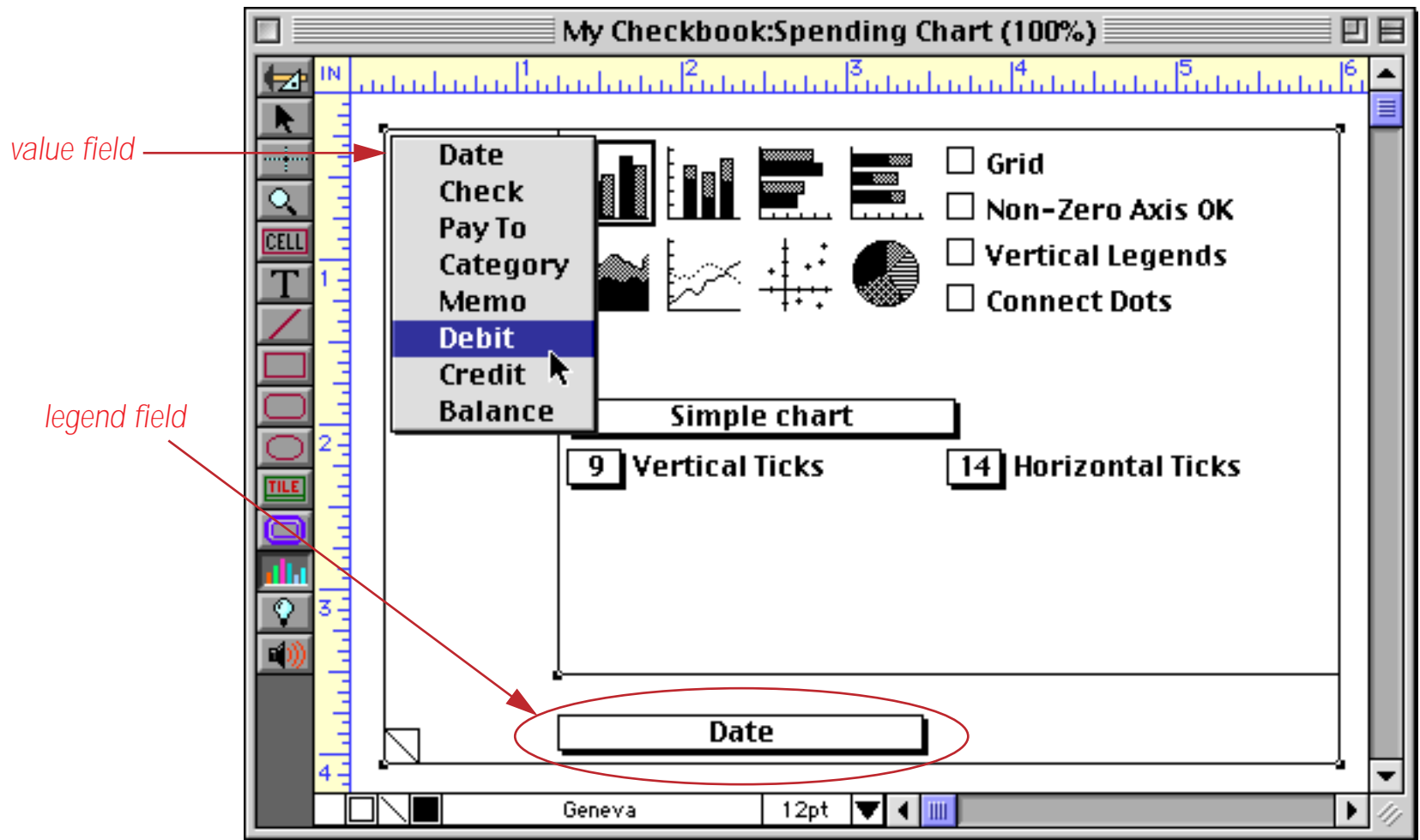
Move the mouse over the form and then drag from corner to corner to create the chart, just as you would to create a rectangle or a data cell.



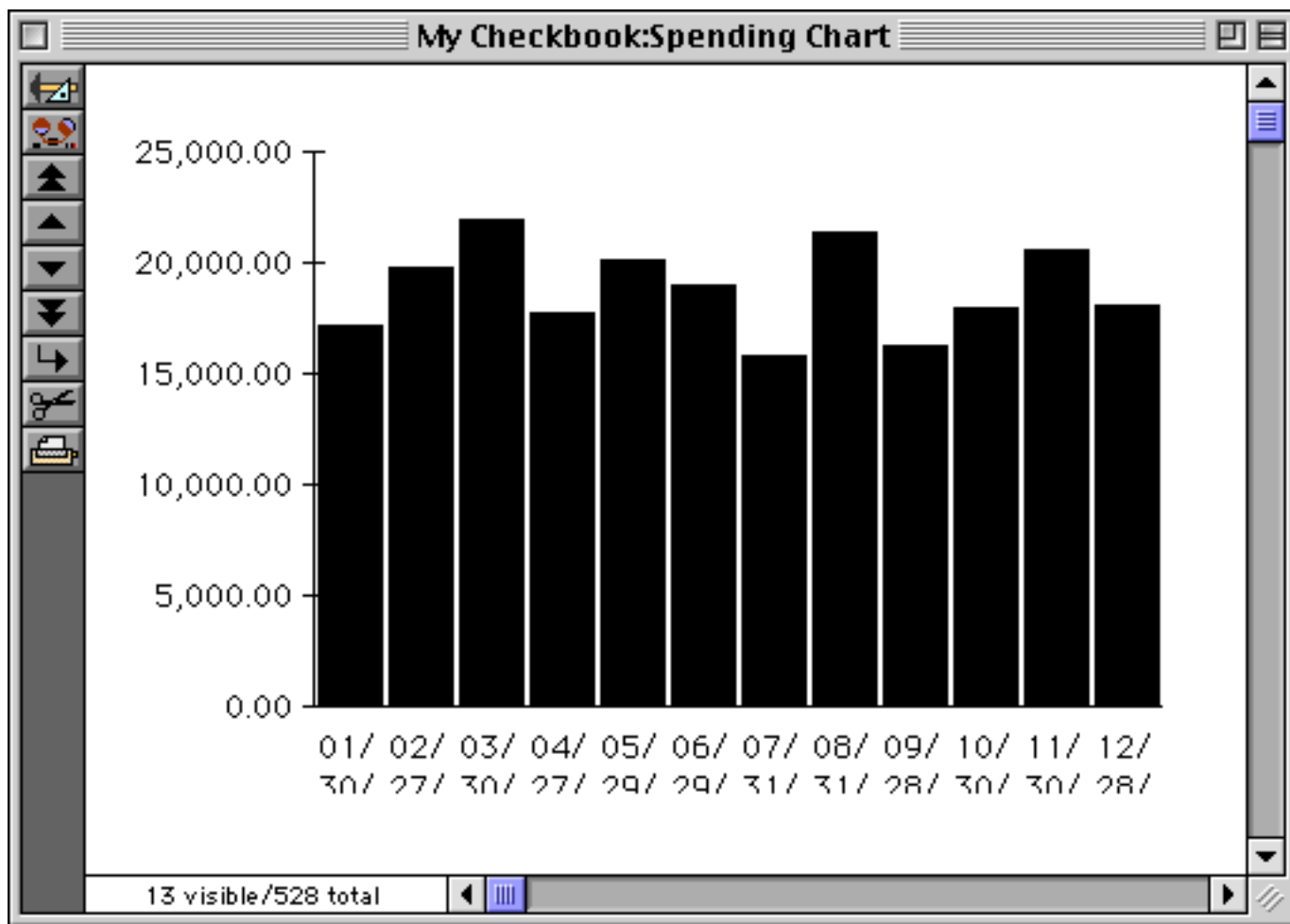
Your new chart doesn't look much like a chart yet, in fact it looks more like a dialog!



The buttons and pop-up menus in the dialog allow you to configure the chart. At a minimum, you must select a legend field and at least one value field (see “[Setting Up Legend and Value Fields](#)” on page 1006). In this case the legend field is already set to **Date**. Use the pop-up menu to set the value field to **Debit**.

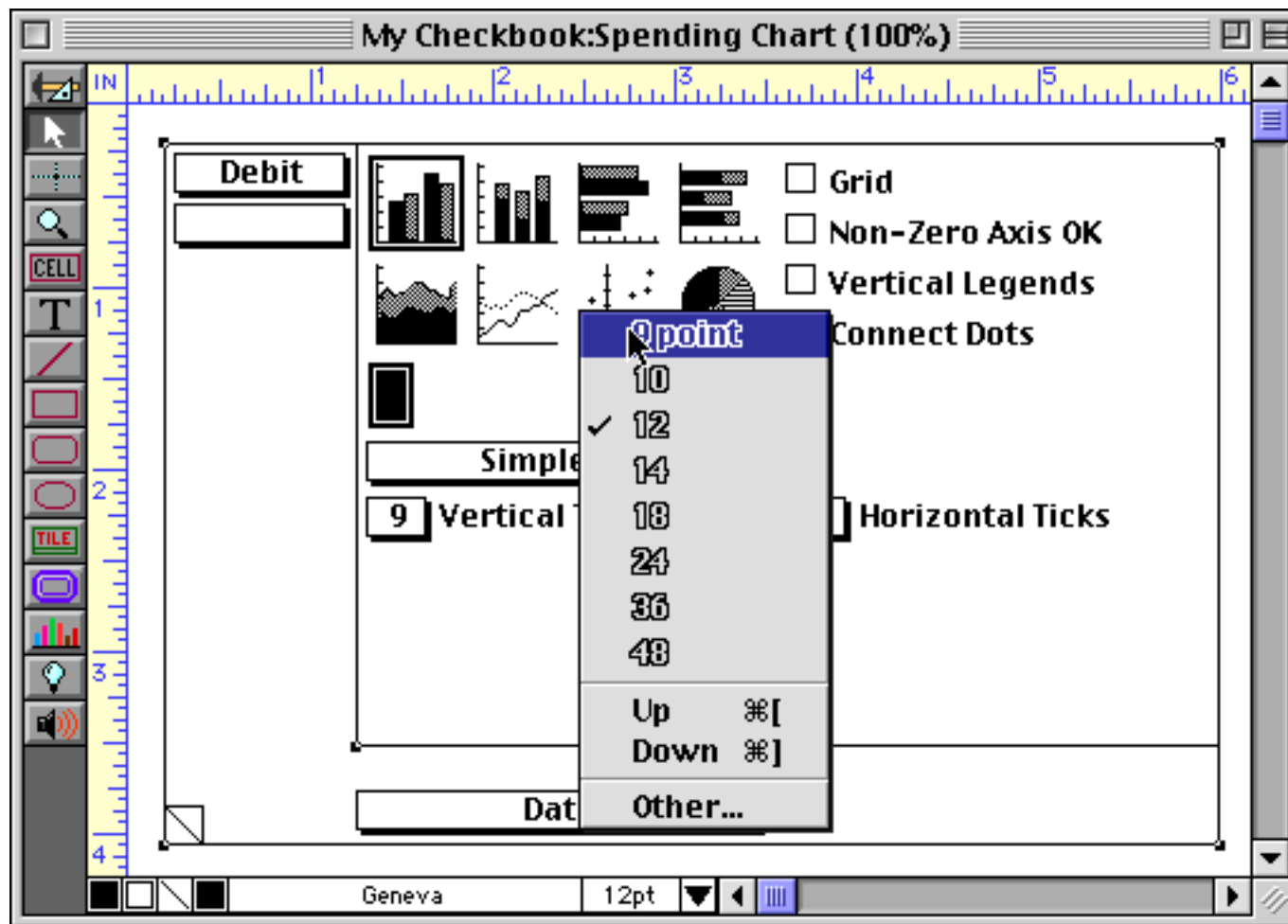


Switch to **Data Access Mode** to see the actual chart (see “[Form Modes: Data Access vs. Graphic Design](#)” on page 543).

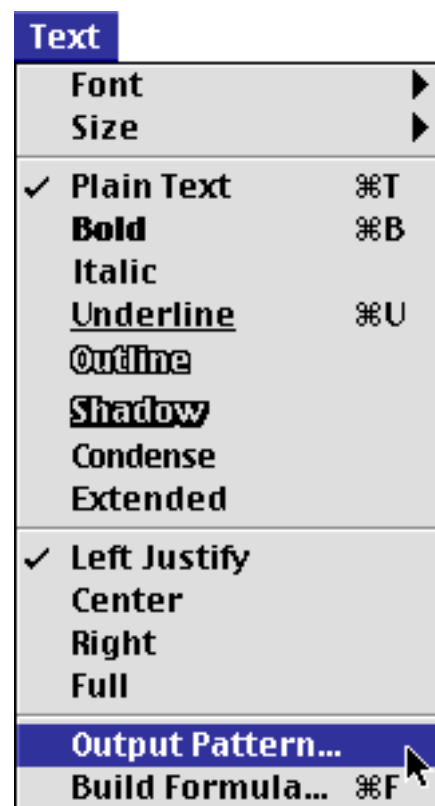


Customizing the Chart Appearance

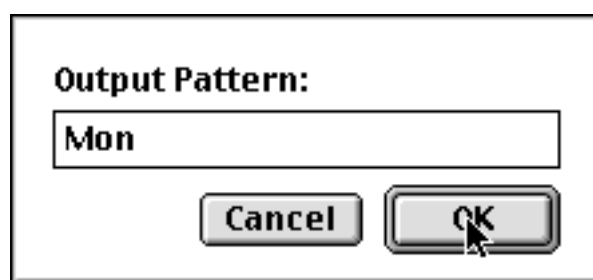
Let's dress up the chart a little bit. To do that switch back to **Graphic Design Mode** (see "[Form Modes: Data Access vs. Graphic Design](#)" on page 543). Then click on the chart and change the font size to 9 point.



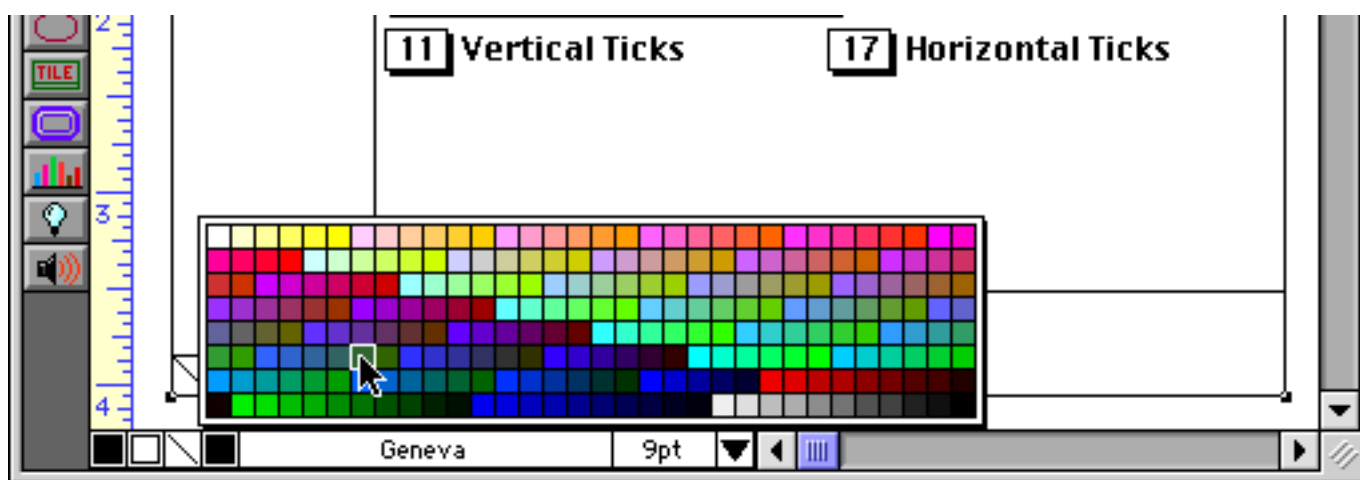
Now select the **Output Pattern** command from the Text menu.



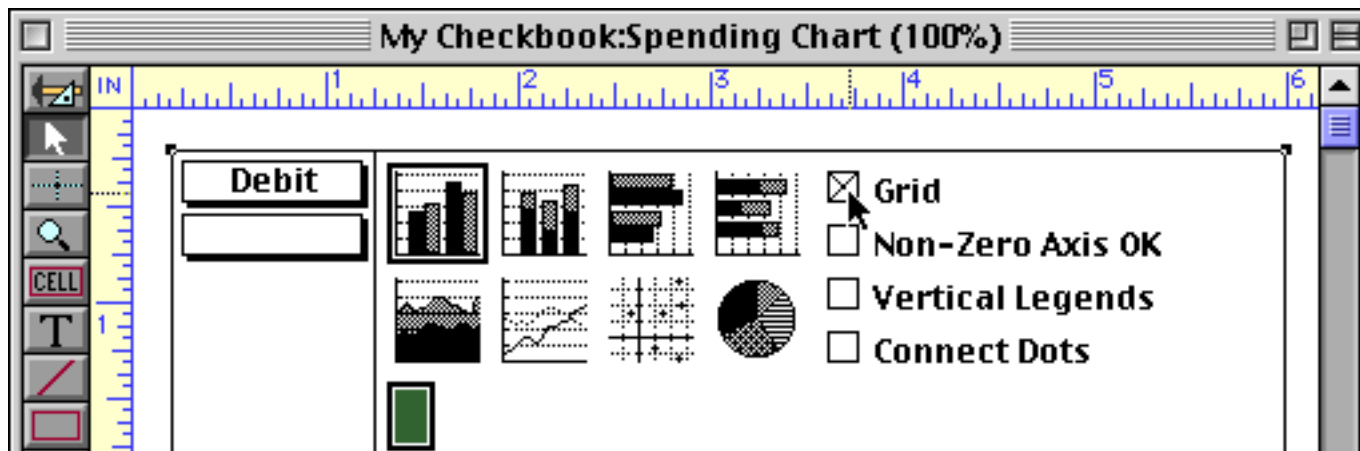
This command allows you to specify how the dates in the chart legend will be displayed. To display just the abbreviated month name (**Jan, Feb, Mar**, etc.) type in **Mon** (see “[Date Output Patterns](#)” on page 361).



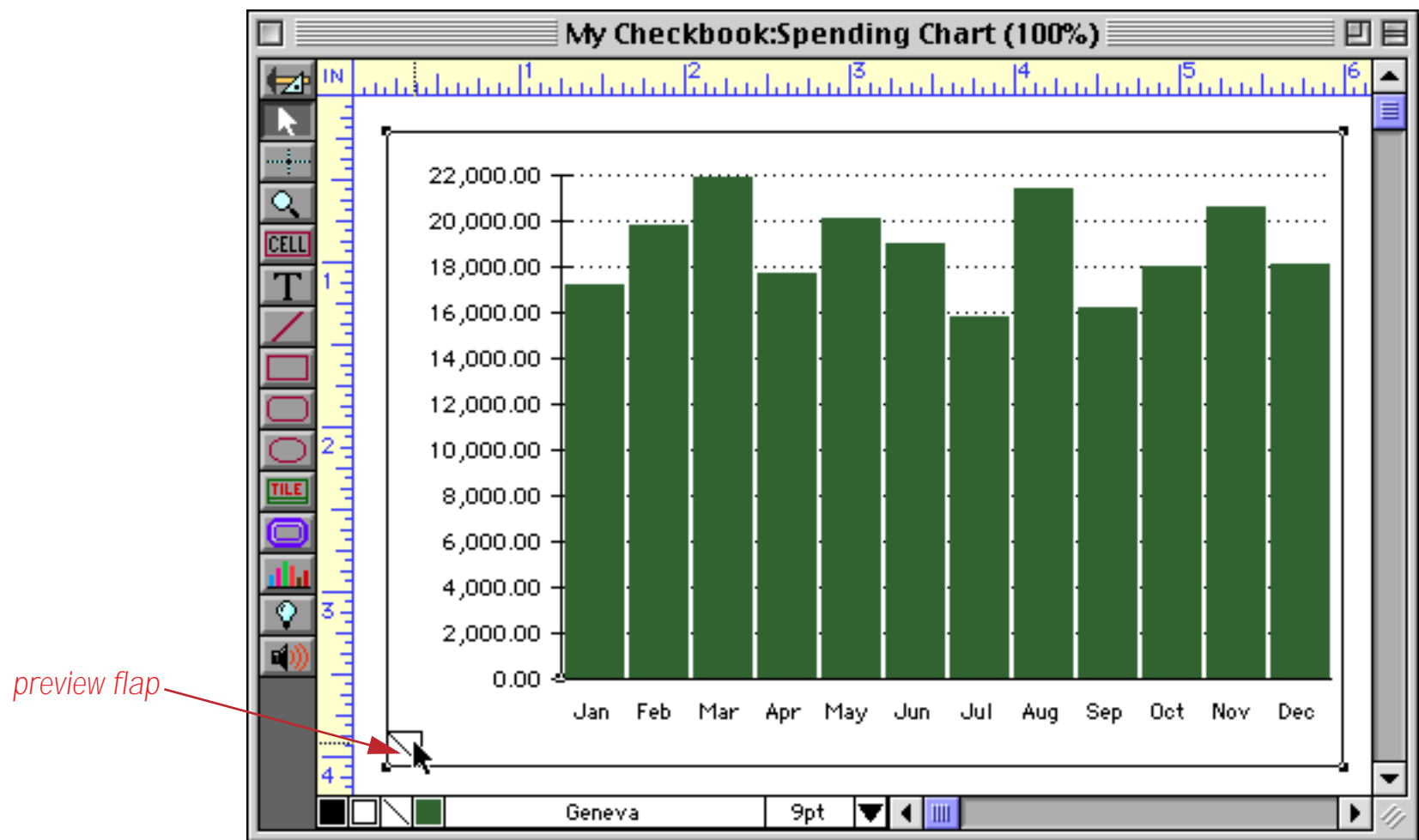
Use the color pop-up menu to select a different color for the chart bars (see “[Graphic Attribute Icons](#)” on page 1025).



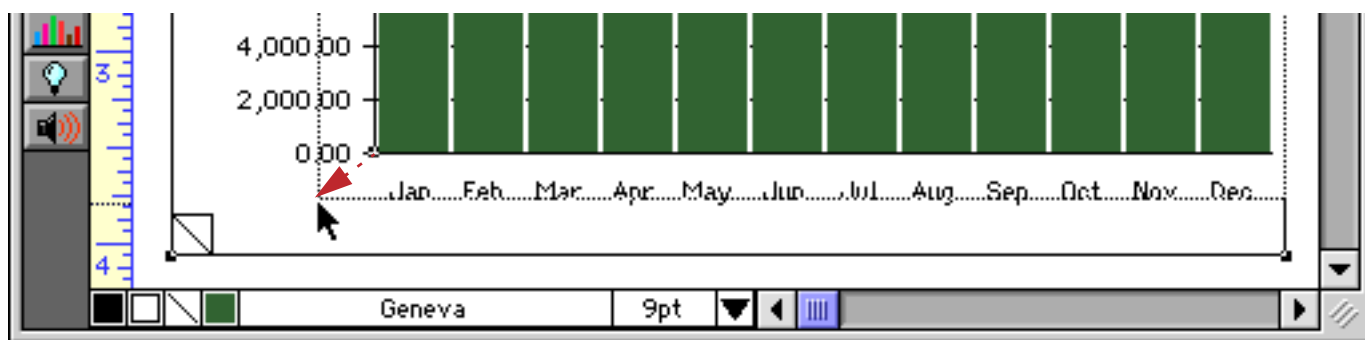
Click on the **Grid** option to display a dotted line from each tick mark.



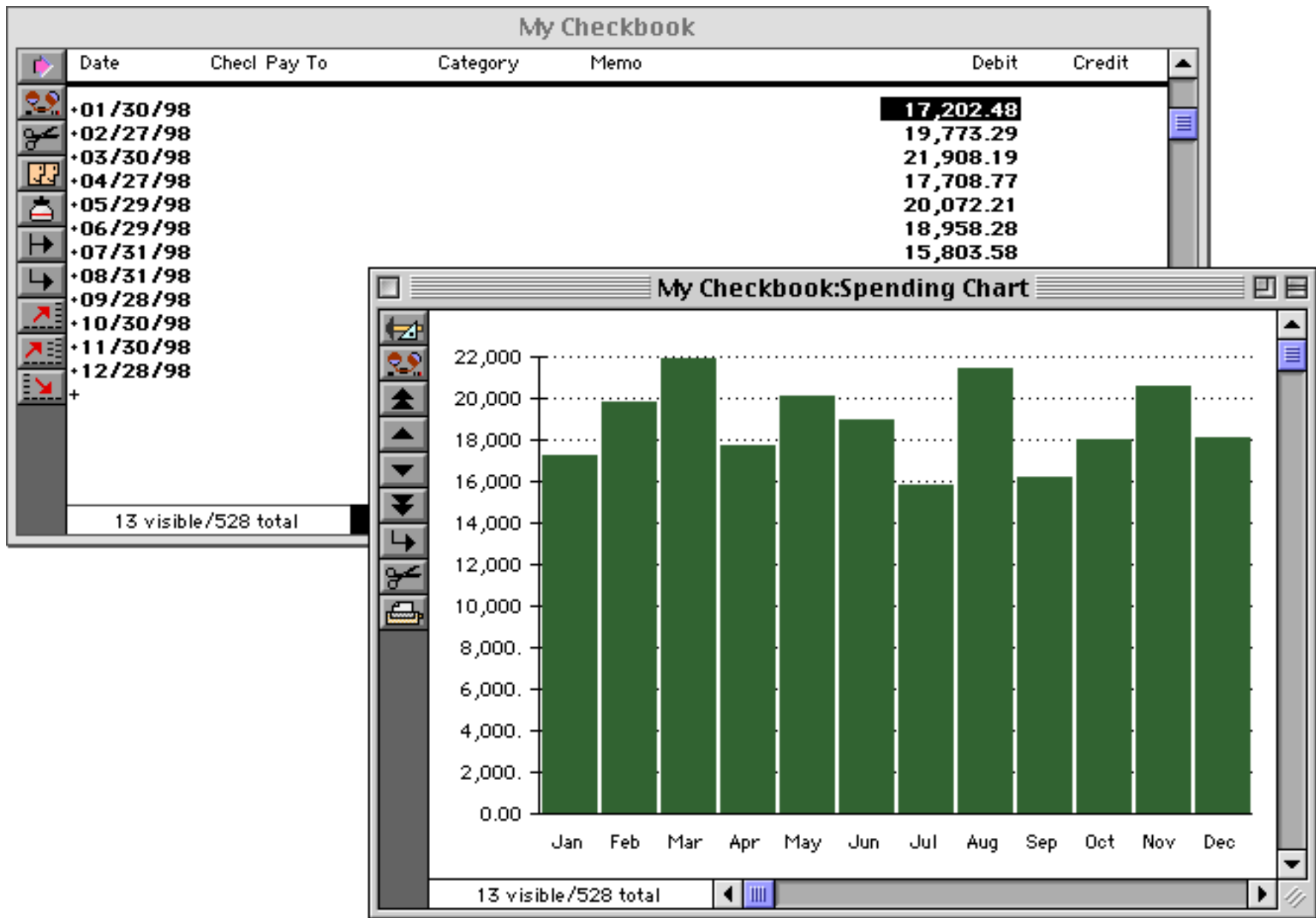
To preview the chart's appearance without going into Data Access Mode click on the **preview flap** in the lower left hand corner of the chart object. The preview flap is the small triangle that looks like a turned up page corner.



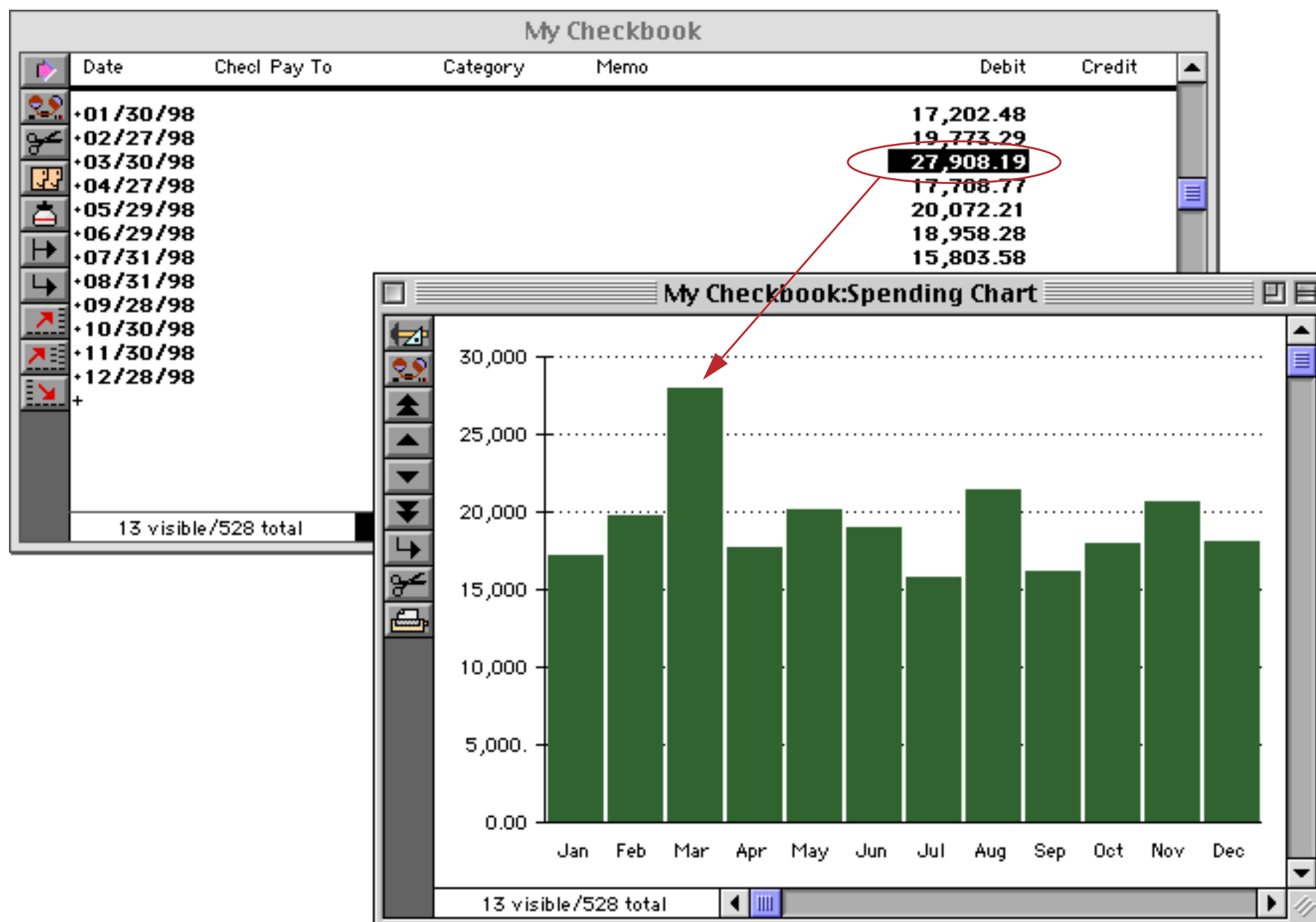
When in the preview mode you can use the extra fifth chart handle to adjust the margin where the chart legends appear.



When the form is switched to Data Access Mode the chart will immediately show any changes made to the database.



For example if you edit the summary value for March 1998 the chart will immediately update to reflect that change (of course it usually doesn't make any sense to edit a summary value like this). In the illustration shown below the summary value has been increased from 21908.19 to 27908.19.



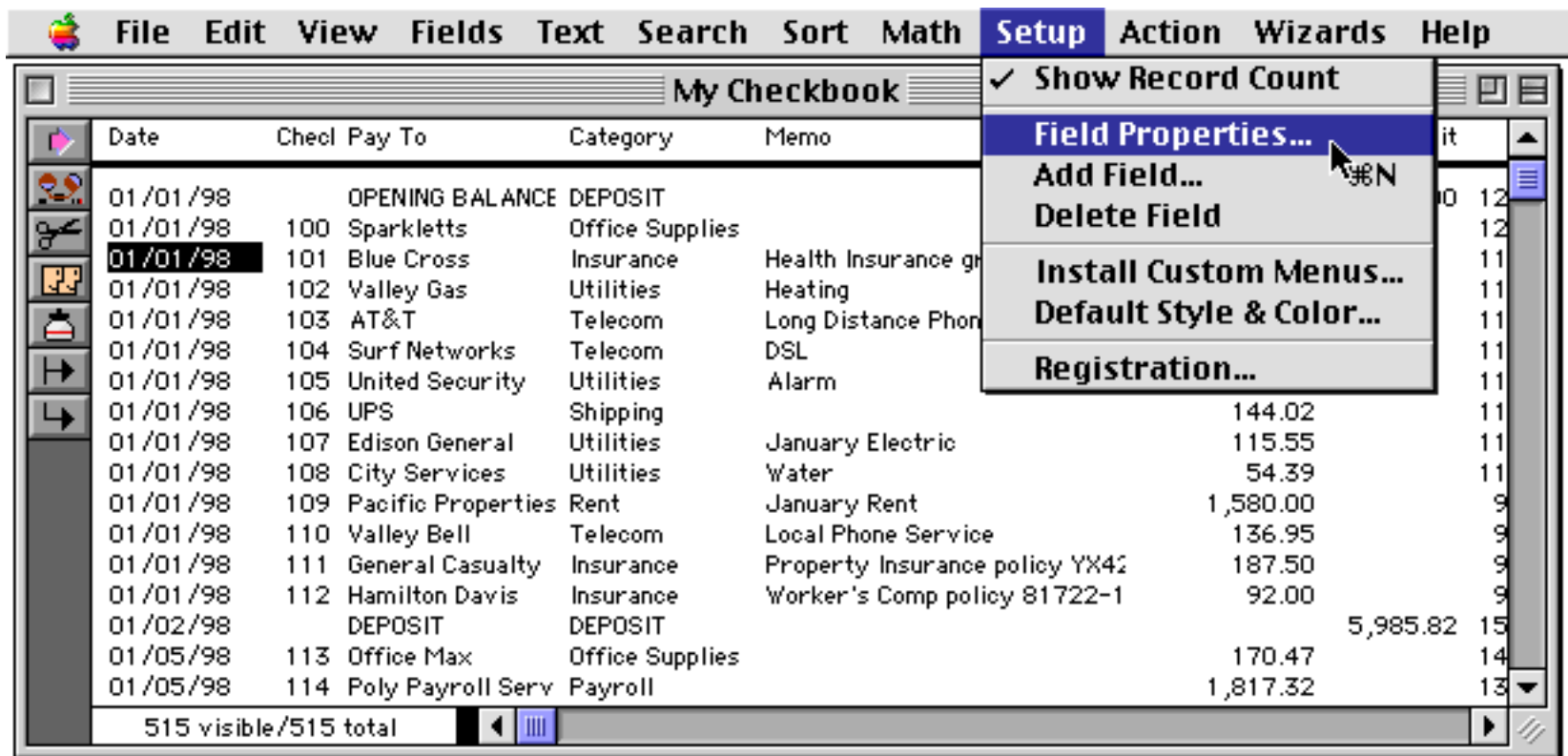
We're finished with the chart, so close the window. Choose **Restore Original Data** from the Action menu, then **Save** the database. To learn more about charts see "[Charts](#)" on page 1001.

Data Entry Helpers

Now let's switch gears. Before you can analyze data you have to get the data into the database, and that usually means data entry with the keyboard. This job is never easy, but Panorama does have tools that can make data entry faster and less error prone. The next few sections will look at how the data entry process can be improved for each of the fields in the checkbook database.

Dates

The first field in the database contains the check date. You can modify the database to default to today's date when a new check is created. Start by clicking anywhere in the **Date** field and then choose the **Field Properties** dialog from the Setup menu (see "[Field Properties](#)" on page 330). (You can also open this dialog by double clicking on the field name at the top of the column.)



The **Field Properties** dialog allows you to modify many of the attributes of each field. The **New Database Wizard** has already set up some of the options in this dialog, including the **Field Name** and the **Type**.

Field Properties

Field Name

Type Digits

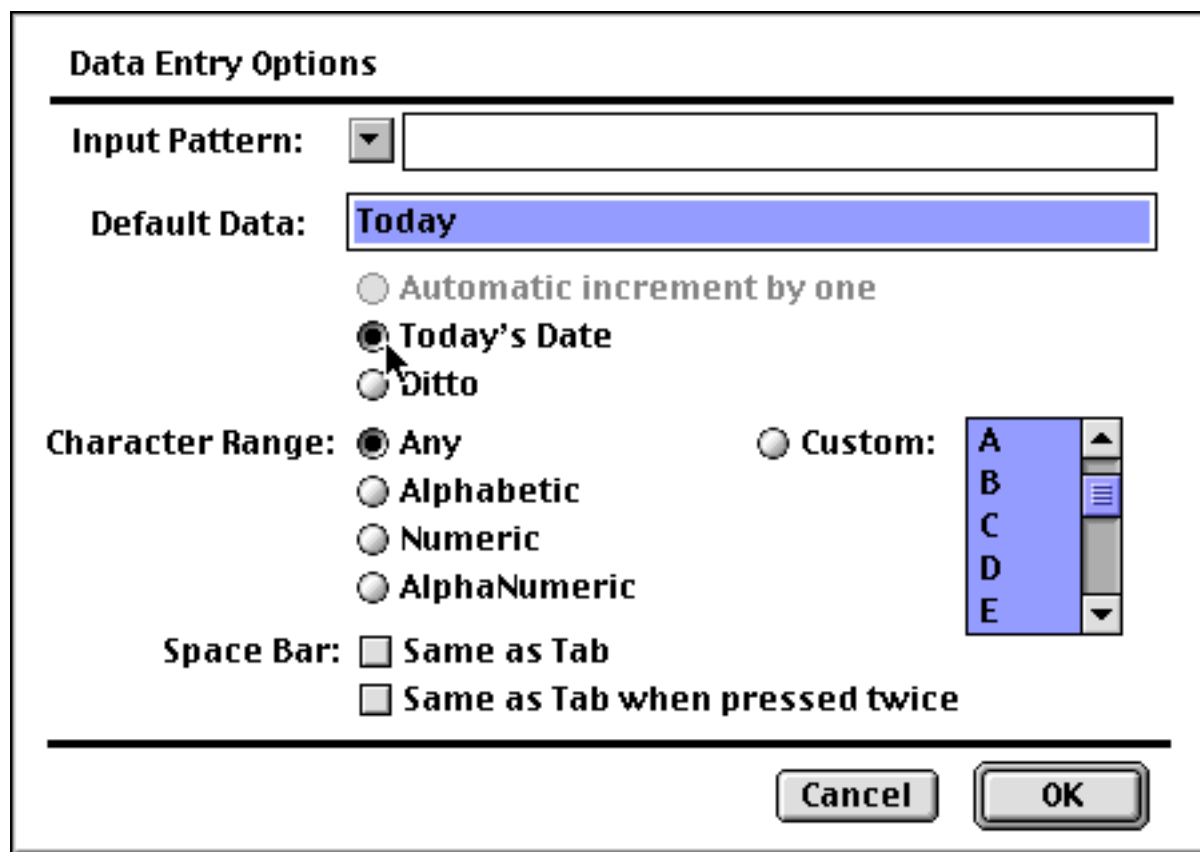
Alignment

Auto Capitalize

Duplicates

Clairvoyance

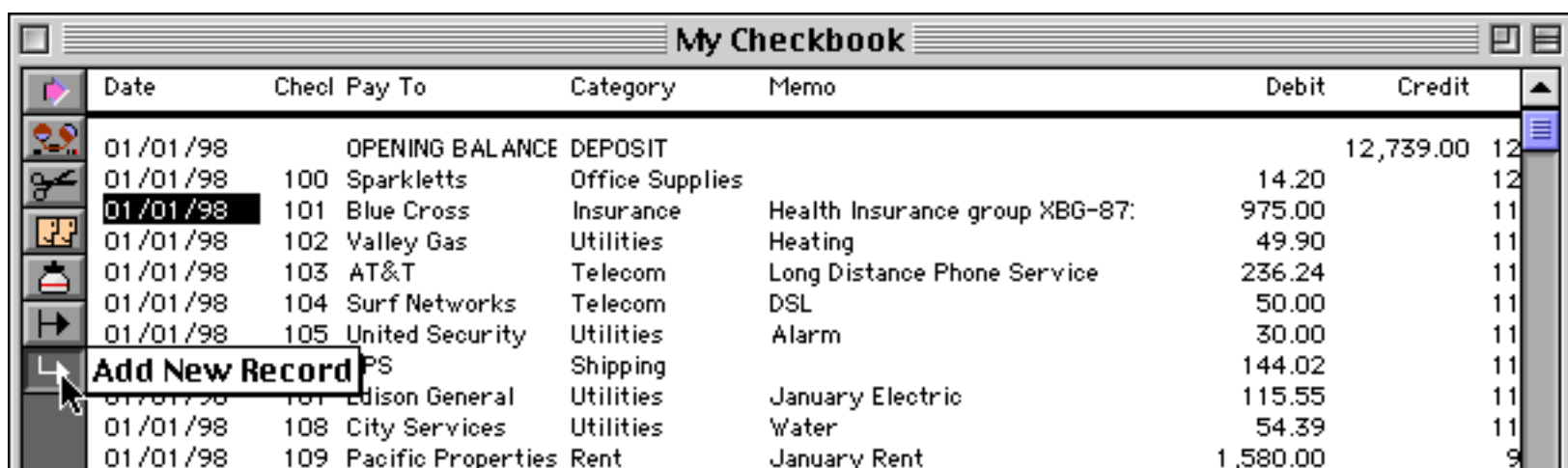
To set up the default value for this field press the **Data Entry...** button. The Data Entry options dialog has several radio buttons for different default values — click the **Today's Date** option.



The dialog box is titled "Data Entry Options". It contains the following fields and options:

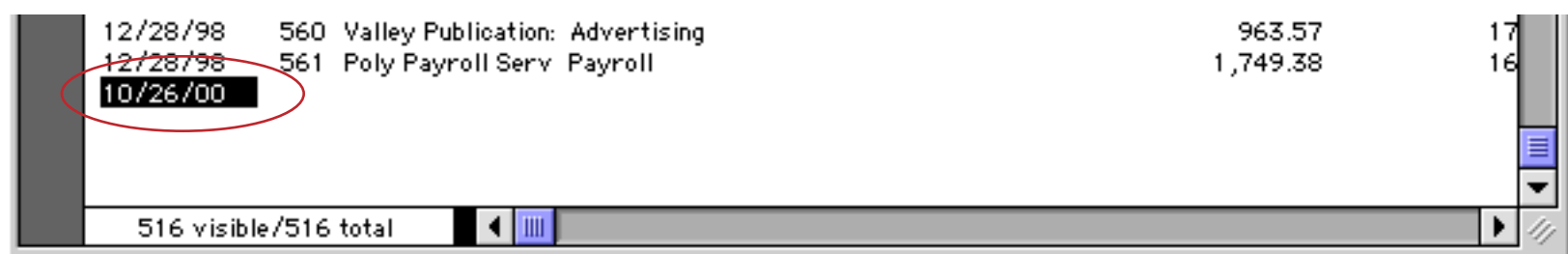
- Input Pattern:** A dropdown menu.
- Default Data:** A list box with "Today" selected.
- Character Range:** Radio buttons for "Any" (selected), "Alphabetic", "Numeric", and "AlphaNumeric".
- Custom:** A radio button next to a list box containing "A", "B", "C", "D", and "E".
- Space Bar:** Checkboxes for "Same as Tab" and "Same as Tab when pressed twice".
- Buttons:** "Cancel" and "OK" at the bottom right.

After you click this option press this **OK** button twice to get back to the data sheet. Then press the Add New Record tool (or select Add New Record from the Edit menu).



Date	Check	Pay To	Category	Memo	Debit	Credit
01/01/98		OPENING BALANCE	DEPOSIT			12,739.00
01/01/98	100	Sparkletts	Office Supplies		14.20	
01/01/98	101	Blue Cross	Insurance	Health Insurance group XBG-87:	975.00	
01/01/98	102	Valley Gas	Utilities	Heating	49.90	
01/01/98	103	AT&T	Telecom	Long Distance Phone Service	236.24	
01/01/98	104	Surf Networks	Telecom	DSL	50.00	
01/01/98	105	United Security	Utilities	Alarm	30.00	
01/01/98	106	PS	Shipping		144.02	
01/01/98	107	Edison General	Utilities	January Electric	115.55	
01/01/98	108	City Services	Utilities	Water	54.39	
01/01/98	109	Pacific Properties	Rent	January Rent	1,580.00	

The new check automatically defaults to today's date.



12/28/98	560	Valley Publication: Advertising			963.57	
12/28/98	561	Poly Payroll Serv	Payroll		1,749.38	
10/26/00						

516 visible/516 total

Smart Dates

Panorama is very flexible about how you type dates. We call this feature “smart dates.” You can enter dates numerically (for instance **04/09/02** or **4/9/2**) or you can spell out the date (for instance **April 9th, 1997** or **Apr 9 97**). You can use any character as a separator between numeric dates, for example **4-9-01** or even **4.9.01**.

To enter today’s date, simply type **today**. You can also enter **yesterday** or **tommorow**. Panorama will automatically convert these entries to the correct month, day and year.

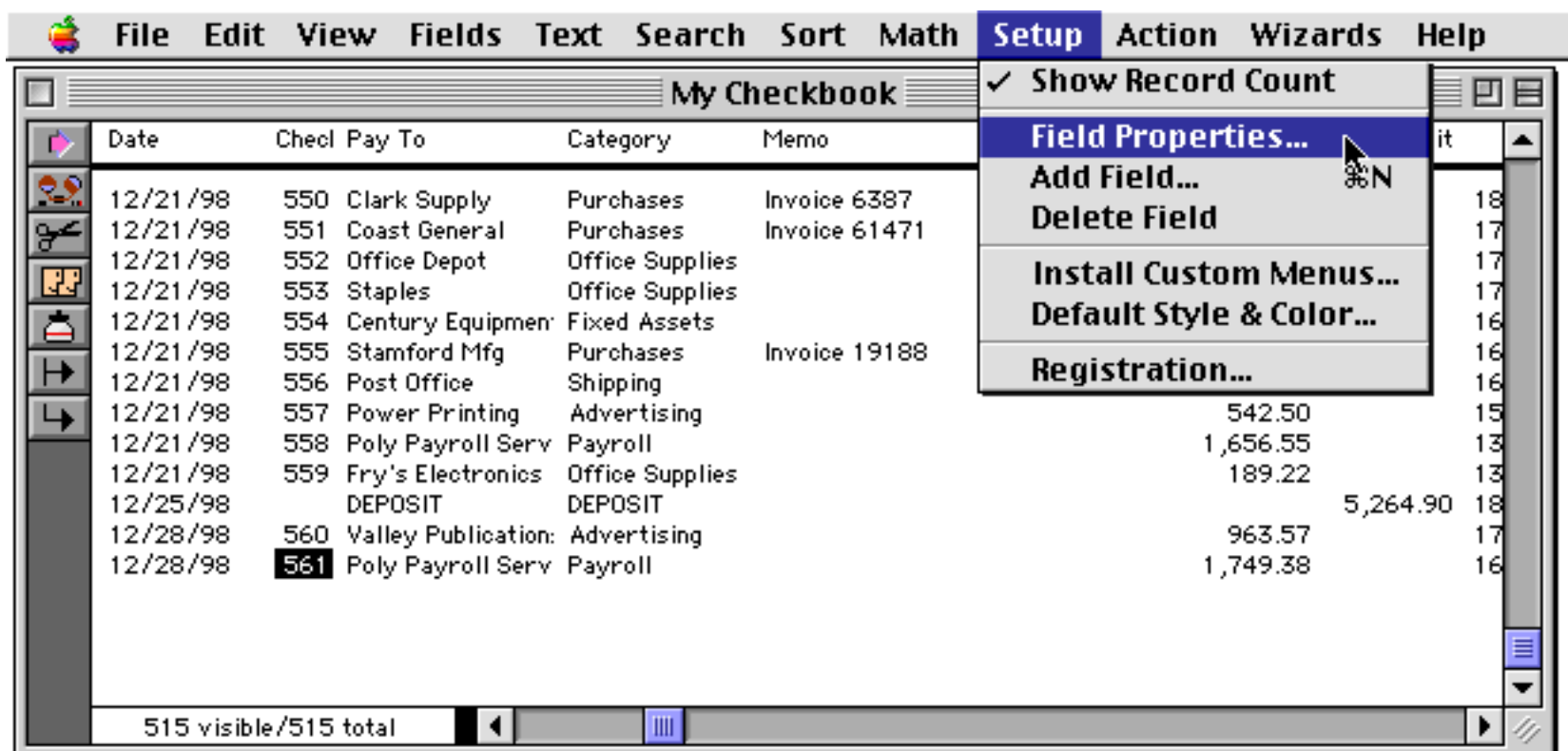
If the date is in the current week, you can simply type in the name of the day, for example **saturday** or **tue**. To specify a day in the previous or upcoming weeks add the words **last** or **next**, for example **next tuesday** or **last saturday**.

