

Adding, Editing, and Viewing Data

In Chapters 6 and 7 you learned how to open a database, create and open tables, and import or link to tables from other sources. In this chapter you'll learn how to add, change, and delete data in tables. We'll also introduce forms in this chapter, but you'll learn much more about forms in Chapters 11 and 13.

Datasheet View and Form View

You can work with Access data using either *datasheet view* or *form view*:

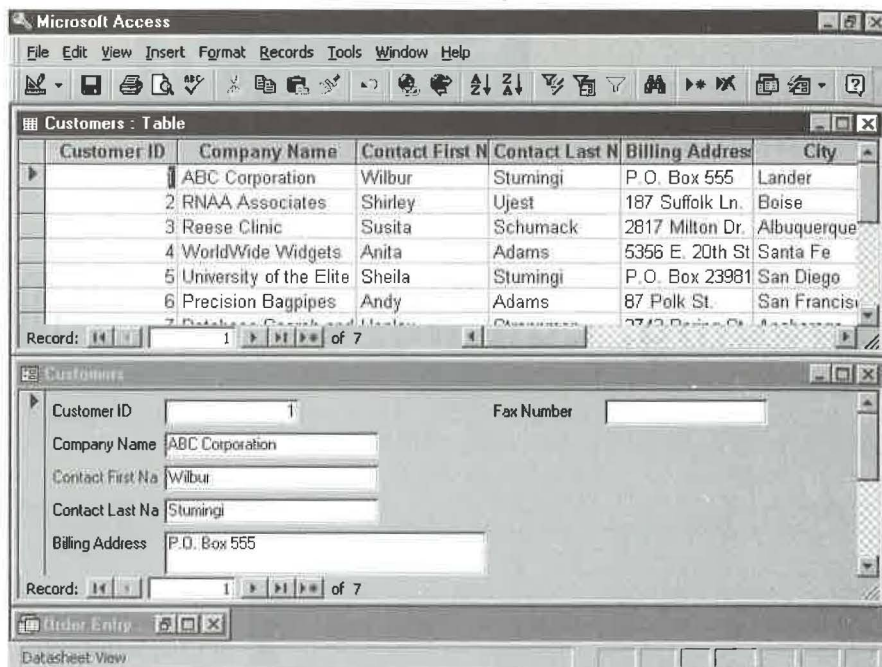
Datasheet View (Also called *table view*.) You can see many records on the screen in a tabular format.

Form View You can see one record at a time, in a format that resembles paper fill-in-the-blank forms.

Figure 8.1 shows table data in datasheet view and the same data in form view.

FIGURE 8.1

You can view several records at a time in datasheet view. You generally work with only one record at a time in form view.



Creating an Instant Form

Normally you'll be taken into datasheet view when you open a table. If you want to use form view, you must create a form or use an existing form. (Of course, you need to create the form only *once*, as long as you save it after you create it.) Chapters 11 and 13 cover forms in detail, but if you're itching to set up a quick-and-easy form right now, follow these steps:

1. Click on the Tables or Queries tab in the database window and then click on the name of an existing table or query.
2. Click on the drop-down arrow next on the New Object toolbar button (shown at left, and the second-to-last toolbar button). Then choose AutoForm from the list that appears. Or choose Insert ► AutoForm from the database menu.

Access builds a simple form and displays it on your screen.



**TIP**

If you don't mind doing a few extra mouse-clicks, you can get a nicer looking instant form than the simple AutoForm feature produces. In step 2 on the previous page, choose Form (instead of AutoForm) from the drop-down list on the New Object toolbar button. Then double-click on AutoForm: Columnar in the New Form dialog box that appears.

Closing a Form

To close the form when you're done using it:

1. Make sure the form is in the active window. (If in doubt, click on the form's title bar.)
2. Click on the form's Close button or choose File ► Close from the menu bar or press Ctrl+W. If the form is new or you made changes to an existing form, you'll be asked whether to save the form.
3. Click on Yes to save the form. If you're prompted for a form name, type a form name (or accept the suggested name) and click on OK. If you don't want to save changes to the form, click on No.

You can click on the Forms object tab in the database window to view the names of all saved forms.

Viewing Data in Datasheet or Form View

You can view table data anytime using either the datasheet view or the form you created:

Datasheet View To view data in datasheet view, click on the Tables or Queries tab on the database window. Then double-click on the table or query whose data you want to view. Or click on the table or query name and then click on the Open button on the database window. Or right-click on the table or query name and choose Open.

Form View To view data in form view, click on the Forms tab on the database window and then double-click on the form you want to open. Or click on the form name and then click on the Open button on the database window. Or right-click on the form name and choose Open.

**NOTE**

You can open a table or a query in datasheet view, and you can create a form for a table or a query and then open that form. Any time you open a form, you're also opening the underlying table or query automatically.

**WARNING**

Some types of queries change data or create tables rather than display data, so be careful about opening just any old query. You'll learn more about queries in Chapter 10.

Switching between Datasheet View and Form View

When you open a form, you can easily switch between views. To do so, click on the drop-down arrow next to the View toolbar button (the first toolbar button); then choose an option from the menu (Design View, Form View, or Datasheet View). Or choose appropriate options from the View menu (Form Design, Form, or Datasheet).

The form view options won't appear if you open the table in datasheet view. So when you want maximum flexibility in switching between views, open the form rather than the table.

The Design View option is always available. How it acts depends on how you got to the current view:

- If you opened the current table in datasheet view, the Design View options will take you to the underlying table design (the table's structure).
- If you opened a form, the Design View option will take you to the form's underlying design (see Chapters 11 and 13).