Type...	Date Entered
today	10/26/00
may 17	05/17/00
yesterday	10/25/00
last friday	10/20/00
next wed	11/01/00

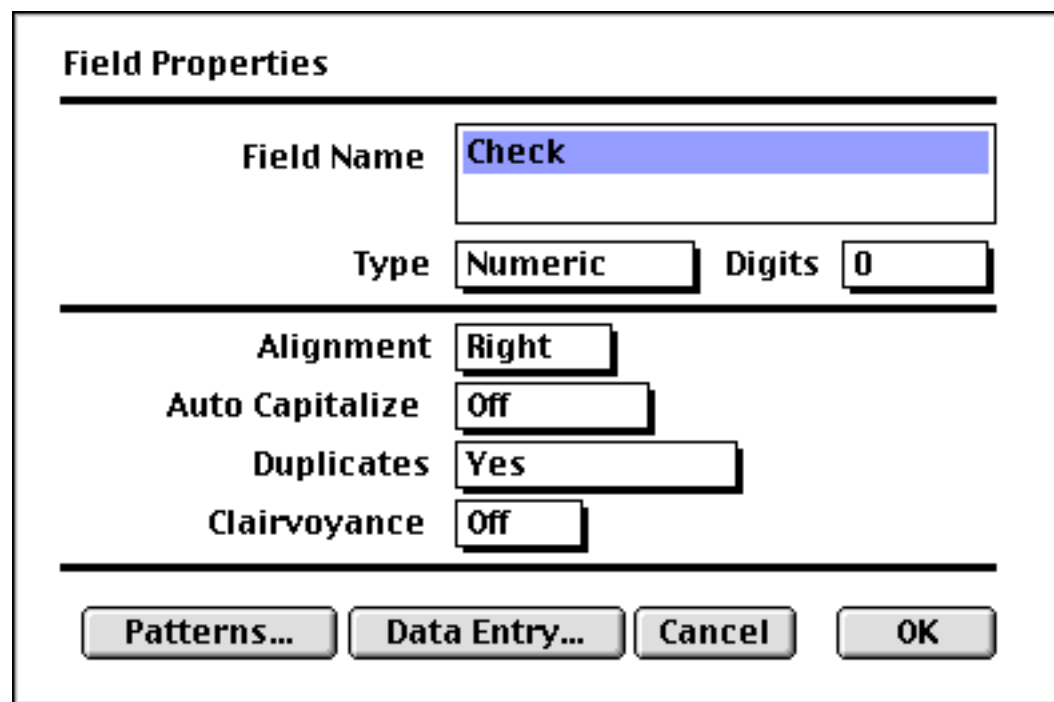
Play around with entering different dates, then use the **Cut Record** tool to delete the new record.

Check Number

The second field contains the check number. You can modify the Field Properties to automatically add one to create a new check number each time a new check is created. Click anywhere in the **Check** column and then choose the **Field Properties** dialog from the Setup menu (see “**Field Properties**” on page 330). (You can also open this dialog by double clicking on the field name at the top of the column.)



The **New Database Wizard** has already set up some of the options in this dialog, including the **Field Name** and the **Type**.

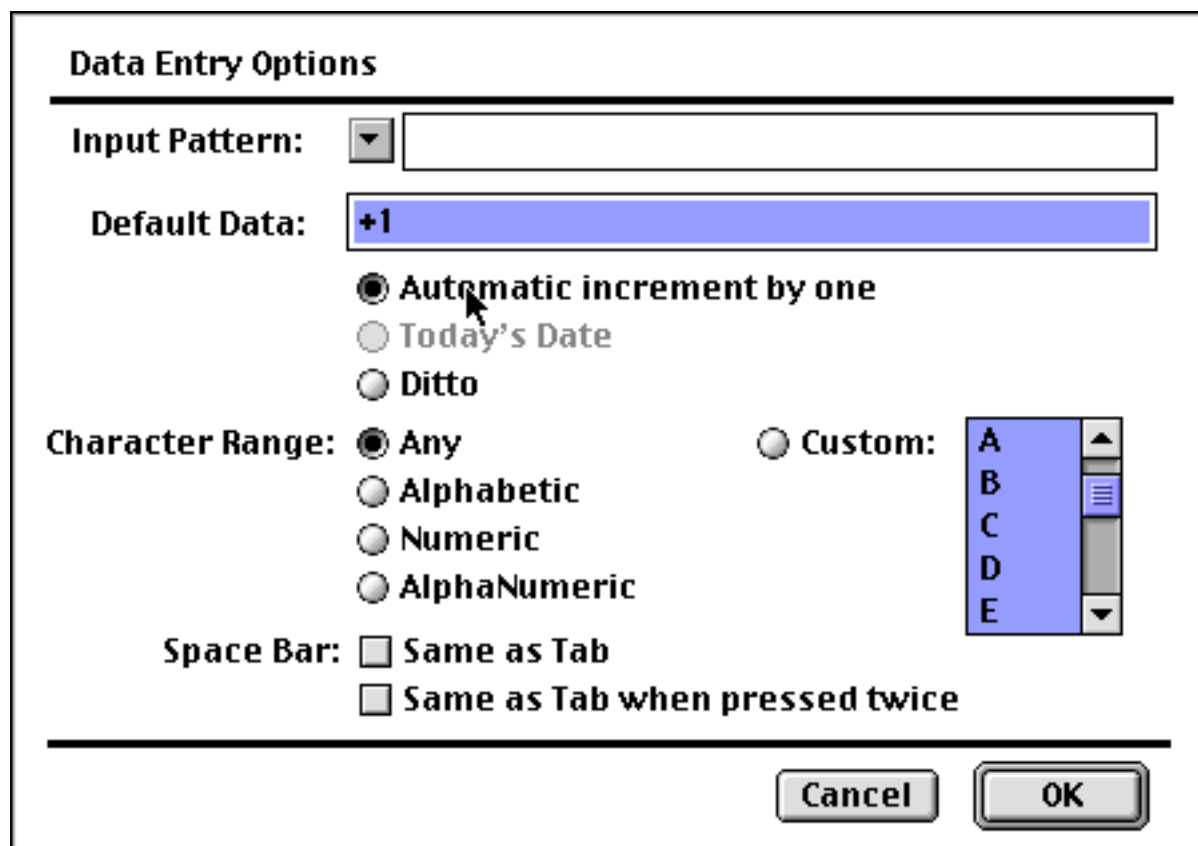


The **Field Properties** dialog box is shown with the following settings:

- Field Name:** Check
- Type:** Numeric
- Digits:** 0
- Alignment:** Right
- Auto Capitalize:** Off
- Duplicates:** Yes
- Clairvoyance:** Off

Buttons at the bottom: **Patterns...**, **Data Entry...**, **Cancel**, **OK**.

To set up the default value for this field press the **Data Entry...** button. The Data Entry options dialog has several radio buttons for different default values — click the **Automatic increment by one** option.



The **Data Entry Options** dialog box is shown with the following settings:

- Input Pattern:** (empty)
- Default Data:** +1
- Automatic increment by one:** (selected)
- Today's Date:**
- Ditto:**
- Character Range:**
 - Any:** (selected)
 - Alphabetic:**
 - Numeric:**
 - AlphaNumeric:**
 - Custom:** (with a list box containing A, B, C, D, E)
- Space Bar:**
 - Same as Tab
 - Same as Tab when pressed twice

Buttons at the bottom: **Cancel**, **OK**.

After you click this option press this **OK** button twice to get back to the data sheet. Then press the Add New Record tool (or select Add New Record from the Edit menu).

Date	Check	Pay To	Category	Memo	Debit	Credit
01/01/98		OPENING BALANCE	DEPOSIT			12,739.00
01/01/98	100	Sparkletts	Office Supplies		14.20	
01/01/98	101	Blue Cross	Insurance	Health Insurance group XBG-87:	975.00	
01/01/98	102	Valley Gas	Utilities	Heating	49.90	
01/01/98	103	AT&T	Telecom	Long Distance Phone Service	236.24	
01/01/98	104	Surf Networks	Telecom	DSL	50.00	
01/01/98	105	United Security	Utilities	Alarm	30.00	
		PS	Shipping		144.02	
01/01/98	107	Edison General	Utilities	January Electric	115.55	
01/01/98	108	City Services	Utilities	Water	54.39	
01/01/98	109	Pacific Properties	Rent	January Rent	1,580.00	

The new check automatically defaults to today's date and is assigned the next check number, in this case 562.

12/28/98	560	Valley Publication:	Advertising		963.57	
12/28/98	561	Poly Payroll Serv	Payroll		1,749.38	
10/26/00	562					

516 visible/516 total

Pay To

The third field contains the name of the person or company the check is made out to. Since you will often write checks out to the same people over and over again you can take advantage of a very cool Panorama feature called Clairvoyance®. Clairvoyance automatically finishes your typing for you as soon as it thinks it can identify what you are about to type based on the previous entries (see “[Clairvoyance®](#)” on page 387). Clairvoyance can be turned on and off with the **Field Properties** dialog. Click anywhere in the **Pay To** column and then choose the **Field Properties** dialog from the Setup menu (see “[Field Properties](#)” on page 330). (You may have also heard that you can open this dialog by double clicking on the field name at the top of the column. It's really true!)

Date	Check	Pay To	Category	Memo	Debit	Credit
12/21/98	550	Clark Supply	Purchases	Invoice 6387		
12/21/98	551	Coast General	Purchases	Invoice 61471		
12/21/98	552	Office Depot	Office Supplies			
12/21/98	553	Staples	Office Supplies			
12/21/98	554	Century Equipmen	Fixed Assets			
12/21/98	555	Stamford Mfg	Purchases	Invoice 19188		
12/21/98	556	Post Office	Shipping			
12/21/98	557	Power Printing	Advertising		542.50	
12/21/98	558	Poly Payroll Serv	Payroll		1,656.55	
12/21/98	559	Fry's Electronics	Office Supplies		189.22	
12/25/98		DEPOSIT	DEPOSIT			5,264.90
12/28/98	560	Valley Publication:	Advertising		963.57	
12/28/98	561	Poly Payroll Serv	Payroll		1,749.38	
10/26/00	562					

516 visible/516 total

The **New Database Wizard** has already set up some of the options in this dialog, including the **Field Name** and **Type** and **Auto Capitalize**. Use the pop-up menu to turn on the **Clairvoyance** option, as shown below.

Field Properties

Field Name: Pay To

Type: Text Digits: 0

Alignment: Left

Auto Capitalize: Word

Duplicates: Yes

Clairvoyance: On

Buttons: Patterns..., Data Entry..., Cancel, OK

Press **OK** to close the dialog. Now try entering **Blue Cross** into the **Pay To** data cell. Leave your finger off the **Shift** key as you type because Panorama will automatically capitalize the first letter of each word for you! As soon as you press the letter **l**, Panorama's Clairvoyance® feature will complete the entry for you by typing **ue Cross**.

B is automatically capitalized for you because of Auto Capitalize option

12/28/98	561	Poly Payroll Serv	Payroll	1,749.38	16
10/26/00	562	Blue Cross			

Clairvoyance automatically completes the entry for you

Clairvoyance automatically finishes your typing for you as soon as it thinks it can identify what you are about to type based on the previous entries. If Clairvoyance guesses wrong (because this is a new entry that hasn't appeared before) just keep typing and complete the entry yourself.

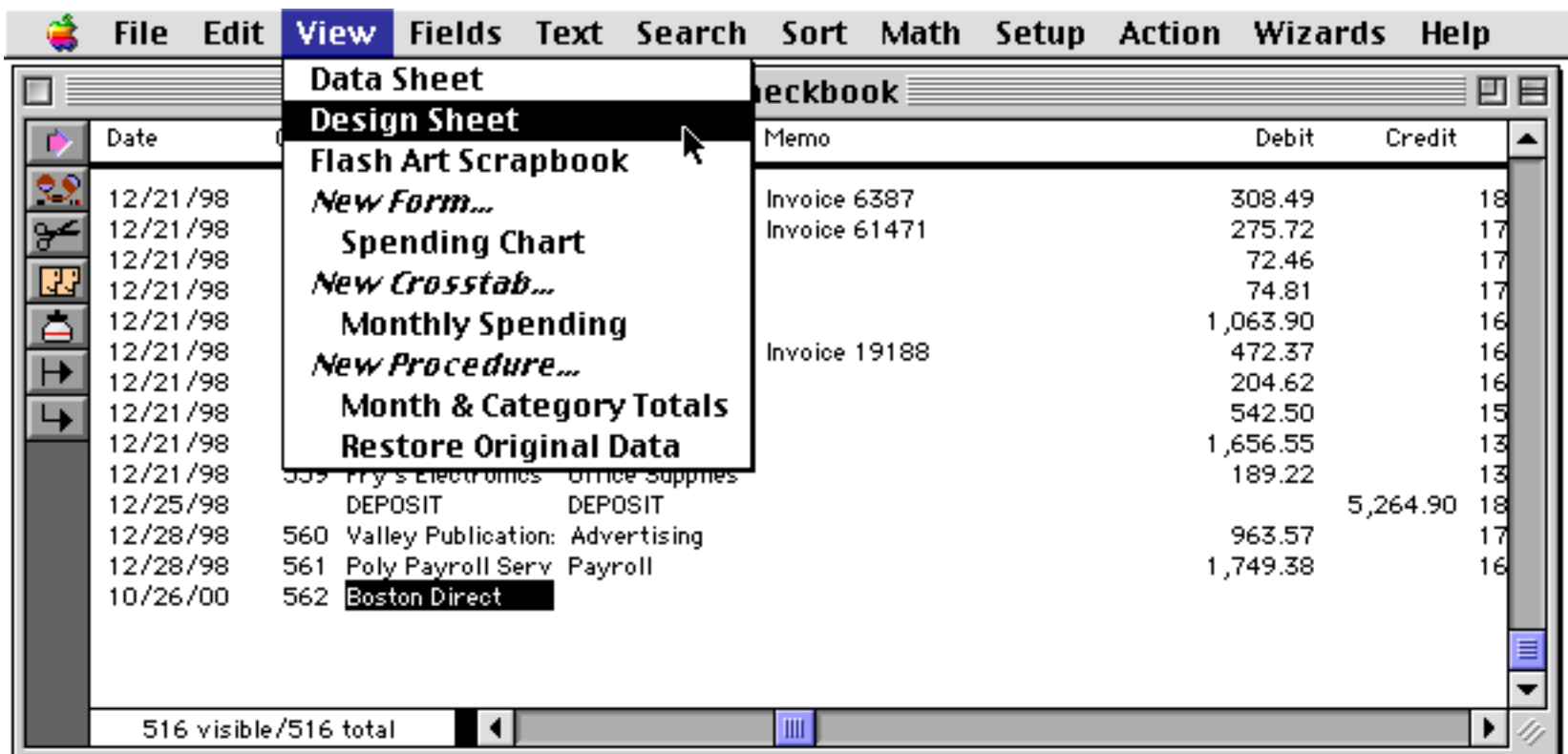
Clairrows

When you hold down the **Command** key (Mac) or **Control** key (Windows), the up and down arrows on the keyboard become clairvoyant arrows, or “clairrows.” With the key held down you can use the arrows to scan through the values that are already in the database. Each time you press **Command/Control-Down Arrow** the next value appears, while each time you press **Command/Control-Up Arrow** the previous value appears. You can scan through the values until you find the information you are looking for, then press the **Enter** key to enter the value. To give the clairrows a head start you can type in the first few letters of the information you are looking for.

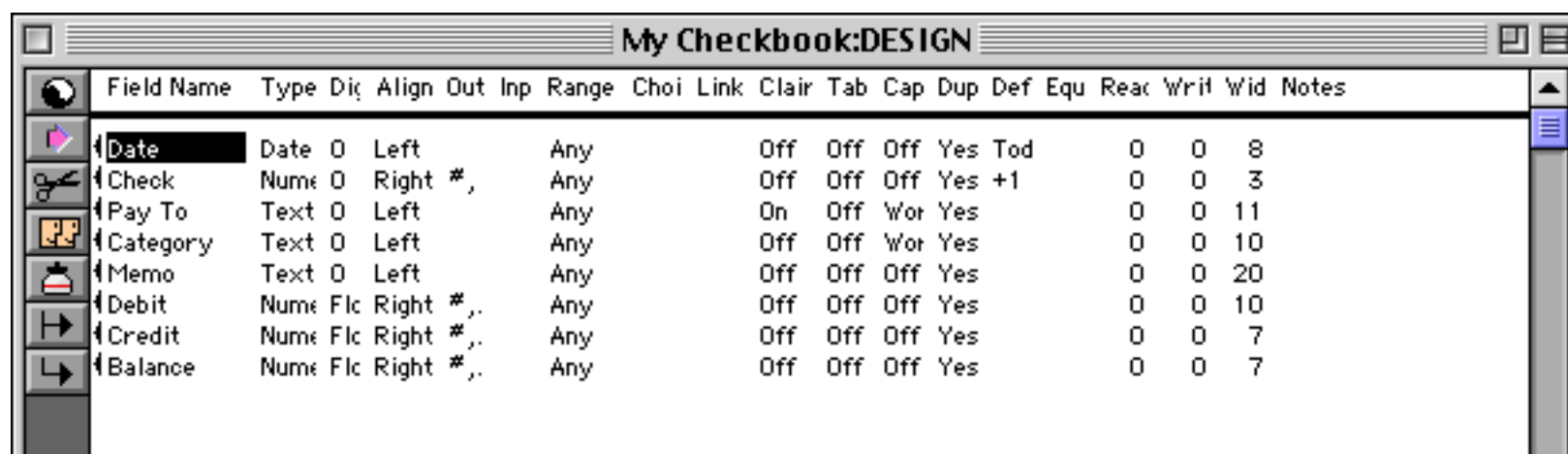
	type b	<input type="text" value="E"/>
	l	<input type="text" value="Blue Cross"/>
Cmd/Ctl-Down Arrow		<input type="text" value="Boston Direct"/>
Cmd/Ctl-Down Arrow		<input type="text" value="Century Equipmen"/>
Cmd/Ctl-Down Arrow		<input type="text" value="Champion Truckin"/>
Cmd/Ctl-Up Arrow		<input type="text" value="Century Equipmen"/>
Cmd/Ctl-Up Arrow		<input type="text" value="Boston Direct"/>
Enter		<input type="text" value="Boston Direct"/>

Category

The **Category** field places each check into one of 11 categories (Rent, Insurance, Telecom, etc.) One way to handle this field would be to use Clairvoyance® as described for the **Pay To** field. That way you would only have to type in the first letter or two of the category. However instead of using Clairvoyance you are going to set up a palette of radio buttons in the pop-up Input Box (see “[The Choice Palette](#)” on page 419). This palette will have a radio button for each category. To set up this palette you’ll need to use the **design sheet**. Use the **View** menu to switch from the data sheet to the design sheet.

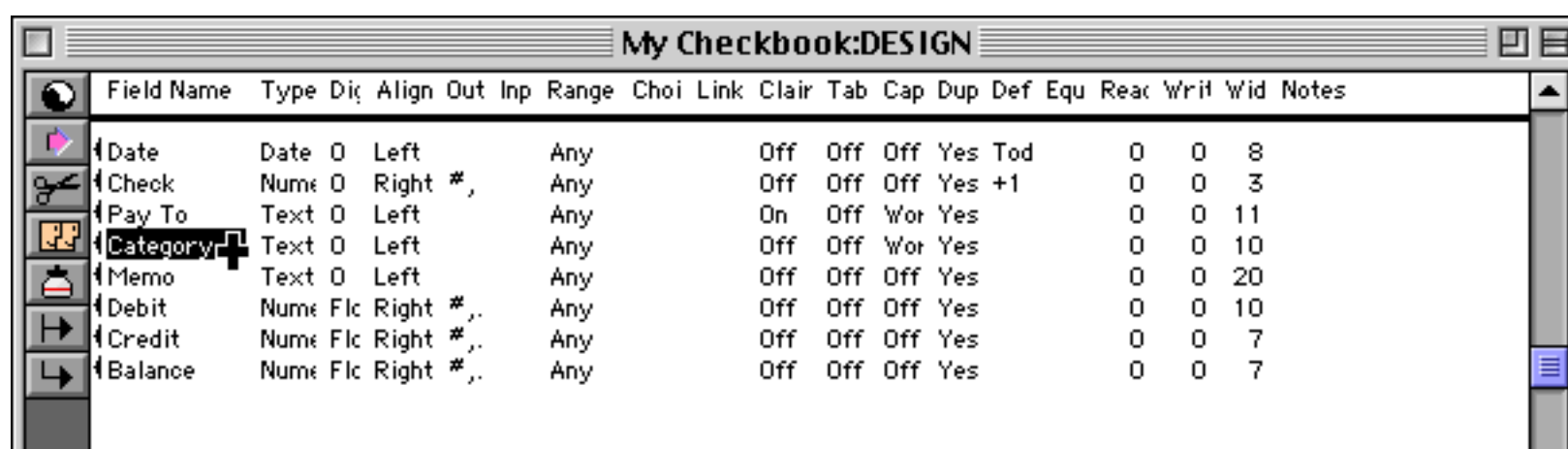


The **design sheet** is kind of like a super-duper **Field Properties** dialog (see “[The Design Sheet](#)” on page 332). It allows you to see and modify all the properties of every field at once. Each line in the design sheet corresponds to a field, with the name and properties listed from left to right.



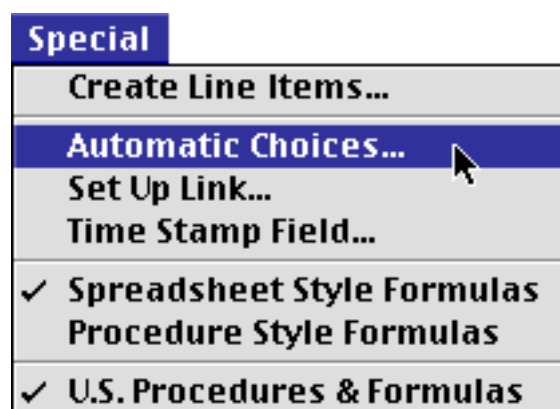
Field Name	Type	Di	Align	Out	Inp	Range	Choi	Link	Clair	Tab	Cap	Dup	Def	Equ	Reac	Writ	Wid	Notes
Date	Date	0	Left			Any		Off	Off	Off	Yes	Tod		0	0	8		
Check	Num	0	Right	#,		Any		Off	Off	Off	Yes	+1		0	0	3		
Pay To	Text	0	Left			Any		On	Off	Wor	Yes			0	0	11		
Category	Text	0	Left			Any		Off	Off	Wor	Yes			0	0	10		
Memo	Text	0	Left			Any		Off	Off	Off	Yes			0	0	20		
Debit	Num	Fic	Right	#,		Any		Off	Off	Off	Yes			0	0	10		
Credit	Num	Fic	Right	#,		Any		Off	Off	Off	Yes			0	0	7		
Balance	Num	Fic	Right	#,		Any		Off	Off	Off	Yes			0	0	7		

To set up the radio buttons click on the **Category** field name.

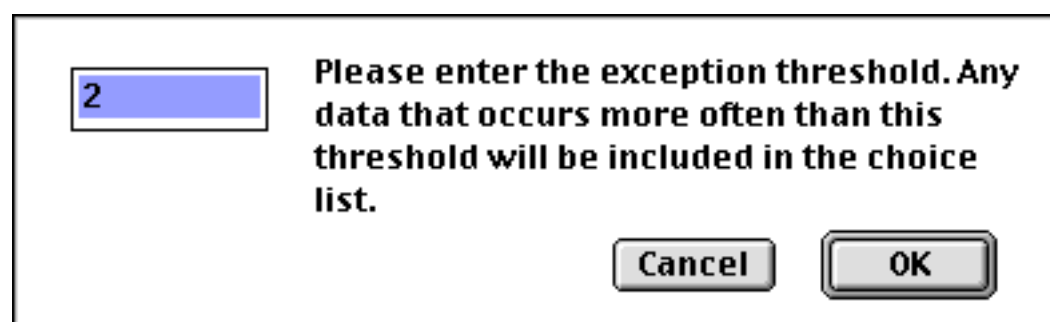


Field Name	Type	Di	Align	Out	Inp	Range	Choi	Link	Clair	Tab	Cap	Dup	Def	Equ	Reac	Writ	Wid	Notes
Date	Date	0	Left			Any		Off	Off	Off	Yes	Tod		0	0	8		
Check	Num	0	Right	#,		Any		Off	Off	Off	Yes	+1		0	0	3		
Pay To	Text	0	Left			Any		On	Off	Wor	Yes			0	0	11		
Category	Text	0	Left			Any		Off	Off	Wor	Yes			0	0	10		
Memo	Text	0	Left			Any		Off	Off	Off	Yes			0	0	20		
Debit	Num	Fic	Right	#,		Any		Off	Off	Off	Yes			0	0	10		
Credit	Num	Fic	Right	#,		Any		Off	Off	Off	Yes			0	0	7		
Balance	Num	Fic	Right	#,		Any		Off	Off	Off	Yes			0	0	7		

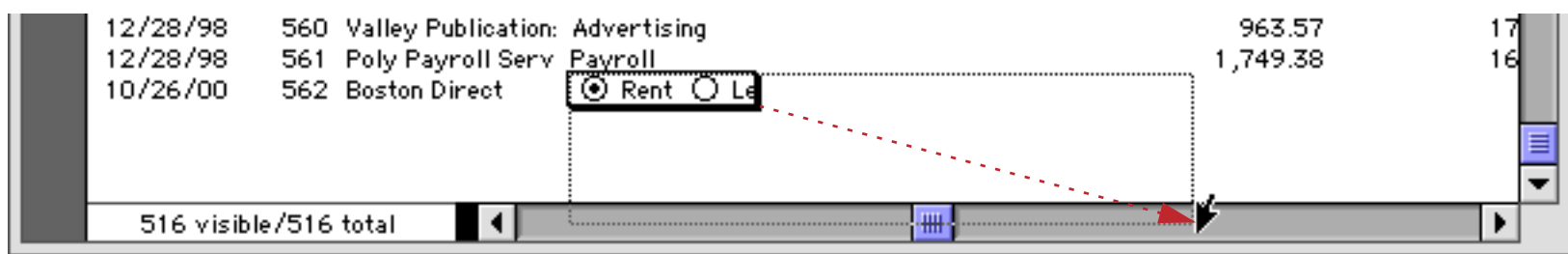
Now choose the **Automatic Choices...** command from the **Special** menu.



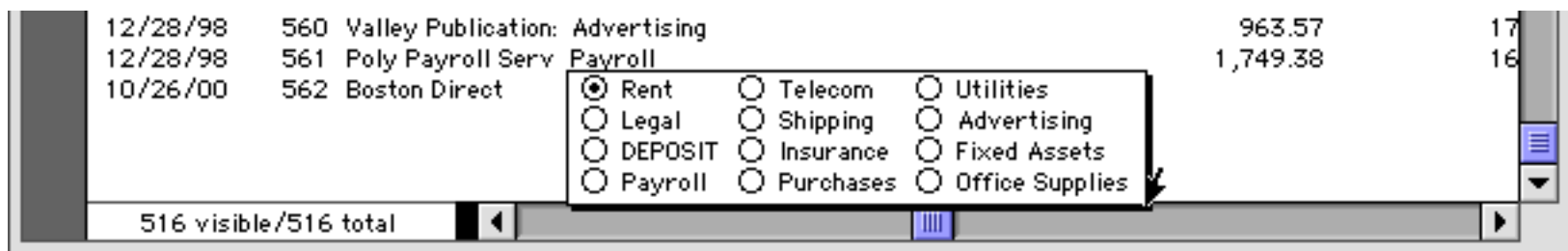
This command will build a list of the radio buttons from the existing data. If you leave the number at 2 the command will include every category that occurs two or more times in the existing data (see “[Creating the List of Choices](#)” on page 419).



Move the mouse to the bottom right corner of the Input Box. The cursor will flip over (see “[Expanding the Input Box](#)” on page 377). Drag the mouse to expand the Input Box.

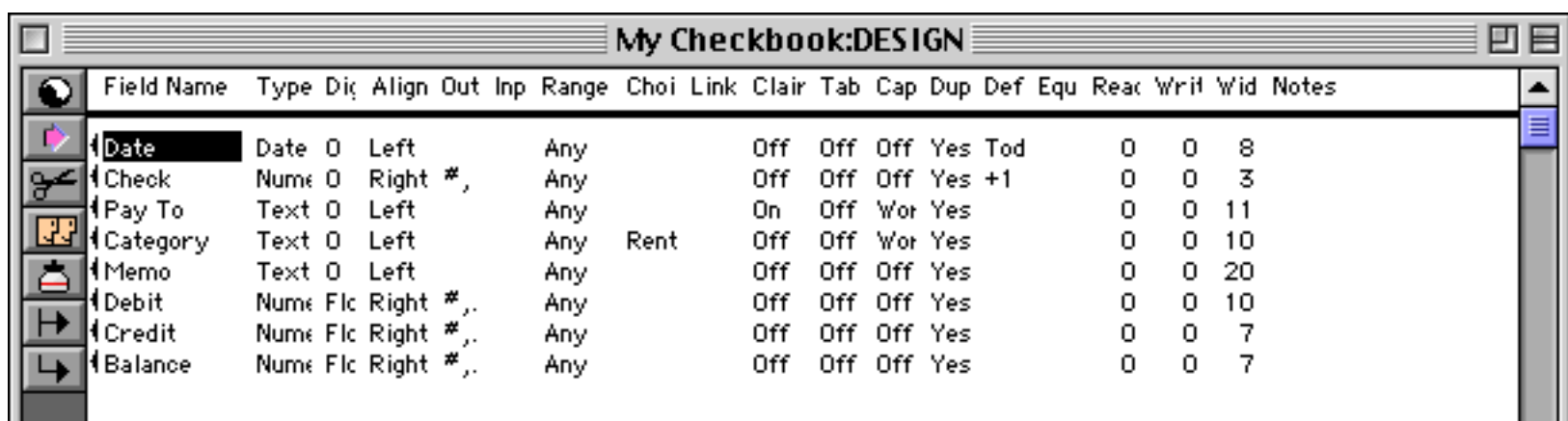


The radio buttons will automatically flow into the expanded box as you change its shape.

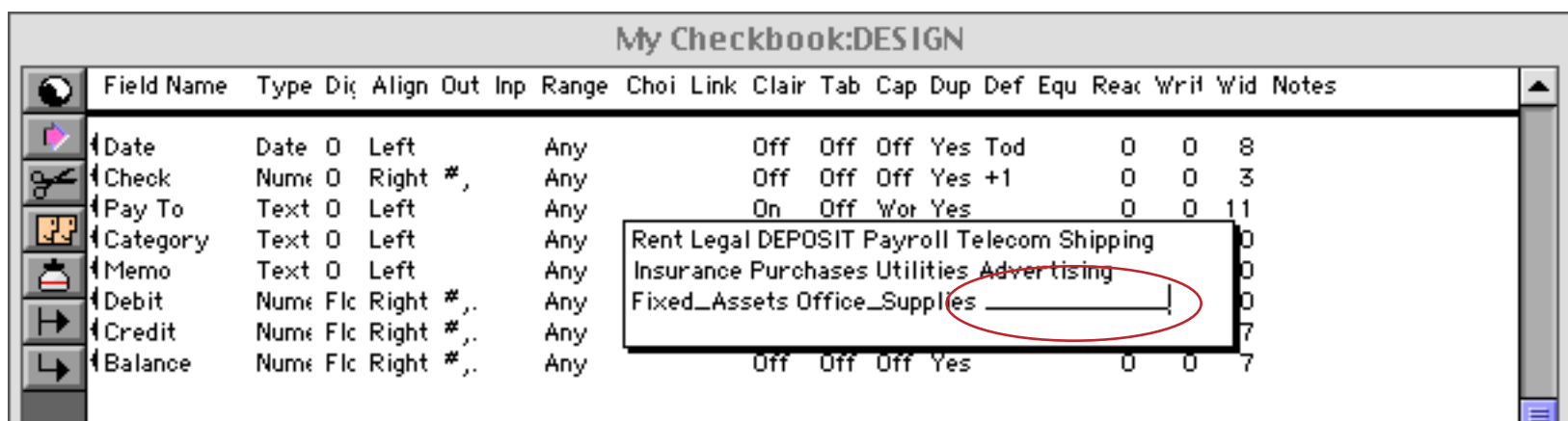


The box can be tall and skinny, short and fat, or anything in between. To select a value just click on the button and press **Enter** or **Tab**, or simply double click on the button. You can also select a value by typing in the first few letters of the value, for example **U** for **Utilities** or **Pu** for **Purchases**.

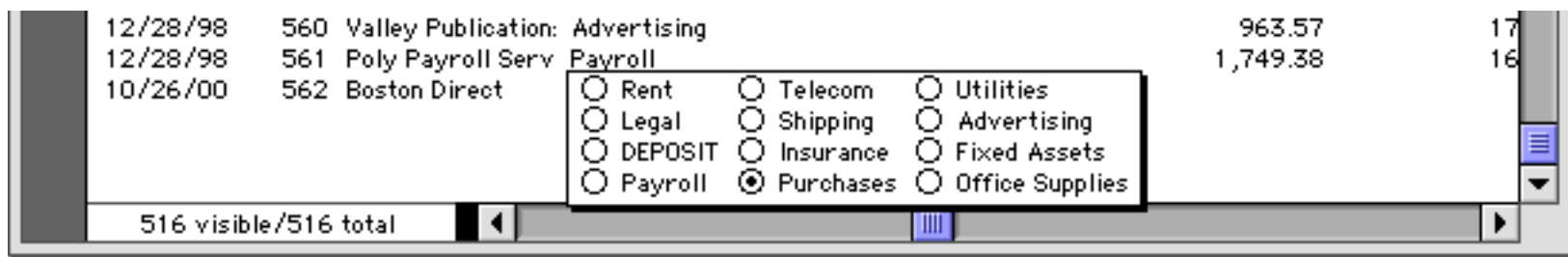
The radio buttons are great if you want to select from one of the predefined categories, but what if you want to add a check in a new category? To allow this you'll need to go back to the design sheet (use the **View** menu).



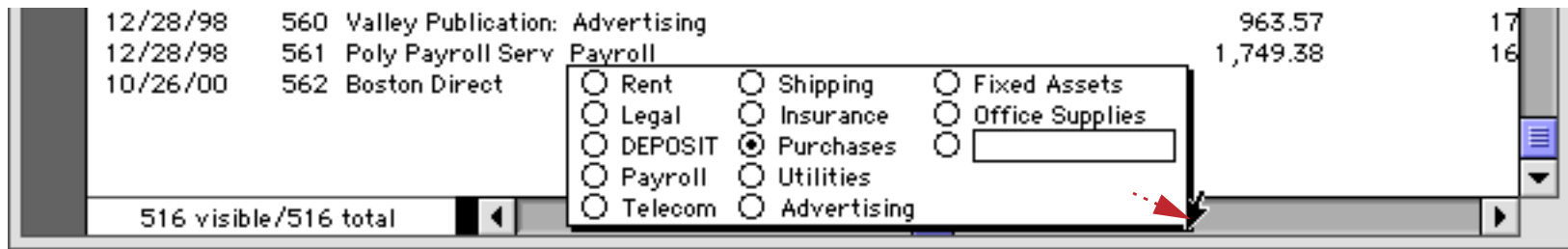
Double click on the list of choices, and then type a space and a dozen underscores at the end of the list. (The underscore is just to the right of the **0** key, hold down the **Shift** key and press -).



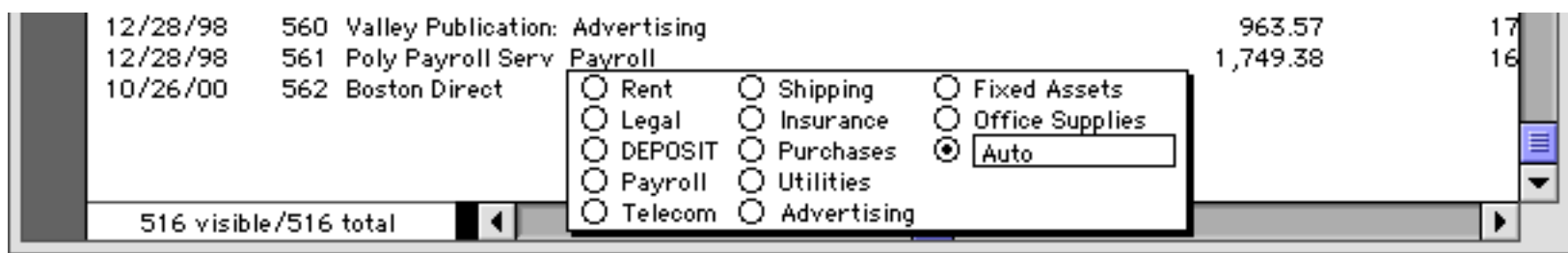
Press the **Enter** key and then use the **View** menu to go back to the data sheet. Double click on the **Category** field.



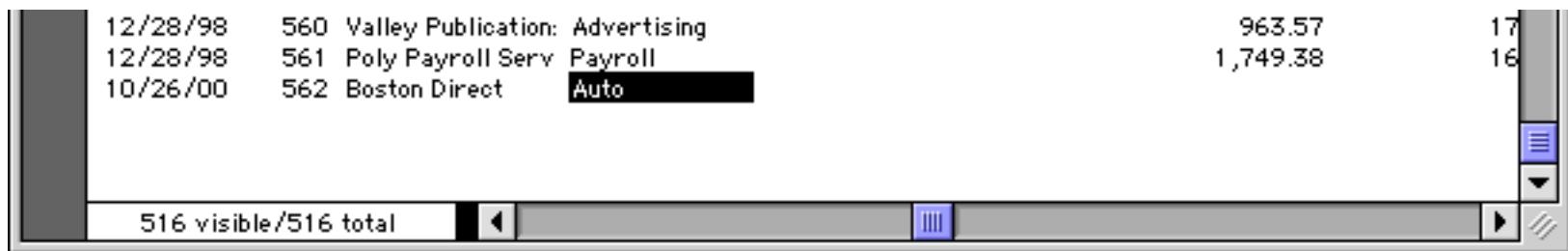
It looks just the same as before! What's up with that? To find out, expand the Input Box just a little bit more.



Now you can see that there is one additional radio button at the end of the list. To enter a new category click on this radio button and then type in the new category, in this case **Auto**.



Press the **Enter** key when the entry is completed.



To learn more about this feature see "[Exceptions](#)" on page 420. Before going on to the next step I recommend that you **Save** the database one more time.

Looking Up the Category From a Previous Record

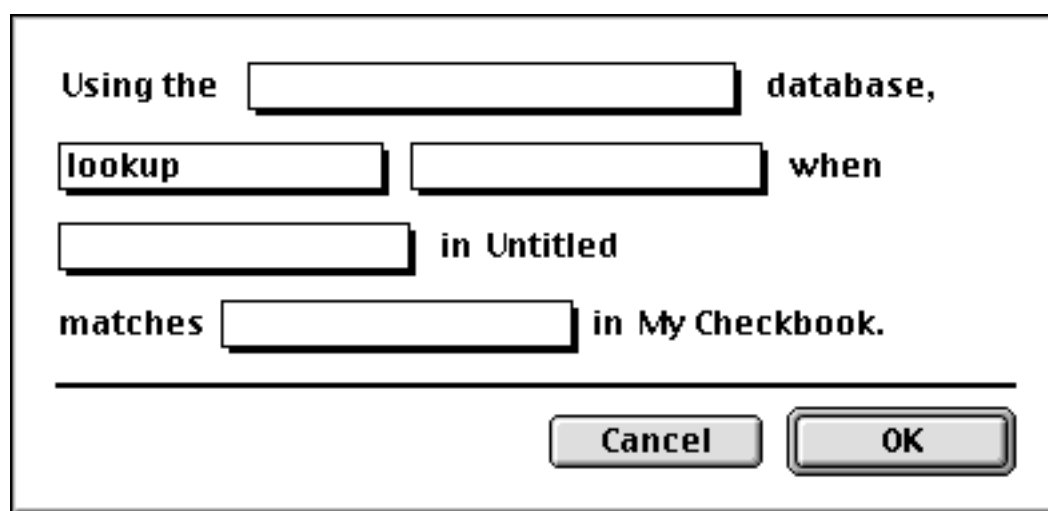
In this database a particular **Pay To** will almost always go with a particular category. For example the category for checks to **Blue Cross** will always be **Insurance**, while the category for **Staples** will always be **Office Supplies**. Panorama can be set up to automatically look up the category from the previous record, if any. To do this you'll use the design sheet again. Use the **View** menu to switch to the design sheet again, then double click on the **Equation** column of the **Category** row (see "[Automatic Calculations](#)" on page 406).

Field Name	Type	Dir	Align	Out	Inp	Range	Choi	Link	Clair	Tab	Cap	Dup	Def	Equ	Reac	Writ	Wid	Notes
Date	Date	0	Left			Any		Off	Off	Off	Yes	Yes	Yes		0	0	8	
Check	Num:	0	Right	#,		Any		Off	Off	Off	Yes	+1		0	0	3		
Pay To	Text	0	Left			Any		On	Off	Wor	Yes			0	0	11		
Category	Text	0	Left			Any	Rent	Off	Off	Wor	Yes							
Memo	Text	0	Left			Any		Off	Off	Off	Yes							
Debit	Num:	Fic	Right	#,		Any		Off	Off	Off	Yes							
Credit	Num:	Fic	Right	#,		Any		Off	Off	Off	Yes							
Balance	Num:	Fic	Right	#,		Any		Off	Off	Off	Yes			0	0	7		

Now choose **lookup(...)** from the Functions menu (see "[Functions Menu](#)" on page 1214).

Functions	
Operators	▶ lower(text)
Advanced	▶ max(number,number)
Arrays	▶ min(number,number)
?(cond,trueFormula,falseFormula)	Misc ▶
abs(number)	pattern(number,pattern)
asc(text)	rep(text,number)
chr(number)	replace(text,oldtext,newtext)
city(zip)	replacemultiple(text,oldtext,newtext,sep)
clipboard()	rnd()
county(zip)	round(number,step)
Date & Time	▶ sandwich(pretext,text,suffix)
divzero(numerator,denominator)	search(text,phrasetext)
exportcell(field)	seq()
extract(text,separator,itemnum)	sizeof(text)
fieldstyle(fieldname)	state(zip)
fix(number)	str(number)
fixed(number)	strip(text)
float(number)	stripchar(text,range)
grabdata(file,field)	striptonum(text)
Graphics	▶ striptoalpha(text)
import()	sum(lineΩ)
Info	▶ uniqueid(field,root)
int(number)	upper(text)
length(text)	upperword(text)
listchoices(field,separator)	val(text)
lookup(...)	zeroblank(number)

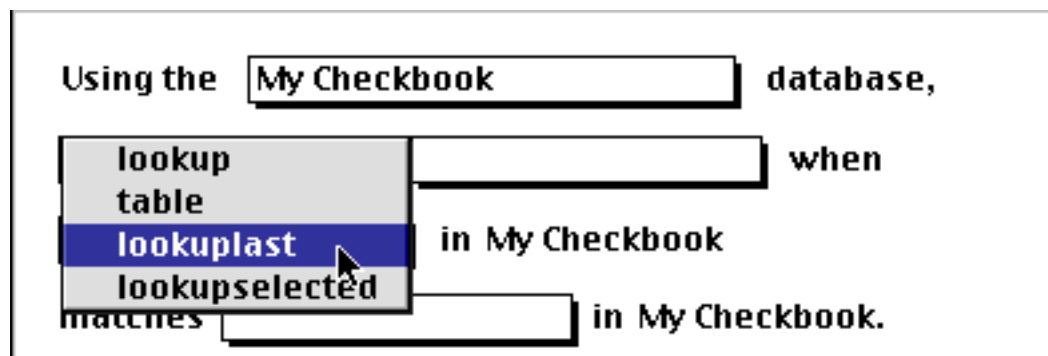
Choosing this menu item opens a dialog for setting up the `lookup()` function (see “[Linking With Another Database](#)” on page 1289).



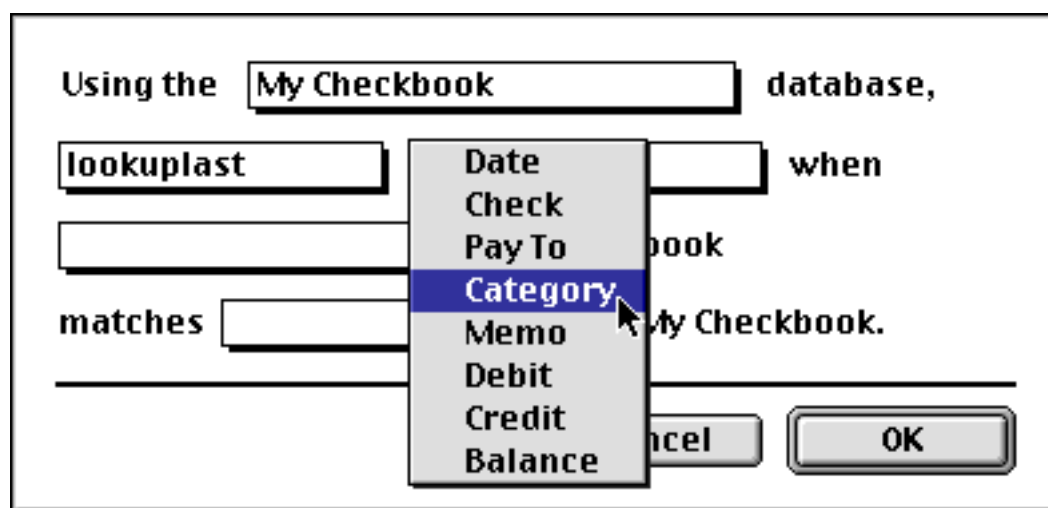
Start by selecting the database you want to look up data from, in this case the current database.



Next, tell Panorama that if there is more than one match in the database you are interested in the last match (closest to the bottom), not the first (see “[Lookup Variations](#)” on page 1294).



Now tell Panorama what you want to look up, in this case the `Category`.



We want to look up the category in the last record in the database where the **Pay To** value matches the **Pay To** value in the current field. So select **Pay To** for both of the last two pop-ups.

Here's the finished dialog with everything filled in.

Press the **OK** button to build the formula for looking up the previous category.

My Checkbook:DESIGN																			
	Field Name	Type	Di	Align	Out	Inp	Range	Choi	Link	Clair	Tab	Cap	Dup	Def	Equ	Reac	Writ	Wid	Notes
	Date	Date	0	Left			Any			Off	Off	Off	Yes	Tod	0	0	8		
	Check	Num:	0	Right	#,		Any			Off	Off	Off	Yes	+1	0	0	3		
	Pay To	Text	0	Left			Any			On	Off	Wor	Yes		0	0	11		
	Category	Text	0	Left			Any	Rent		Off	Off	Wor	Yes		lookuplast("My Checkbook","Pay To",«Pay To», "Category", "",0)				
	Memo	Text	0	Left			Any			Off	Off	Off	Yes						
	Debit	Num:	Fic	Right	#,		Any			Off	Off	Off	Yes						
	Credit	Num:	Fic	Right	#,		Any			Off	Off	Off	Yes						
	Balance	Num:	Fic	Right	#,		Any			Off	Off	Off	Yes		0	0	7		

To learn more about how this formula works see "[Linking With Another Database](#)" on page 1289. For now just press the **Enter** key and use the **View** menu to switch to the data sheet. Then start typing **Staples** into the **Category** field.

12/21/98	559	Fry's Electronics	Office Supplies		189.22	13
12/25/98		DEPOSIT	DEPOSIT		5,264.90	18
12/28/98	560	Valley Publication:	Advertising		963.57	17
12/28/98	561	Poly Payroll Serv	Payroll	Payroll period from 12/14/98	1,749.38	16
10/28/00	562	Staples				

516 visible/516 total

When you press the **Enter** key Panorama will automatically look up the appropriate category, in this case **Office Supplies**.

12/28/98	560	Valley Publication: Advertising		963.57	17
12/28/98	561	Poly Payroll Serv Payroll	Payroll period from 12/14/98	1,749.38	16
10/28/00	562	Staples	Office Supplies		

516 visible/516 total

Sometimes the check amount is the same from check to check also, for example a rent or subscription payment. You can go back to the design sheet and use the same technique to build a formula to look up the previous check amount. The formula is almost the same as before, but this time it looks up the Debit field and has a default value of 0 instead of "" (see "[Linking With Another Database](#)" on page 1289).

Field Name	Type	Di	Align	Out	Inp	Range	Choi	Link	Clair	Tab	Cap	Dup	Def	Equ	Reac	Writ	Wid	Notes
Date	Date	0	Left			Any			Off	Off	Off	Yes	Tod	0	0	8		
Check	Num	0	Right	#,		Any			Off	Off	Off	Yes	+1	0	0	3		
Pay To	Text	0	Left			Any			On	Off	Wor	Yes		0	0	11		
Category	Text	0	Left			Any	Rent		Off	Off	Wor	Yes	look	0	0	10		
Memo	Text	0	Left			Any			Off	Off	Off	Yes		0	0	20		
Debit	Num	Fic	Right	#,		Any			Off	Off	Off	Yes						
Credit	Num	Fic	Right	#,		Any			Off	Off	Off	Yes						
Balance	Num	Fic	Right	#,		Any			Off	Off	Off	Yes						

lookuplast("My Checkbook","Pay To",«Pay To», "Debit",0,0)

One potential problem with both of these formulas is that they will stop working if the name of the checkbook file changes — it's hard coded as **My Checkbook**. To fix that you can replace "My Checkbook" with `info("databasename")`, as shown below (see "[Looking Up Data in the Current File](#)" on page 1300).

Field Name	Type	Di	Align	Out	Inp	Range	Choi	Link	Clair	Tab	Cap	Dup	Def	Equ	Reac	Writ	Wid	Notes
Date	Date	0	Left			Any			Off	Off	Off	Yes	Tod	0	0	8		
Check	Num	0	Right	#,		Any			Off	Off	Off	Yes	+1	0	0	3		
Pay To	Text	0	Left			Any			On	Off	Wor	Yes		0	0	11		
Category	Text	0	Left			Any	Rent		Off	Off	Wor	Yes	look	0	0	10		
Memo	Text	0	Left			Any			Off	Off	Off	Yes		0	0	20		
Debit	Num	Fic	Right	#,		Any			Off	Off	Off	Yes						
Credit	Num	Fic	Right	#,		Any			Off	Off	Off	Yes						
Balance	Num	Fic	Right	#,		Any			Off	Off	Off	Yes						

lookuplast(info("databasename"), "Pay To",«Pay To», "Debit",0,0)

Press the **Enter** key, use the **View** menu to go back to the data sheet, then start typing **Pacific Properties** into the **Category** field.

12/28/98	560	Valley Publication: Advertising		963.57	17
12/28/98	561	Poly Payroll Serv Payroll	Payroll period from 12/14/98	1,749.38	16
10/28/00	562	Pacific Properties	Office Supplies		

516 visible/516 total

When you press the **Enter** key Panorama will look up both the category and the amount from the previous check to **Pacific Properties**.

12/28/98	560	Valley Publication: Advertising		963.57	17
12/28/98	561	Poly Payroll Serv	Payroll	1,749.38	16
10/28/00	562	Pacific Properties	Rent	1,580.00	

516 visible/516 total

If this isn't the correct amount you can simply tab over to the **Debit** field and type in the actual amount. If you haven't done so already, **Save** the database again now.

Calculating the Checkbook Balance

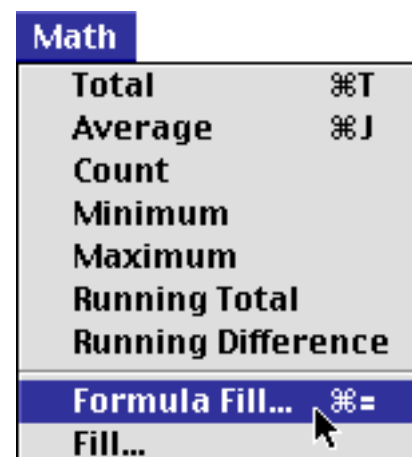
To calculate the running checkbook balance you'll need to record a quick procedure. Start by turning the recorder on (see "[Creating a Procedure with the Recorder](#)" on page 1353).

Date	Check	Pay To	Category	Memo	Debit	Credit
			DEPOSIT			2,643.67
12/21/98	550	Clark Supply	Purchases	Invoice 6387	308.49	
12/21/98	551	Coast General	Purchases	Invoice 61471	275.72	
12/21/98	552	Office Depot	Office Supplies		72.46	
12/21/98	553	Staples	Office Supplies		74.81	

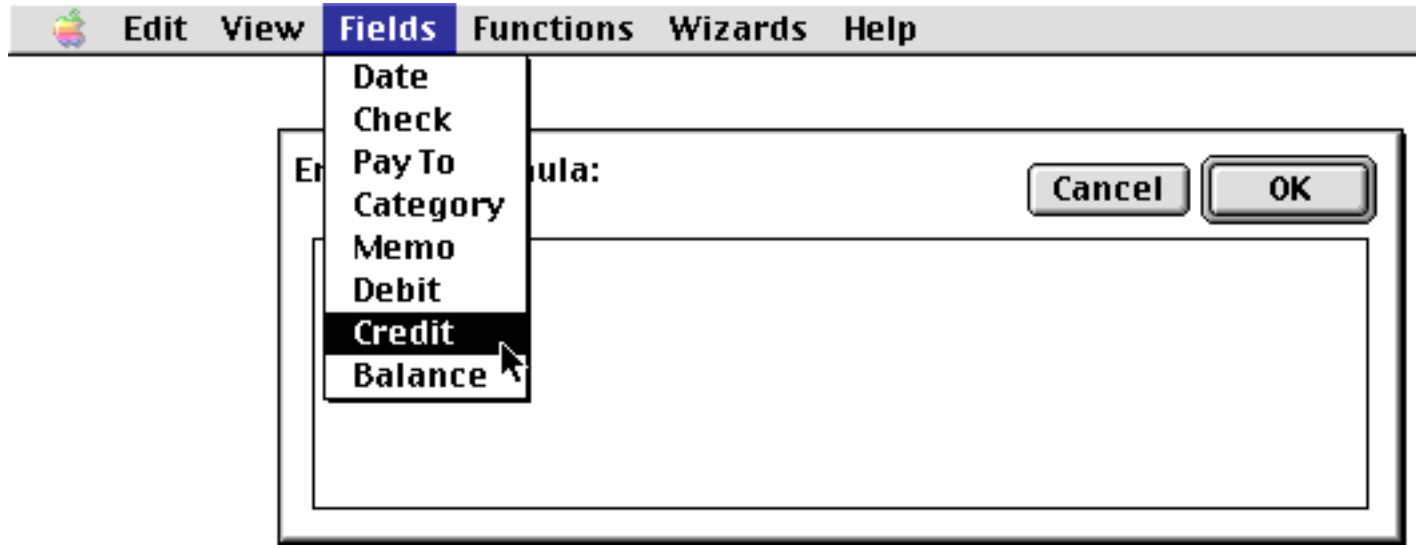
Scroll over to the **Balance** field and click somewhere in the field.

Check	Pay To	Category	Memo	Debit	Credit	Balance
		DEPOSIT			2,643.67	18,545.10
550	Clark Supply	Purchases	Invoice 6387	308.49		18,236.62
551	Coast General	Purchases	Invoice 61471	275.72		17,960.90
552	Office Depot	Office Supplies		72.46		17,888.43
553	Staples	Office Supplies		74.81		17,813.62

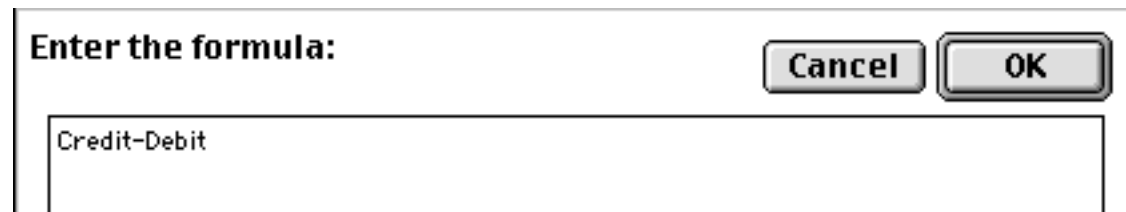
Choose the **Formula Fill...** command from the Math menu (see "[Filling a Field with a Formula](#)" on page 511).



Enter the formula `Credit-Debit`. You can use the **Fields** menu to help you type in the field names.



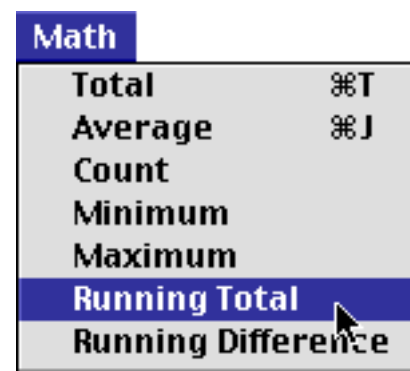
The finished formula should look like this.



When you press the **OK** button Panorama will perform this calculation over and over again for every record in the database (see [“Filling a Field with a Formula”](#) on page 511).

Check	Pay To	Category	Memo	Debit	Credit	Balance
	DEPOSIT	DEPOSIT			2,643.67	2,643.67
550	Clark Supply	Purchases	Invoice 6387	308.49		-308.49
551	Coast General	Purchases	Invoice 61471	275.72		-275.72
552	Office Depot	Office Supplies		72.46		-72.46
553	Staples	Office Supplies		74.81		-74.81
554	Century Equipmen	Fixed Assets		1,063.90		-1,063.90
555	Stamford Mfg	Purchases	Invoice 19188	472.37		-472.37
556	Post Office	Shipping		204.62		-204.62
557	Power Printing	Advertising		542.50		-542.50
558	Poly Payroll Serv	Payroll		1,656.55		-1,656.55
559	Fry's Electronics	Office Supplies		189.22		-189.22
	DEPOSIT	DEPOSIT			5,264.90	5,264.90
560	Valley Publication:	Advertising		963.57		-963.57
561	Poly Payroll Serv	Payroll	Payroll period from 12/14/98	1,749.38		-1,749.38
562	Pacific Properties	Rent		1,580.00		-1,580.00

To complete the balance calculation choose the **Running Total** command from the Math menu (see “[Running Total](#)” on page 464).



This command will calculate the balance after each check or deposit (see “[Using Running Total to Balance a Checkbook](#)” on page 464).

The screenshot shows the 'My Checkbook' window with a table of transactions. The 'Balance' column shows the running total after each transaction. The value 17,960.90 is highlighted in the Balance column for the transaction with Pay To 'Coast General'.

Check	Pay To	Category	Memo	Debit	Credit	Balance
	DEPOSIT	DEPOSIT			2,643.67	18,545.10
550	Clark Supply	Purchases	Invoice 6387	308.49		18,236.62
551	Coast General	Purchases	Invoice 61471	275.72		17,960.90
552	Office Depot	Office Supplies		72.46		17,888.43
553	Staples	Office Supplies		74.81		17,813.62
554	Century Equipmen	Fixed Assets		1,063.90		16,749.72
555	Stamford Mfg	Purchases	Invoice 19188	472.37		16,277.35
556	Post Office	Shipping		204.62		16,072.73
557	Power Printing	Advertising		542.50		15,530.23
558	Poly Payroll Serv	Payroll		1,656.55		13,873.68
559	Fry's Electronics	Office Supplies		189.22		13,684.46
	DEPOSIT	DEPOSIT			5,264.90	18,949.36
560	Valley Publication:	Advertising		963.57		17,985.80
561	Poly Payroll Serv	Payroll	Payroll period from 12/14/98	1,749.38		16,236.42
562	Pacific Properties	Rent		1,580.00		14,656.42

To finish the recording select the recorder tool again.

The screenshot shows the 'My Checkbook' window with the 'Record Procedure' button highlighted in the toolbar. The table of transactions is visible, with the balance 17,960.90 highlighted.

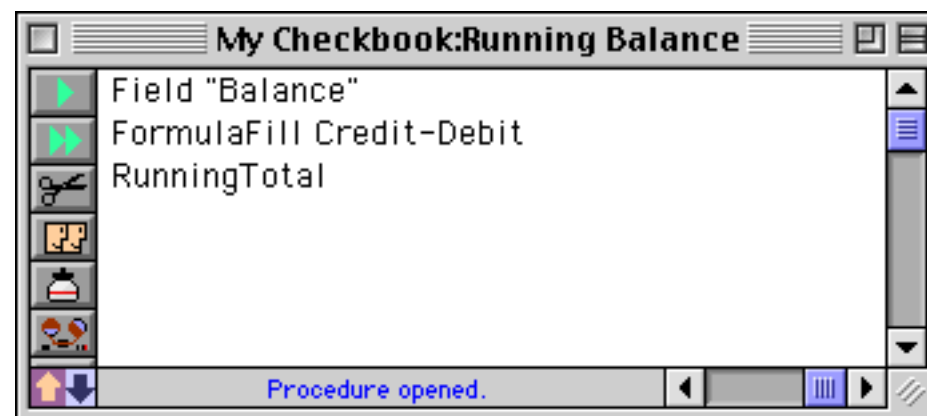
Pick a name for the new procedure and type it in, then press the **Create Procedure** button.

The image shows a dialog box titled 'New procedure name...'. It contains a text input field with the text 'Running Balance' entered. Below the input field are two buttons: 'Cancel' and 'Create Procedure'.

Now any time you need to update the checkbook balance you can simply select your new procedure from the **Action** menu.



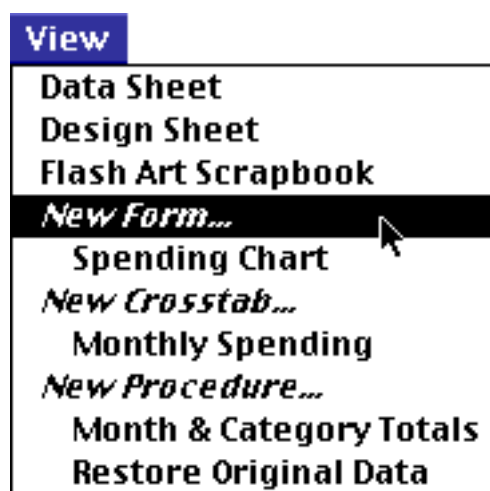
If you are curious to see what the code in your new procedure looks like you can use the **View** menu to open it (see "[Editing a Procedure](#)" on page 100).



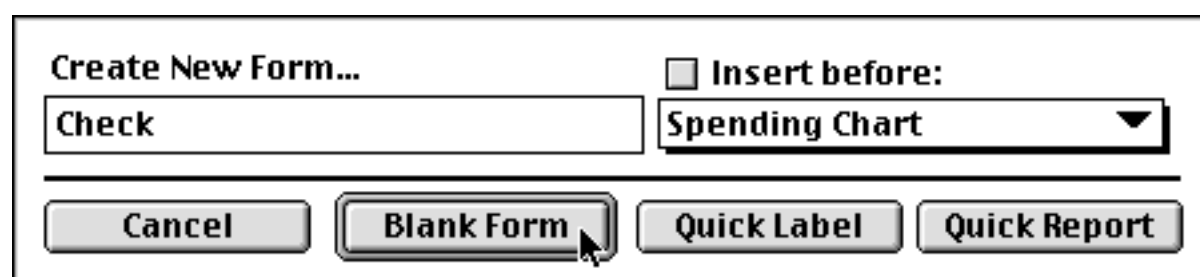
Before moving on to the next step it's a good idea to... you guessed it, **Save** the database.

Drawing a Check Form

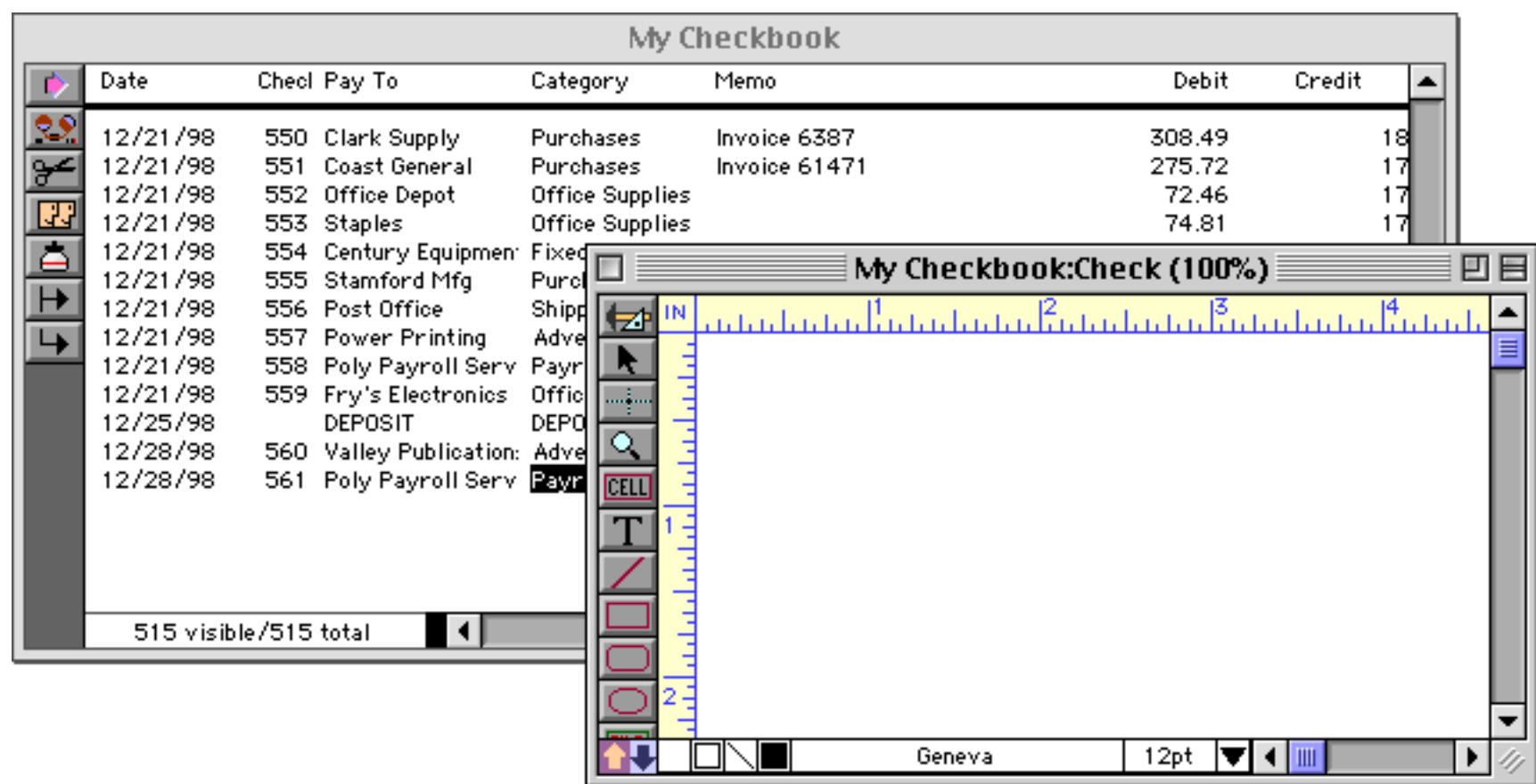
To complete your check database you'll create a check form that can be used for data entry. If you are using a Windows PC hold down the **Alt** key, if you are using a Macintosh hold down the **Control** key. Either way, select **New Form** from the View menu (see "[Creating a New Form](#)" on page 545).



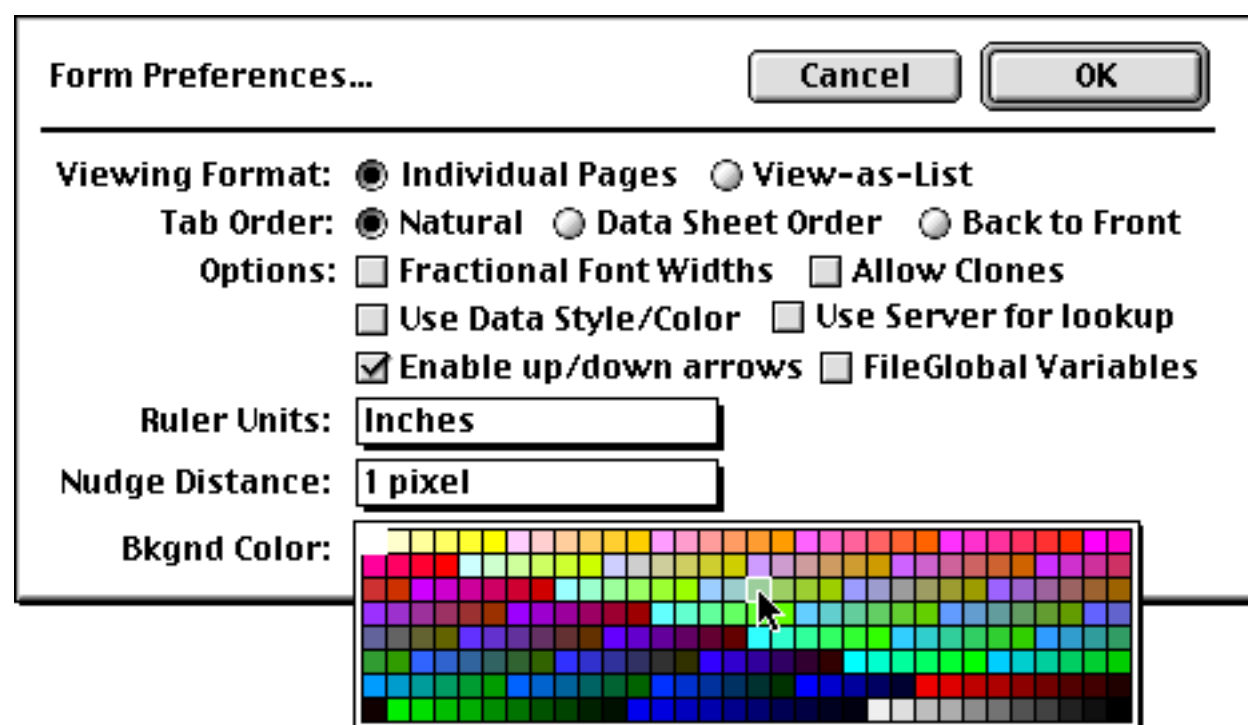
Type in the name of the new form (up to 25 characters).



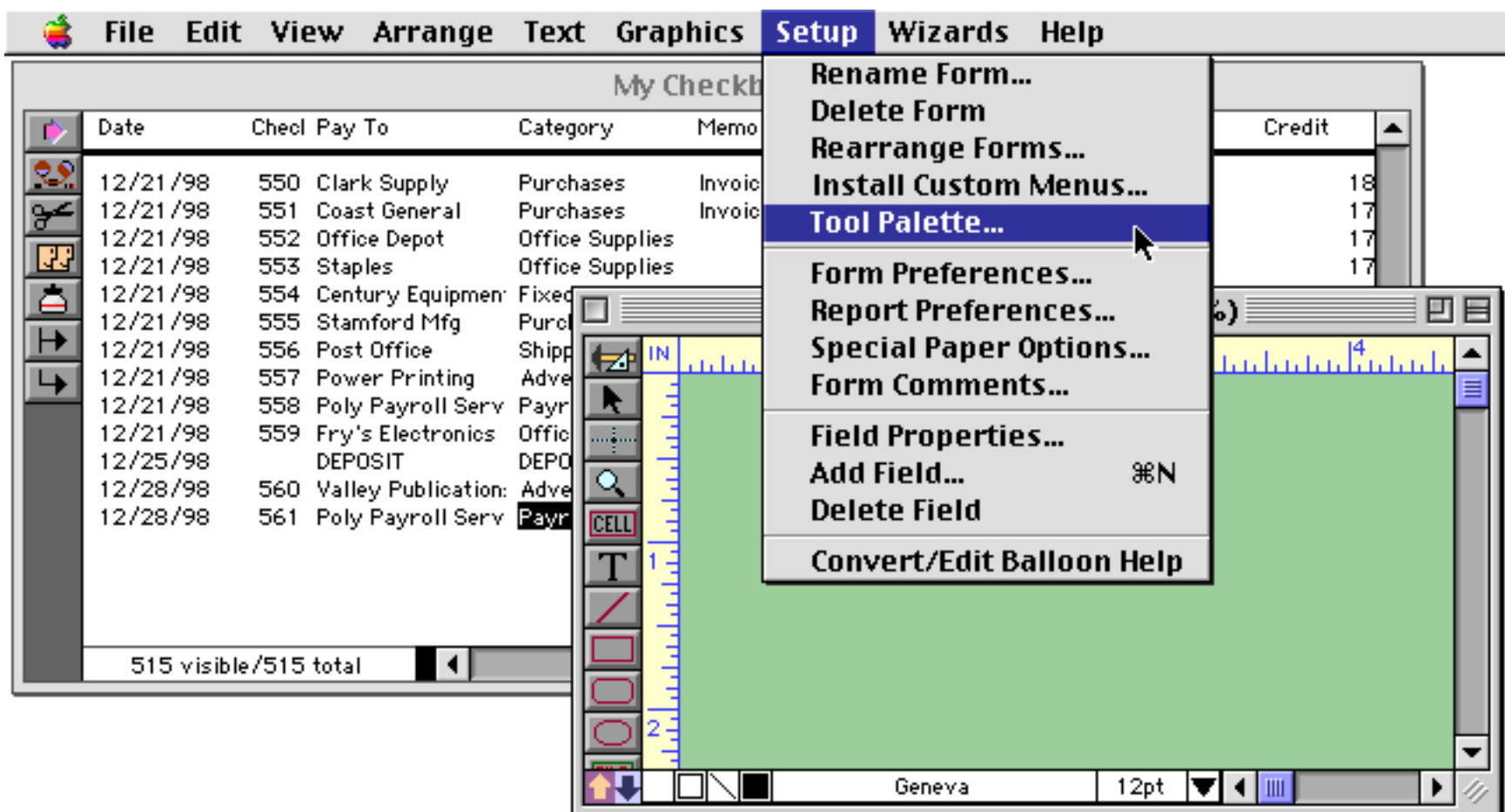
Press the **Blank Form** button to create the new form, then adjust the window to the approximate size of a check.



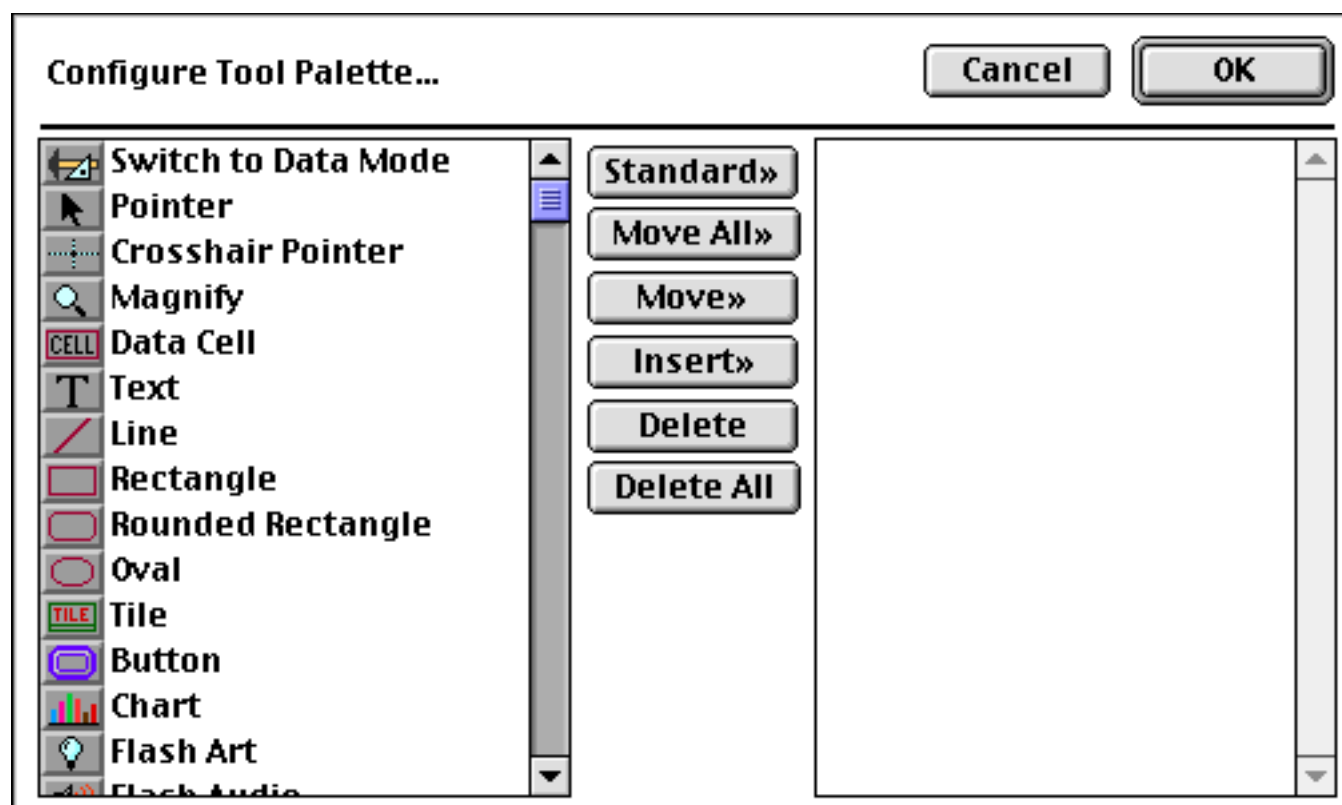
Now choose the **Form Preferences...** command from the Setup menu and use the pop-up menu to set the form's background color to light green.



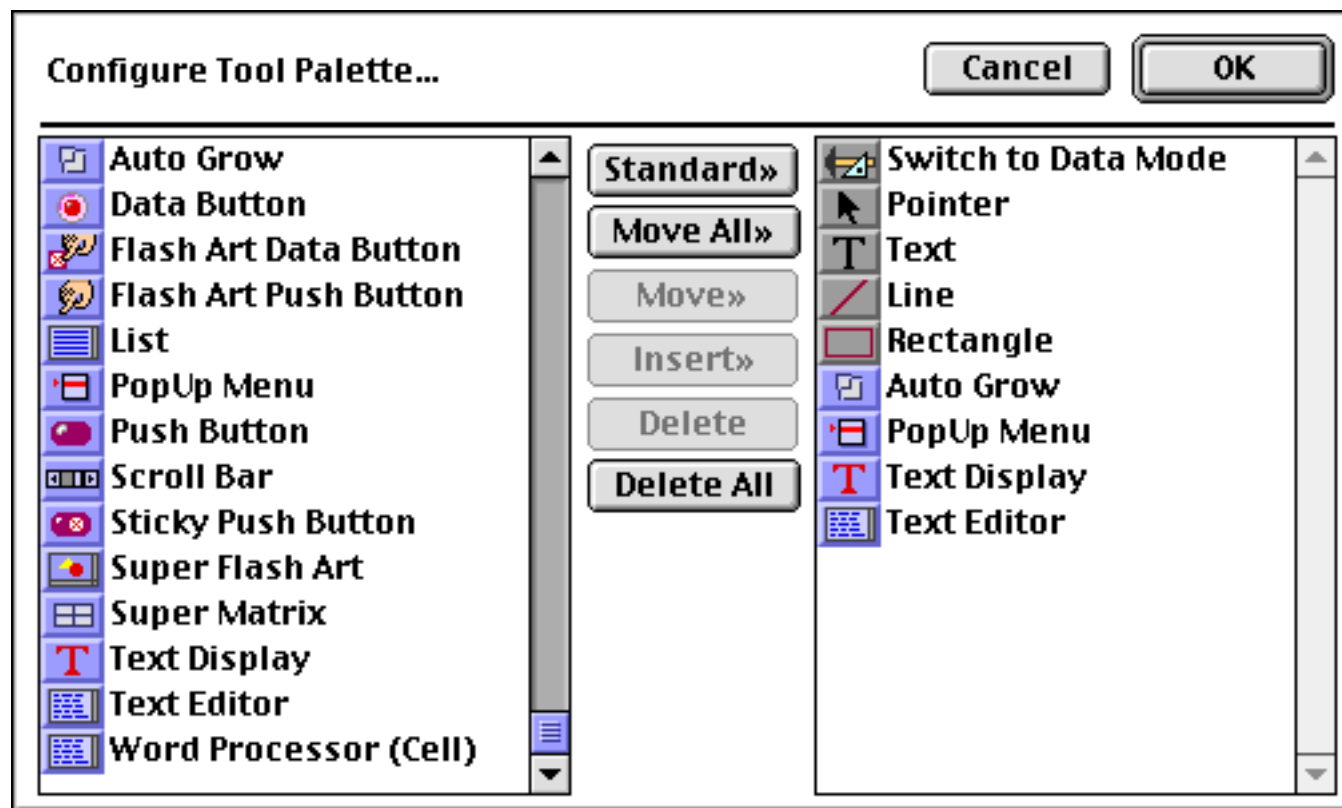
Before you actually start building the form you need to customize the graphic tool palette. Use the Tool Palette command in the Setup menu to open the tool configuration dialog.



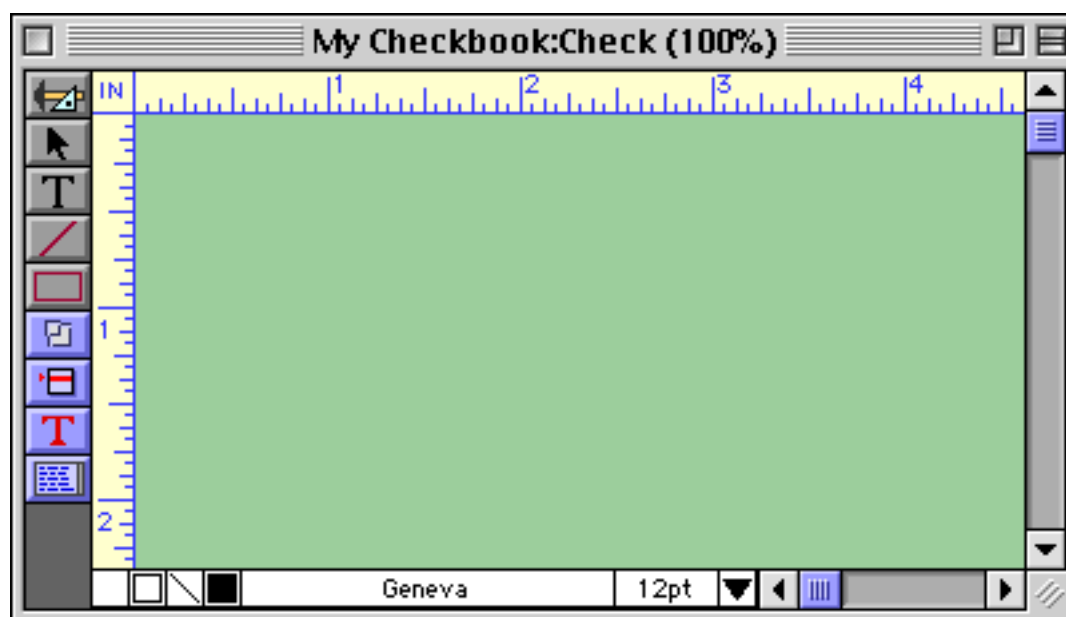
There are a total of 29 graphic tools available for use in Panorama (shown in the list below on the left). Many computer screens are not large enough to handle this complete palette of tools (and we expect the number of tools to increase in future versions). To get around this problem, Panorama allows you to customize the graphic tool palette on the fly (see “[Customizing the Tool Palette](#)” on page 554). You can configure the palette to contain only the tools that you need right now in any order you want. If your needs change later, you can simply reconfigure the palette at any time.



On the right is a list of the tools you currently have installed. If this list is empty, Panorama will use the default tool palette. To move a tool from the left to the right, double click on the tool in the left. Or you can select the tool (or tools) and press the **Move** or **Insert** button. Move the nine tools shown below into the list on the right.

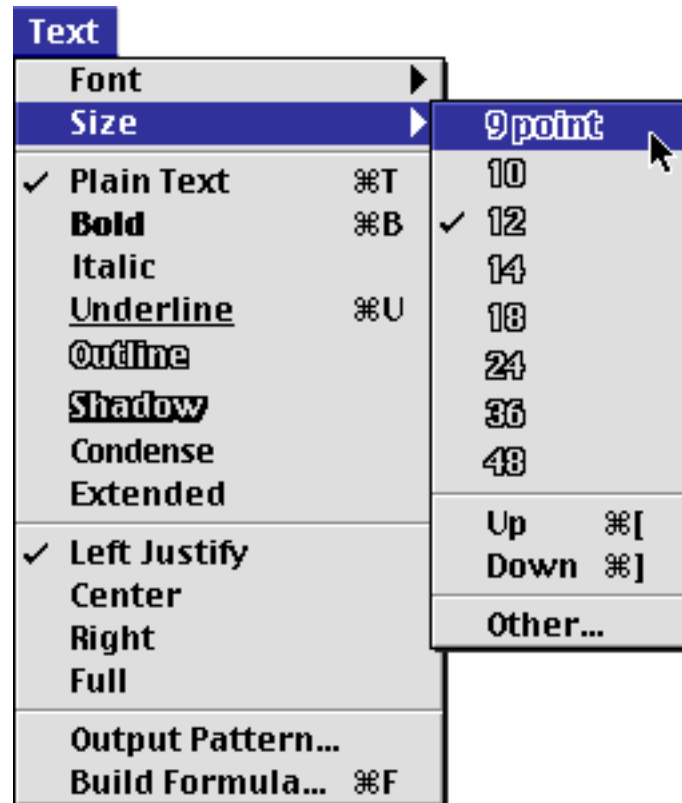


When you press the **OK** button the tool palette in the form will be updated.

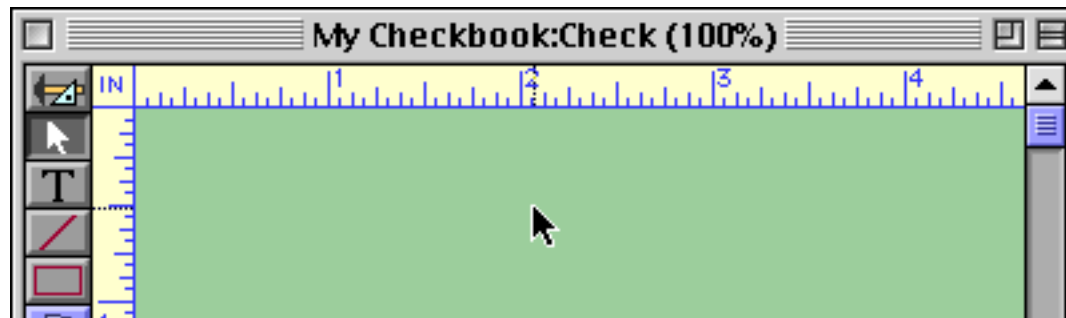


Creating the Text Editor SuperObjects

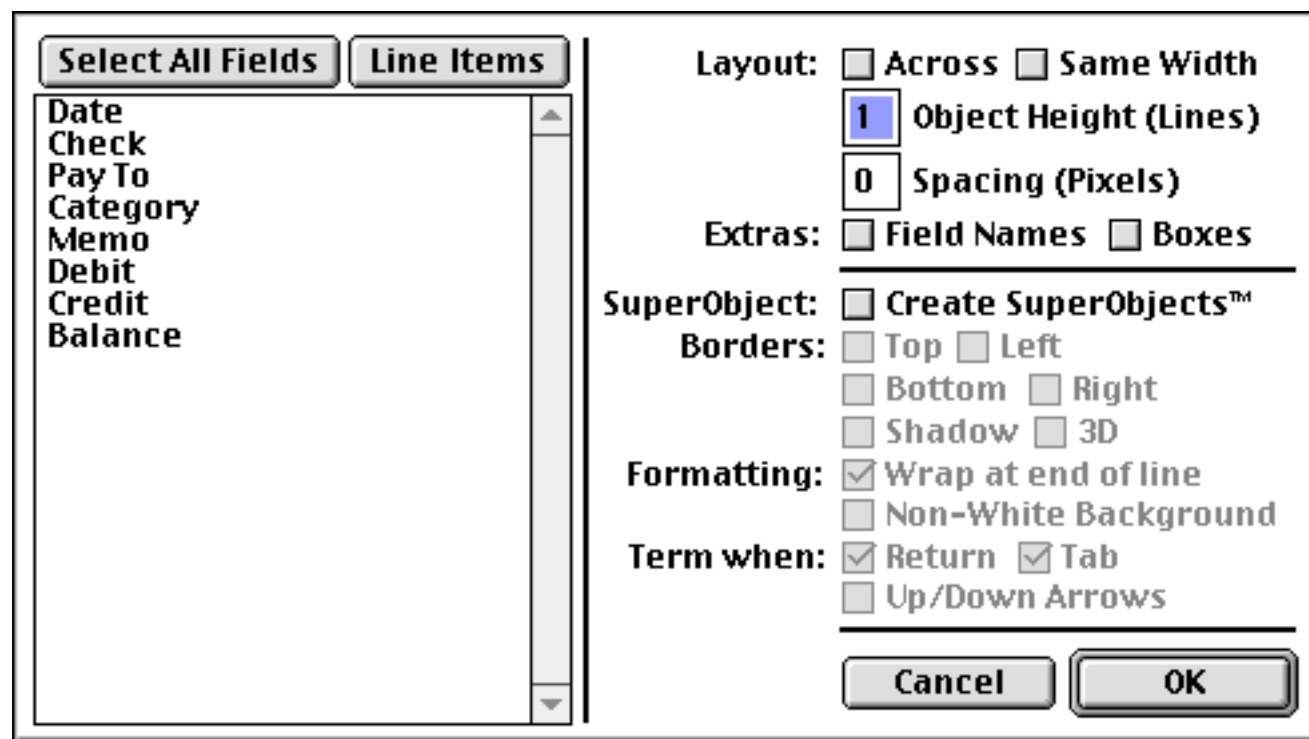
Using the **Text** menu or the Graphic Control Strip set the text size to 9 points (see “[Text Font, Size and Style](#)” on page 643).



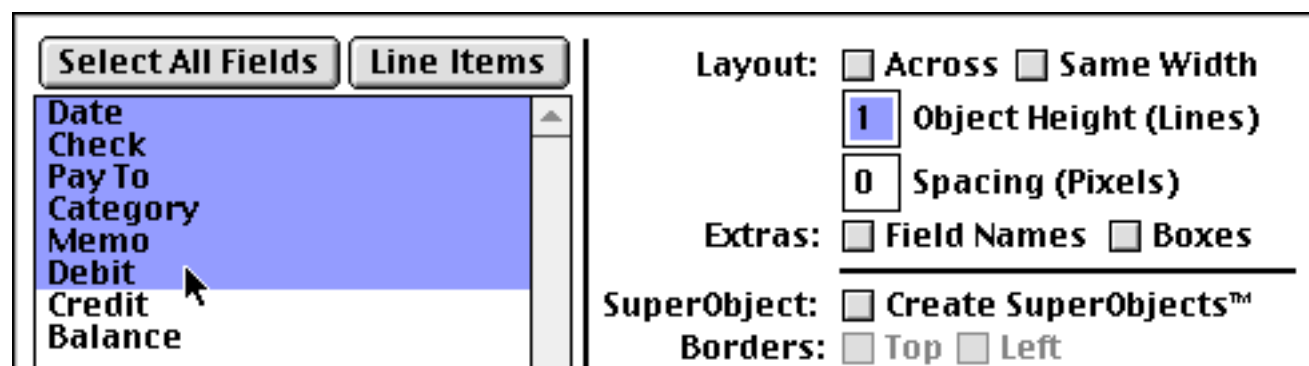
With the **Pointer** tool selected, click the mouse in approximately the location shown below.



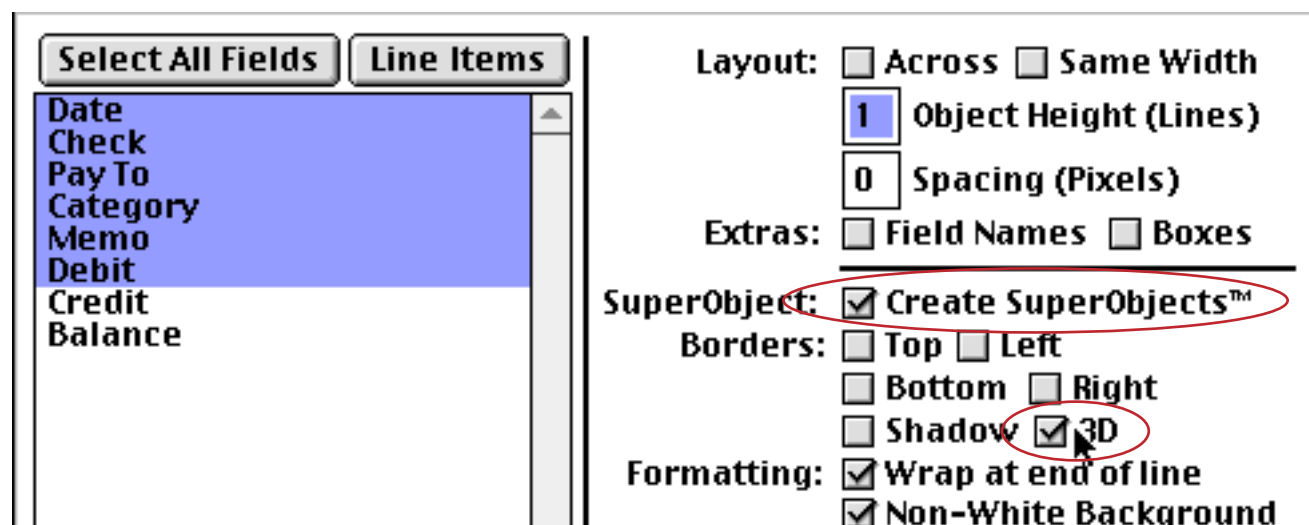
Now select the **Auto Cell Layout** command from the Arrange menu (see “[Automatically Creating Rows or Columns of Data Cells or Text Editor SuperObjects](#)” on page 709). You used this command in your [My Mailing List](#) database to create data cells, now you’ll use it to create **Text Editor SuperObjects** (see “[Types of Data Editing Objects](#)” on page 682).



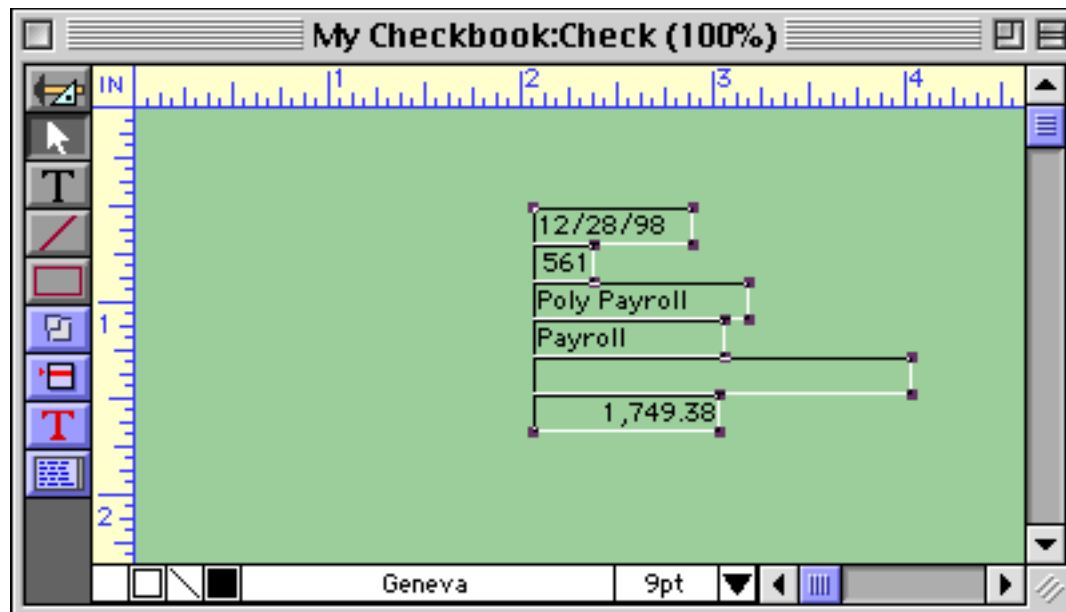
Start by holding down the **Shift** key and clicking on each of the first six fields.



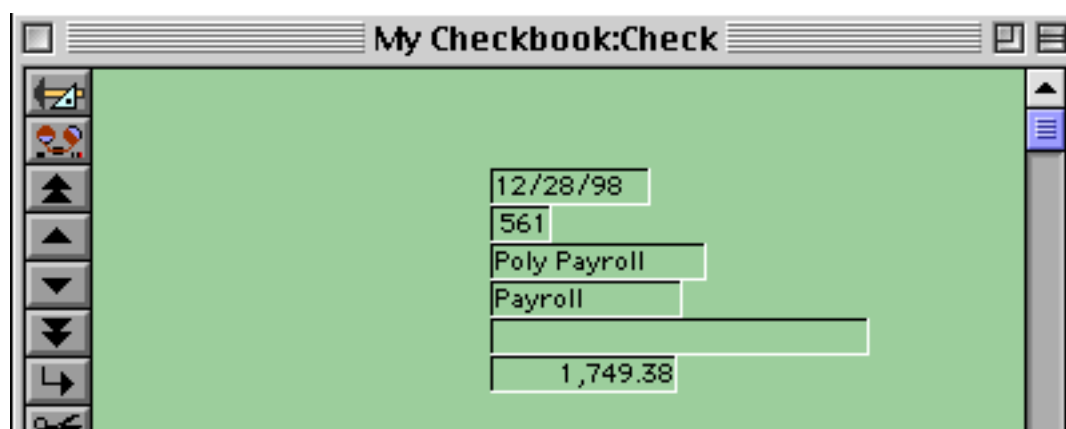
Next click on the **Create SuperObjects™** and **3D** checkboxes.



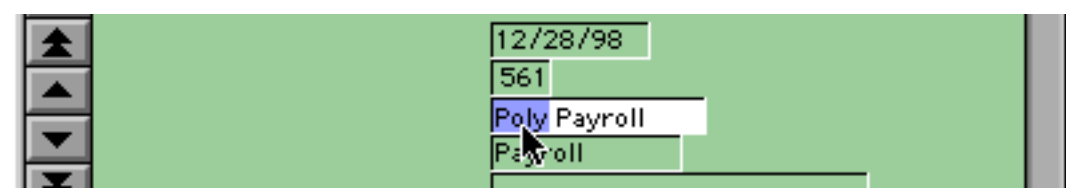
Press the **OK** button to create the Text Editor SuperObjects.



Text Editor SuperObjects may be used as an alternative to data cells for editing text within a form. You can already see one difference between these two types of objects — the Text Editor SuperObject displays data even in **Graphic Design Mode**, not the field name. To see the major difference between these two types of objects switch the form to **Data Access Mode** (see “[Form Modes: Data Access vs. Graphic Design](#)” on page 543).



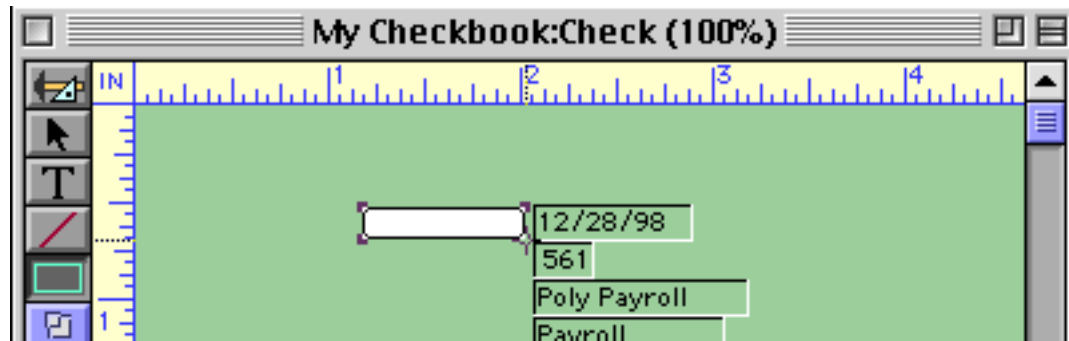
Text Editor SuperObjects allow you to edit text right in the form window—no double click is required. You can simply click or drag on the text to begin editing. Press **Enter** when you are finished. The illustration below shows the effect of double clicking on the word **Poly**. As you can see, instead of opening an Input Box this selects the word for editing.



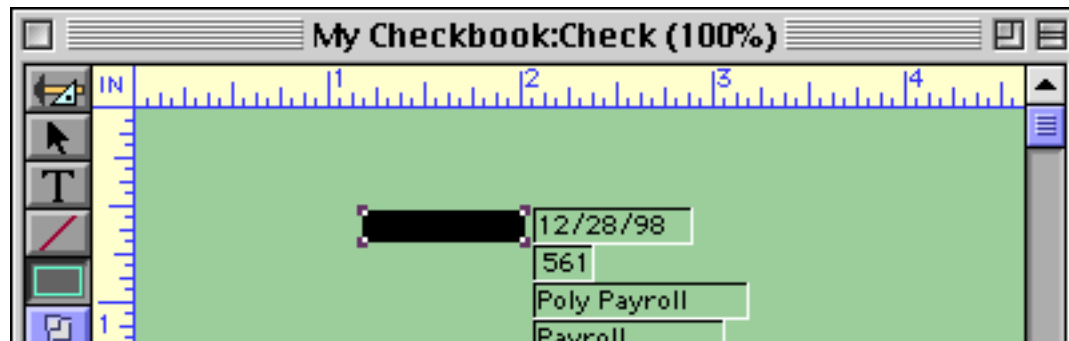
Since the Text Editor SuperObject doesn't use an Input Box, you cannot expand the size of the editing area “on-the-fly” the same way you can with data cells. The editing area must be defined in advance. On the other hand, the Text Editor SuperObject doesn't require the extra double click, and works more like other standard applications you may be used to. See “[Creating and Modifying Text Editor SuperObjects](#)” on page 689 to learn more about Text Editor SuperObjects. For now, however, switch the form back to Graphic Design Mode so that you can continue designing your new form.

Dressing Up the Check Form

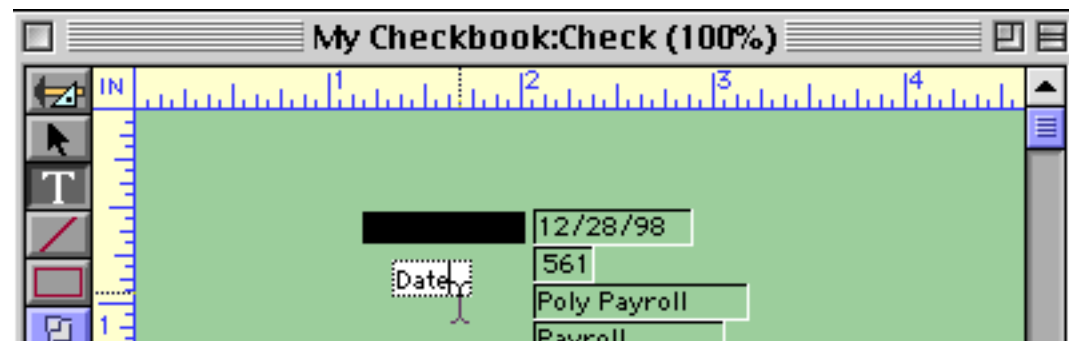
Select the **Rectangle** tool and draw a rectangle next to the check date (see “[Creating a Graphic Object](#)” on page 552).



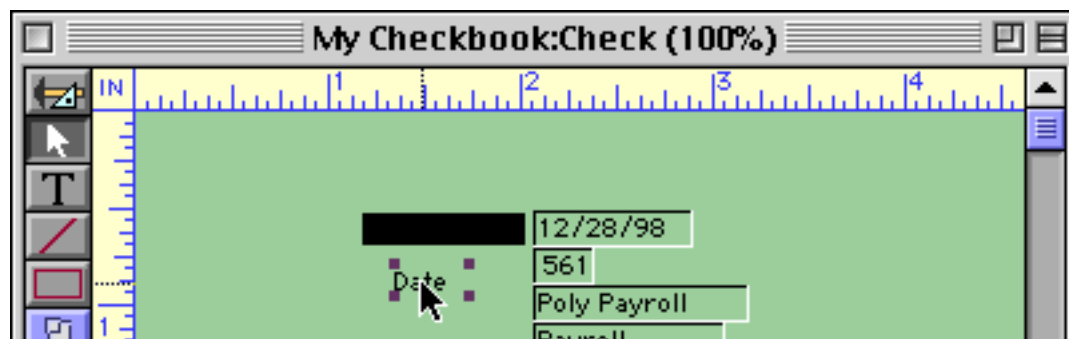
Change the **Fill Pattern** of the rectangle to solid black (see “[Fill Pattern](#)” on page 575).



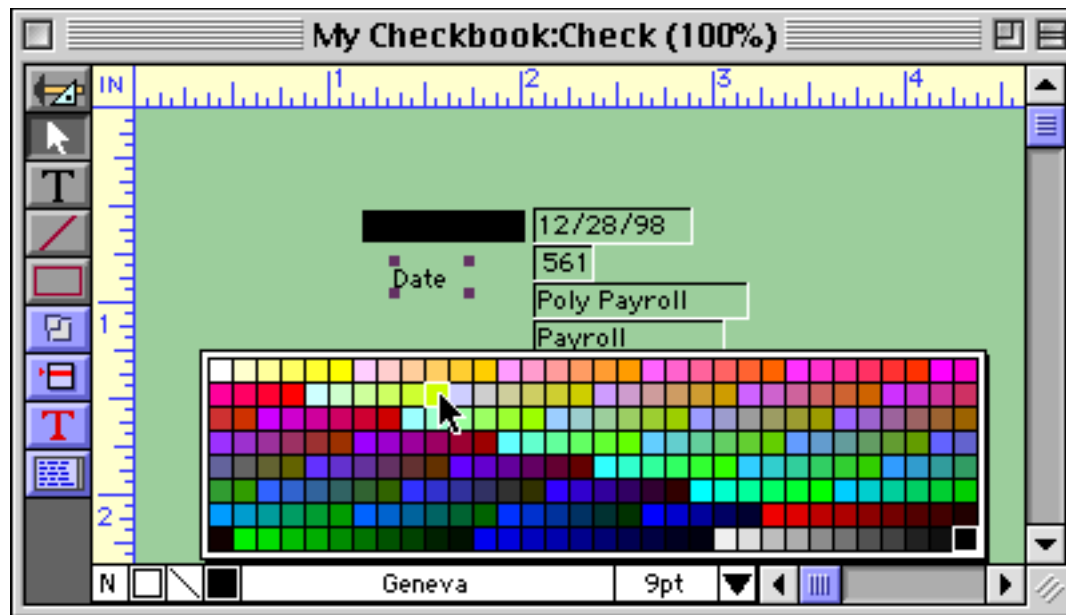
Select the **Text** tool and create a click-text object that says **Date**. (see “[Fixed Text Objects](#)” on page 637).



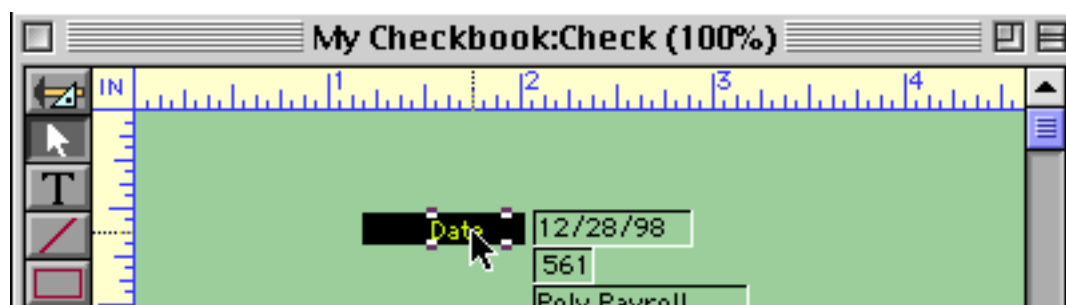
Select the **Pointer** tool and then click on the new text object.



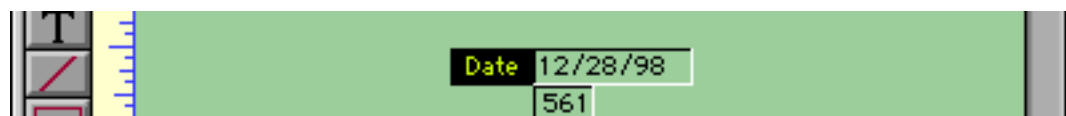
Use the **Graphic Control Strip** to set the text color to light yellow (see “[Color](#)” on page 580).



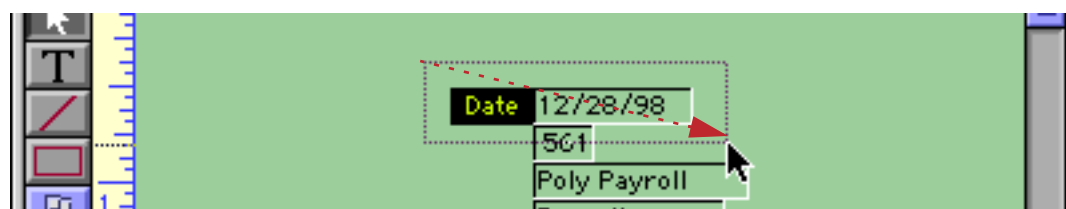
Drag the text over the black box.



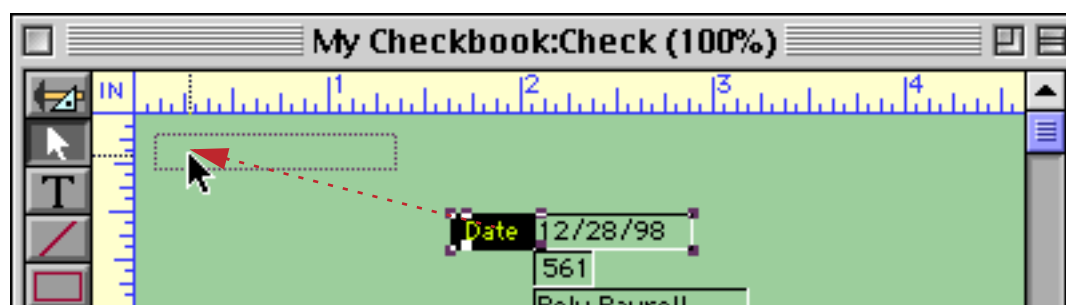
Adjust the black box and the text until they line up with the Text Editor SuperObject as shown below. To adjust these objects you can drag them (see “[Moving a Single Object](#)” on page 564 and “[Changing the Size of a Single Object](#)” on page 568) and nudge them with the arrow keys (see “[Nudging an Object \(or Objects\)](#)” on page 565 and “[Nudging the Size of an Object](#)” on page 568).



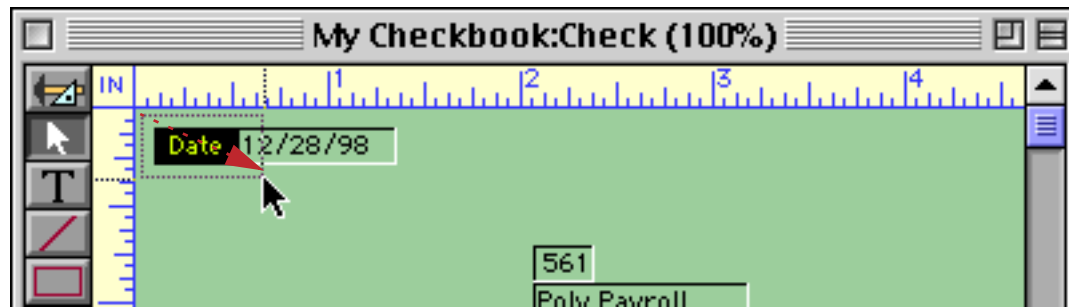
Drag a marquee around these objects to select them (see “[Selecting Multiple Objects at Once](#)” on page 559).



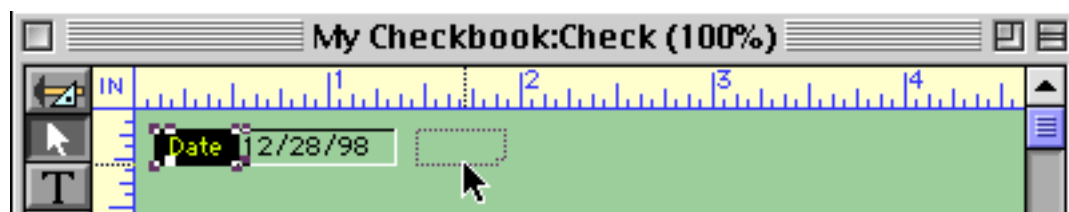
Then drag the objects into the upper left hand corner of the form.



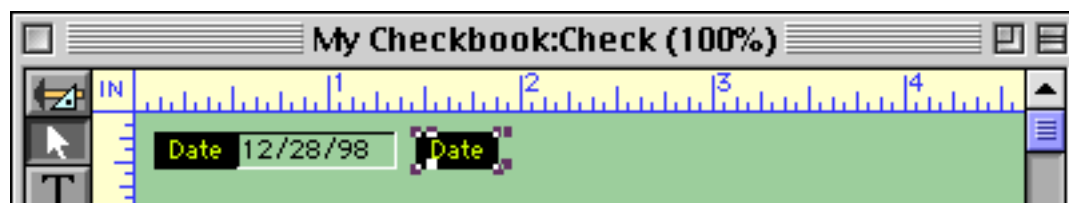
Now drag a marquee just around the box and text objects.



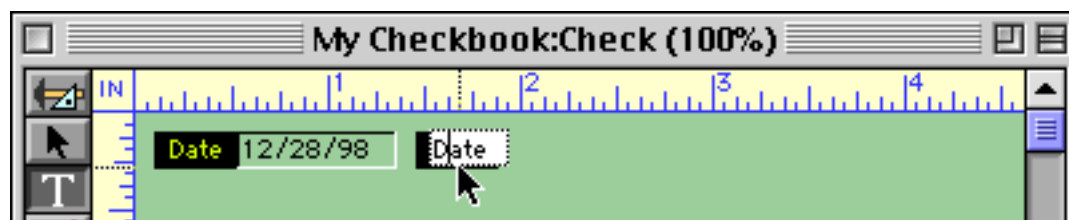
Hold down the **Shift** and **Option** keys on the Mac, or **Shift** and **Alt** keys on the PC. With these two keys held down drag the two objects to the right.



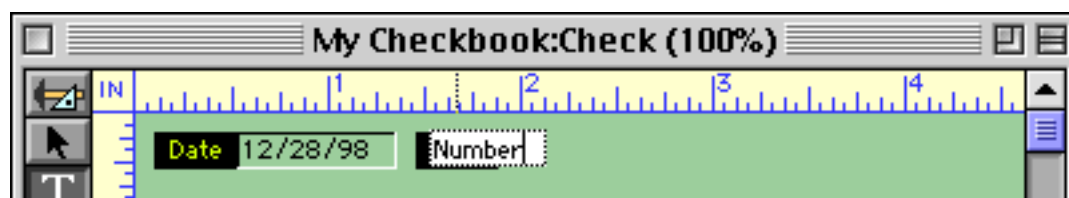
Holding down the **Shift** key insures that you drag the objects at 90 degrees, either perfectly up and down or perfectly left and right (as in this case). Holding down the **Option/Alt** key tells Panorama to duplicate the objects. When you release the mouse you'll have two copies of these objects.



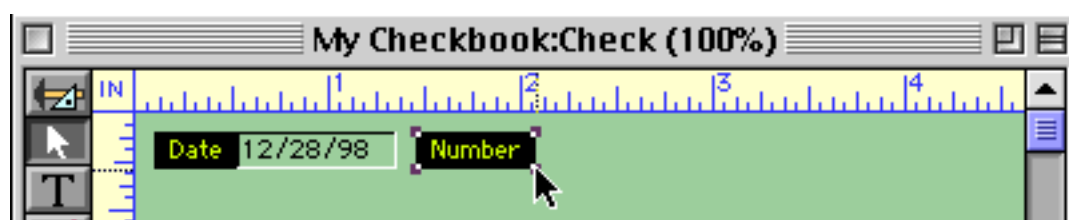
Select the **Text** tool and click on the new text object.



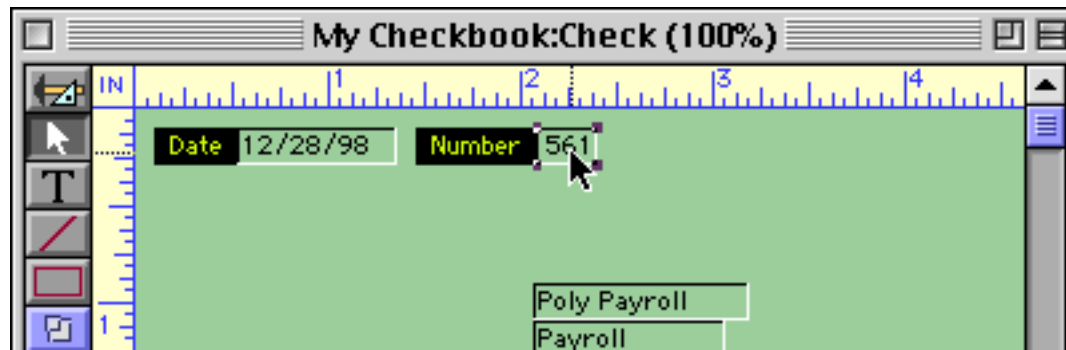
Edit the text to say **Number** instead of **Date**.



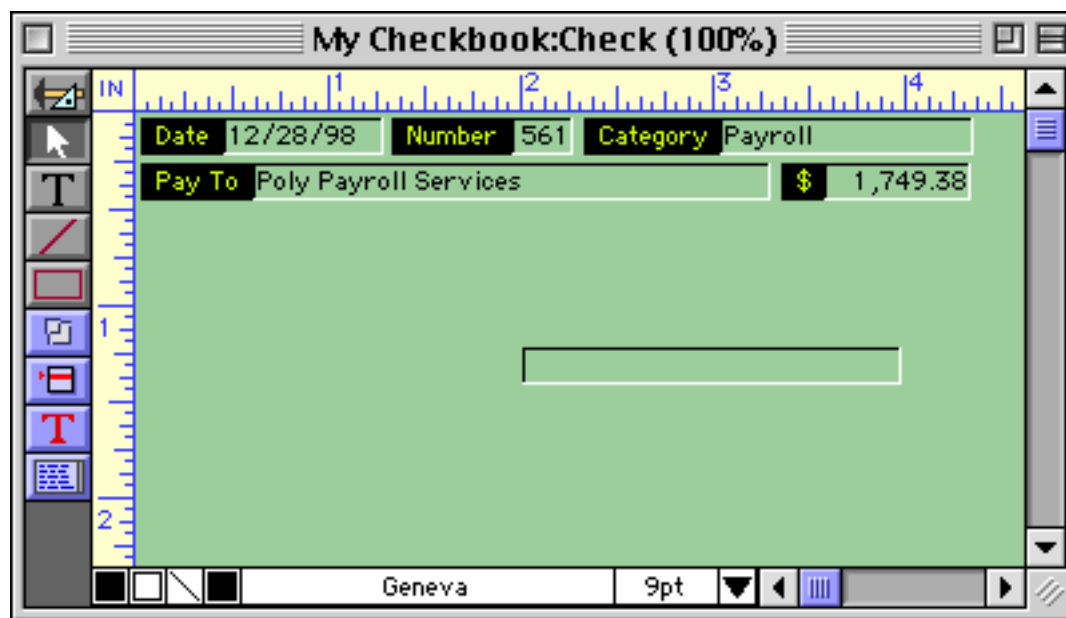
Select the **Pointer** tool and adjust the rectangle size to match the new text.



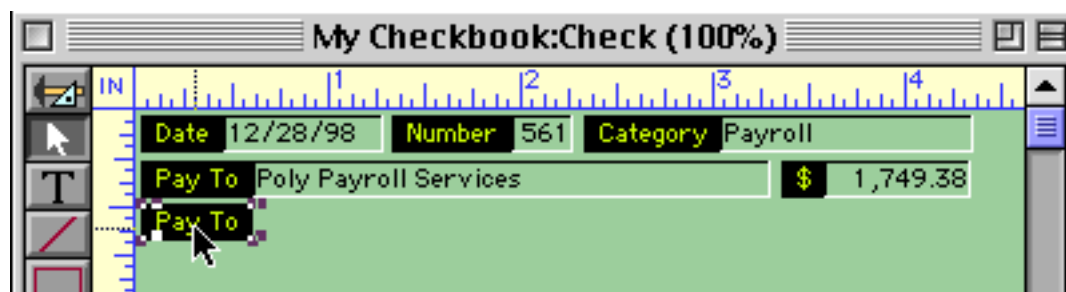
Drag the check number up next to these objects.



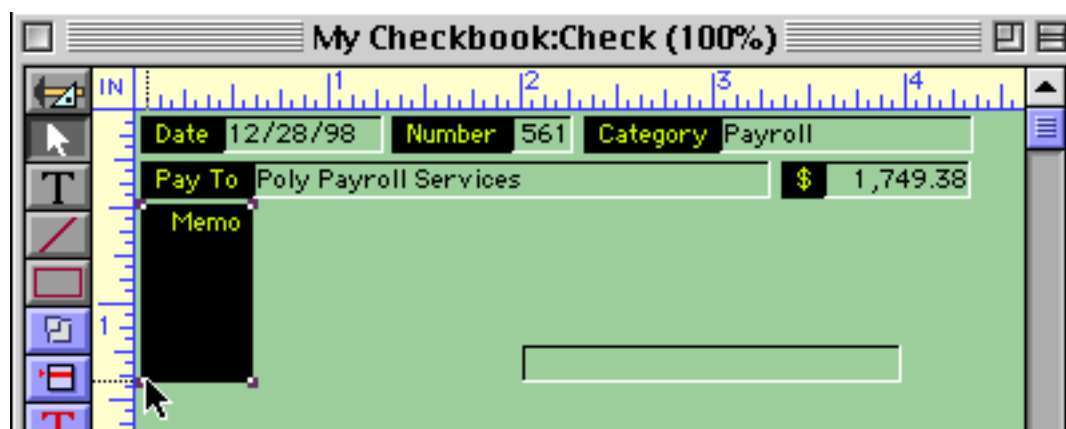
Using the techniques you've just learned continue re-arranging the form until it looks like this.



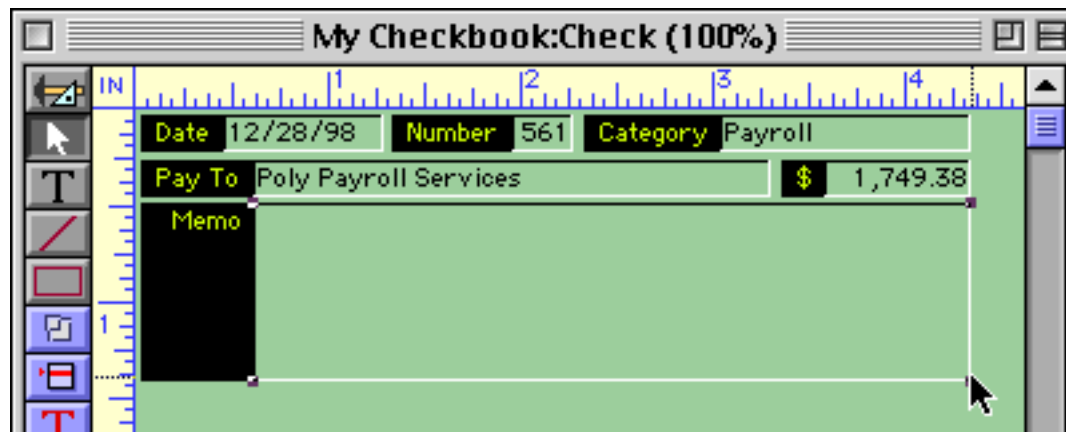
Make a copy of the **Pay To** caption.



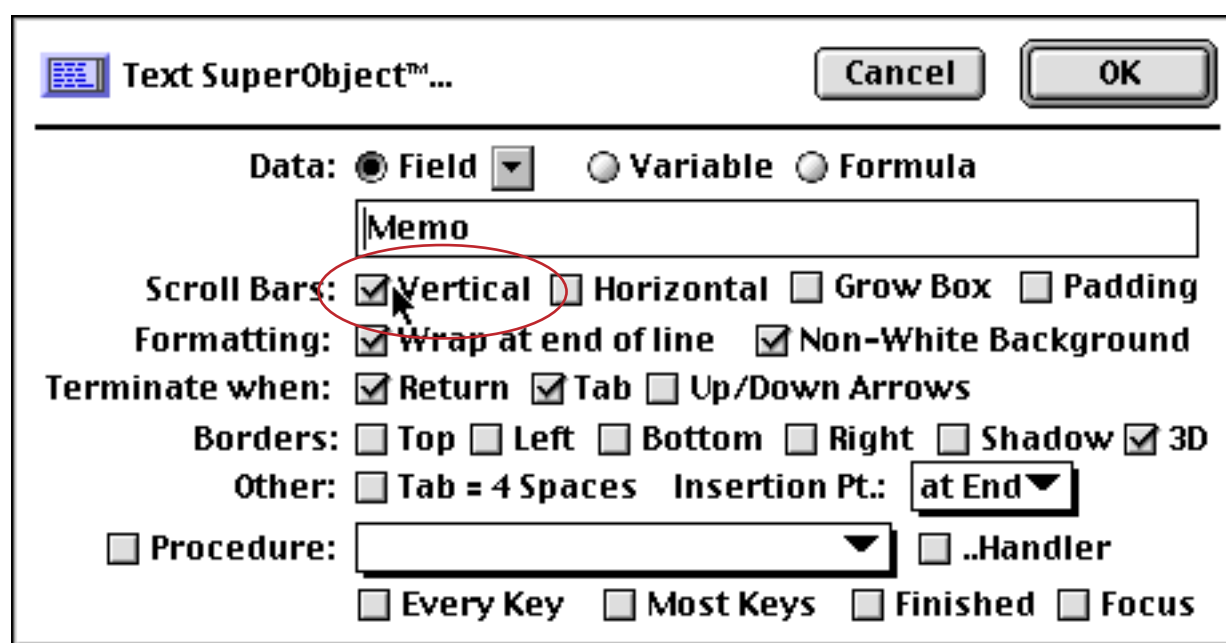
Change the text to **Memo** and expand the rectangle to about 1 inch high.



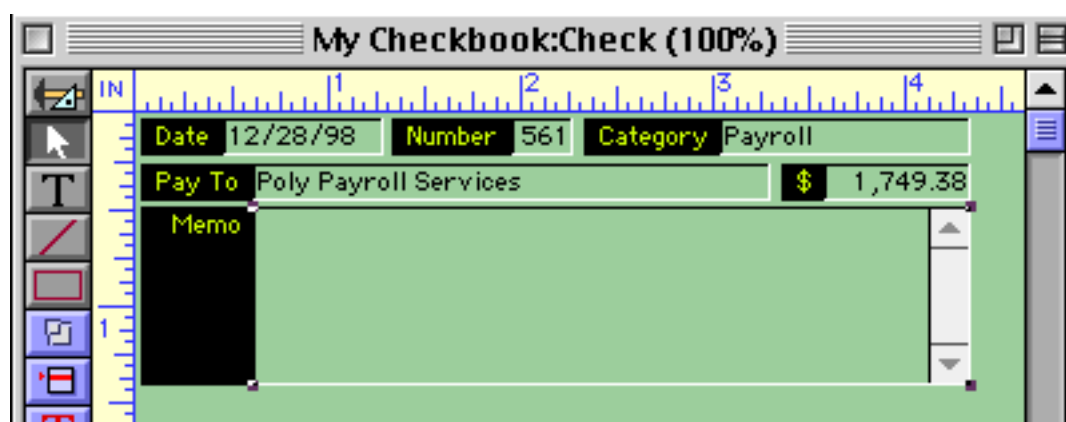
Slide and resize the memo field itself into place.



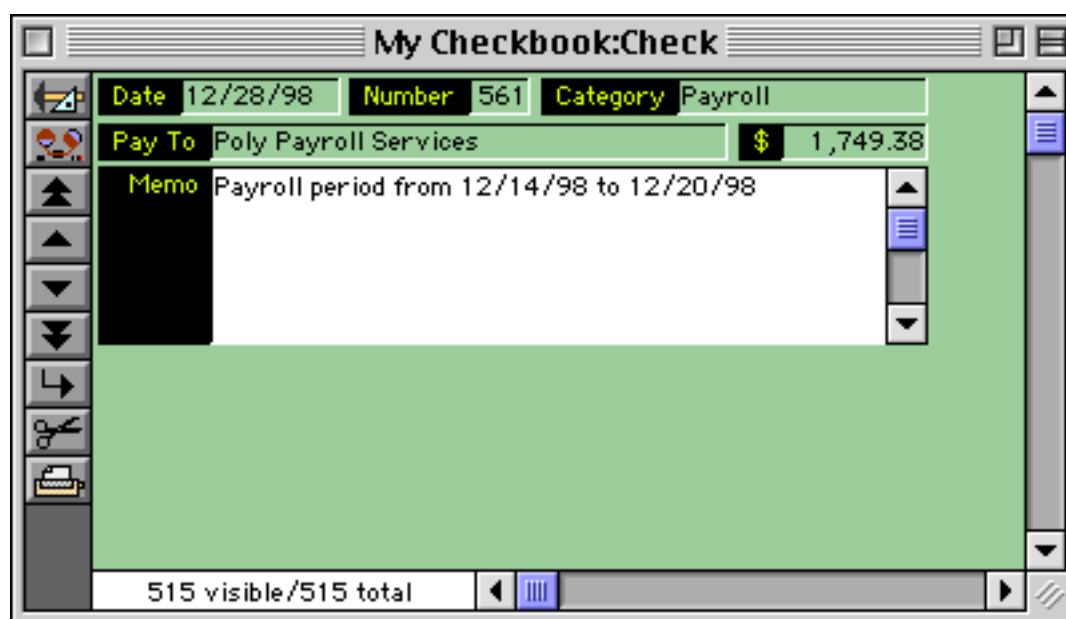
To add a scroll bar to the memo field double click on the Text Editor SuperObject to open the object properties dialog. This dialog lets you turn various object options on and off. Click on the **Vertical Scroll Bar** checkbox.



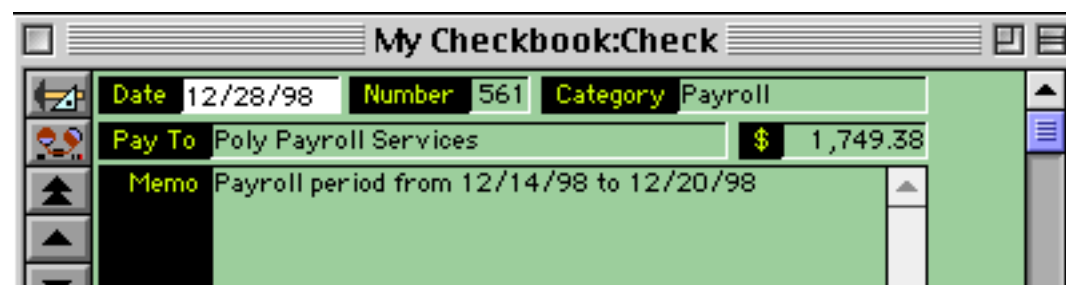
When you press the **OK** button the memo field gets a vertical scroll bar.



To actually use the form you must switch into Data Access Mode. Notice that the background of the field being edited turns white (in this case the memo field).

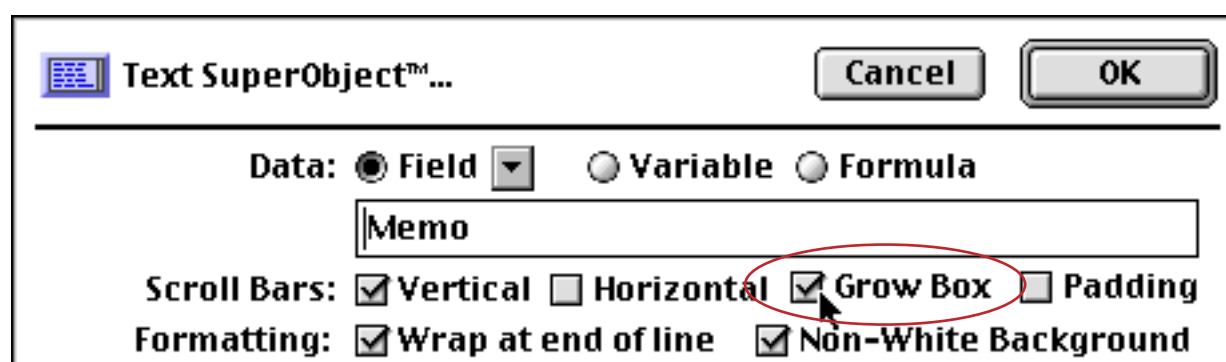


Use the **Tab** key to move from field to field.

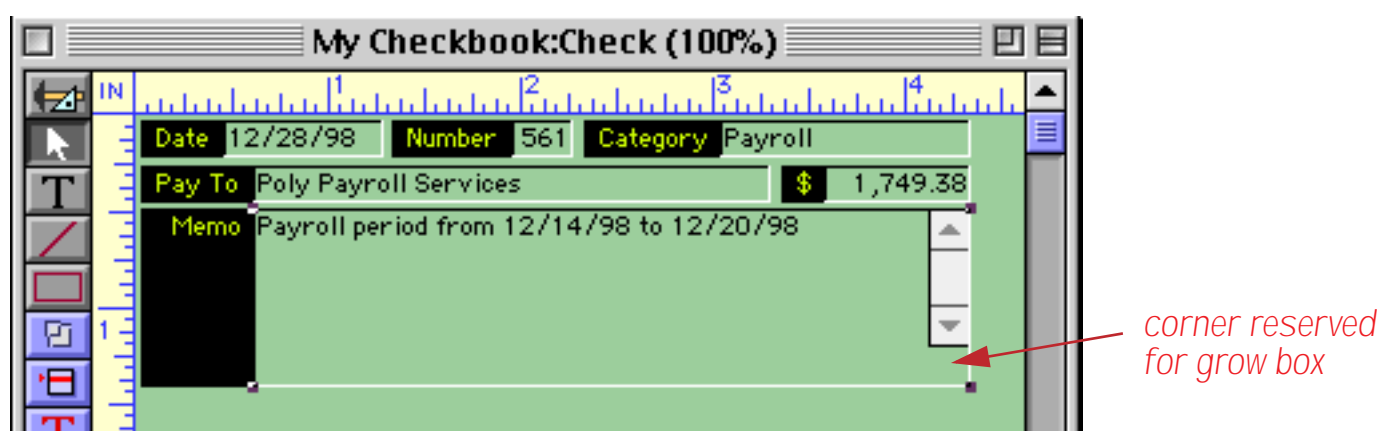


Making the Form Elastic

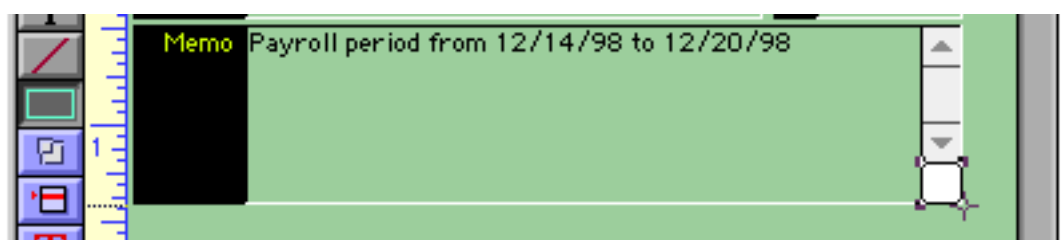
An ordinary form is fixed — it stays the same no matter what the size of the window is. By adding a single object to your form you can make it **elastic**. An elastic form adjusts automatically to fit the window — it grows when the window grows and shrinks when the window shrinks. Start by switching back to Graphic Design Mode. Then double click on the memo field to open the object properties dialog.



Turn on the **Grow Box** option, then press the **OK** button. The memo field now reserves a spot for the window's grow box.



Using the **Rectangle** tool draw a box in the spot reserved for the grow box.



Using the **Duplicate** command in the Edit menu, make a copy of the box (see "[Duplicate](#)" on page 612).



Set the Fill Pattern of the new box to solid black (see "[Fill Pattern](#)" on page 575).



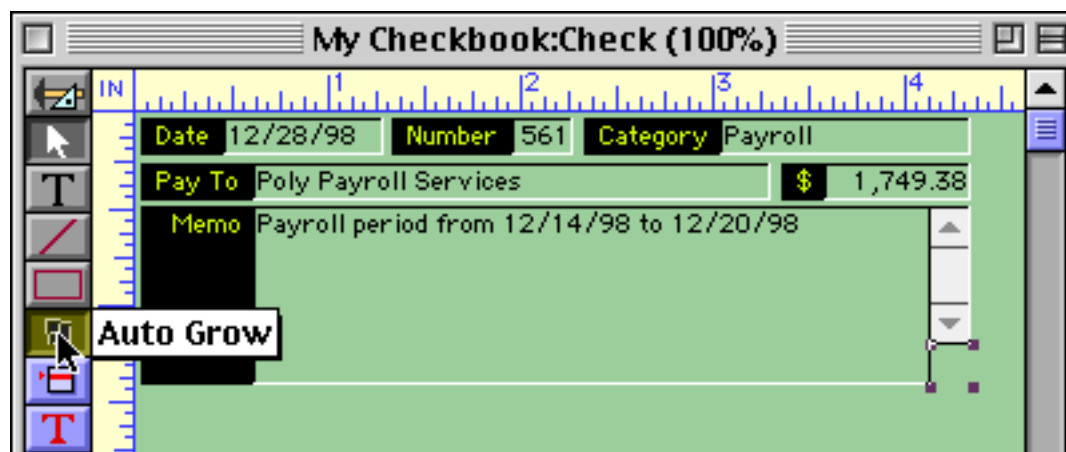
Set the color of the new box to the same green color as the background (see "[Color](#)" on page 580).



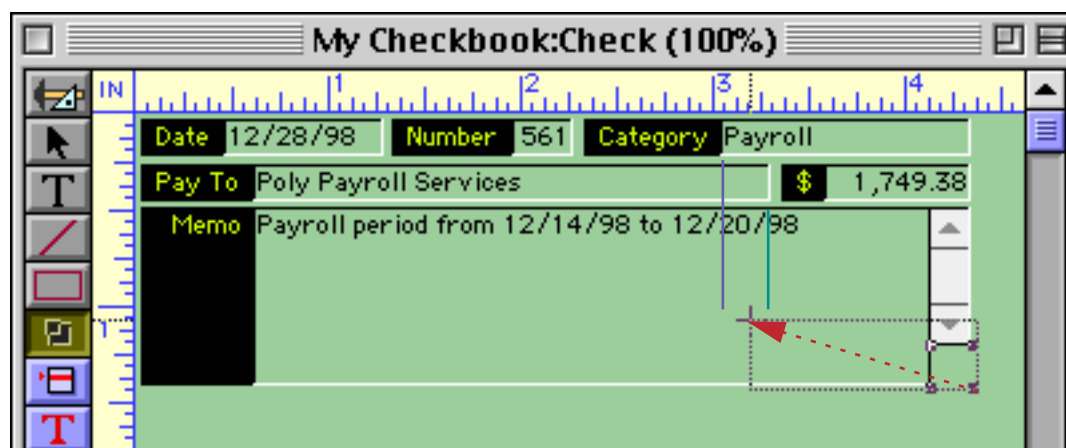
Use the arrow keys to nudge the green box until it covers the white area but leaves the black border.



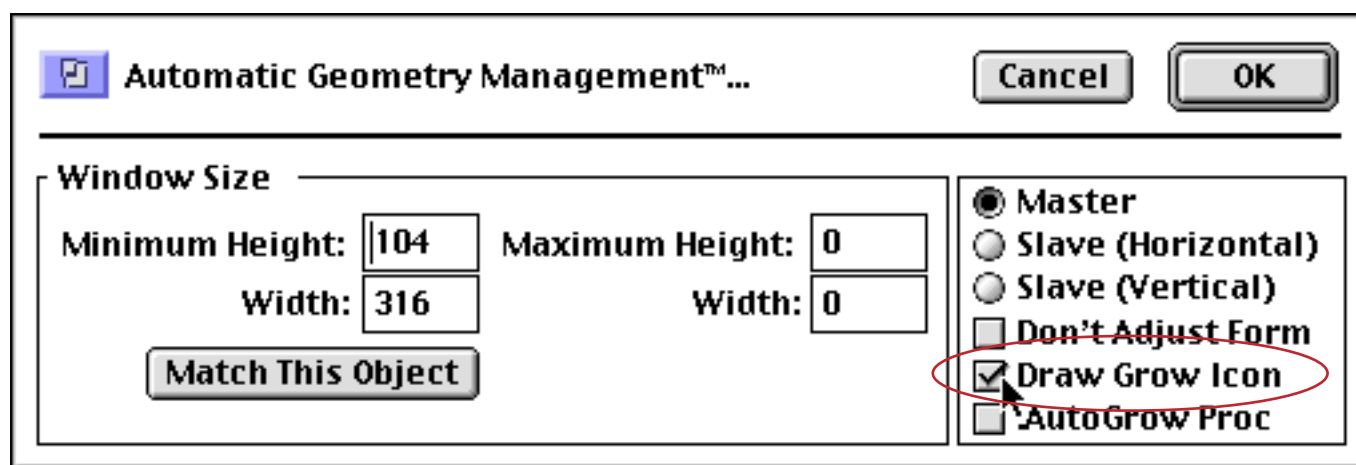
Now to make the form elastic. Start by selecting the **Auto Grow** tool. (If you can't find the **Auto Grow** tool you need to customize the tool palette. See "[Customizing the Tool Palette](#)" on page 554.)



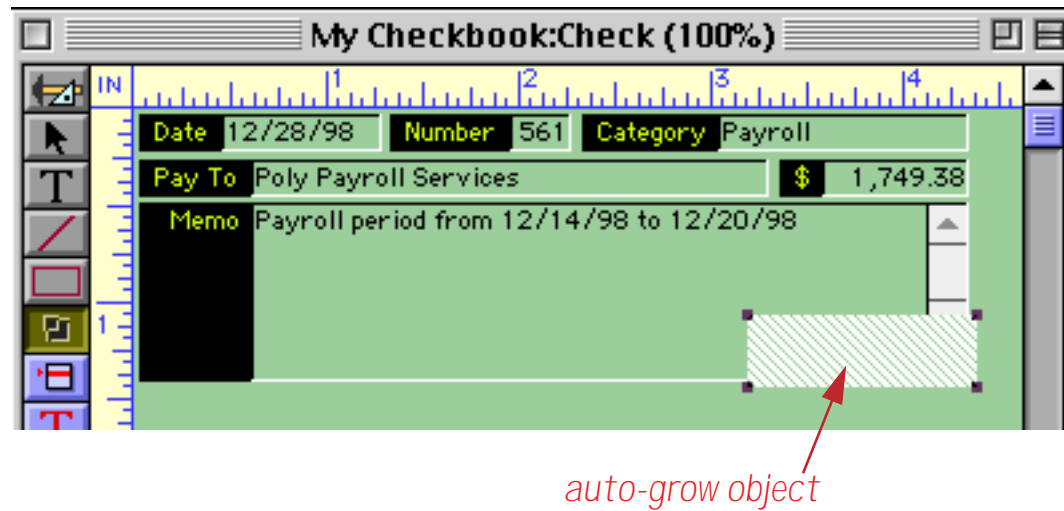
Starting from the bottom right hand corner of the form, drag the mouse up and to the left. Release the mouse somewhere between the left edge of the **Category** field and the right edge of the **Pay To** field, as shown in the illustration below. (The blue and green lines in the illustration below have been added to highlight the location of these edges.)



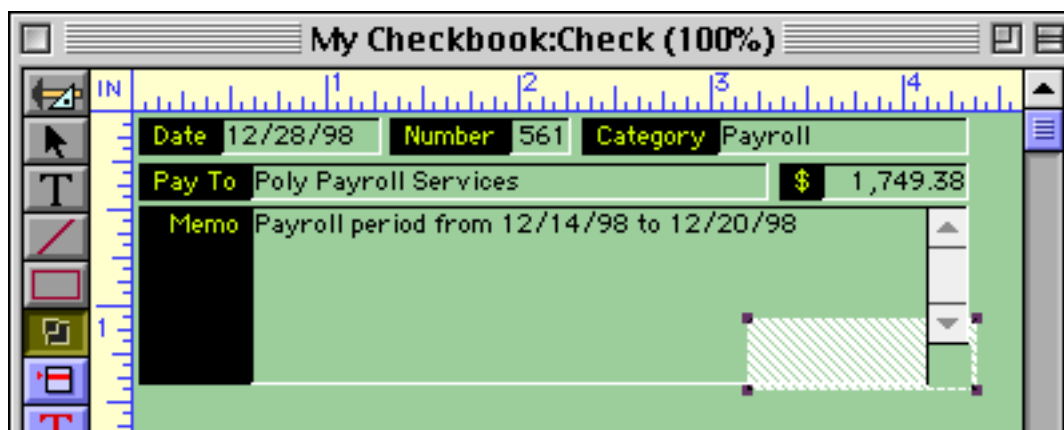
When you release the mouse the **Auto Grow** configuration dialog appears. The dialog is already filled out for you except that you need to turn on the **Draw Grow Icon** checkbox.



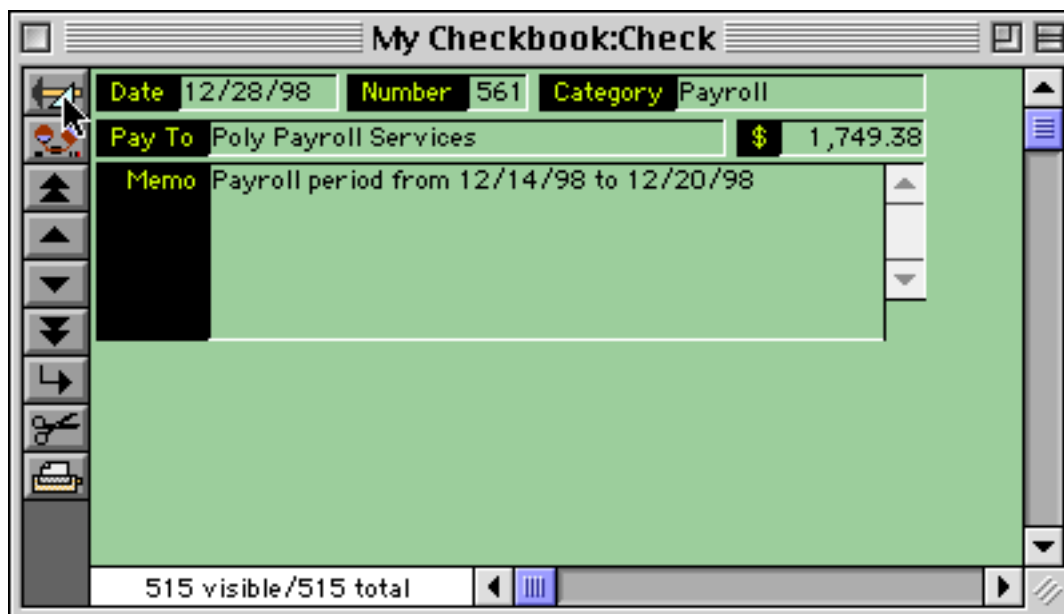
Press the **OK** button to finish creating this object.



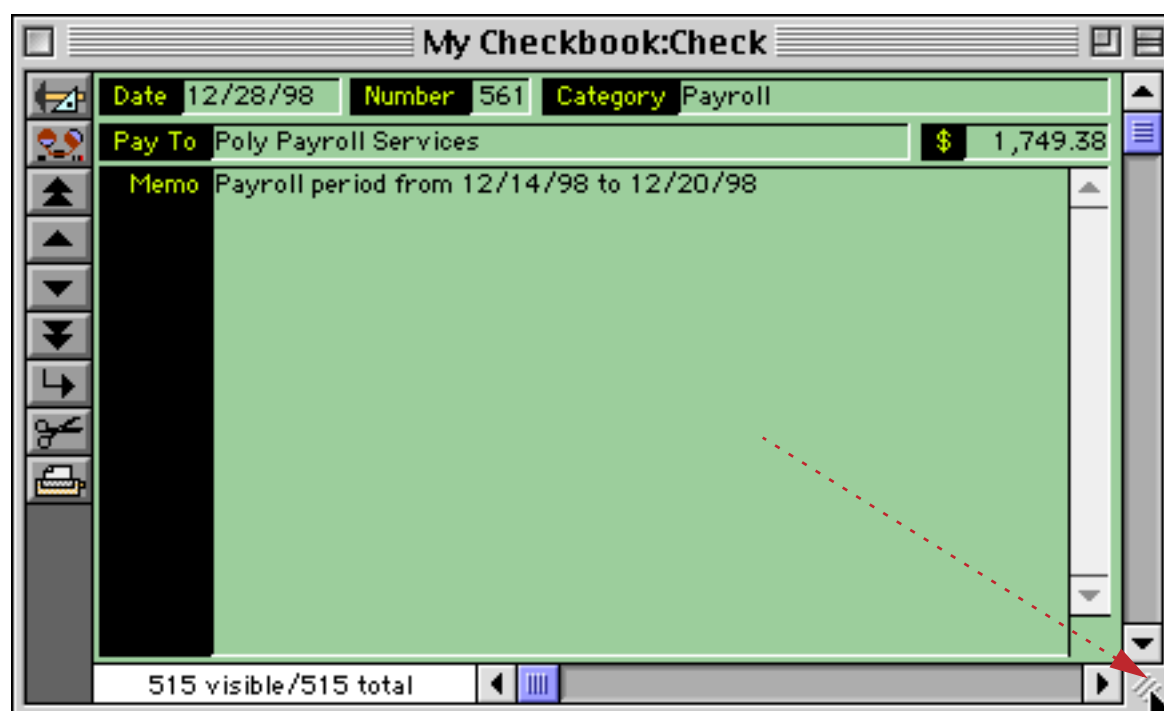
The auto-grow object is covering up some of the memo field. To fix this use the **Send To Back** command in the Arrange menu (see [“Changing the Stacking Order”](#) on page 620).



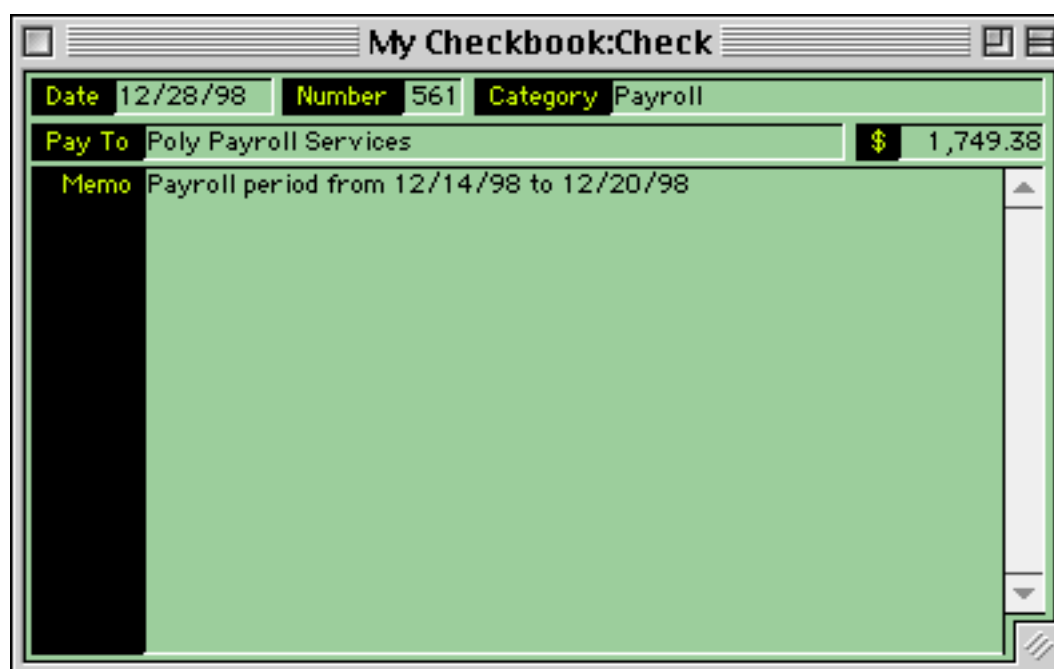
When you switch the form to Data Access Mode the auto-grow object completely disappears.



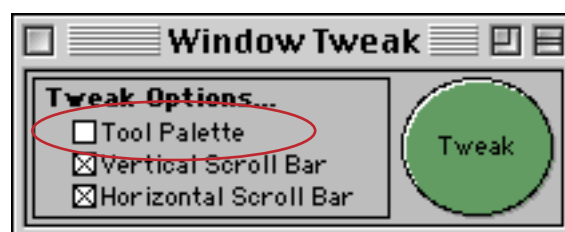
But the real fun starts when you adjust the size of the window. The form adjusts automatically to the new size! See “[Elastic Forms](#)” on page 940 for a complete explanation of how this magic works.



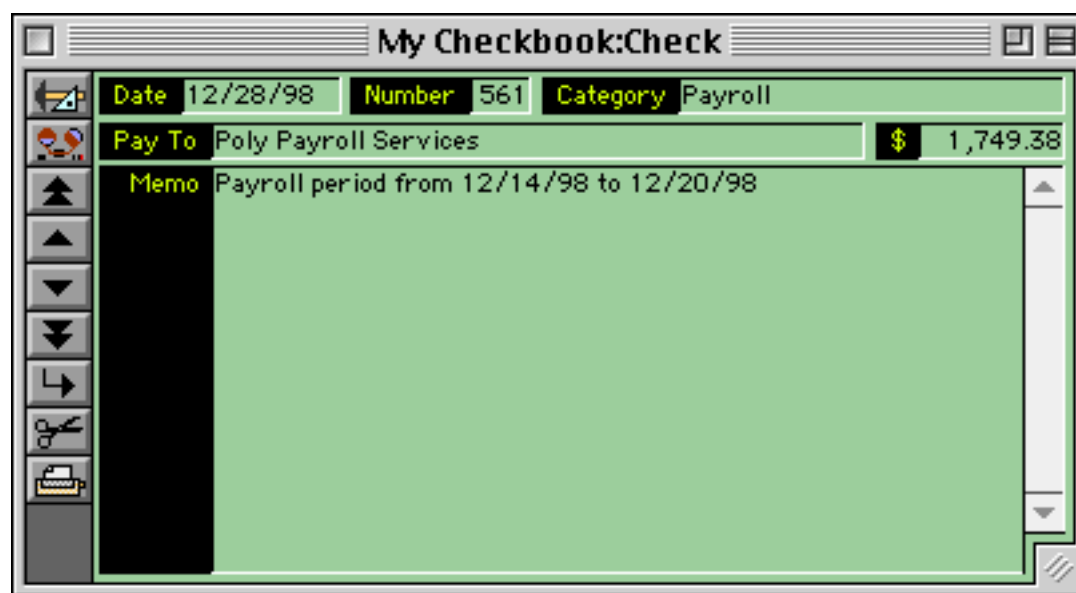
To get rid of the extra scroll bars and tool palette choose the **Window Tweak** command from the Wizard menu (see “[Turning Window Components On and Off \(Window Tweak Wizard\)](#)” on page 283).



In this case you may want to use the tool palette. To get it back uncheck the **Tool Palette** option in the **Window Tweak** window.



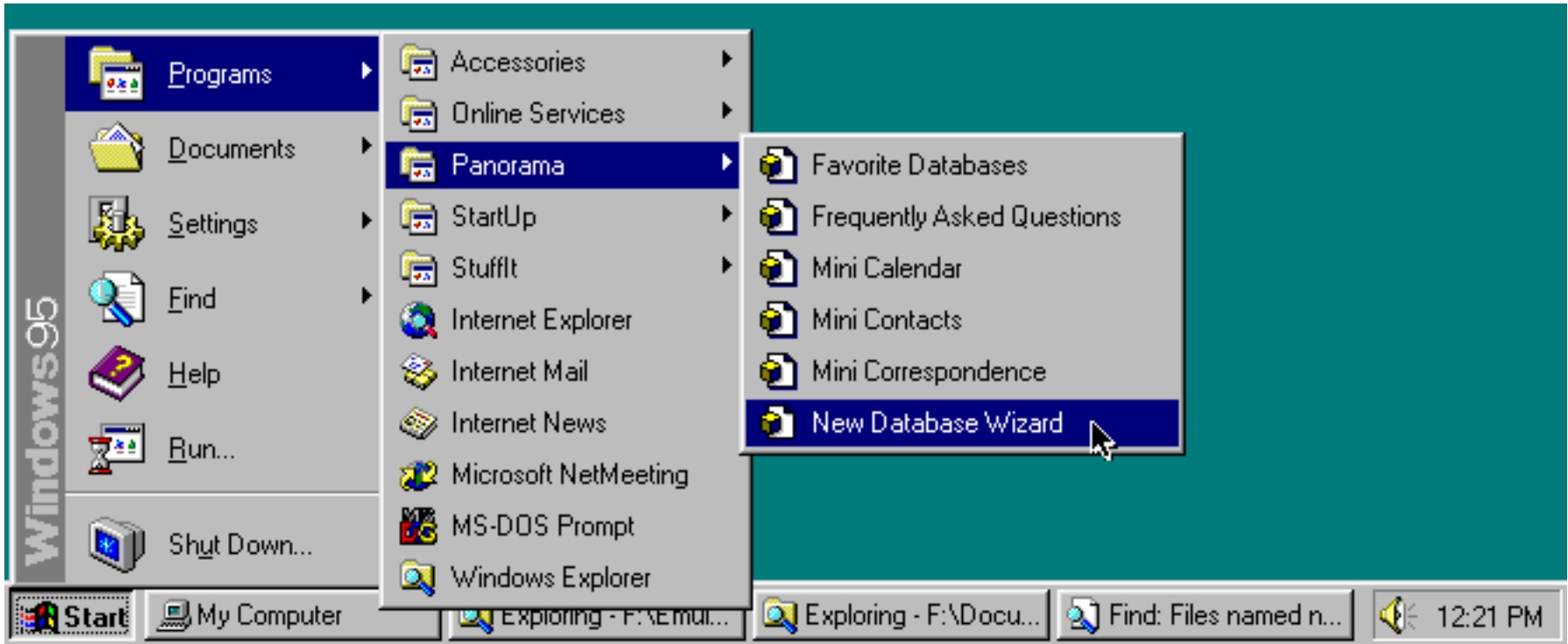
Then press the **Tweak** button twice. Here's the final result.



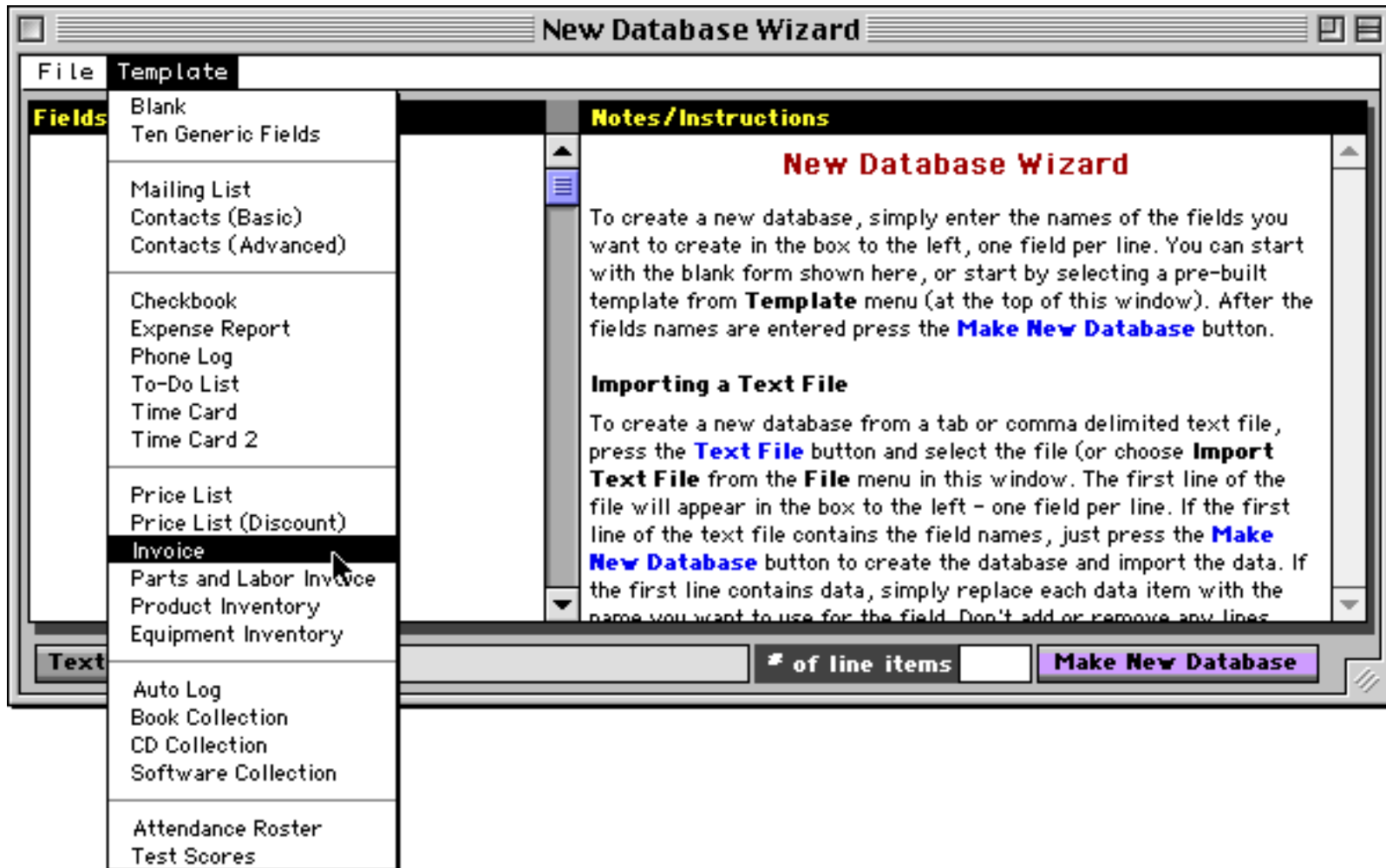
Oh yeah, one more thing. You have been remembering to **Save**, right? Well, go for it now, and you're done.

Lesson 3: Building an Invoice Database

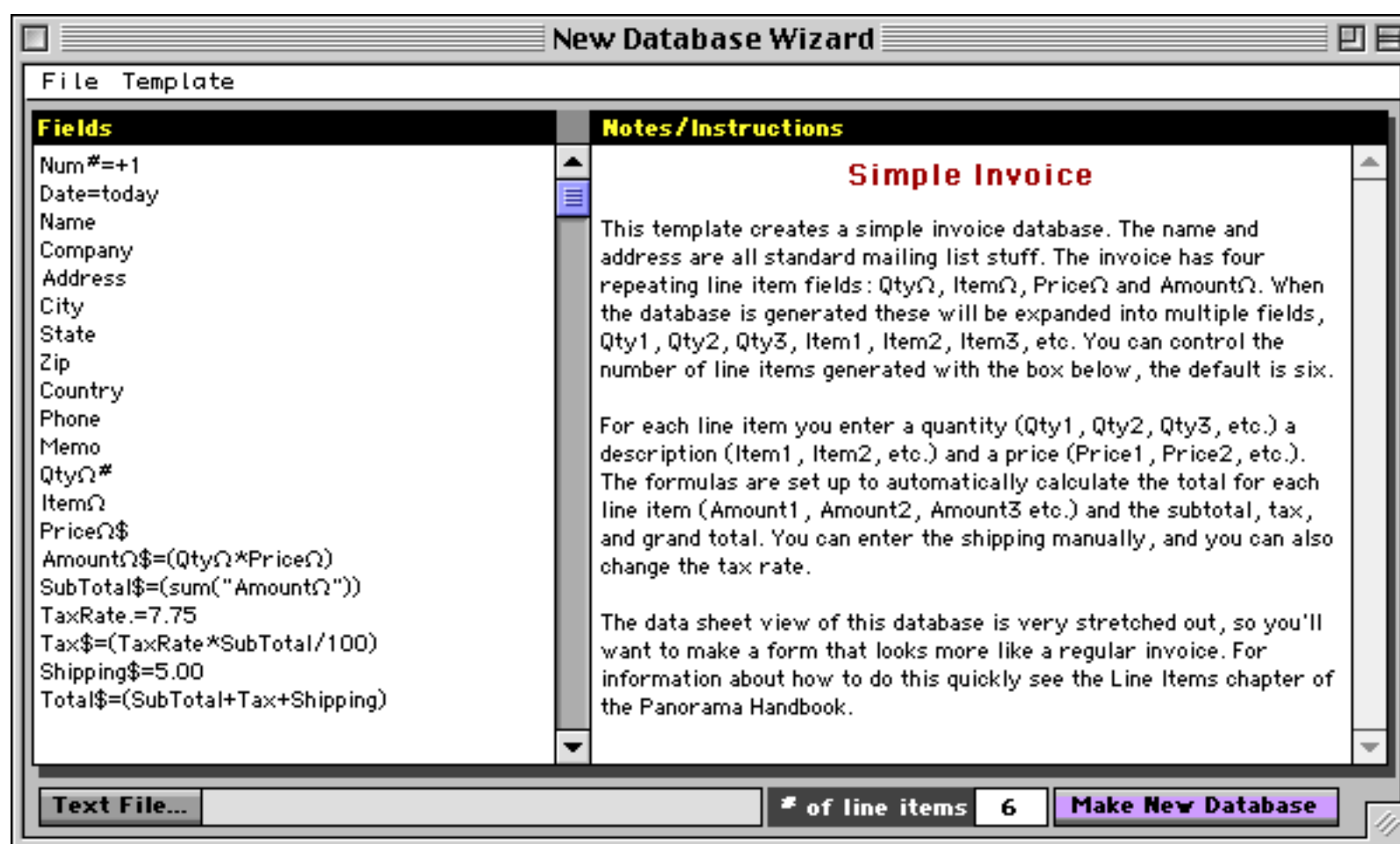
Now that you've mastered basic skills in building databases, forms and procedures you're ready to tackle a more complicated task. Organizing invoices (or similar forms like statements, purchases, quotes, expense reports etc.) is one of the most common jobs performed by database programs. Just as with the other two databases you'll start by launching Panorama and the **New Database Wizard**. On Windows systems you can do this with the **Start** menu, on Macintosh systems you'll use the **Apple** menu.



Instead of building this database from scratch you're going to use the pre-built Invoice template in the **Template** menu.



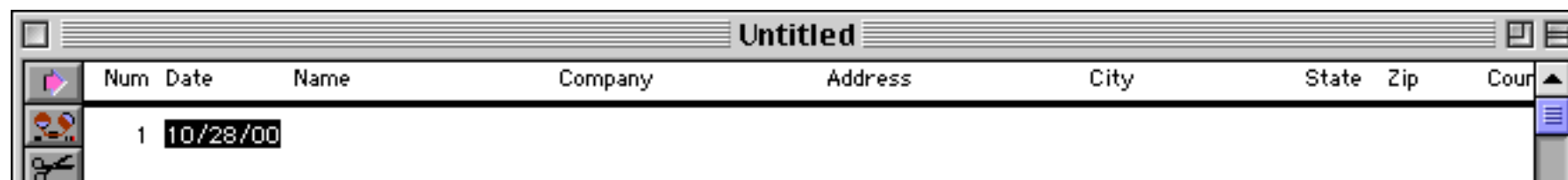
When you select this template the wizard will call up a list of definitions for the twenty fields required for an invoice, including default values and calculations.



By default the wizard will create a database that allows up to six **line items** per invoice. Let's increase this to twelve line items per invoice.



Press the **Make New Database** button to actually create the database. The new database has so many fields that we can only see a small portion of them at once using the data sheet.



Before going any further you should **Save** the new database. Give it the name **My Invoices** and save it in the same folder as your first two databases. Be sure to check the **Save Window Positions** option in the **Save As** dialog.

Line Item Fields

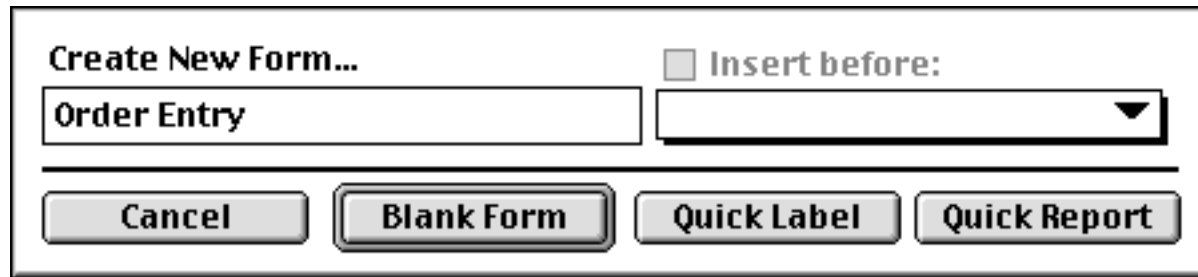
The New Database Wizard invoice template contained 20 fields. However, if you look in the design sheet (use the View menu) you will see that the database actually contains 64 fields.

Field Name	Type	Di	Align	Out	Inp	Range	Choi	Link	Clair	Tab	Cap	Dup	Def	Equ	Reac	Writ	Wid	Notes
Num	Num	0	Right	#	,	Any		Off	Off	Off	Yes	+1		0	0	3		
Date	Date	0	Left			Any		Off	Off	Off	Yes	tod.		0	0	7		
Name	Text	0	Left			Any		Off	Off	Wor	Yes			0	0	15		
Company	Text	0	Left			Any		Off	Off	Wor	Yes			0	0	15		
Address	Text	0	Left			Any		Off	Off	Wor	Yes			0	0	15		
City	Text	0	Left			Any		Off	Off	Wor	Yes			0	0	12		
State	Text	0	Left			Any		Off	Off	All	Yes			0	0	4		
Zip	Text	0	Left			Any		Off	Off	All	Yes			0	0	5		
Country	Text	0	Left			Any		Off	Off	Wor	Yes			0	0	10		
Phone	Text	0	Left	(	—	Any		Off	Off	Off	Yes			0	0	12	
Memo	Text	0	Left			Any		Off	Off	Off	Yes			0	0	20		
Qty1	Num	0	Right	#	,	Any		Off	Off	Off	Yes			0	0	3		
Item1	Text	0	Left			Any		Off	Off	Off	Yes			0	0	10		
Price1	Num	Flc	Right	#	,	Any		Off	Off	Off	Yes			0	0	6		
Amount1	Num	Flc	Right	#	,	Any		Off	Off	Off	Yes		Qty	0	0	6		
Qty2	Num	0	Right	#	,	Any		Off	Off	Off	Yes			0	0	3		
Item2	Text	0	Left			Any		Off	Off	Off	Yes			0	0	10		
Price2	Num	Flc	Right	#	,	Any		Off	Off	Off	Yes			0	0	6		
Amount2	Num	Flc	Right	#	,	Any		Off	Off	Off	Yes		Qty	0	0	6		
Qty3	Num	0	Right	#	,	Any		Off	Off	Off	Yes			0	0	3		
Item3	Text	0	Left			Any		Off	Off	Off	Yes			0	0	10		
Price3	Num	Flc	Right	#	,	Any		Off	Off	Off	Yes			0	0	6		
Amount3	Num	Flc	Right	#	,	Any		Off	Off	Off	Yes		Qty	0	0	6		
Qty4	Num	0	Right	#	,	Any		Off	Off	Off	Yes			0	0	3		
Item4	Text	0	Left			Any		Off	Off	Off	Yes			0	0	10		
Price4	Num	Flc	Right	#	,	Any		Off	Off	Off	Yes			0	0	6		
Amount4	Num	Flc	Right	#	,	Any		Off	Off	Off	Yes		Qty	0	0	6		
Qty5	Num	0	Right	#	,	Any		Off	Off	Off	Yes			0	0	3		
Item5	Text	0	Left			Any		Off	Off	Off	Yes			0	0	10		
Price5	Num	Flc	Right	#	,	Any		Off	Off	Off	Yes			0	0	6		
Qty10	Num	0	Right	#	,	Any		Off	Off	Off	Yes			0	0	3		
Item10	Text	0	Left			Any		Off	Off	Off	Yes			0	0	10		
Price10	Num	Flc	Right	#	,	Any		Off	Off	Off	Yes			0	0	6		
Amount10	Num	Flc	Right	#	,	Any		Off	Off	Off	Yes		Qty	0	0	6		
Qty11	Num	0	Right	#	,	Any		Off	Off	Off	Yes			0	0	3		
Item11	Text	0	Left			Any		Off	Off	Off	Yes			0	0	10		
Price11	Num	Flc	Right	#	,	Any		Off	Off	Off	Yes			0	0	6		
Amount11	Num	Flc	Right	#	,	Any		Off	Off	Off	Yes		Qty	0	0	6		
Qty12	Num	0	Right	#	,	Any		Off	Off	Off	Yes			0	0	3		
Item12	Text	0	Left			Any		Off	Off	Off	Yes			0	0	10		
Price12	Num	Flc	Right	#	,	Any		Off	Off	Off	Yes			0	0	6		
Amount12	Num	Flc	Right	#	,	Any		Off	Off	Off	Yes		Qty	0	0	6		
SubTotal	Num	Flc	Right	#	,	Any		Off	Off	Off	Yes	Am		0	0	6		
TaxRate	Num	Flc	Right			Any		Off	Off	Off	Yes	7.7		0	0	6		
Tax	Num	Flc	Right	#	,	Any		Off	Off	Off	Yes	Tax		0	0	6		
Shipping	Num	Flc	Right	#	,	Any		Off	Off	Off	Yes	5.0		0	0	6		
Total	Num	Flc	Right	#	,	Any		Off	Off	Off	Yes	Sub		0	0	6		

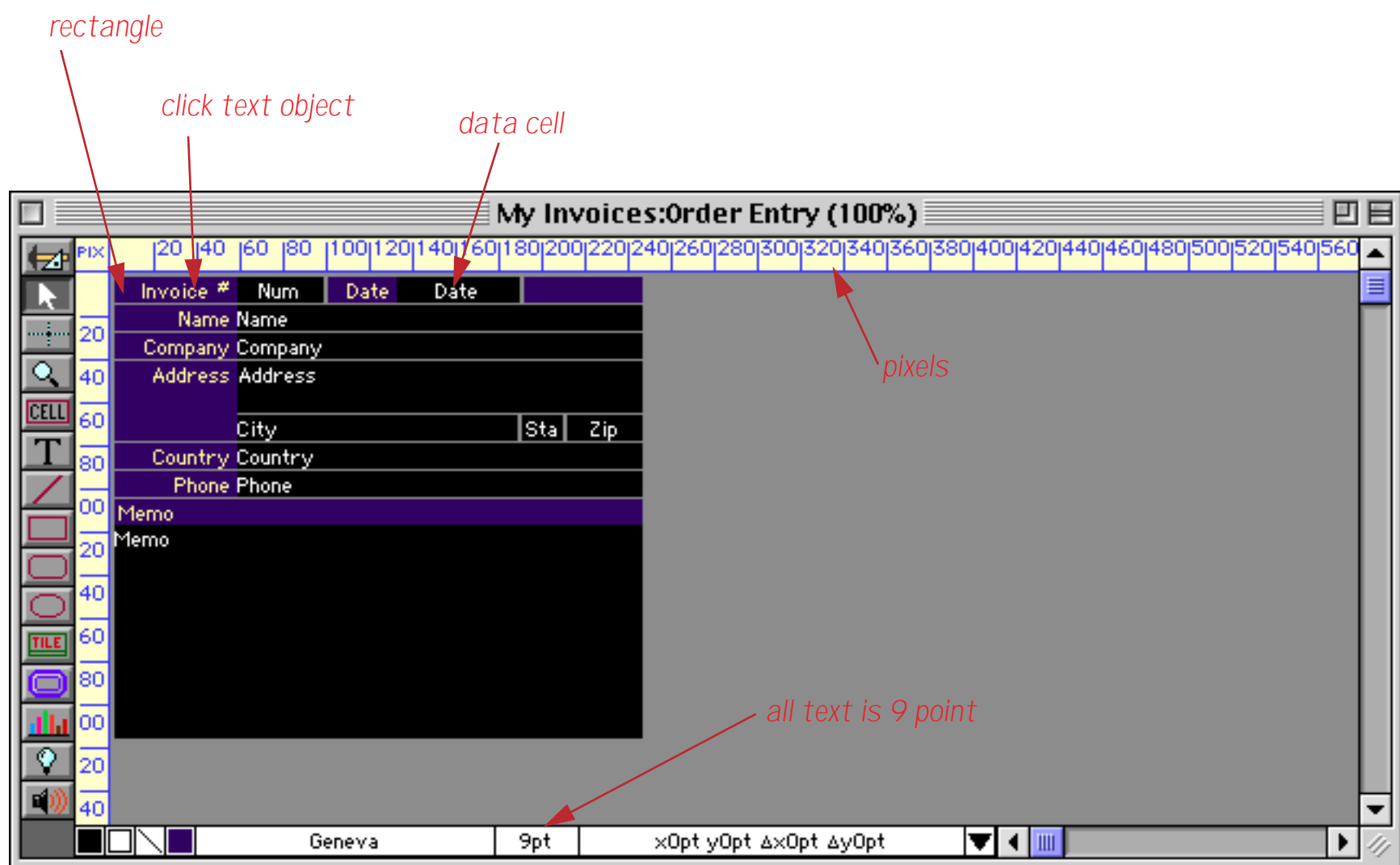
The solution to this is that four of the fields in the template, [Qty](#), [Item](#), [Price](#) and [Amount](#), are actually a special kind of field called line item fields. The wizard expanded each of these into 12 fields, [Qty1](#), [Qty2](#), [Qty2](#), etc., [Item1](#), [Item2](#), [Item3](#), etc. This allows the invoice to contain information about up to 12 separate items. It's difficult to work with so many fields in the data sheet view, so you'll create a form that allows you to display and edit the data in a format that looks like a traditional paper invoice.

Creating an Invoice Form

You already know how to create a new form, so make one named **Order Entry**. There's no need to open it in a separate window, you won't be needing the data sheet again.

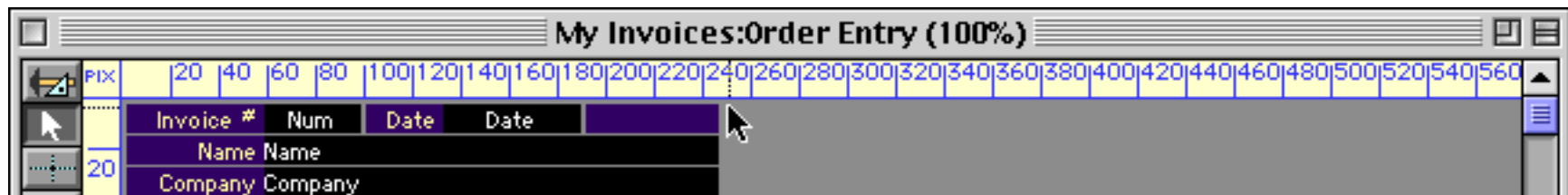


Using the techniques you've learned make the form look like the illustration below. If you need to review these techniques see "[Creating a Data Entry Form](#)" on page 40 and "[Drawing a Check Form](#)" on page 140. You may find it easier to switch the rulers to **pixels** instead of inches as shown in the illustration below, see "[Rulers](#)" on page 563 to learn how to do this.

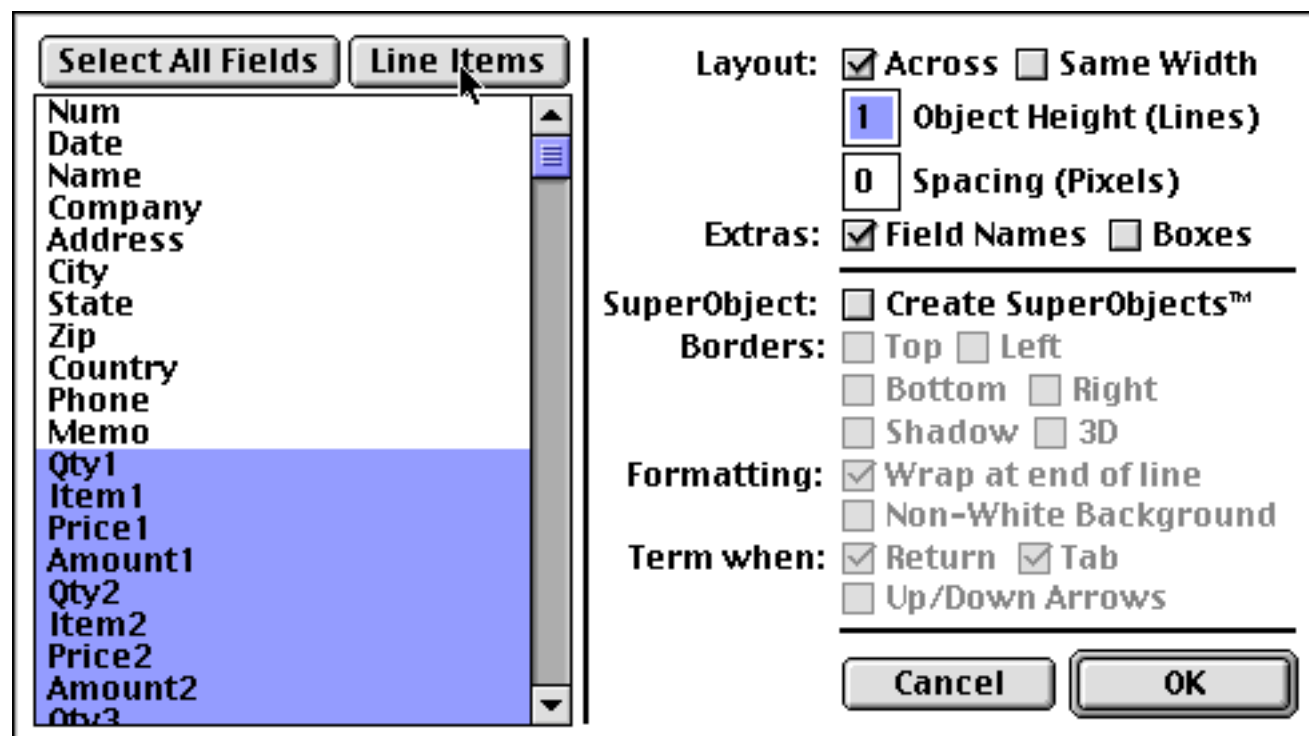


Adding Line Items to the Form

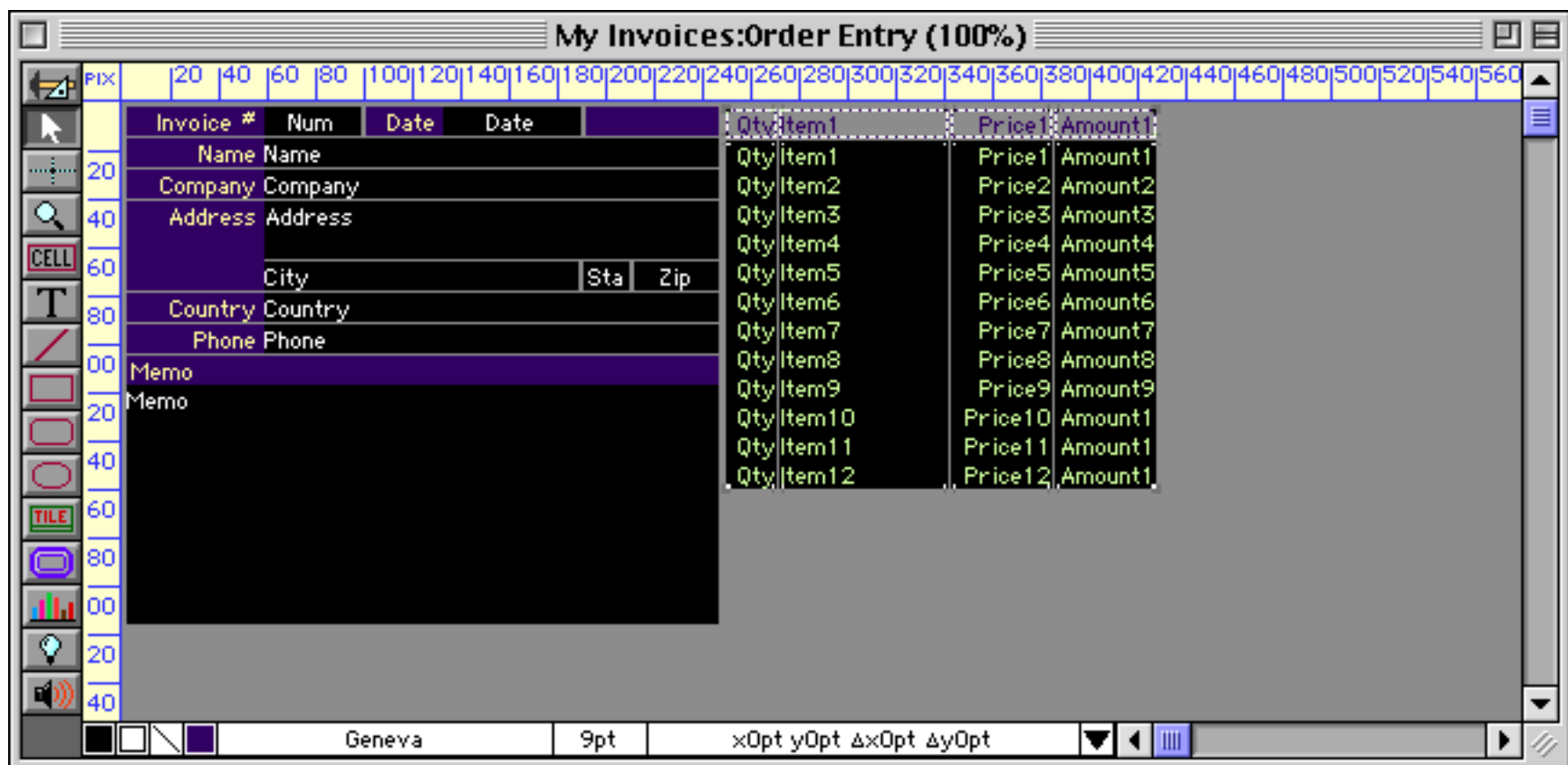
The heart of the order entry form is the line items. This section of the form will contain 56 objects — 48 data cells (4 columns by 12 rows) plus 4 text objects and 4 rectangles for column captions. Fortunately the **Auto Cell Layout** dialog will create most of these objects for you automatically. You're going to create the line items in the blank area to the right of the objects you've already created. Start making sure that black is the currently selected color (see "[Color](#)" on page 580), then click the mouse in the upper left hand corner of this blank area.



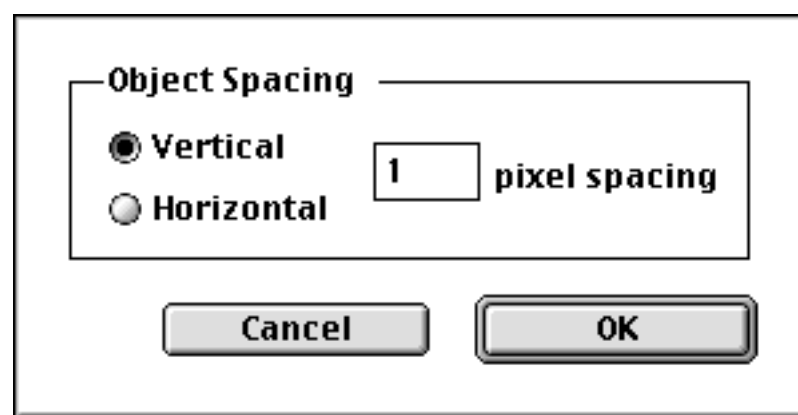
Now choose the **Auto Cell Layout** command from the **Arrange** menu. You've seen this dialog before. Since we want to create line items press the **Line Items** button. This selects all of the line item fields.



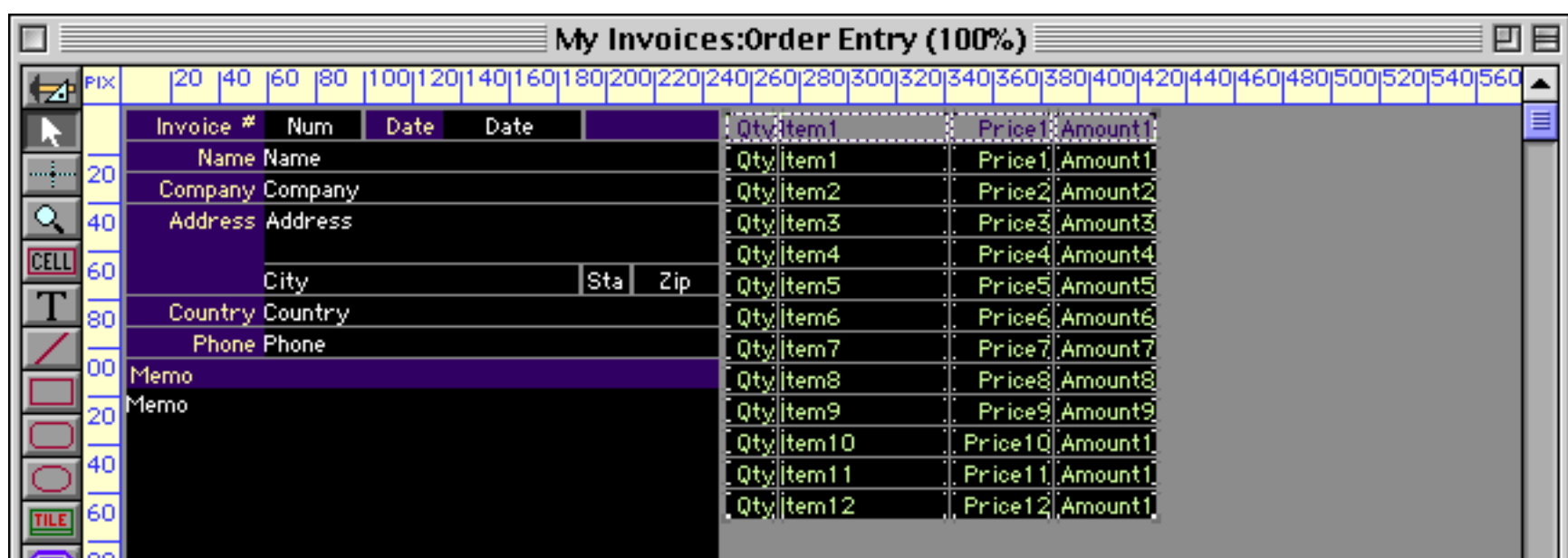
You don't need to change any of the other options, just press the **OK** button. Panorama will automatically create all 48 data cells you need in 12 rows by 4 columns.



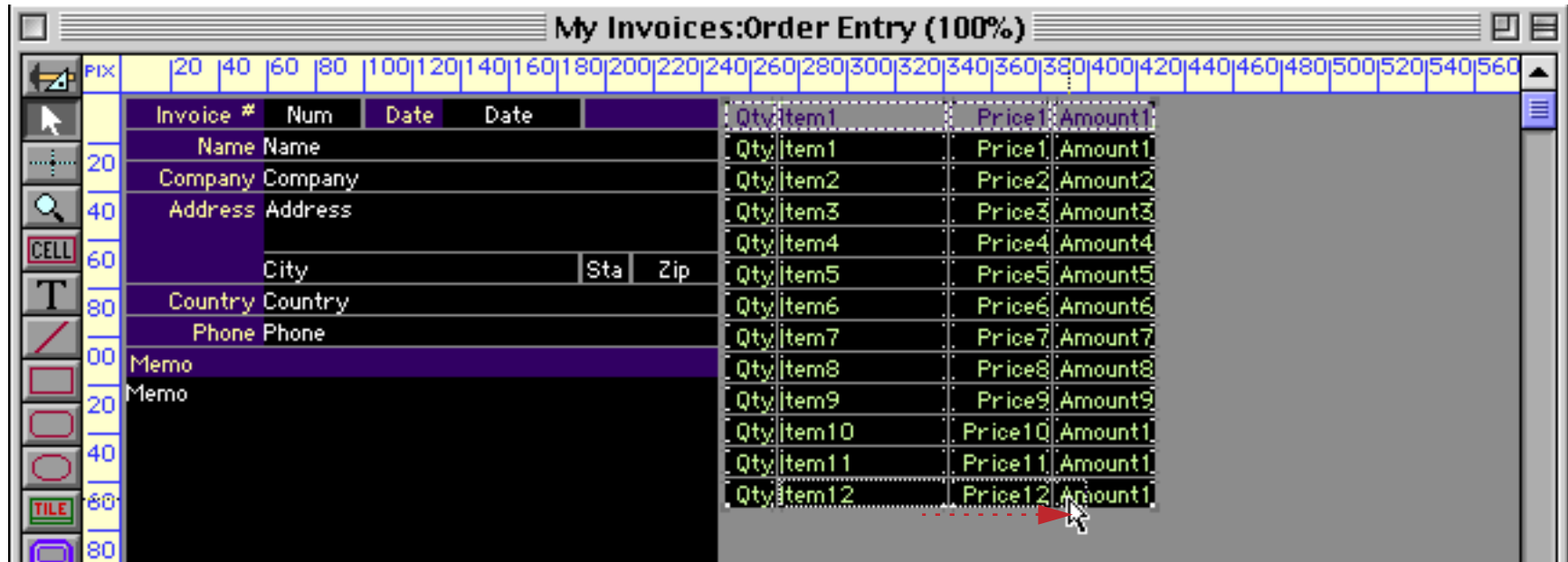
You'll need to make some adjustments to make the line items look right in your invoice. Start by choosing the **Spacing** command in the Edit menu (see "[Adjusting Spacing Between Multiple Objects](#)" on page 608).



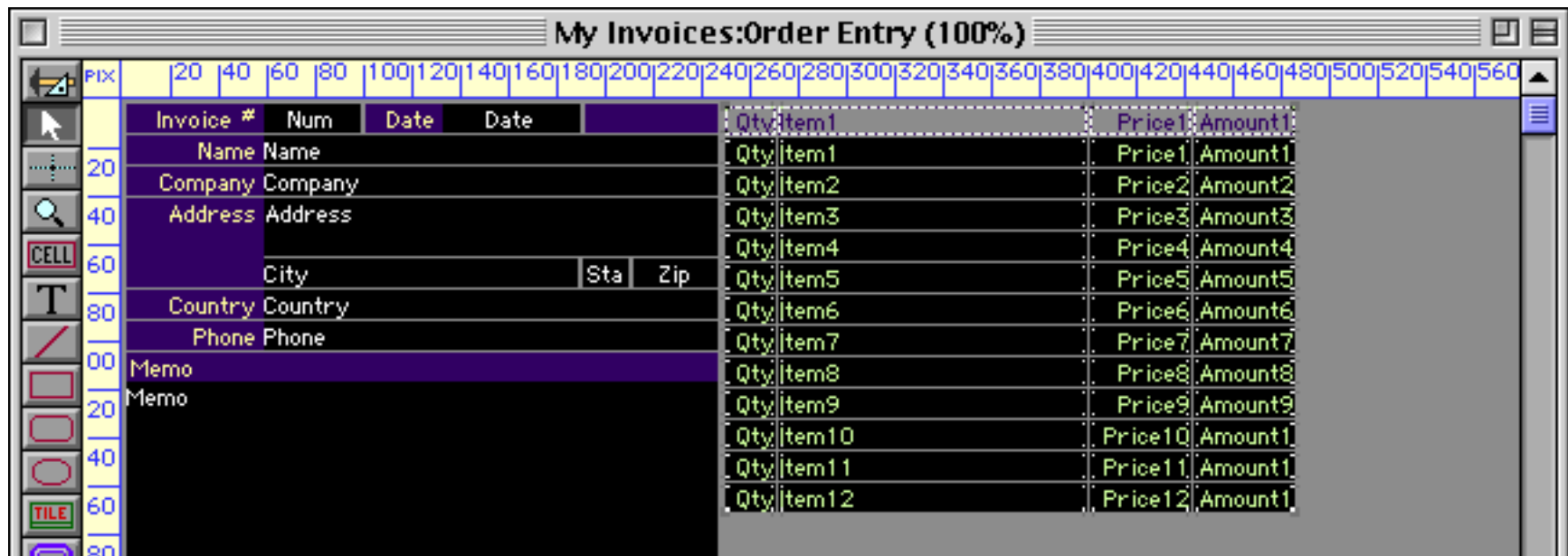
Click the **Vertical** option and type in **1** for the **pixel spacing**. Then press **OK** to adjust the vertical spacing between the lines. There is now one pixel in between each line.



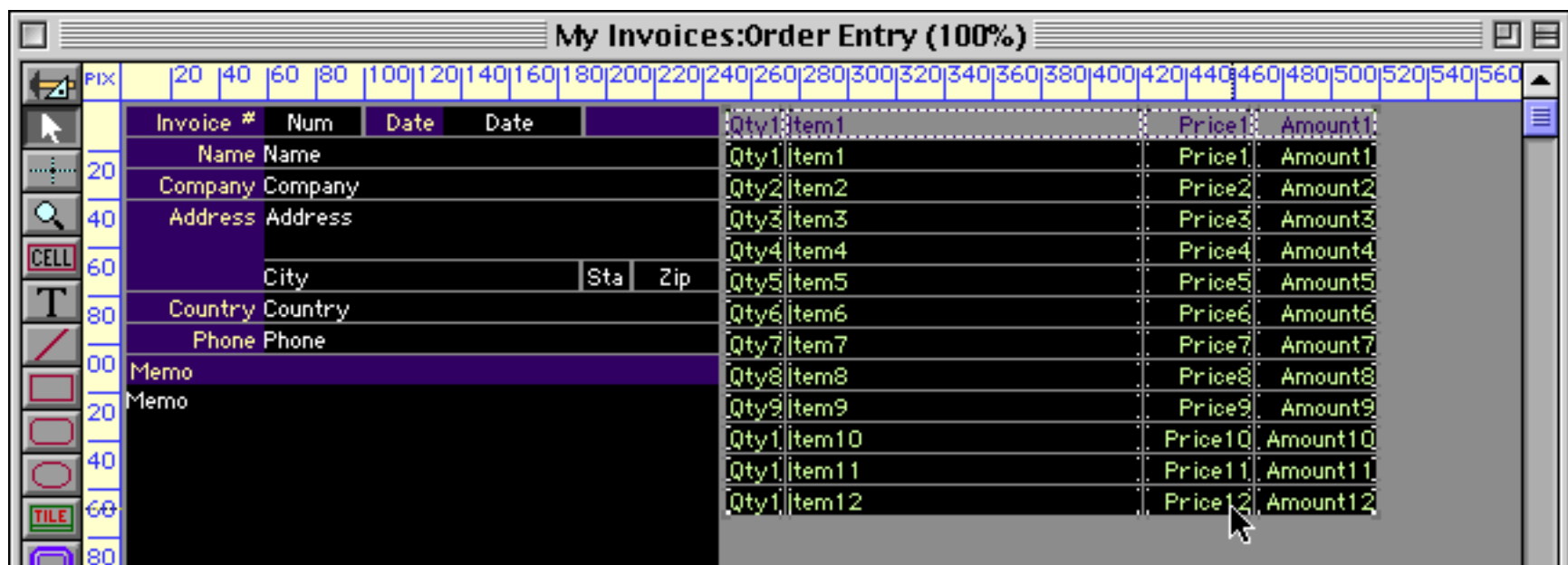
Next you'll want to adjust the width of the columns, starting with the Item column. To adjust the width, move the mouse over the lower right hand handle of one of the objects in the column, then press and drag to the right. Hold down the **Shift** key to make sure that you don't change the height of the object, only the width. If you hold down the **[S]** key (the letter **S**) you don't have to exactly press on the handle itself, anywhere close to the bottom right hand corner of the object will do (see "[Resizing Without Handles](#)" on page 571).



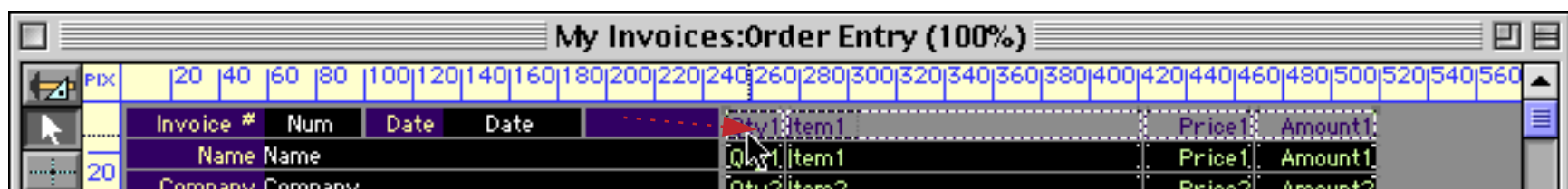
When you release the mouse all of the selected objects will adjust to the new width (see "[Cluster Resize](#)" on page 593).



Repeat as necessary until all the widths look the way you want. You can also nudge the widths with the arrow keys for fine adjustments (after dragging the width, see “[Nudging the Size of an Object](#)” on page 568).



While holding down the **Option** key (Macintosh) or **Alt** key (PC) drag the small purple rectangle next to the **Date** cell over the **Qty1** text.



When you release the mouse there will be a new purple rectangle covering the text.



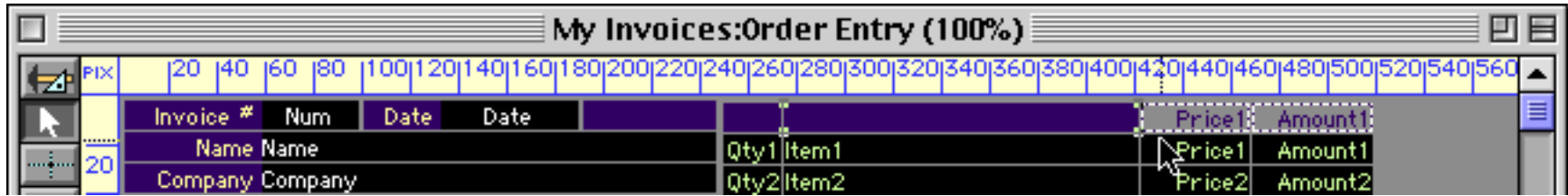
Adjust this rectangle so that it exactly covers the **Qty1** text (see “[Nudging the Size of an Object](#)” on page 568).



While holding down the **Shift** key and the **Option** key (Mac) or **Alt** key (PC) drag this rectangle to the right over the **Item1** text.



Adjust this new rectangle so that it covers the **Item1** text.

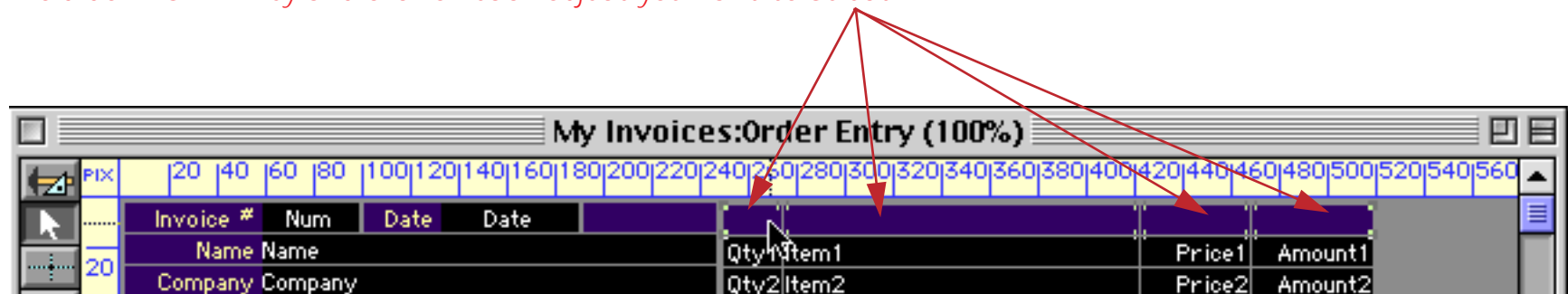


Repeat for the **Price** and **Amount** columns.

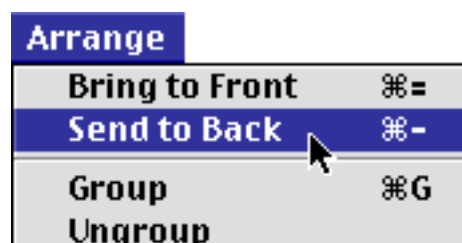


While holding down the **Shift** key, click on each of the four purple rectangles you just created. This selects all four objects (see “[Selecting Multiple Objects at Once](#)” on page 559).

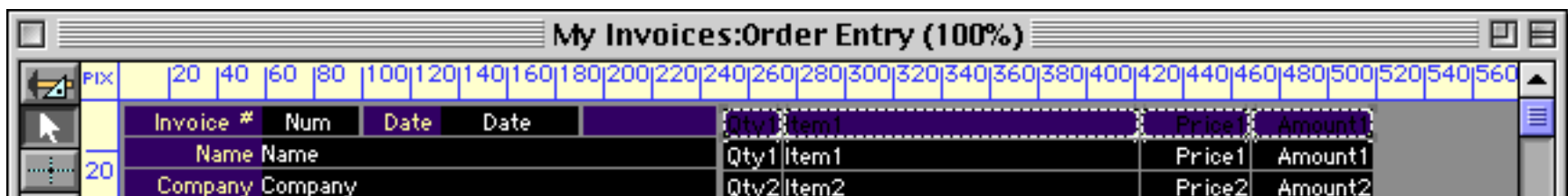
hold down SHIFT key and click on each object you want to select



Now choose the **Send to Back** command from the **Arrange** menu (see “[Changing the Stacking Order](#)” on page 620).



Using this command moves the four purple rectangles behind the four text objects, making the text objects visible again (see “[Overlapping Objects](#)” on page 619).



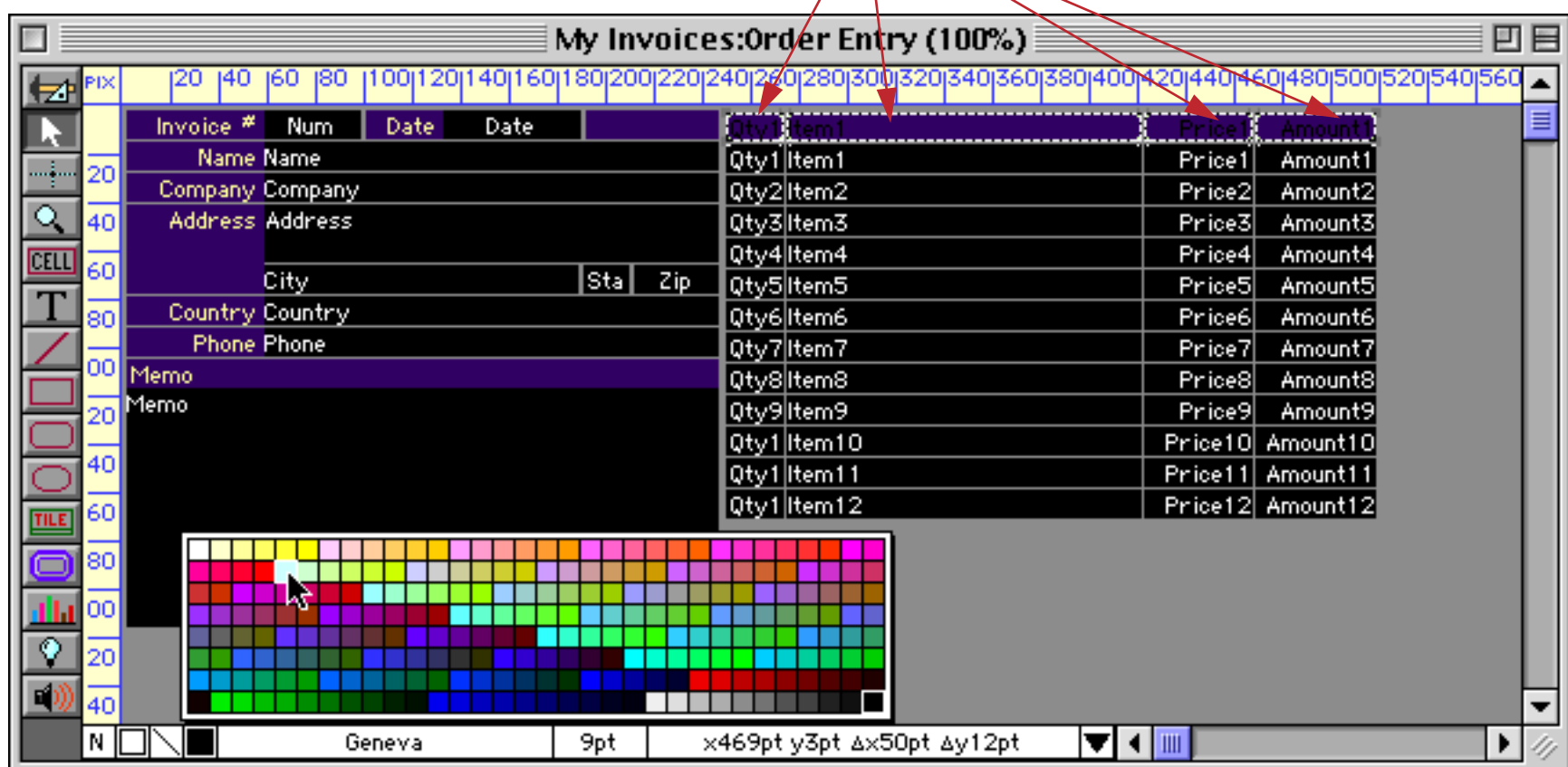
Because the text objects are black on a purple background they aren't very easy to see. To change that, start by clicking on an empty spot on the form. Clicking on an empty spot makes sure that the four purple rectangles are no longer selected.



click on any empty spot to make sure that no objects are selected

Now hold down the **Shift** key and click on each of the four text objects. With the four objects selected change the color to light blue to match the other caption text (see "[Color](#)" on page 580).

hold down SHIFT key and click on each object you want to select



The text will turn light blue, almost white.



The annoying white border around the text objects is because these are auto-wrap text objects (see “[Fixed Text Objects](#)” on page 637). The border will go away when you switch to Data Access Mode. However, we are going to convert these objects from Auto Wrap text into Click text. To do this drag the lower right hand handle of the object up over the upper right hand handle (see “[Moving and Resizing Fixed Text Objects](#)” on page 640).

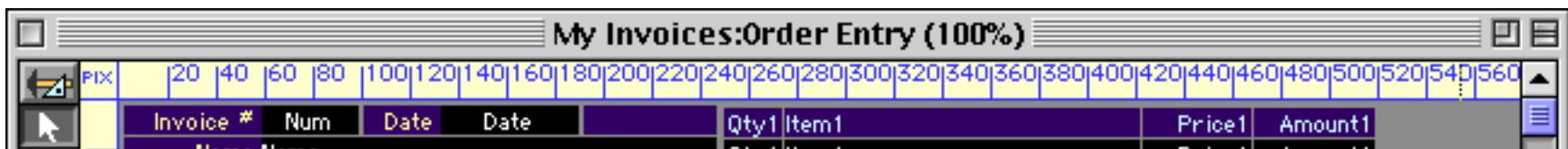


When you release the mouse the text is converted into click text, and the annoying border disappears.



converted to click text

Repeat this conversions for each of these four objects.



Now select the Text tool and edit the text to remove the 1 from the end of each object.



Switch back to the **Pointer** tool and drag a marquee around all of the line item objects (see “[Selecting Multiple Objects at Once](#)” on page 559). Because of the arrangement of objects in the form it is probably easiest to do this from the bottom right to the upper left.

Qty	Item	Price	Amount
Qty1	Item1	Price1	Amount1
Qty2	Item2	Price2	Amount2
Qty3	Item3	Price3	Amount3
Qty4	Item4	Price4	Amount4
Qty5	Item5	Price5	Amount5
Qty6	Item6	Price6	Amount6
Qty7	Item7	Price7	Amount7
Qty8	Item8	Price8	Amount8
Qty9	Item9	Price9	Amount9
Qty1	Item10	Price10	Amount10
Qty1	Item11	Price11	Amount11
Qty1	Item12	Price12	Amount12

Now nudge the objects into alignment with the objects on the left hand side of the form (see “[Nudging an Object \(or Objects\)](#)” on page 565).

Qty	Item	Price	Amount
Qty1	Item1	Price1	Amount1
Qty2	Item2	Price2	Amount2
Qty3	Item3	Price3	Amount3
Qty4	Item4	Price4	Amount4
Qty5	Item5	Price5	Amount5
Qty6	Item6	Price6	Amount6
Qty7	Item7	Price7	Amount7
Qty8	Item8	Price8	Amount8
Qty9	Item9	Price9	Amount9
Qty1	Item10	Price10	Amount10
Qty1	Item11	Price11	Amount11
Qty1	Item12	Price12	Amount12

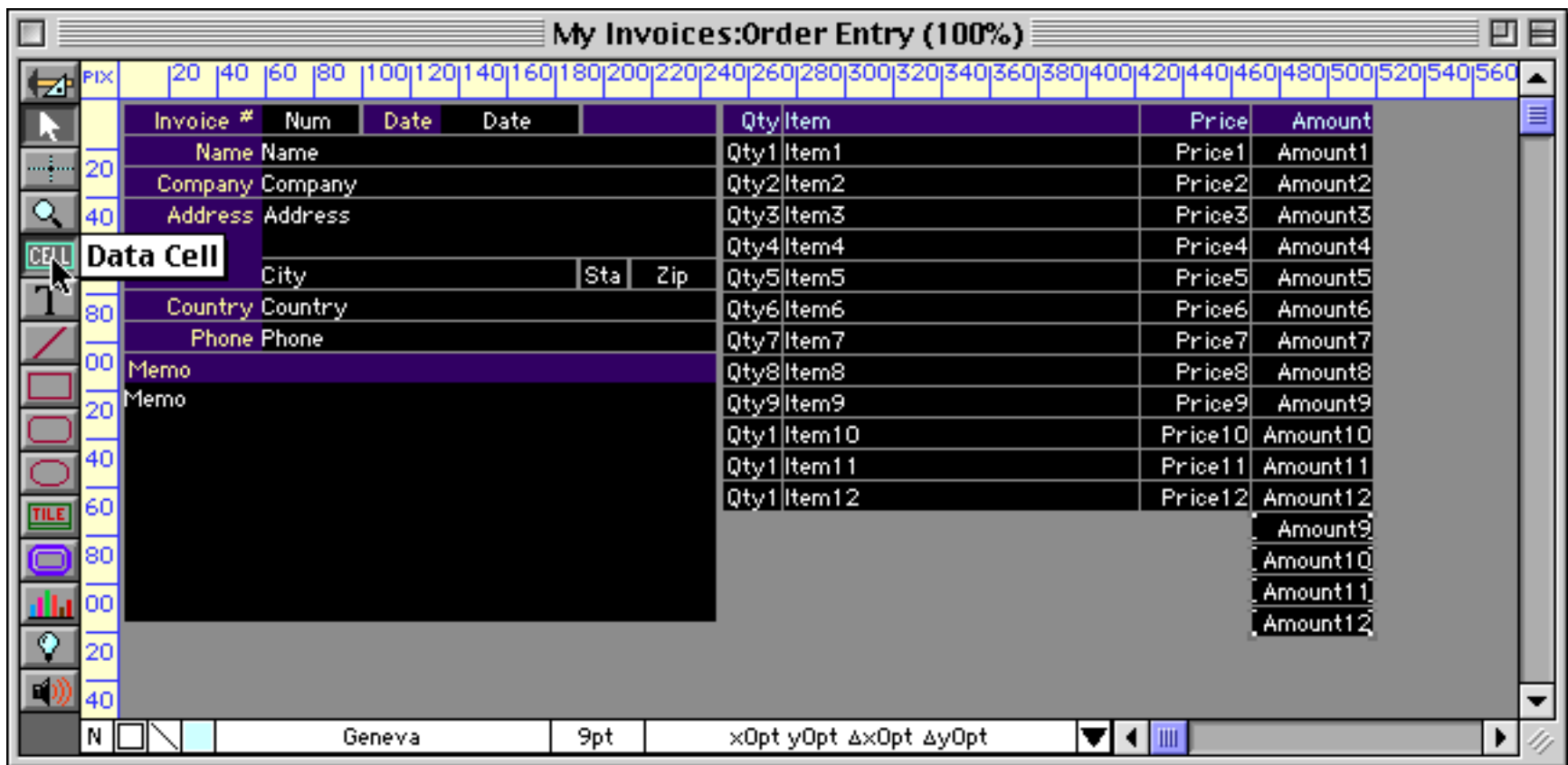
Now you need to create the data cells for the subtotal, tax, shipping and grand total. Start by clicking on an empty spot on the form (to make sure no objects are selected) and then drag a marquee around the **Amount9** through **Amount12** data cells.

Qty8	Item8	Price8	Amount8
Qty9	Item9	Price9	Amount9
Qty1	Item10	Price10	Amount10
Qty1	Item11	Price11	Amount11
Qty1	Item12	Price12	Amount12

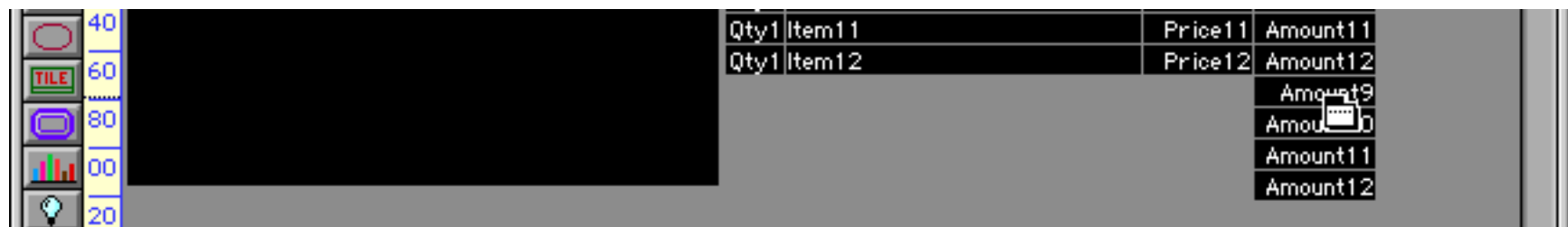
While holding down the **Shift** key and the **Option** key (Mac) or **Alt** key (PC) drag these four rectangles down below the other line items (see “[Drag Duplicating](#)” on page 613).



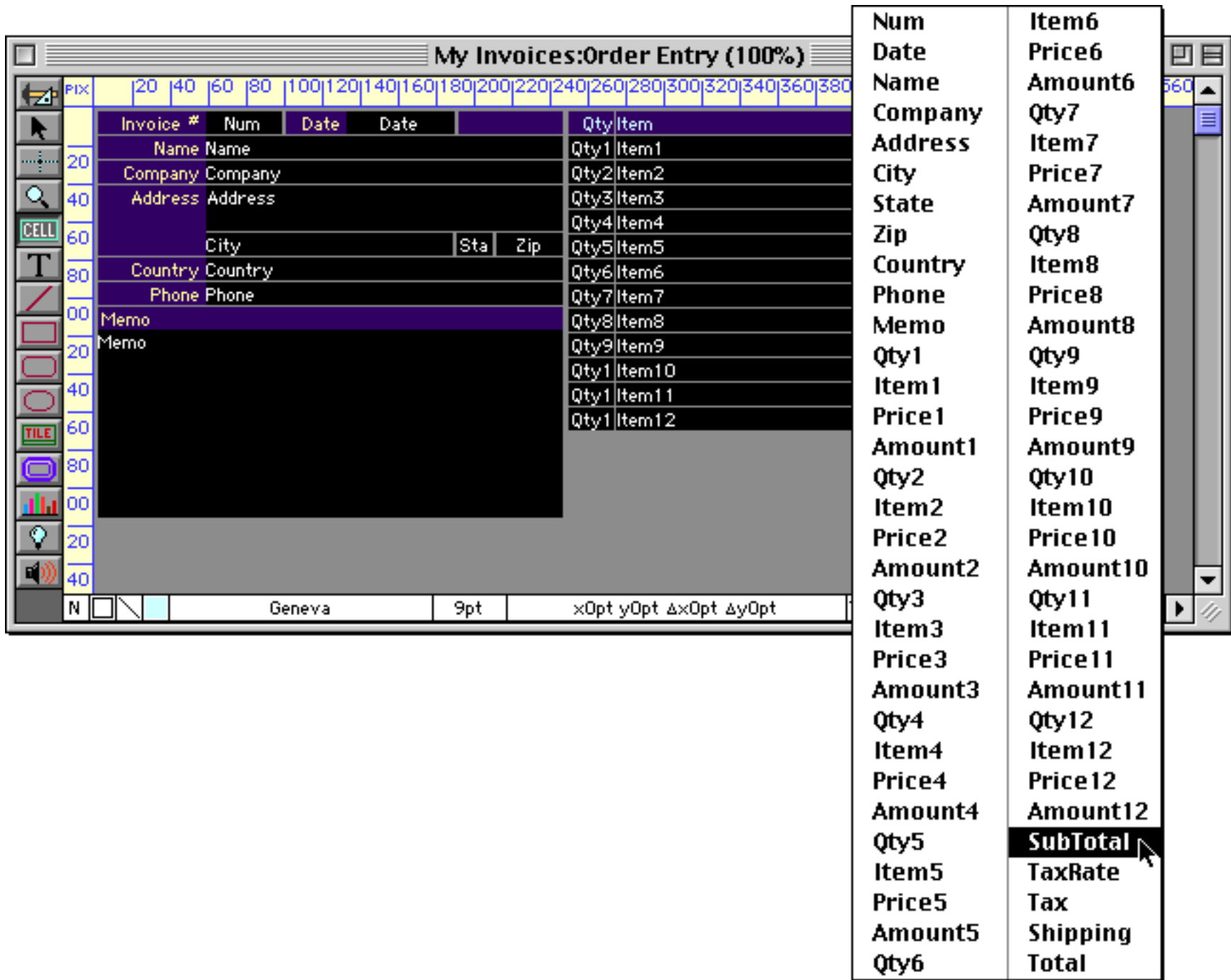
Use the up arrow key to nudge the objects so that they are snugged up with the Amount12 cell, then select the **Data Cell** tool.



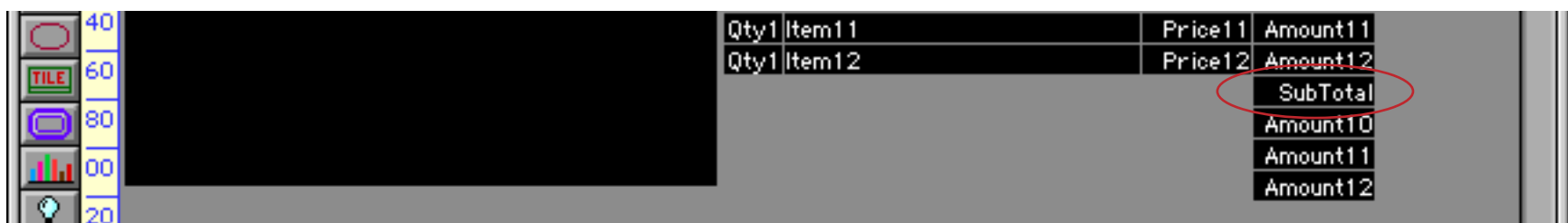
Move the mouse over the new Amount9 data cell you have created. The mouse arrow will turn into a tiny menu icon (see “[Working with Data Cell Objects](#)” on page 685).



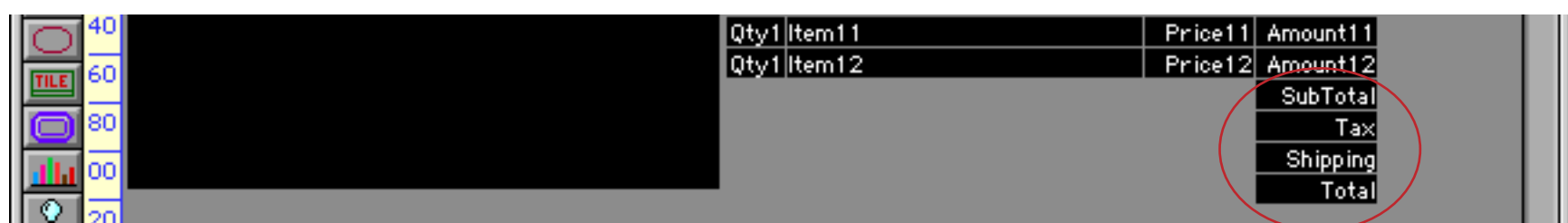
Press the mouse and select **SubTotal** from the pop-up menu.



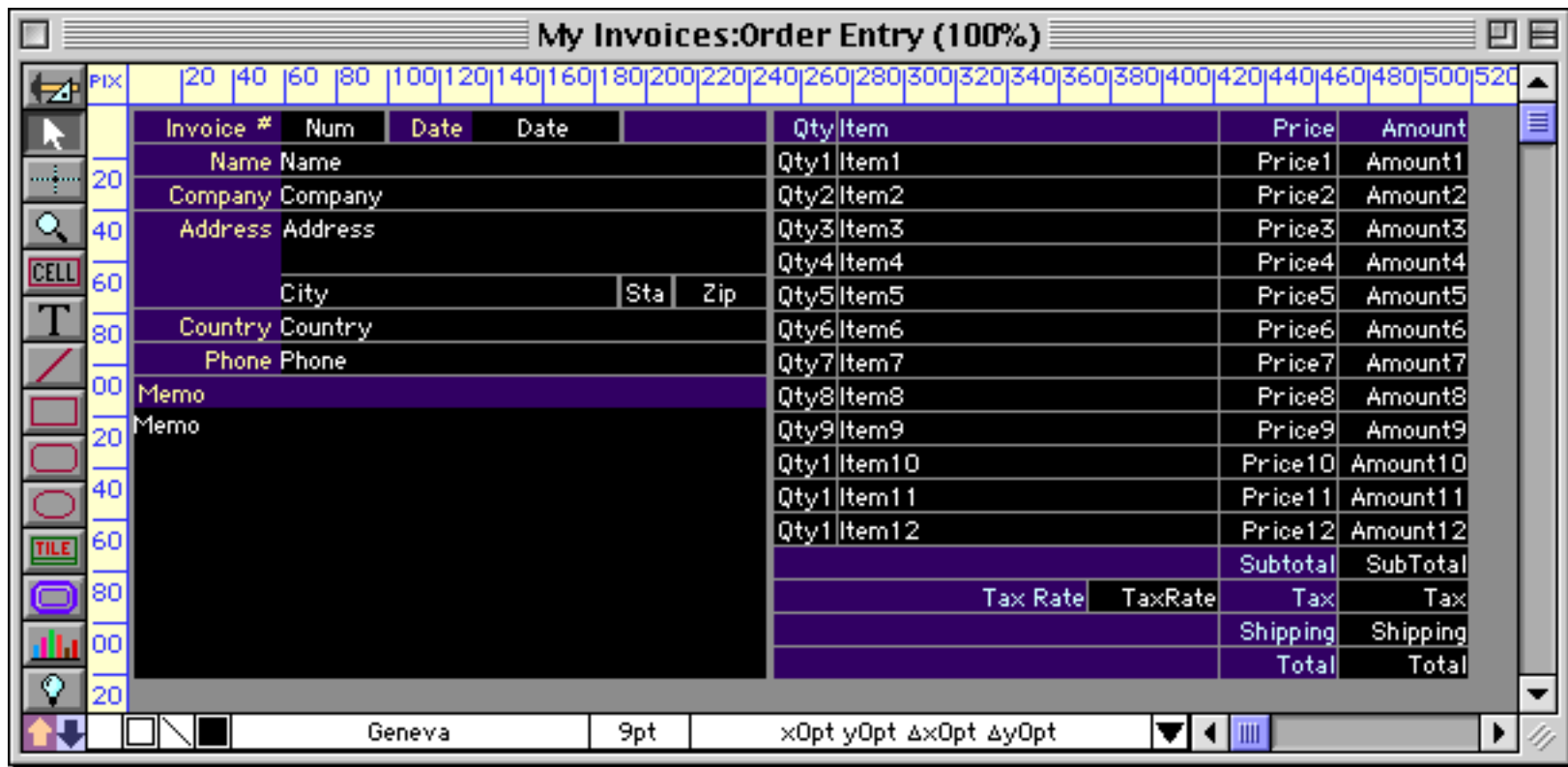
When you release the mouse the data cell will be assigned to the **SubTotal** field.



Repeat this for each of the other three data cells.



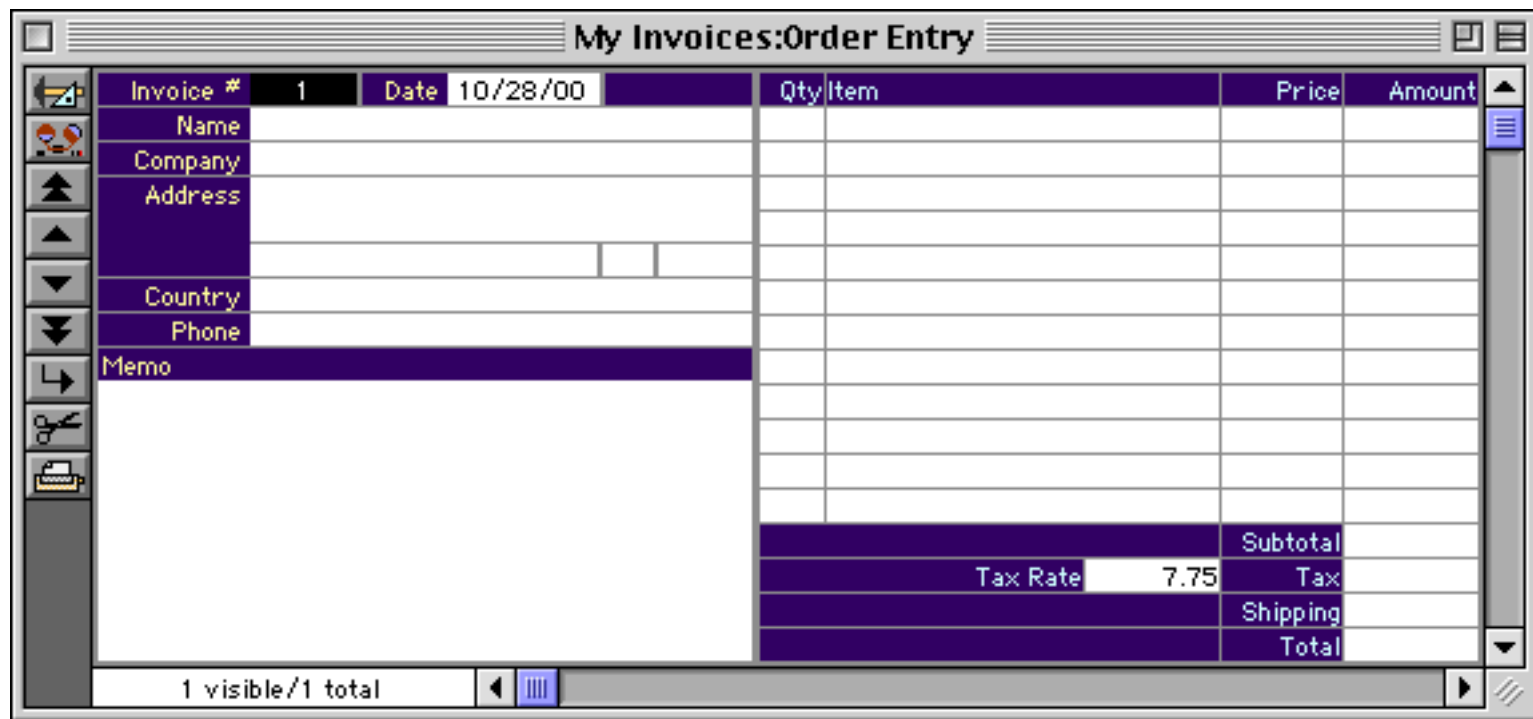
Since you're pretty much a professional by now you should have no problem finishing up this form so that it looks like this.



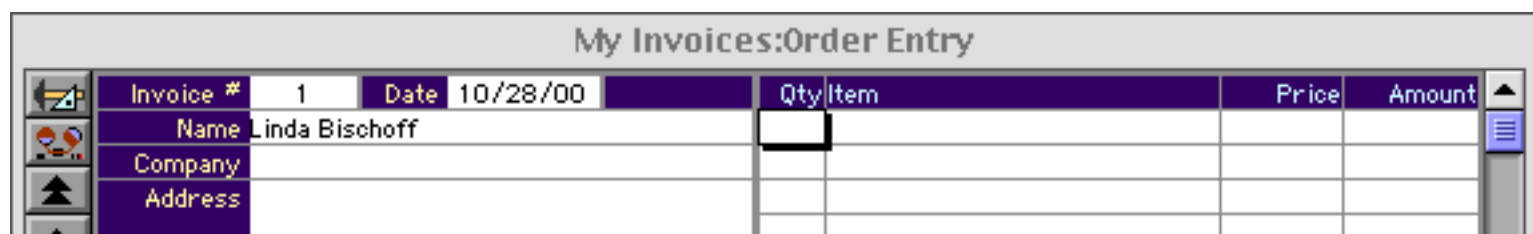
Be sure to Save this masterpiece before you go any further.

Entering Data into the Invoice

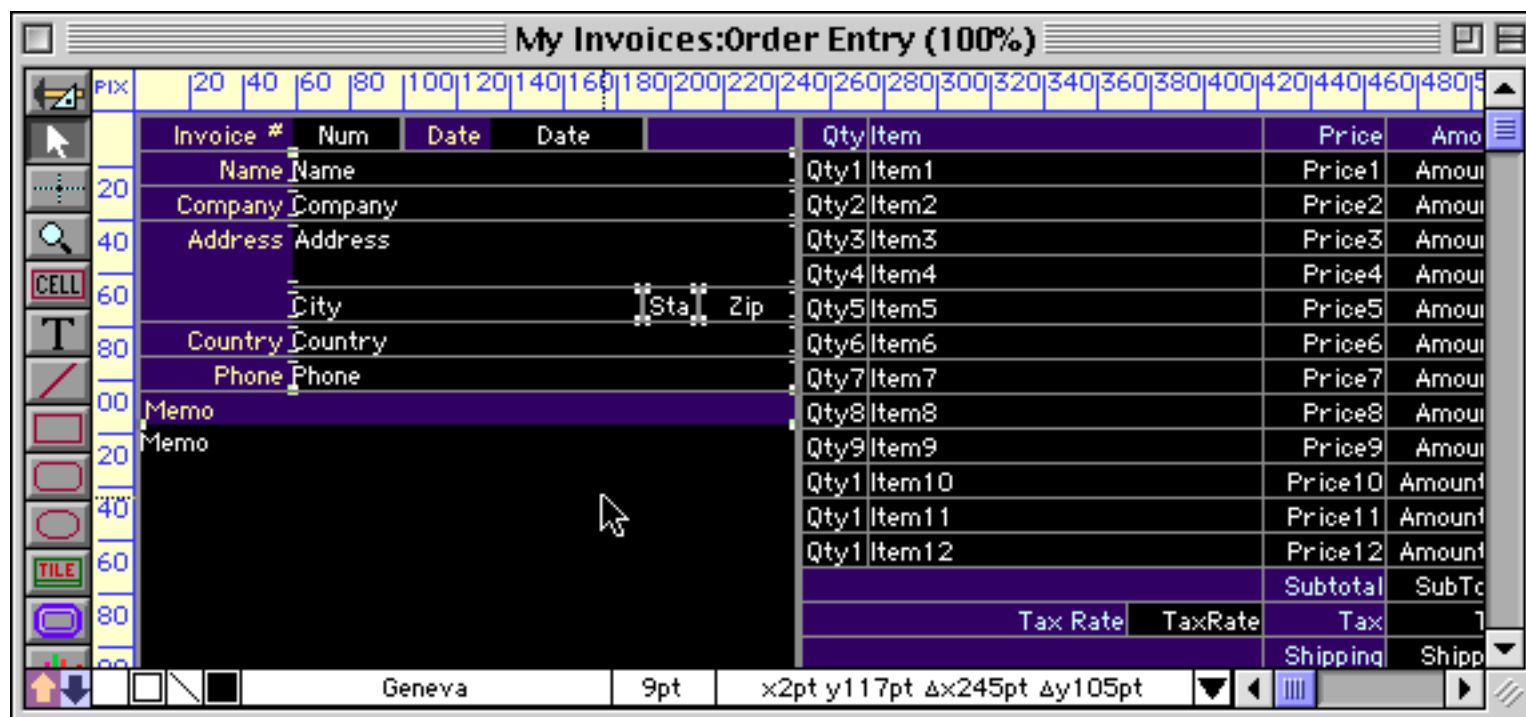
Before you can enter data into the invoice you must switch to Data Access Mode. You may also want to adjust the size of the window to match the size of your form.



As you start typing data you'll quickly discover a problem. Pressing the **Tab** key after you enter the name causes Panorama to tab into the first **Qty** line item instead of the **Company** field. Oops!



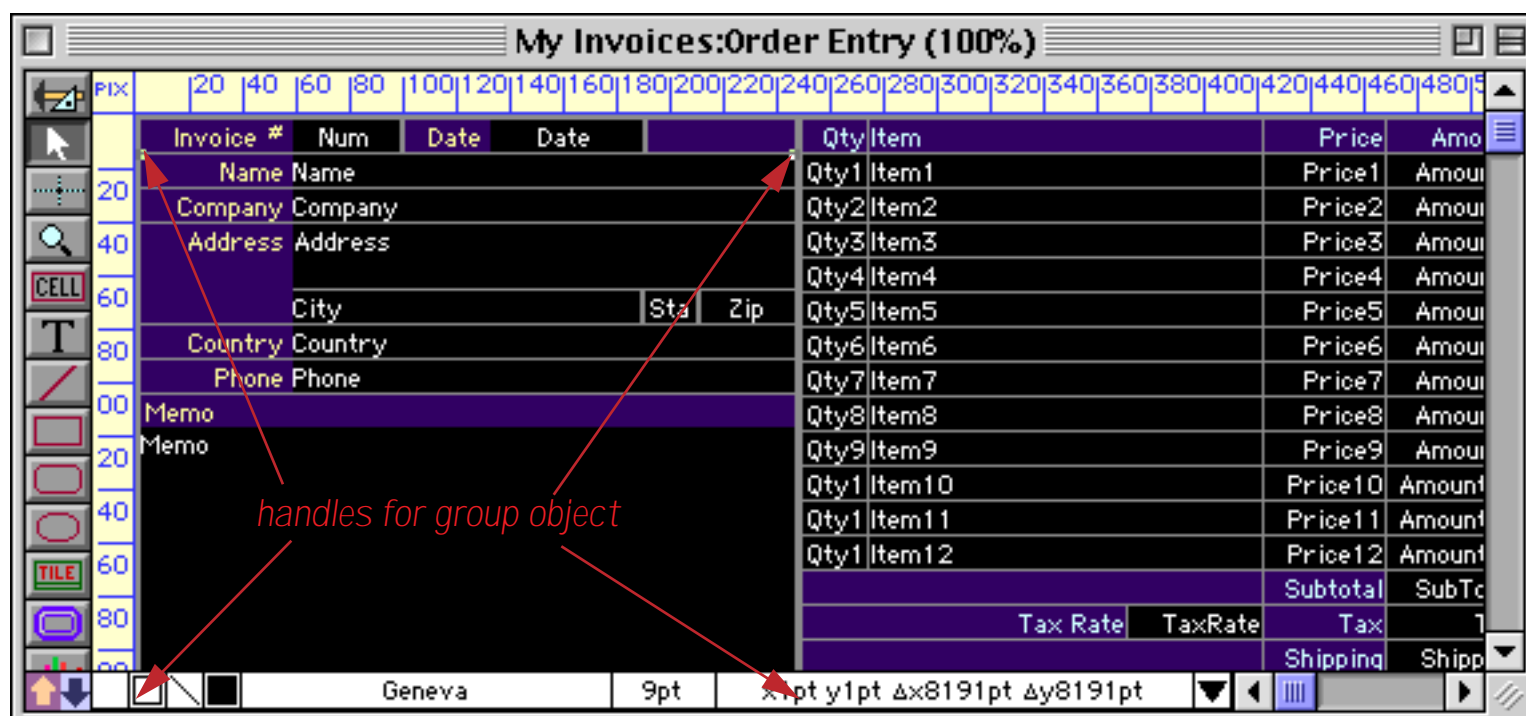
To fix this problem switch back into Graphic Design Mode. While holding down the **Shift** key click on the **Name, Company, Address, City, State, Zip, Country, Phone** and **Memo** data cells



Now select the **Group** command from the Arrange menu.



This command combines the nine objects into one combined object (see “[Grouping Objects Together](#)” on page 588). Instead of having handles around each individual object (see illustration above) there are now only four handles around the four corners of the combined object.



Now each time you press the **Tab** key Panorama will advance to the next cell within the group (see “[Tab Order in Forms](#)” on page 717).

The screenshot shows the 'My Invoices:Order Entry' window. The form is divided into several sections. The top section contains invoice details: Invoice # 1, Date 10/28/00. Below this is a customer profile section with fields for Name (Linda Bischoff), Company (Mark Energy Co), Address (955 N. Harbor Cir., Fresno, CA 93747), and Phone ((209) 452-1355). A Memo field is also present. To the right is a table with columns Qty, Item, Price, and Amount. The bottom right corner shows a summary table with Subtotal (0.00), Tax Rate (7.75), Tax (0.00), Shipping, and Total (0.00). Red arrows indicate the tab order starting from the top left and moving down through the form fields.

The next tab will bring you to the first line item field. Enter the quantity, item and price.

This screenshot shows the same 'My Invoices:Order Entry' window. The customer profile information remains the same. In the table, the first row now has '12' in the Qty column and 'Pencils' in the Item column. The Price column for this row is '0.59' and the Amount column is '0.00'. The summary table at the bottom right is still empty.

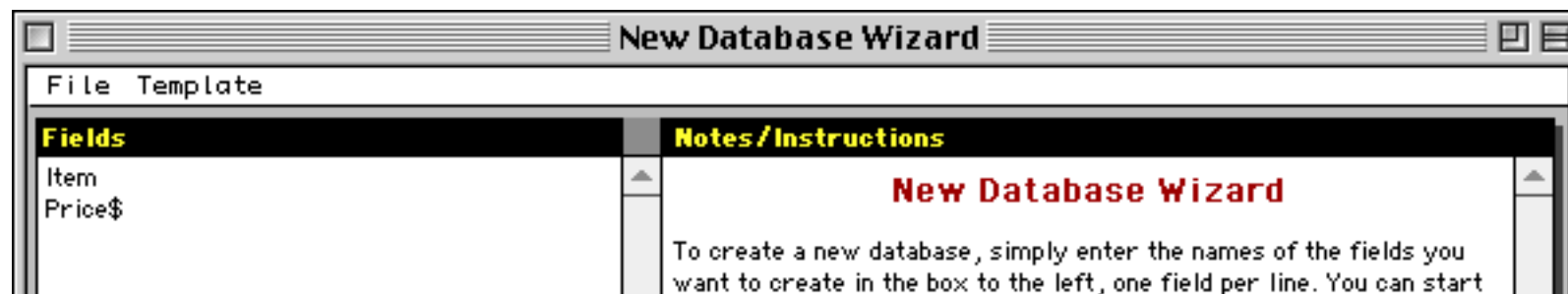
When you press the **Enter** key Panorama will calculate the line item total, subtotal, tax and grand total.

This screenshot shows the 'My Invoices:Order Entry' window after calculations. The line item '12 Pencils' at price '0.59' now has an amount of '7.08' in the Amount column. The summary table at the bottom right is populated: Subtotal is 7.08, Tax Rate is 7.75, Tax is 0.55, Shipping is blank, and Total is 7.63. Red circles highlight the '7.08' in the Amount column and the '7.63' in the Total row of the summary table.

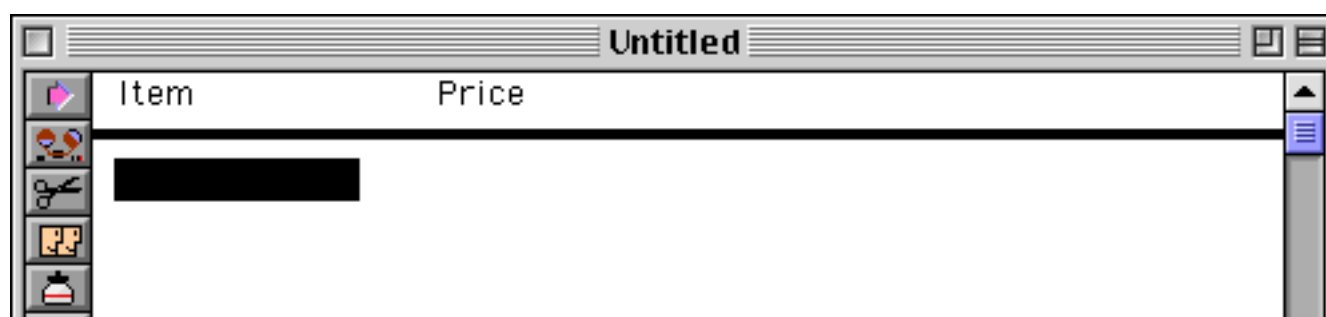
These calculations were set up for you by the **New Database Wizard**. To learn how to set up or modify these calculations yourself see “[Automatic Calculations](#)” on page 406.

Lesson 4: Building a Price List

Now that the invoice is complete you will build a price list database and link the price list to the invoice. Start by launching Panorama and the **New Database Wizard**. The price list database will have two fields — **Item** and **Price**. (See “[Fields](#)” on page 327 for a complete explanation of fields.) Type in the name of each field into the wizard, with each name on a separate line. The **Price** field will contain money values so it should have a suffix of \$.



When you press the **Make New Database** button the wizard will create a new database for you. The database is displayed using a row and column format called the **data sheet**. The new database contains one blank record (line) and two fields (columns).

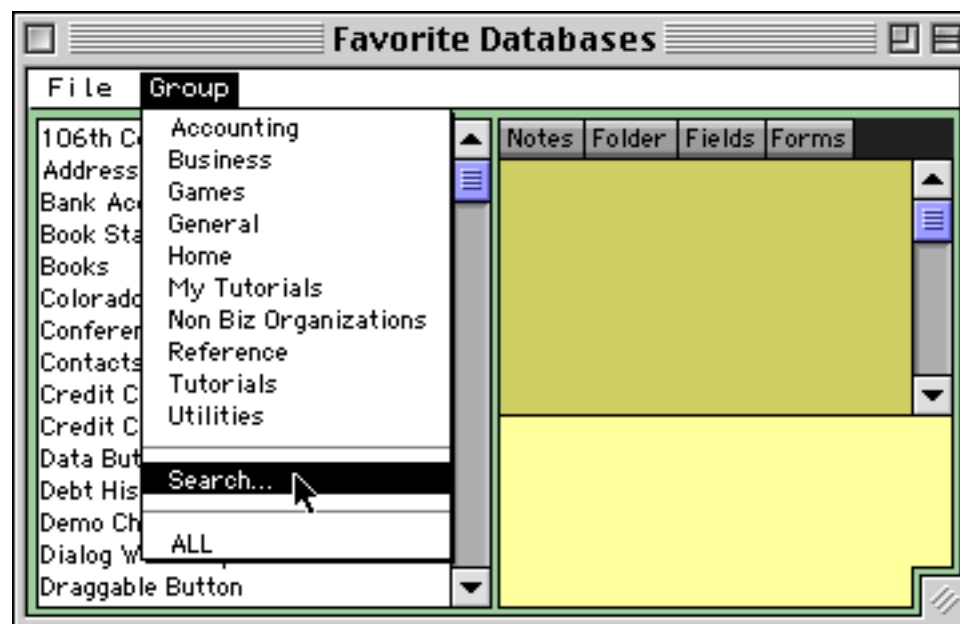


Loading the Data

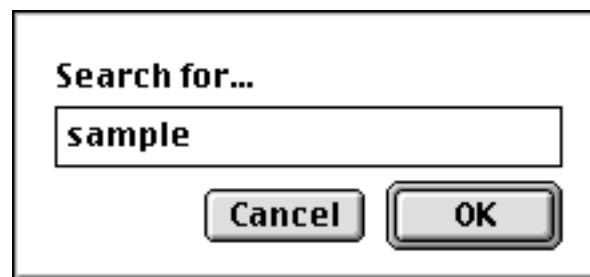
To use the price list you'll need to type in a bunch of data. That still doesn't sound like much fun, so we've created a database that is programmed to automatically fill your new price list database with sample data. Start by choosing **Favorite Databases** from the Wizard menu (see “[The Favorite Databases Wizard](#)” on page 191).



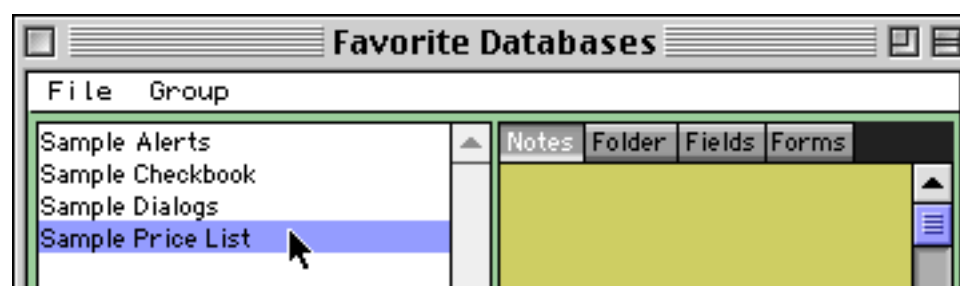
The database you need is called **Sample Price List**. To locate it, choose **Search...** from the **Group** menu (see “[Searching for a File](#)” on page 199). You can also press **Command-F** (Macintosh) or **Control-F** (Windows).



Type in some or all of the name **Sample Price List**.



The wizard will show you a short list of files including the one we want.



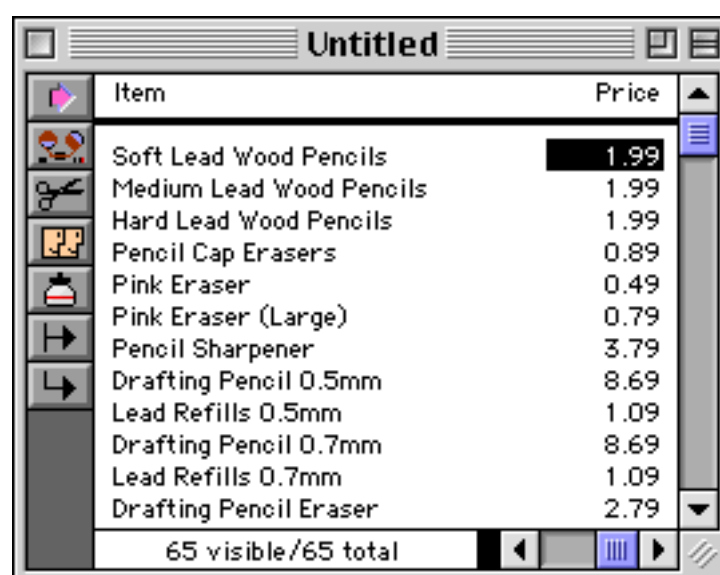
Double click on the **Sample Price List** file to open it. A small window will appear briefly. The database has been pre-programmed to automatically transfer the price list data into the new database you have created.

 A screenshot of a window titled "Untitled" showing a database table. The table has two columns: "Item" and "Price". The data is as follows:

Item	Price
Soft Lead Wood	1.99
Medium Lead W	1.99
Hard Lead Wood	1.99
Pencil Cap Era:	0.89
Pink Eraser	0.49
Pink Eraser (L	0.79
Pencil Sharpen	3.79
Drafting Penci	8.69
Lead Refills 0.	1.09

 At the bottom of the window, it says "65 visible / 65 total".

You may want to adjust the font size and the widths of some of the columns (see “[Adjusting Column Widths, Font and Size](#)” on page 13).



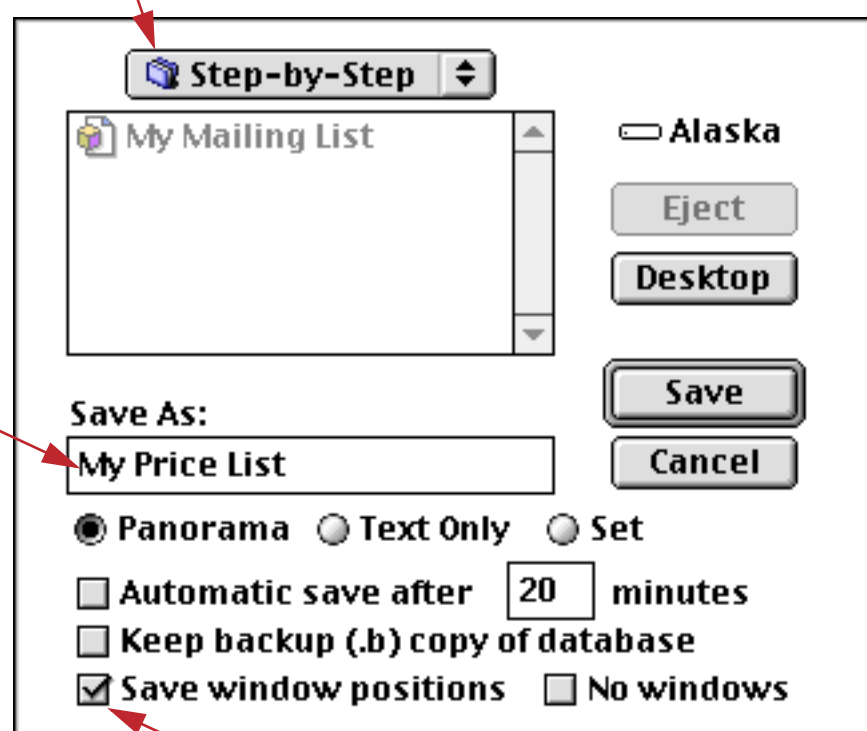
Item	Price
Soft Lead Wood Pencils	1.99
Medium Lead Wood Pencils	1.99
Hard Lead Wood Pencils	1.99
Pencil Cap Erasers	0.89
Pink Eraser	0.49
Pink Eraser (Large)	0.79
Pencil Sharpener	3.79
Drafting Pencil 0.5mm	8.69
Lead Refills 0.5mm	1.09
Drafting Pencil 0.7mm	8.69
Lead Refills 0.7mm	1.09
Drafting Pencil Eraser	2.79

65 visible/65 total

Before continuing you should use the **Save** command in the File menu to save your new creation. The first time you save any file Panorama will ask you to give it a name. You'll also want to check the **Save Window Positions** option (see “[Saving Window Positions](#)” on page 213). When everything is set up press the **Save** button. (To see what this dialog looks like on the PC see “[Saving Your Work](#)” on page 7.)

select folder you want to save file in

type in name of file

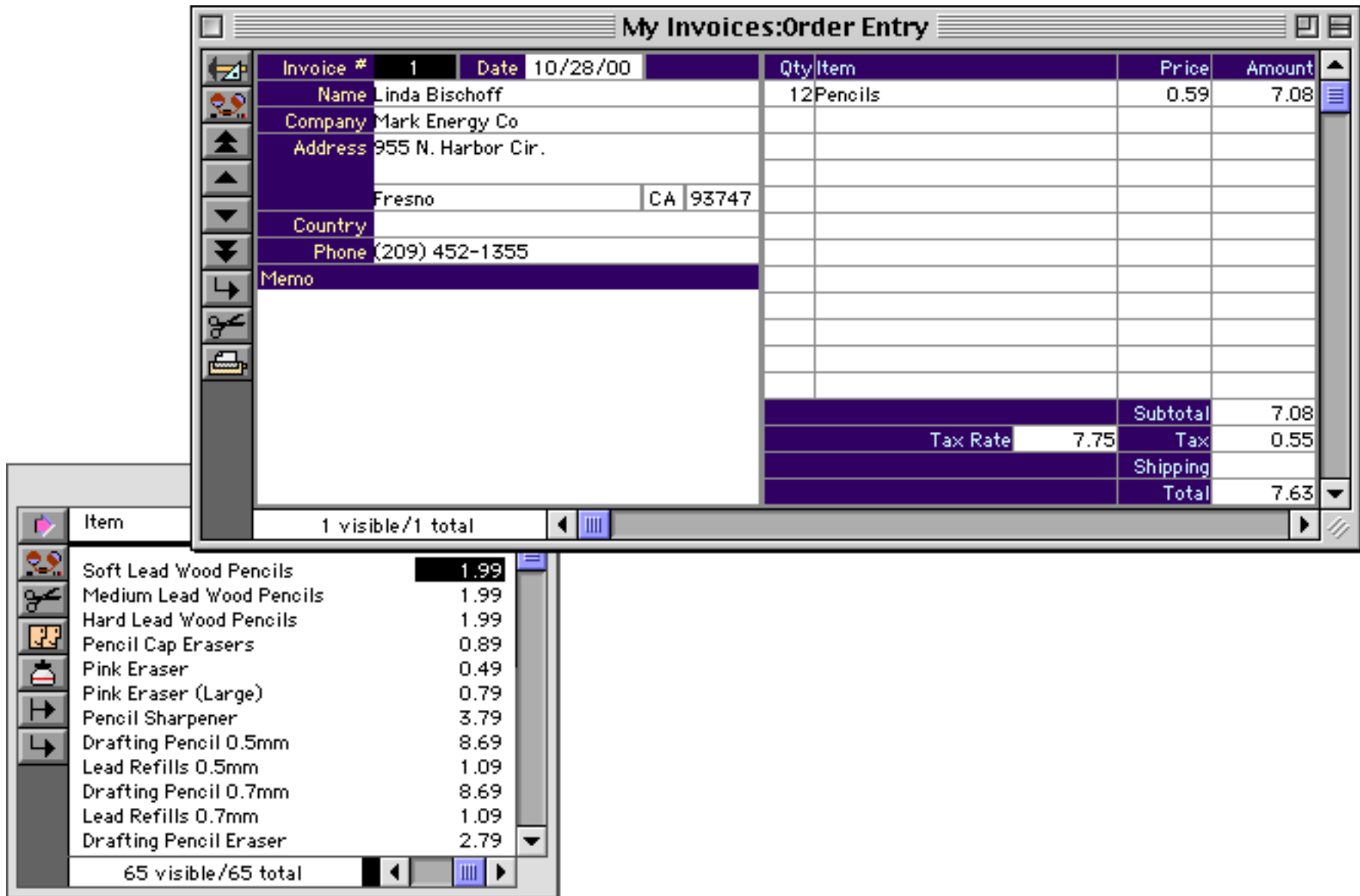


tell Panorama to save window positions

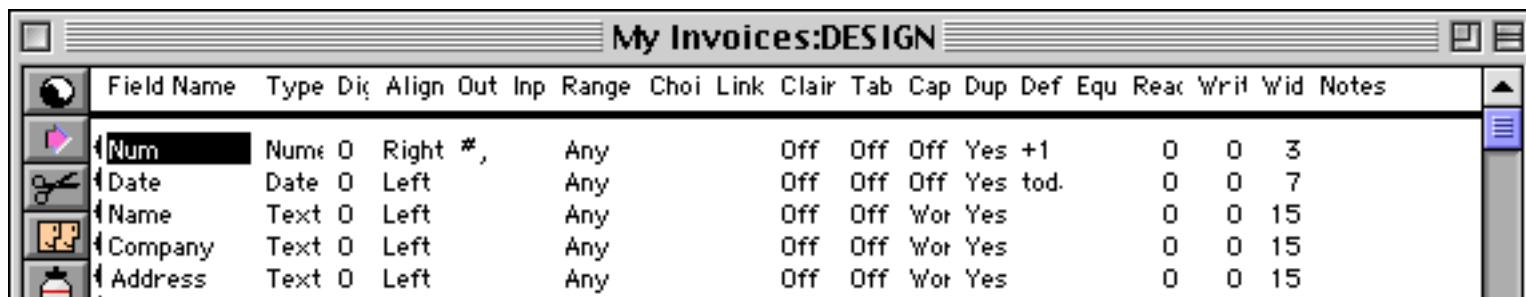
You may also want to add your new file to the **Favorite Database** wizard. See “[Adding A Database To Your List Of Favorites](#)” on page 26 for a refresher on how to do this.

Linking the Price List to the Invoice

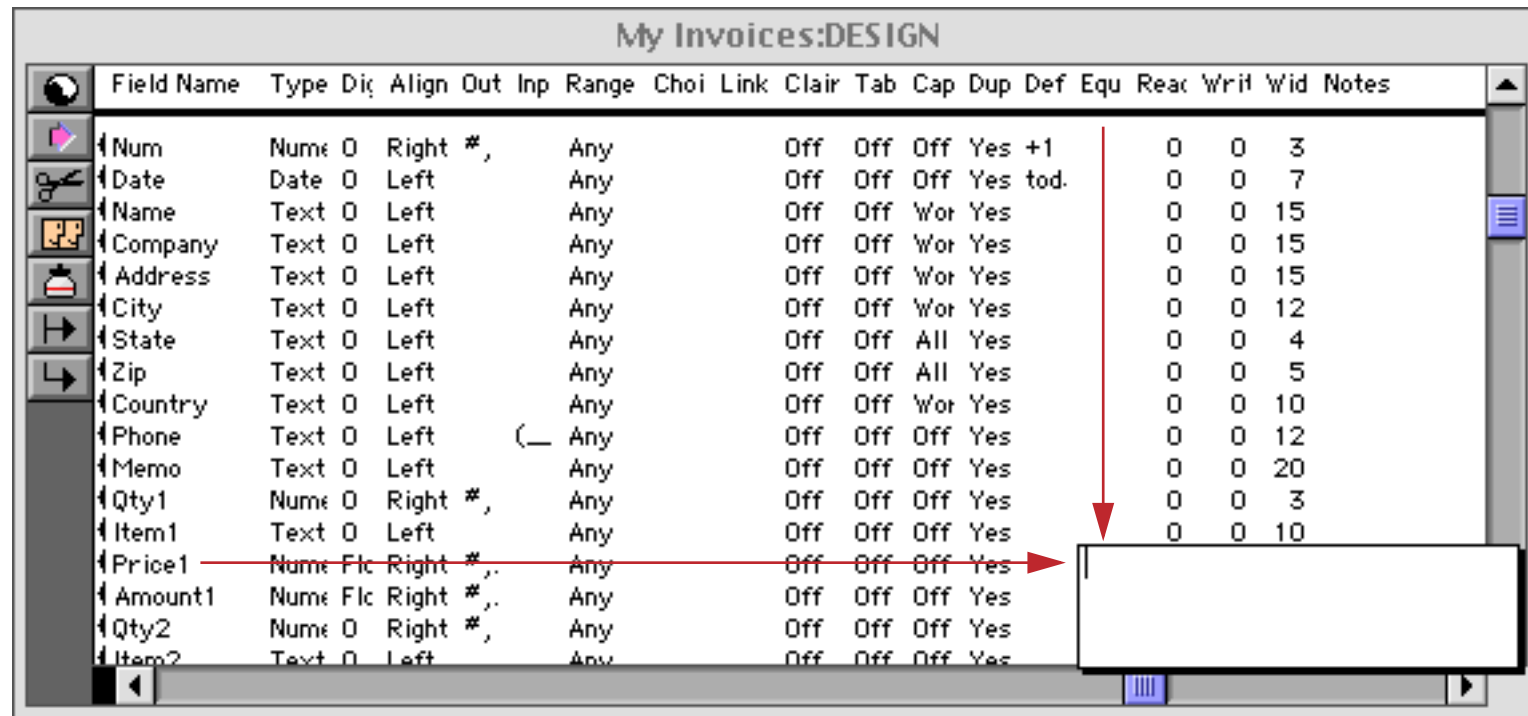
The price list is now ready to link to the invoice. The link will be designed to look up a price automatically when an item is entered into the invoice. Start arranging the invoice and price list windows so that both are visible, with the invoice window on top (something like the illustration shown below).



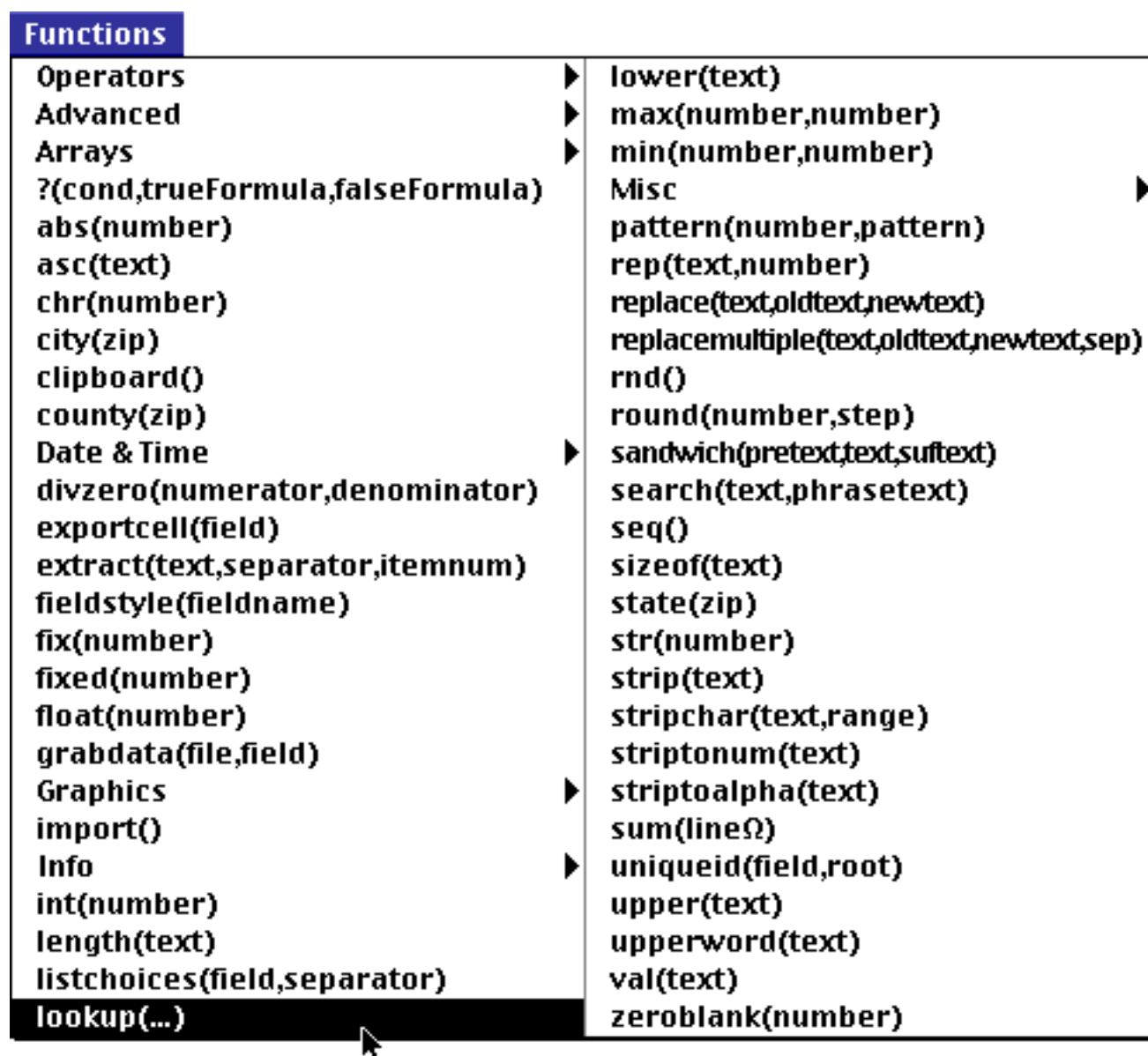
Using the View menu, switch from the invoice form to the invoice design sheet (see “[The Design Sheet](#)” on page 332).



Double click on the [Equation](#) cell in the [Price1](#) row.



Now choose [lookup\(...\)](#) from the Functions menu (see “[Functions Menu](#)” on page 1214).



Choosing this menu item opens a dialog for setting up the `lookup()` function (see “[Linking With Another Database](#)” on page 1289).

Using the database,
 lookup when
 in Untitled
 matches in My Checkbook.

Cancel OK

Start by selecting the database you want to look up data from, in this case the [My Price List](#) database.

Using the database,
 lookup when
 matches in My Invoices.

Favorite Databases
 View Wizard
 New Database Wizard
My Price List
 My Invoices

Now tell Panorama what you want to look up, in this case the [Price](#).

Using the My Price List database,
 lookup Item when
 Price in My Price List
 matches in My Invoices.

Item
Price

We want to look up the price where the [Item](#) in the price list matches the [Item](#) value in the invoice. So select [Item](#) from [My Price List](#).

lookup Price when
 Item in My Price List
 Price matches in My Invoices.

Item
 Price

Select Item1 for the last pop-up.

Using the database,
 lookup when
 Item My Price List
matches in My Invoices.

Cancel OK

Num
Date
Name
Company
Address
City
State
Zip
Country
Phone
Memo
Qty1
Item1
Price1
Amount1
Qty2
Item2
Price2
Amount2
Qty3
Item3

The image shows a dialog box with a dropdown menu open. The dialog box contains several text input fields and two buttons labeled 'Cancel' and 'OK'. The dropdown menu lists various fields, with 'Item1' highlighted and a mouse cursor pointing to it.

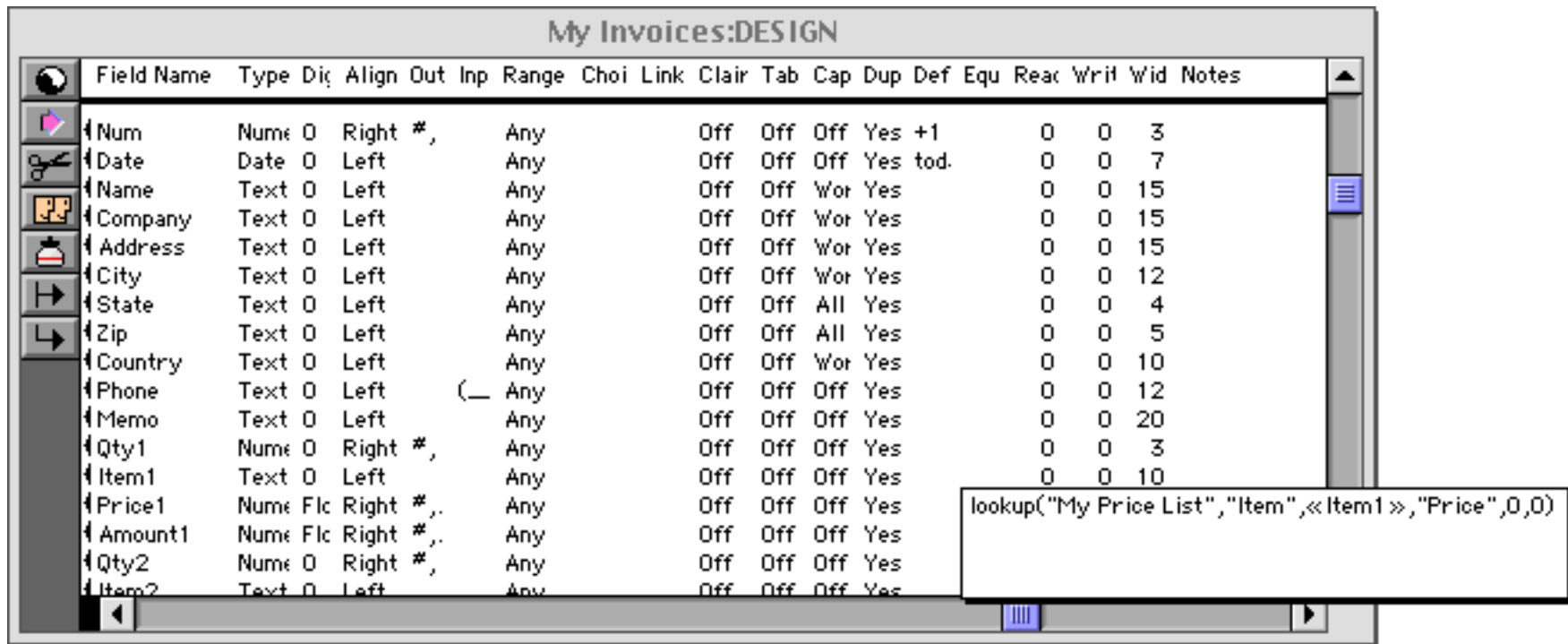
Here's the finished dialog with everything filled in.

Using the database,
 when
 in My Price List
matches in My Invoices.

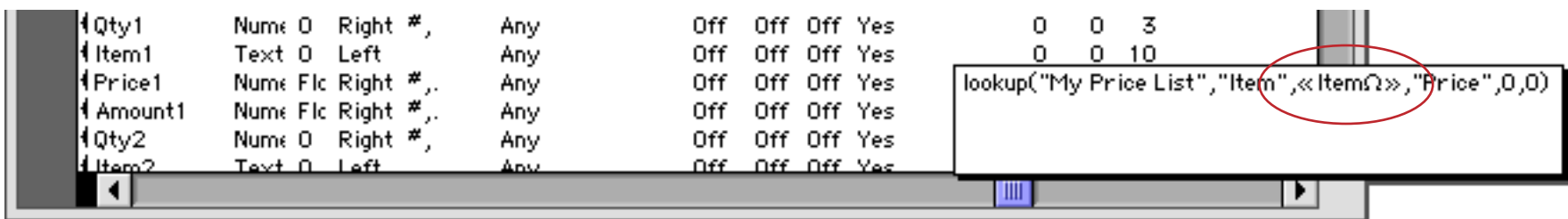
Cancel OK

The image shows the same dialog box as above, but with all the input fields filled in. The 'lookup' field contains 'lookup', the 'Item' field contains 'Item', and the 'matches' field contains 'Item1'. The 'My Price List' database is selected in the first field.

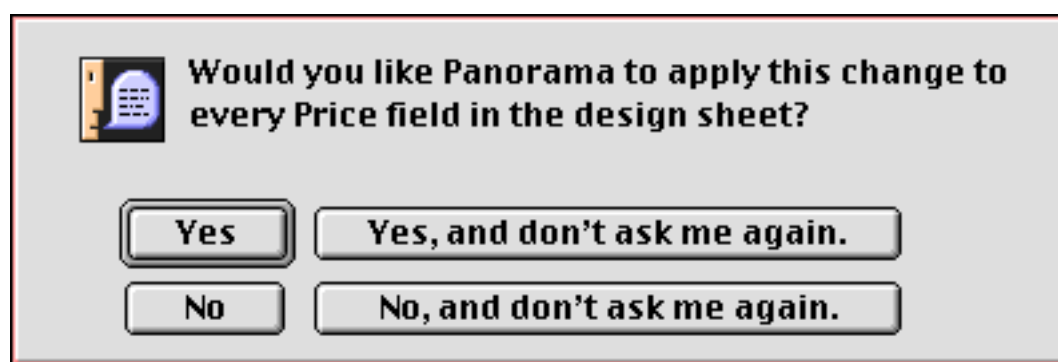
Press the **OK** button to build the formula for looking up the price.



To learn more about how this formula works see “[Linking With Another Database](#)” on page 1289. The formula generated by the dialog needs one slight adjustment — `Item1` must be replaced by `Item%`. To type the `%` character use **Option-Z** on the Macintosh and **Alt-0166** on the PC (see “[Special Characters](#)” on page 1225 and “[Line Item Fields](#)” on page 1220).



Once this adjustment has been made press the **Enter** key. Panorama will respond with this dialog (see “[Modifying Line Item Fields](#)” on page 345).



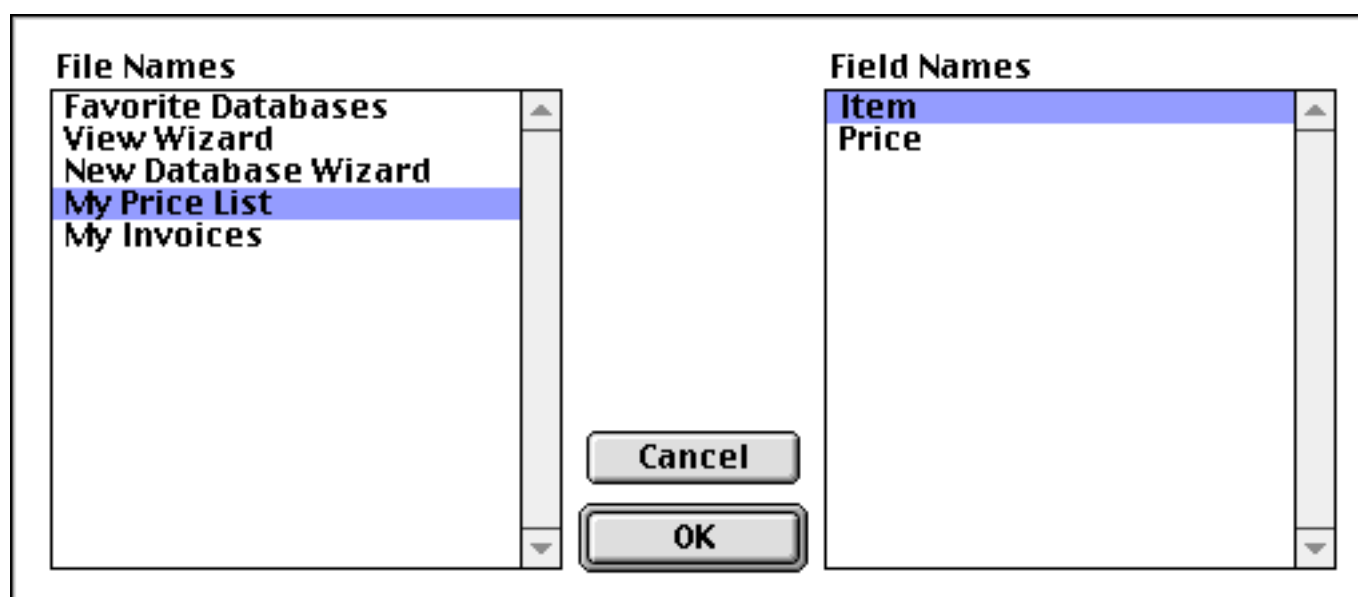
Press the **Yes, and don't ask me again** button. Panorama will update not only the **Price1** field definition, but also **Price2**, **Price3**, **Price4** etc. You can see this by scrolling down the design sheet. (We've split the window into two panes (see "[Splitting a Window](#)" on page 278) and expanded the width of the **Equation** column to make this easier to see.)

Field Name	Type	Dir	Align	Cap	Dup	Def	Equation	Reac	Wr
Item1	Text	0	Left	Off	Yes			0	
Price1	Num	Fic	Right	Off	Yes		lookup("My Price List","Item",«ItemΩ», "Price",0,0)	0	
Amount1	Num	Fic	Right	Off	Yes		QtyΩ*PriceΩ	0	
Qty2	Num	0	Right	Off	Yes			0	
Item2	Text	0	Left	Off	Yes			0	
Price2	Num	Fic	Right	Off	Yes		lookup("My Price List","Item",«ItemΩ», "Price",0,0)	0	
Amount2	Num	Fic	Right	Off	Yes		QtyΩ*PriceΩ	0	
Qty3	Num	0	Right	Off	Yes			0	
Item3	Text	0	Left	Off	Yes			0	
Price3	Num	Fic	Right	Off	Yes		lookup("My Price List","Item",«ItemΩ», "Price",0,0)	0	
Amount3	Num	Fic	Right	Off	Yes		QtyΩ*PriceΩ	0	
Qty4	Num	0	Right	Off	Yes			0	
Item4	Text	0	Left	Off	Yes			0	
Price4	Num	Fic	Right	Off	Yes		lookup("My Price List","Item",«ItemΩ», "Price",0,0)	0	
Amount4	Num	Fic	Right	Off	Yes		QtyΩ*PriceΩ	0	
Qty5	Num	0	Right	Off	Yes			0	
Item5	Text	0	Left	Off	Yes			0	

Now click on the **Item1** field name (we've also unsplit the window and reduced the width of the **Equation** column).

Field Name	Type	Dir	Align	Out	Inp	Range	Choi	Link	Clair	Tab	Cap	Dup	Def	Equation	Reac	Writ	Wid	Notes
Phone	Text	0	Left	(	Any		Off	Off	Off	Yes					0	0	12	
Memo	Text	0	Left		Any		Off	Off	Off	Yes					0	0	20	
Qty1	Num	0	Right	#,	Any		Off	Off	Off	Yes					0	0	3	
Item1	Text	0	Left		Any		On	Off	Off	Yes					0	0	10	
Price1	Num	Fic	Right	#,	Any		Off	Off	Off	Yes			lookup("I		0	0	6	
Amount1	Num	Fic	Right	#,	Any		Off	Off	Off	Yes			QtyΩ*Pr		0	0	6	
Qty2	Num	0	Right	#,	Any		Off	Off	Off	Yes					0	0	3	

Choose the **Set Up Link** command from the **Special** menu (see "[Clairvoyance® Across Multiple Files](#)" on page 389).



On the left hand side select **My Price List**. Then select **Item** on the right hand side (as shown above).

Press **OK** to set up the link.

Field Name	Type	Dig	Align	Out	Inp	Range	Choi	Link	Clair	Tab	Cap	Dup	Def	Equation	Reac	Writ	Wid	Notes
Phone	Text	0	Left	(	Any			Off	Off	Off	Yes				0	0	12	
Memo	Text	0	Left		Any			Off	Off	Off	Yes				0	0	20	
Qty1	Nume	0	Right	#,	Any			Off	Off	Off	Yes				0	0	3	
Item1	Text	0	Left		Any			My I On	Off	Off	Yes				0	0	10	
Price1	Nume	Fic	Right	#,.	Any			Off	Off	Off	Yes		lookup("t		0	0	6	
Amount1	Nume	Fic	Right	#,.	Any			Off	Off	Off	Yes		QtyΩ*Pr		0	0	6	
Qty2	Nume	0	Right	#,	Any			Off	Off	Off	Yes				0	0	3	

The link must be copied to all of the other item fields (**Item2**, **Item3**, **Item4**, etc.) To do this, double click on the link.

Field Name	Type	Dig	Align	Out	Inp	Range	Choi	Link	Clair	Tab	Cap	Dup	Def	Equation	Reac	Writ	Wid	Notes
Phone	Text	0	Left	(	Any			Off	Off	Off	Yes				0	0	12	
Memo	Text	0	Left		Any			Off	Off	Off	Yes				0	0	20	
Qty1	Nume	0	Right	#,	Any			Off	Off	Off	Yes				0	0	3	
Item1	Text	0	Left		Any			My Price List:Item	Off	Off	Yes		lookup("t		0	0	10	
Price1	Nume	Fic	Right	#,.	Any			Off	Off	Off	Yes		QtyΩ*Pr		0	0	6	
Amount1	Nume	Fic	Right	#,.	Any			Off	Off	Off	Yes				0	0	6	
Qty2	Nume	0	Right	#,	Any			Off	Off	Off	Yes				0	0	3	
Item2	Text	0	Left		Any			Off	Off	Off	Yes				0	0	10	
Price2	Nume	Fic	Right	#,.	Any			Off	Off	Off	Yes		lookup("t		0	0	6	

When you press the **Enter** key the link specification will be copied to all of the other Item fields.

Field Name	Type	Dig	Align	Out	Inp	Range	Choi	Link	Clair	Tab	Cap	Dup	Def	Equation	Reac	Writ	Wid	Notes
Phone	Text	0	Left	(	Any			Off	Off	Off	Yes				0	0	12	
Memo	Text	0	Left		Any			Off	Off	Off	Yes				0	0	20	
Qty1	Nume	0	Right	#,	Any			Off	Off	Off	Yes				0	0	3	
Item1	Text	0	Left		Any			My I On	Off	Off	Yes				0	0	10	
Price1	Nume	Fic	Right	#,.	Any			Off	Off	Off	Yes		lookup("t		0	0	6	
Amount1	Nume	Fic	Right	#,.	Any			Off	Off	Off	Yes		QtyΩ*Pr		0	0	6	
Qty2	Nume	0	Right	#,	Any			Off	Off	Off	Yes				0	0	3	
Item2	Text	0	Left		Any			My I On	Off	Off	Yes				0	0	10	
Price2	Nume	Fic	Right	#,.	Any			Off	Off	Off	Yes		lookup("t		0	0	6	
Amount2	Nume	Fic	Right	#,.	Any			Off	Off	Off	Yes		QtyΩ*Pr		0	0	6	
Qty3	Nume	0	Right	#,	Any			Off	Off	Off	Yes				0	0	3	
Item3	Text	0	Left		Any			My I On	Off	Off	Yes				0	0	10	
Price3	Nume	Fic	Right	#,.	Any			Off	Off	Off	Yes		lookup("t		0	0	6	
Amount3	Nume	Fic	Right	#,.	Any			Off	Off	Off	Yes		QtyΩ*Pr		0	0	6	
Qty4	Nume	0	Right	#,	Any			Off	Off	Off	Yes				0	0	3	
Item4	Text	0	Left		Any			My I On	Off	Off	Yes				0	0	10	
Price4	Nume	Fic	Right	#,.	Any			Off	Off	Off	Yes		lookup("t		0	0	6	

Use the **View** menu to switch back to the **Order Entry** form. When Panorama asks you if you want to create a new generation, press the **Yes** button (see “[Database “Generations”](#)” on page 332). Then **Save** the database before continuing.

Using the Linked Invoice & Price List

Since you've set up a Clairvoyant link between the invoice and the price list you'll only need to enter the first few letters of a description.

The screenshot shows the 'My Invoices:Order Entry' window. The 'Invoice #' is 1 and the 'Date' is 10/28/00. The customer information includes Name: Linda Bischoff, Company: Mark Energy Co, and Address: 955 N. Harbor Cir., Fresno, CA 93747. The item list has one entry: 12 Blue Medium Ball Point Pen. The 'Price' and 'Amount' columns are currently empty.

Invoice #	Date	Qty	Item	Price	Amount
1	10/28/00	12	Blue Medium Ball Point Pen		

When you press the **Enter** key Panorama will look up the price from the [Price List](#) database. Once the price is looked up Panorama will then automatically calculate the subtotal, tax and grand total.

The screenshot shows the 'My Invoices:Order Entry' window after the price lookup. The price for the 'Blue Medium Ball Point Pen' is now 0.69, and the amount is 8.28. The window also displays a tax rate of 7.75, a subtotal of 8.28, a tax of 0.64, and a total of 8.92. The status bar indicates '1 visible/1 total'.

Invoice #	Date	Qty	Item	Price	Amount
1	10/28/00	12	Blue Medium Ball Point Pen	0.69	8.28
				Subtotal	8.28
				Tax Rate 7.75	Tax 0.64
				Shipping	
				Total	8.92

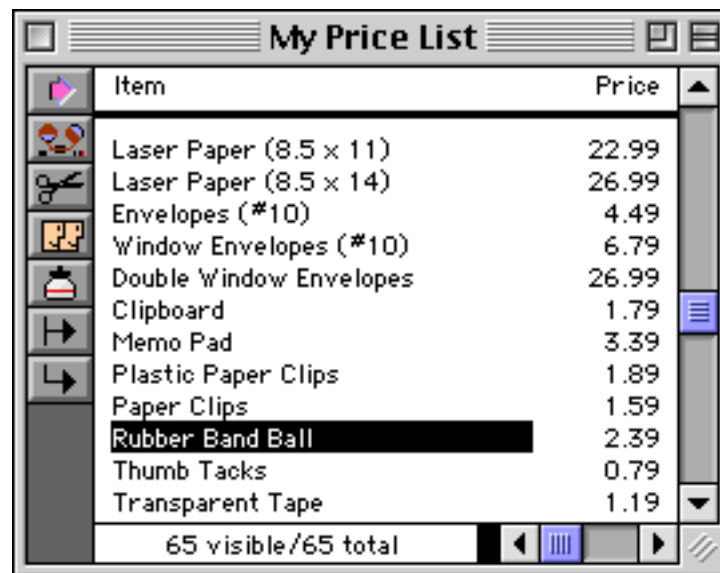
You can enter up to 12 items in each invoice.

The screenshot shows the 'My Invoices:Order Entry' window with five items entered. The total amount is 56.74. The status bar indicates '1 visible/1 total'.

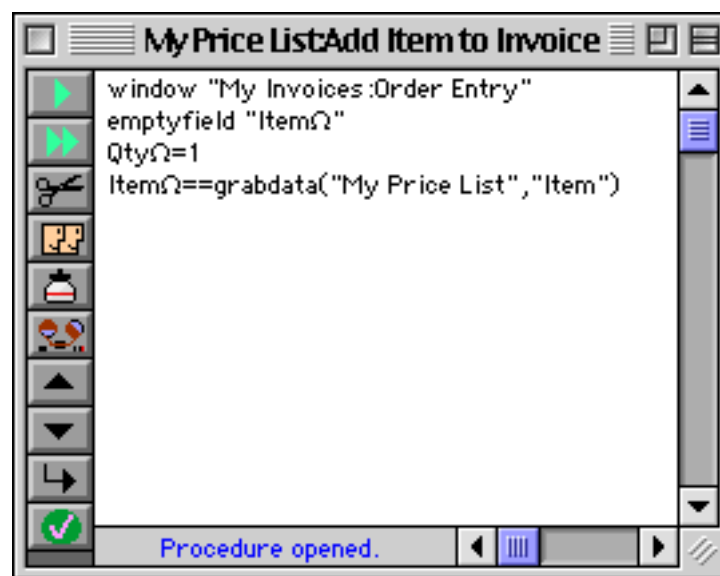
Invoice #	Date	Qty	Item	Price	Amount
1	10/28/00	12	Blue Medium Ball Point Pen	0.69	8.28
		3	Pink Highlighter	1.19	3.57
		5	Memo Pad	3.39	16.95
		12	Paper Clips	1.59	19.08
		2	Rubber Band Ball	2.39	4.78
				Subtotal	52.66
				Tax Rate 7.75	Tax 4.08
				Shipping	
				Total	56.74

Creating a Procedure to Add an Item

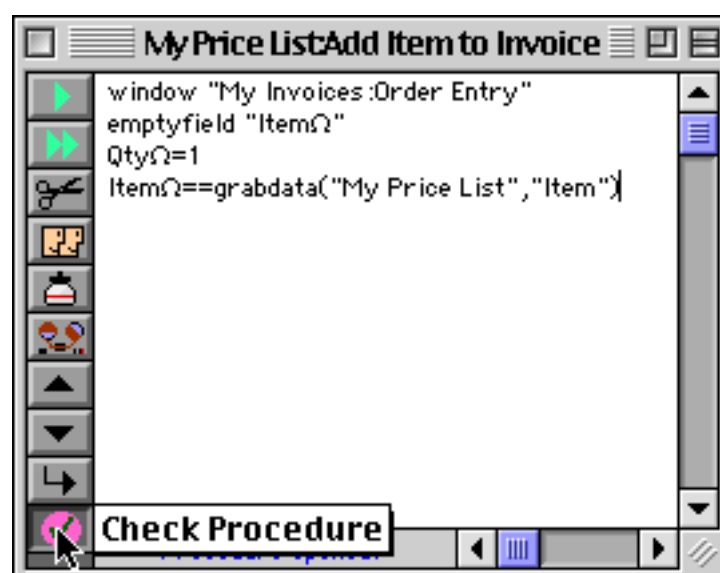
Now you'll write a very short procedure. Start by clicking on the [Price List](#) database.



Use the **View** menu to create a new procedure named [Add Item to Invoice](#) (see “[Writing a Procedure from Scratch](#)” on page 1357). Type in the four lines shown below, exactly as they are shown. (Remember, the Ω character is typed in by pressing **Option-Z** on the Macintosh or **Alt-0166** on the PC. Depending on the fonts installed on your system the character may not look like Ω , but it will work if you press the right keys.)



To check your typing use the **Check Procedure** tool. This tool can spot most typing mistakes (see “[Checking for Mistakes](#)” on page 1362).



Assuming there are no errors use the **View** menu to switch back to the data sheet. (If there are any errors - fix them!) Then pick the item you want to add to the invoice and choose **Add Item to Invoice** from the Action menu.



The procedure will automatically add the selected item to the invoice.

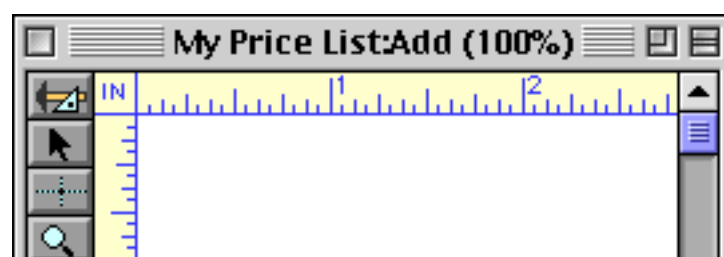
The screenshot shows the 'My Invoices:Order Entry' window. The left side contains invoice details, and the right side contains a table of items. The 'Postal Scale' item is circled in red.

Invoice #	Date	Qty	Item	Price	Amount
1	10/28/00	12	Blue Medium Ball Point Pen	0.69	8.28
		3	Pink Highlighter	1.19	3.57
		5	Memo Pad	3.39	16.95
		12	Paper Clips	1.59	19.08
		2	Rubber Band Ball	2.39	4.78
		1	Postal Scale	19.95	19.95
				Subtotal	72.61
				Tax Rate 7.75	Tax 5.63
				Shipping	
				Total	78.24

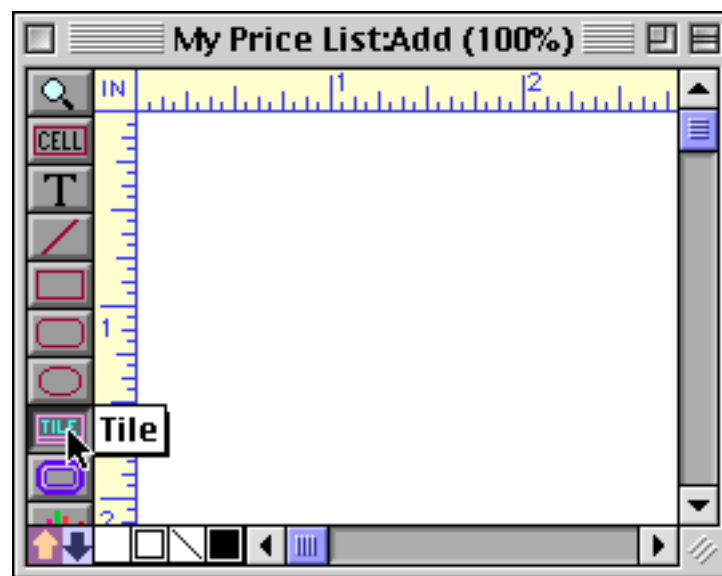
To learn more about how this procedure actually works see "[Assignment Statements](#)" on page 1367, "[Windows](#)" on page 1544 and "[Moving Left and Right](#)" on page 1591.

Creating a Price List Form with Buttons

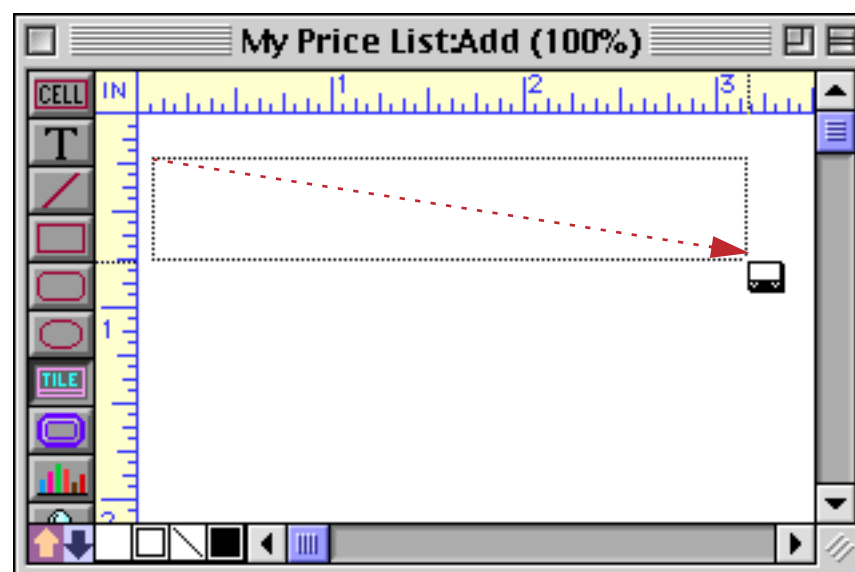
Now you'll create a price list form with buttons for adding items to the invoice. Start by using the **View** menu to create a new form named **Add**.



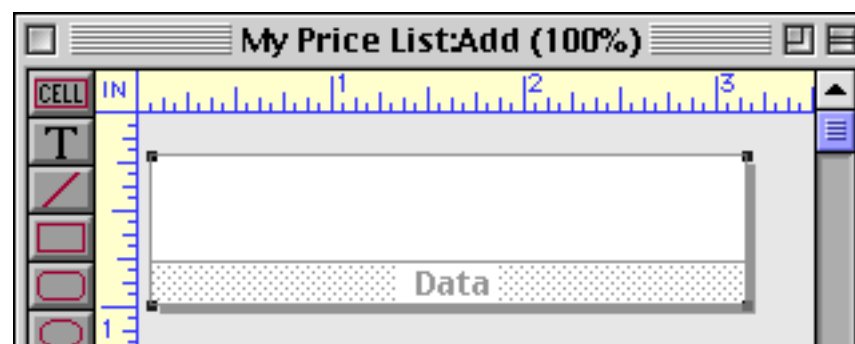
You're going to make a **View-As-List** form (see "[View-As-List Forms](#)" on page 917). To do this start by selecting the **Tile** tool. You may need to scroll the tool palette to access this tool (see "[Scrolling the Tool Palette](#)" on page 277).



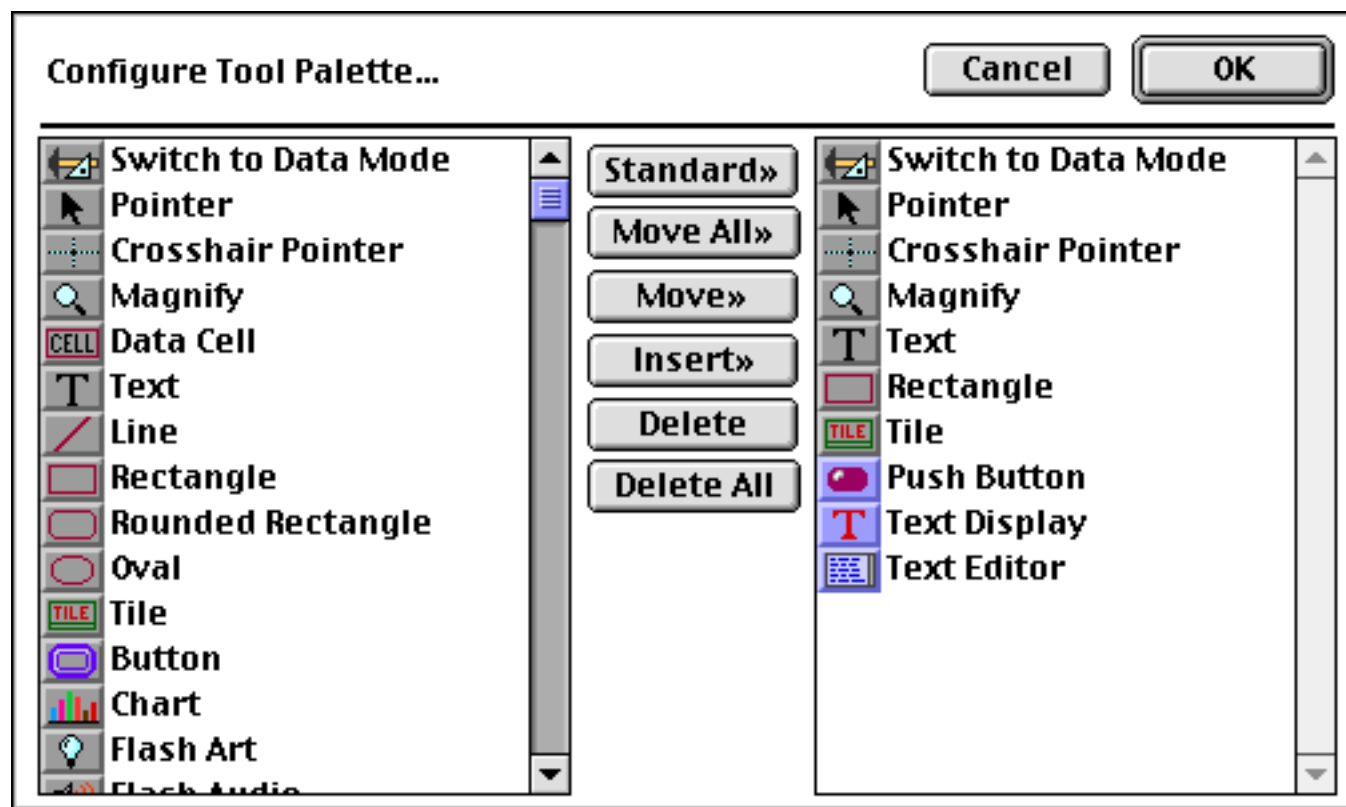
Expand the width of the window slightly, then drag the mouse across the form to create a tile (see "[Working with Tiles](#)" on page 926).



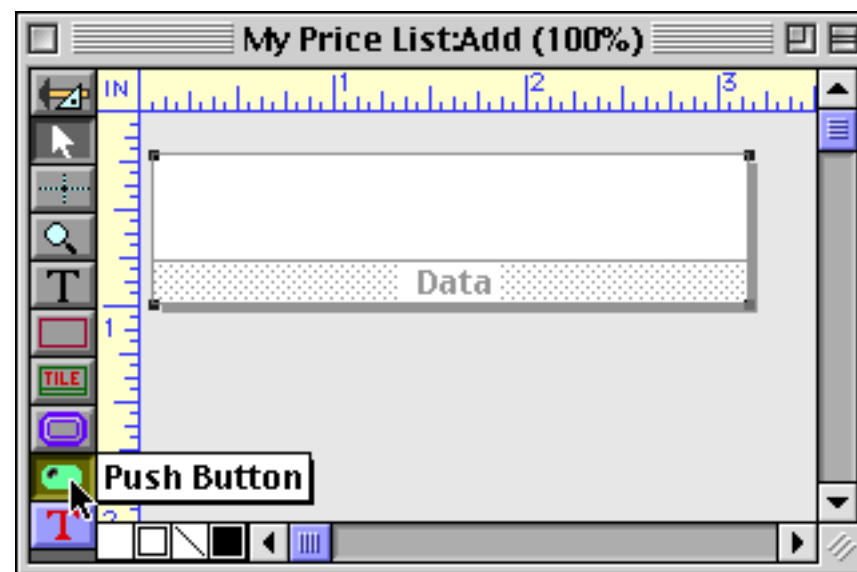
When you release the mouse a new **data tile** appears.



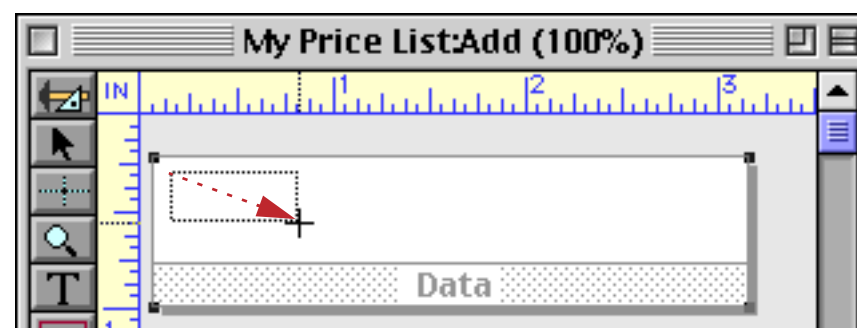
Before you continue with the next step you'll need to customize the tool palette. To do this choose **Tool Palette** from the Setup menu and then arrange the tools as shown below (see "[Customizing the Tool Palette](#)" on page 554).



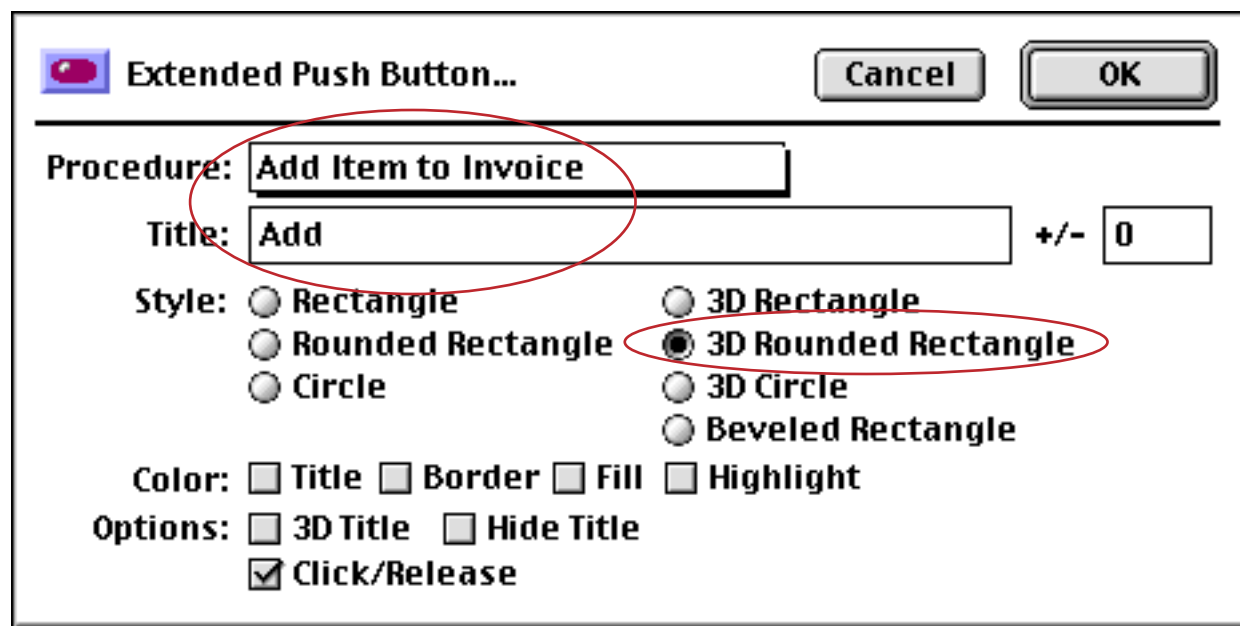
Press the **OK** button, then select the **Push Button** tool (see "[Push Buttons](#)" on page 853).



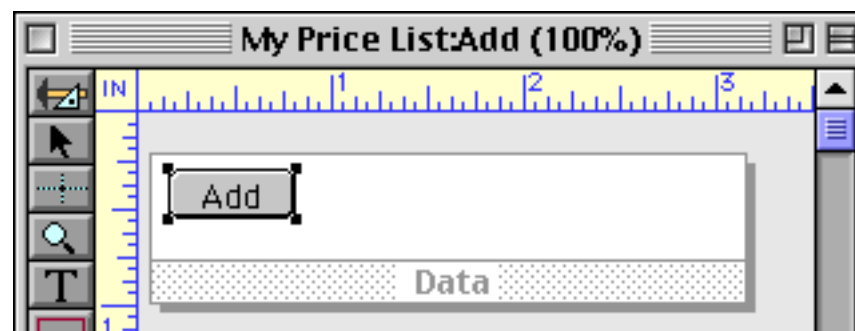
Now drag to create a button in the upper left hand corner of the data tile.



Now you'll need to select three options for the new push button. Using the pop-up menu select the procedure linked to this button, in this case [Add Item to Invoice](#). (This means that when this button is pressed the [Add Item to Invoice](#) procedure will be triggered, just as if you had selected it from the **Action** menu.) Type in the title you want to appear in the button, in this case [Add](#). Click on the button style you want to use, in this case [3D Rounded Rectangle](#).



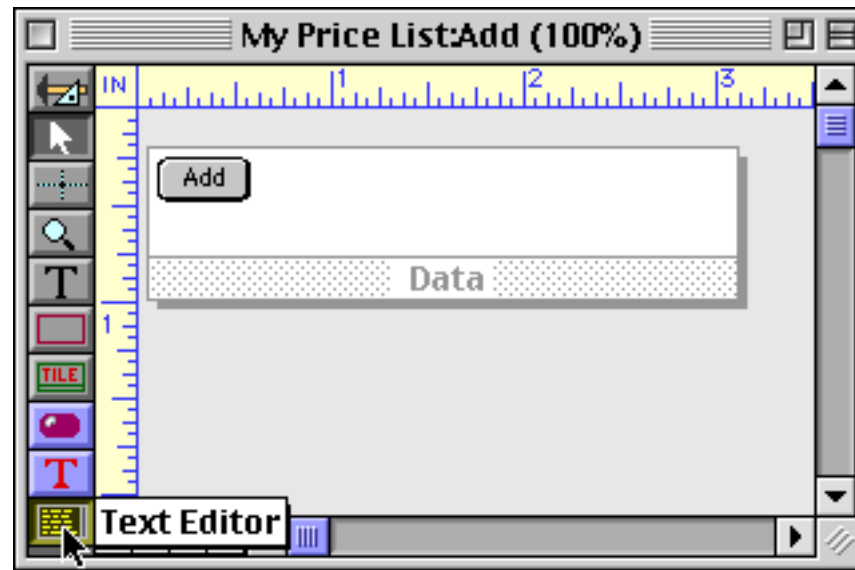
When you press the OK button the new push button will appear on your form.



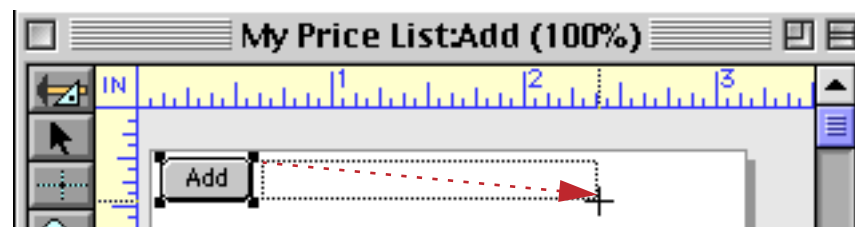
Select the **Pointer** tool and adjust the text size and overall dimensions of the button (see "[Text Size](#)" on page 583).



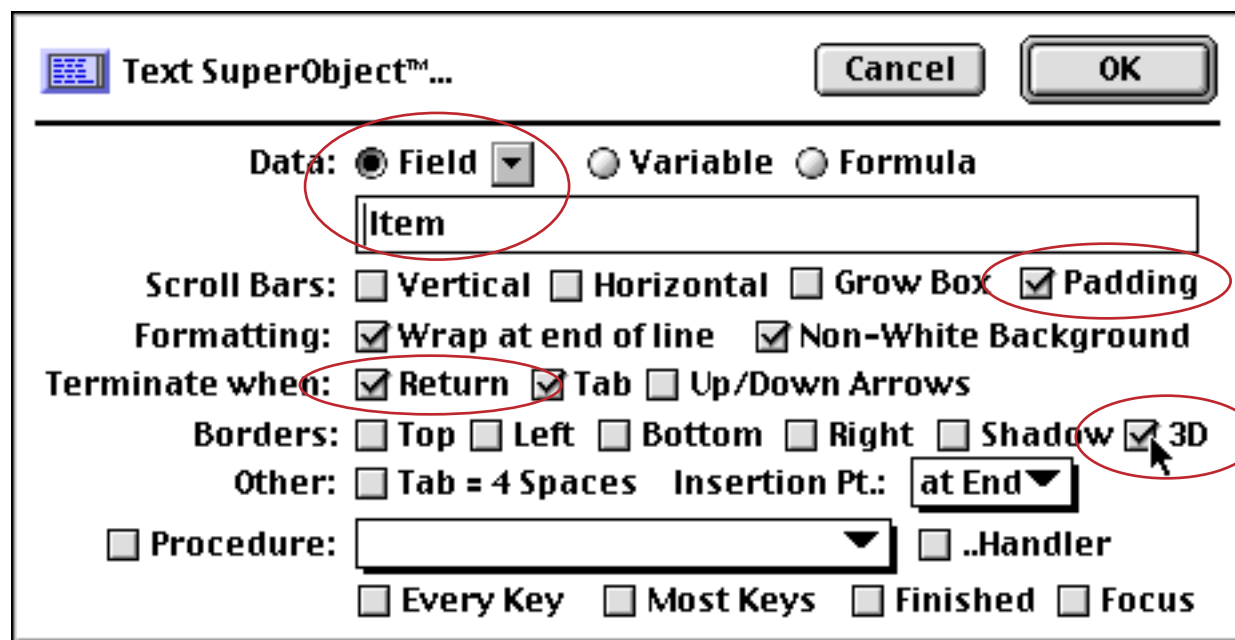
Now select the Text Editor tool (see “[Text Editor SuperObject](#)” on page 689).



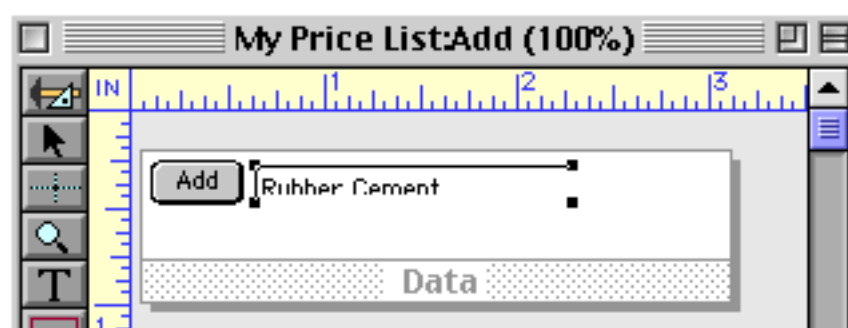
Drag the mouse to create a text editor object.



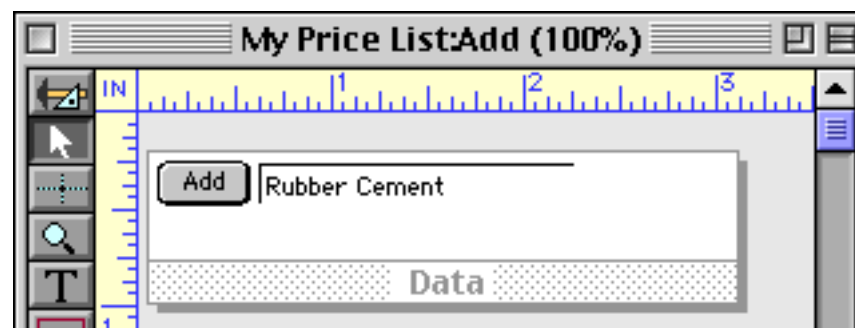
When you release the mouse the Text Editor SuperObject configuration dialog appears (see “[Text Editor Options](#)” on page 692). Set the options as shown in the illustration below.



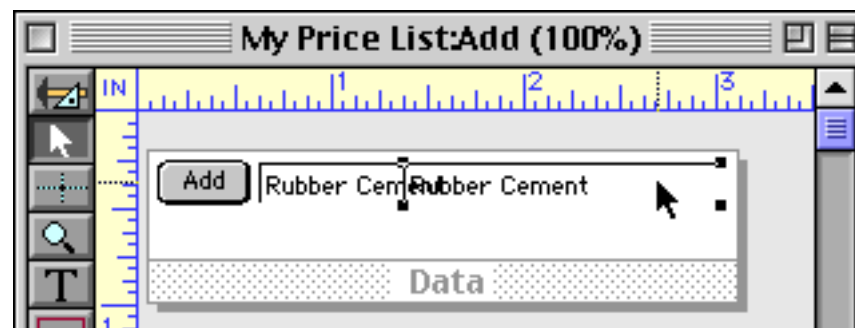
When you press the **OK** button the new Text Editor SuperObject will appear.



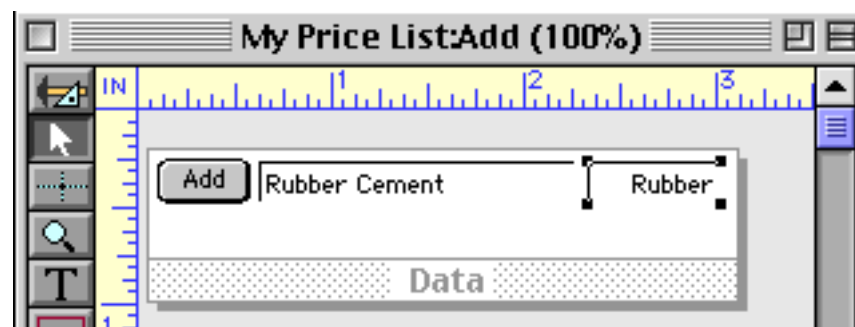
Select the **Pointer** tool and adjust the size and position of the new object (see “[Nudging the Size of an Object](#)” on page 568).



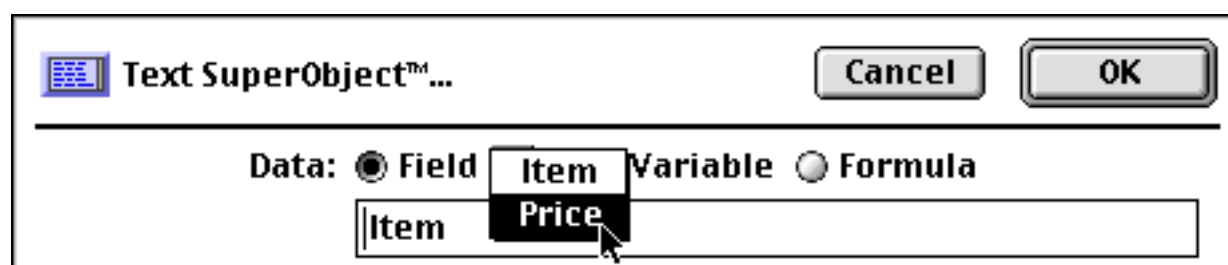
Hold down the **Option** key (Mac) or the **Alt** key (PC) and drag the Text Editor object to the right (see “[Drag Duplicating](#)” on page 613).



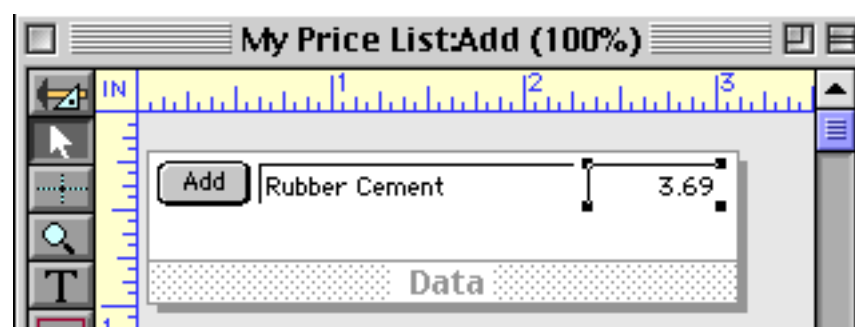
Adjust the size of the new object and select the **Right** command from the Text menu (see “[Text Alignment](#)” on page 644).



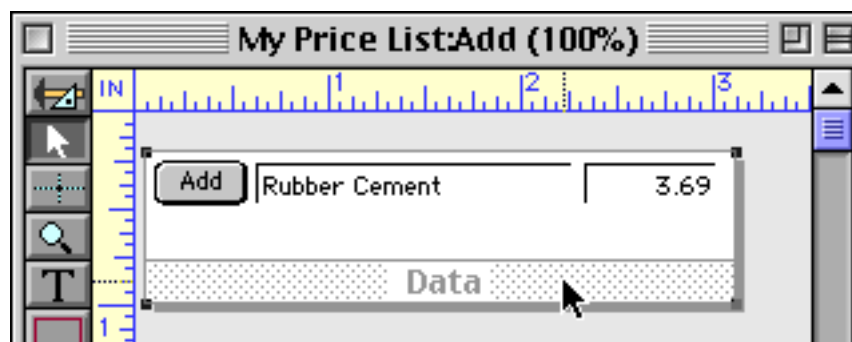
Double click on the new text editor object (see “[The Object Properties Dialog](#)” on page 586) and change the field to **Price**.



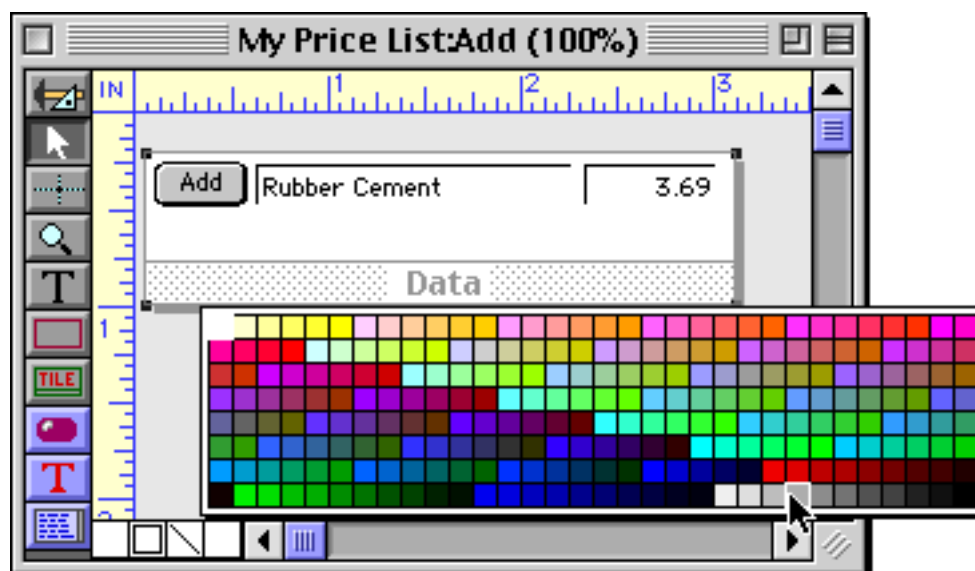
Press **OK** to update the object.



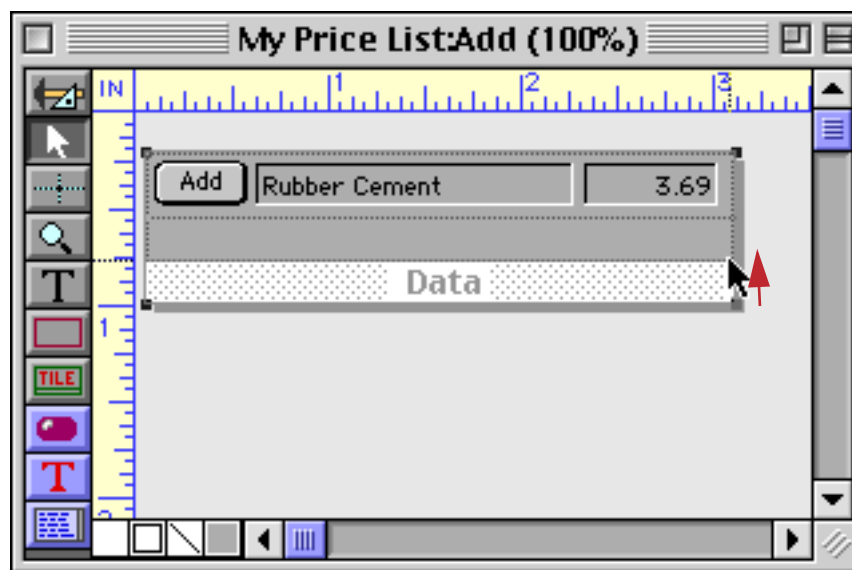
Click in the tiles' drag bar to select it (see "[Working with Tiles](#)" on page 926).



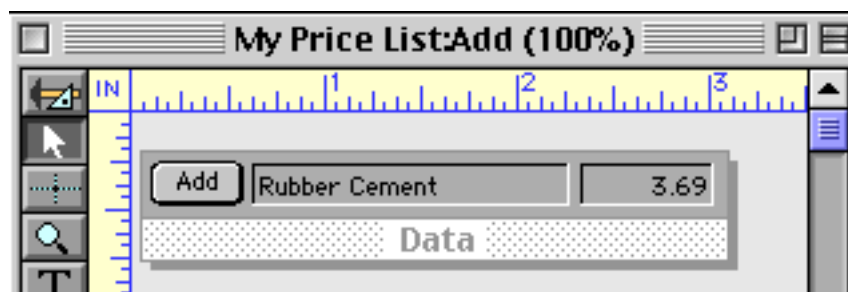
Use the color menu to change the tile to light gray.



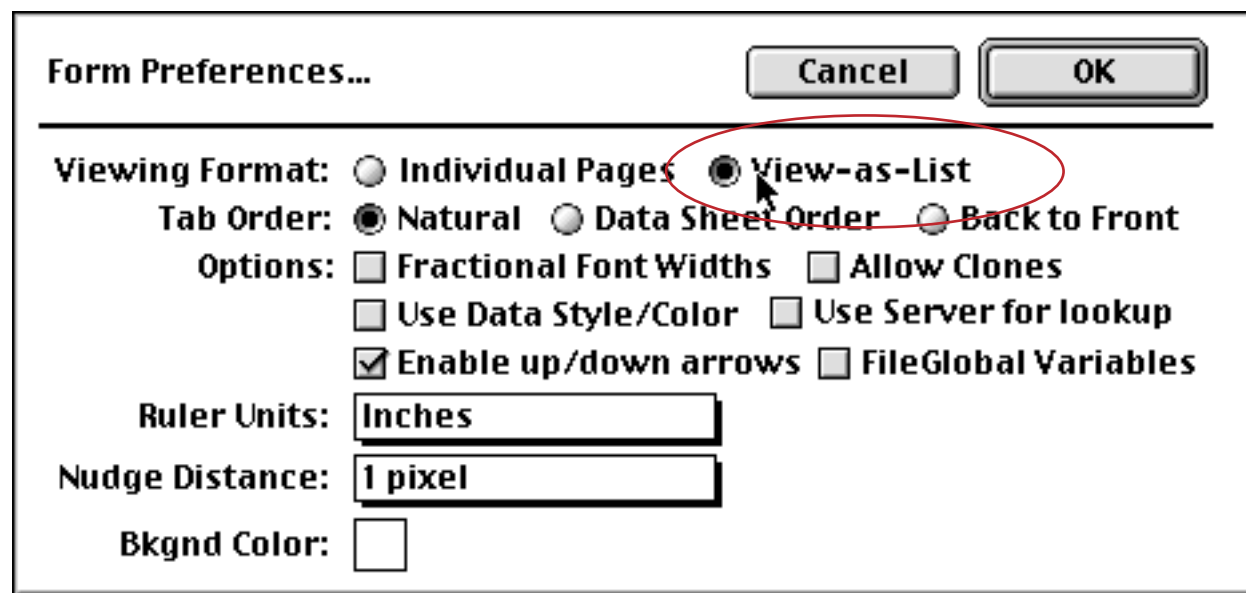
Drag the lower left hand handle of the tile up until there is an equal margin around the button and text editor objects.



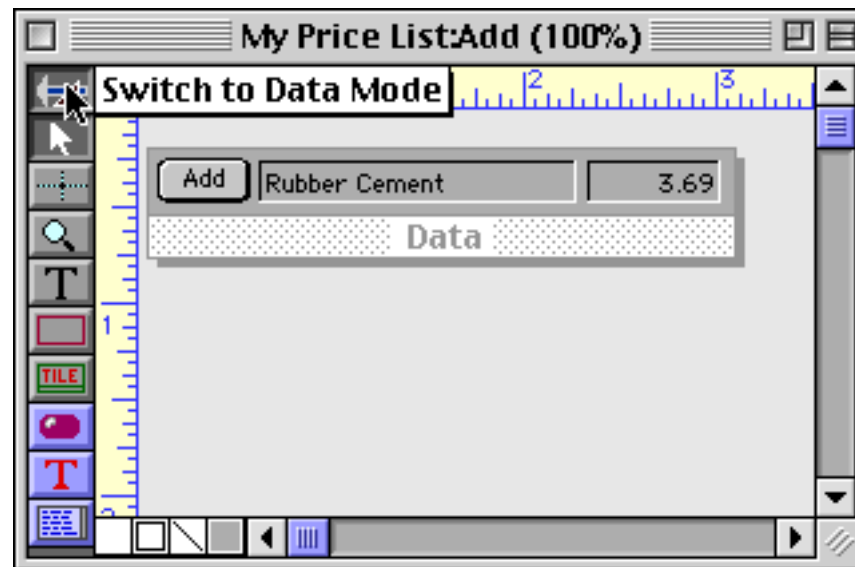
The finished form should look something like this.



Using the Form Preferences dialog in the Setup menu, change the viewing format for the form to **View-As-List**.



Press the **OK** button, then switch back to Data Access Mode.



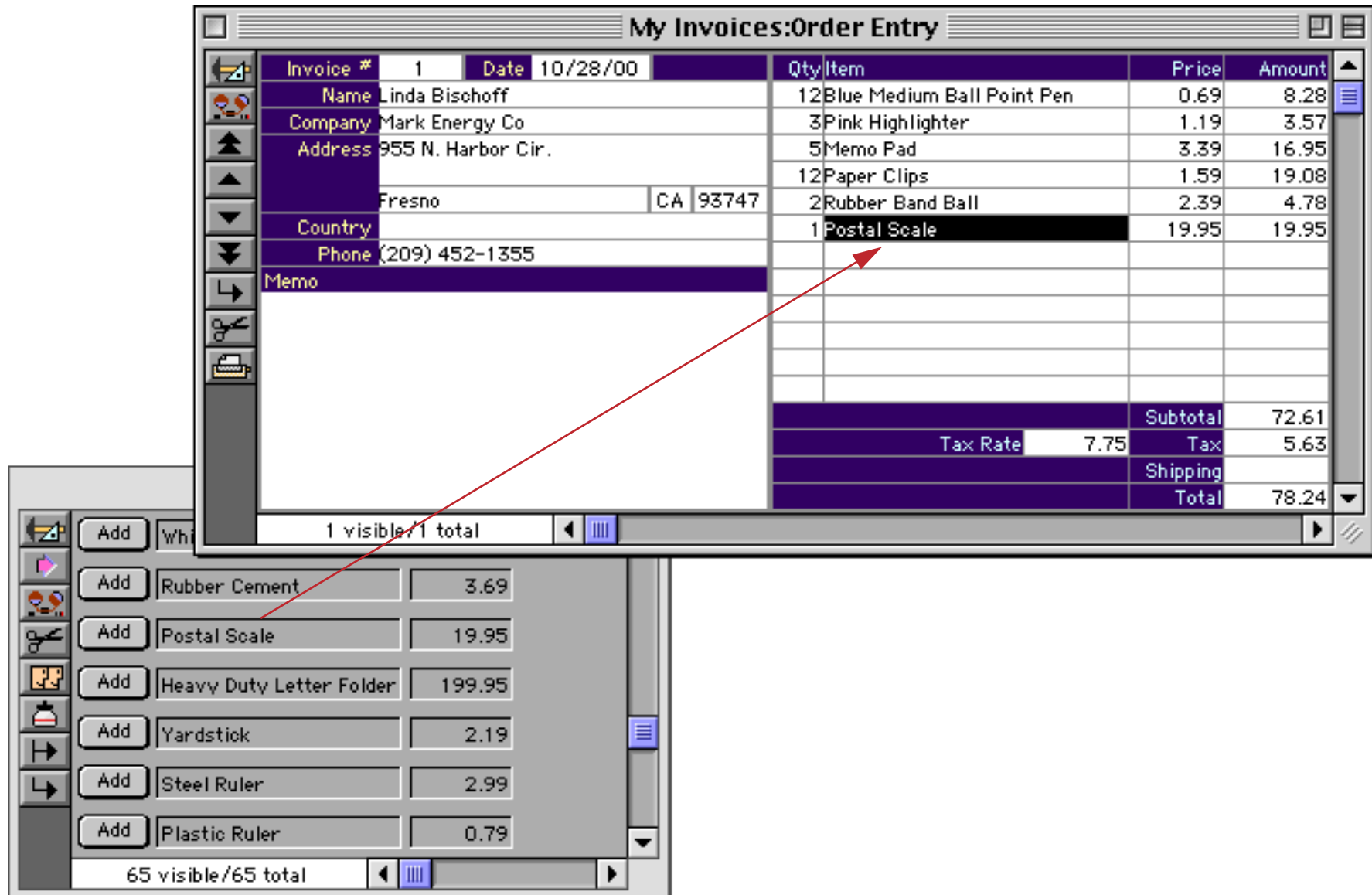
Here's what the form should now look like in Data Access Mode. The graphics on the tile are repeated over and over again for each record in the database.



To add a particular item to the current invoice just click on the **Add** button for that item.



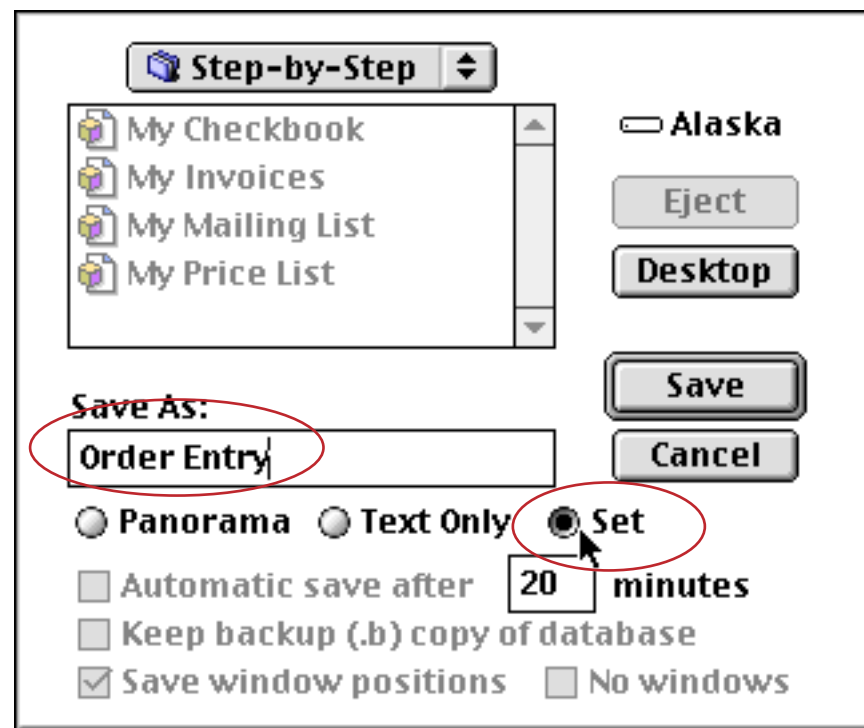
Clicking this button will trigger the procedure which adds the item to the invoice.



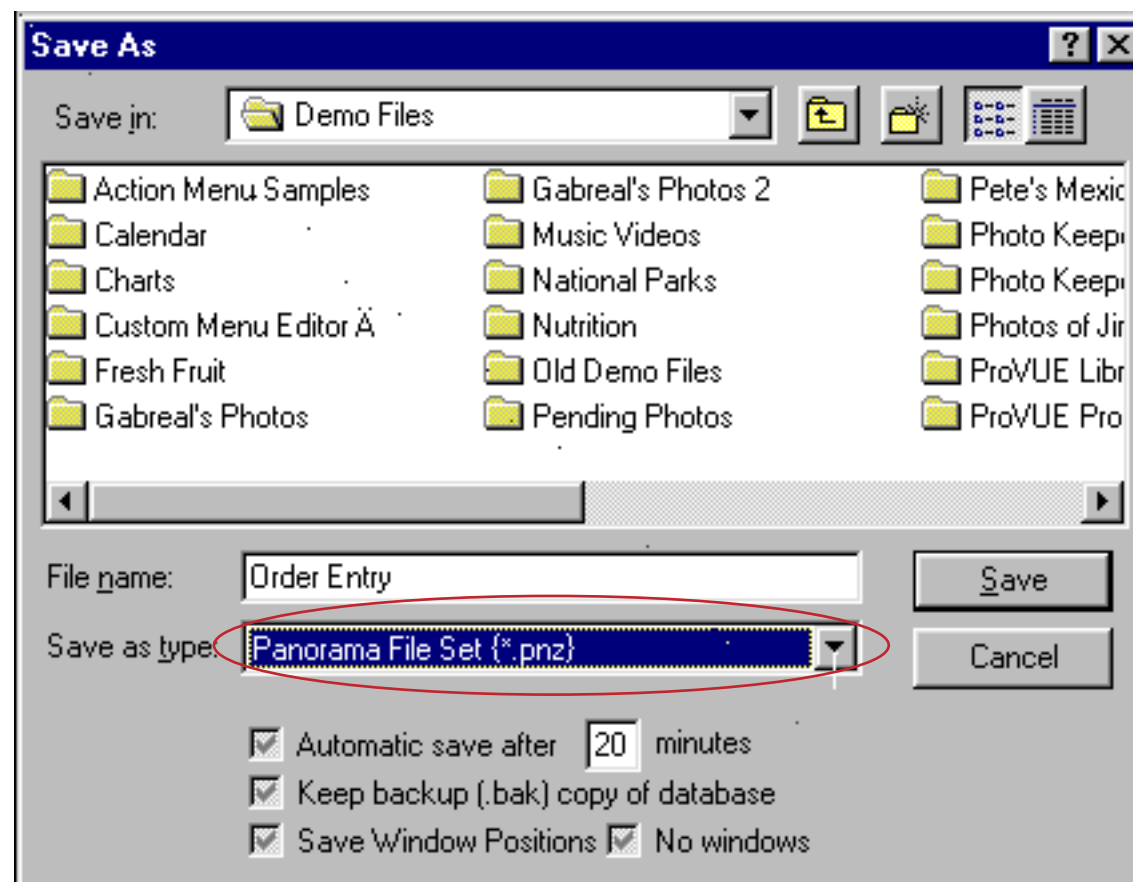
Now Save both databases and you are done.

Saving a File Set

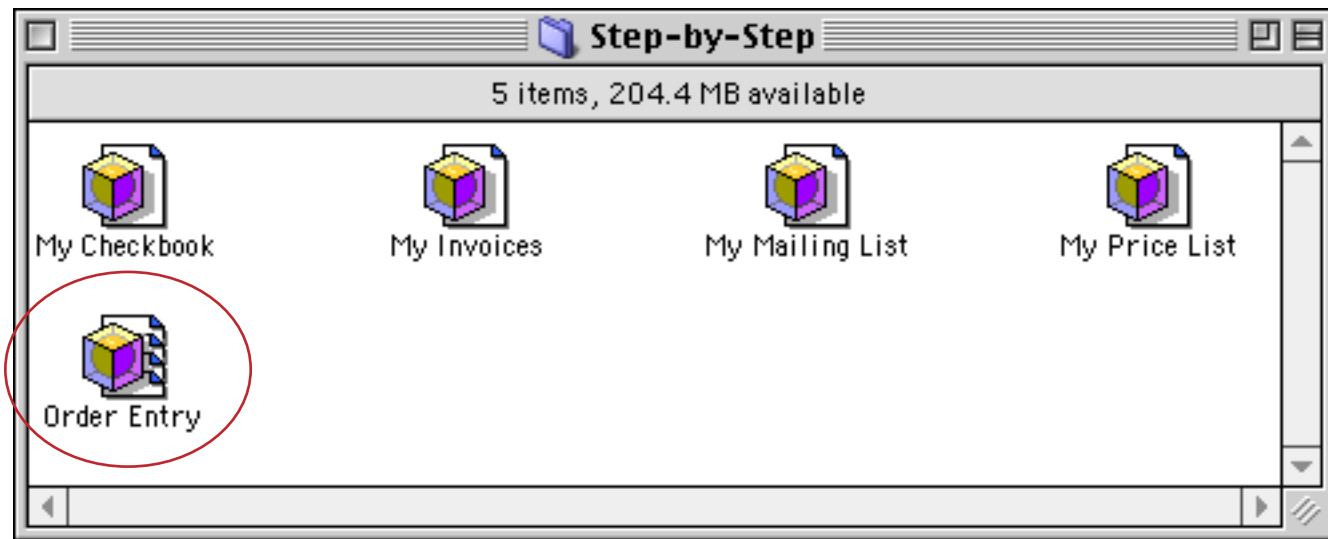
Before continuing, make sure that the **My Invoice** and **My Price List** files are the only two databases open in Panorama. Then choose the **File Save** command from the File menu. Type in the name of the file set you want to create (in this case **Order Entry**) and click on the **Set** option.



If you are using a Windows PC computer use the combo box to choose the **Panorama File Set (*.pnz)** option



Press the **Save** button to create the file set document.



Later if you want to open both the [My Invoices](#) and [My Price List](#) files together you don't need to open them separately. Instead you can simply double click on the [Order Entry](#) icon, and Panorama will open both files automatically. See "[File Sets](#)" on page 217 to learn more.