Table 8.1 shows a summary of the Table View or Form View toolbar buttons you'll see from various views.

**TIP**

To quickly switch to the view shown on the Form View or Table View toolbar button, click on that button without clicking on the button's drop-down arrow first.

TABLE 8.1: TOOLBAR BUTTONS FOR SWITCHING AMONG VIEWS

IF YOU'RE IN THIS VIEW	THE VIEW BUTTON LOOKS LIKE THIS...
Form View or Datasheet View	
Form Design View	
Table Design View	

Why Design View?

If you get confused, just remember that design view is for designing (creating and changing) objects—not for managing data. You cannot see or change data from design view. If you're in design view and want to return to your data, switch to datasheet view or form view.

Here's another way to look at it: If you open a table in datasheet view and want to switch to form view, you can't use the toolbar button or View menus to do so because Access won't know which form you want to open. So you'll need to open the appropriate form if you want all the flexibility that Access offers.

If You Get Lost...

If you get lost, you can close all the objects until you see only the database window, or you can quickly bring the database window to the forefront by pressing F11. From there you can click on the tab for any type of object, click on the name of any object, and then click on the New, Open (or Preview or Run), or Design buttons, as explained under "Working in the Database Window" in Chapter 1. (Believe it or not, this procedure becomes second nature after you've done it a few times.)

Customizing the Datasheet View

Customizing datasheet view can be a quick and easy way to display and print an attractive list of data in a table. Figure 8.2 shows the original datasheet for a Products table, along with a customized version of that same datasheet. You can use a special Formatting (Datasheet) toolbar, menu commands, and right-clicking to change the appearance of datasheet view in a flash. The next few sections explain how.



To print a tabular report that uses the same formatting shown in datasheet view, customize datasheet view, and select records if you wish (as explained in this chapter). Then choose File ► Print (Ctrl+P), fill in the Print dialog box, and click on OK. (To preview the records first, choose Print Preview instead of File ► Print.)

Using the Formatting Toolbar

The Formatting (Datasheet) toolbar, shown in Figure 8.3, enables you to change the appearance of text on the datasheet, to choose a color for the datasheet's background, foreground, and grid, and to control the appearance of gridlines.

FIGURE 8.2

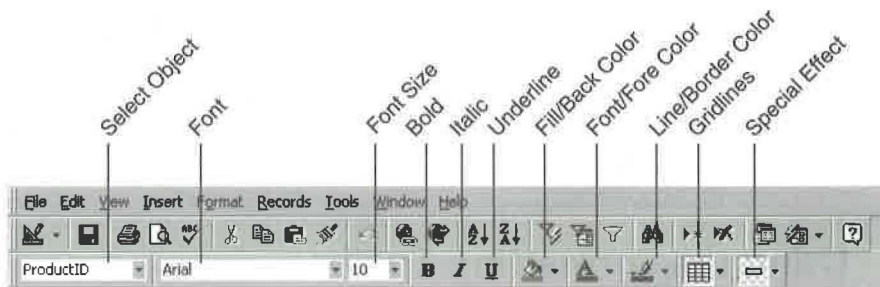
A sample Products table in its original and customized datasheet views. We've removed the gridlines and changed the font to give the datasheet a custom look.

Product ID	Product Name	Unit Price
1	Basketball	\$4.95
2	Football	\$5.65
3	Soccer ball	\$12.95
4	Volleyball	\$3.25
5	Golf balls	\$6.75
6	Crystal ball	\$45.55
7	Baseball	\$8.75
8	Billiard balls	\$127.45
9	Tether ball	\$9.65
10	Foosball	\$17.85
* (AutoNumber)		

Product ID	Product Name	Unit Price
1	Basketball	\$4.95
2	Football	\$5.65
3	Soccer ball	\$12.95
4	Volleyball	\$3.25
5	Golf balls	\$6.75
6	Crystal ball	\$45.55
7	Baseball	\$8.75
8	Billiard balls	\$127.45
9	Tether ball	\$9.65
10	Foosball	\$17.85
* (AutoNumber)		

FIGURE 8.3

The Formatting (Datasheet) toolbar lets you customize datasheet view.



To use this toolbar, you first must display it on the screen (of course). Here's how:

- If you are in datasheet view: Right-click on the current toolbar and then select (check) Formatting (Datasheet).
- If no toolbar is visible, choose View ► Toolbars. In the Toolbars dialog box, scroll down to and select (check) Formatting (Datasheet), and then click on Close.

 **NOTE**

When you want to hide the Formatting (Datasheet) toolbar again, repeat one of the steps above, except *deselect* (clear) the Formatting (Datasheet) option.

Once the Formatting toolbar is visible, you can use it in many ways:

- **To jump to a particular column in the currently selected record**, choose a column (field) name from the Go To Field drop-down list.
- **To change the font for all text in the datasheet view**, choose a font name from the Font drop-down list.
- **To change the font size for all text in the datasheet view**, choose a font size from the Font Size drop-down list.
- **To boldface all text in the datasheet view**, click on the Bold button. To turn off boldface, click on the Bold button again. Use this same technique with the Italic and Underline buttons to turn italics and underline on or off.
- **To change the datasheet's background color**, click on the drop-down arrow next to the Fill/Back Color button and then click on the color you want. Use this same technique with the Font/Fore Color and Line/Border Color buttons, respectively, to choose foreground (text) and gridline colors.
- **To change the appearance of gridlines (or to hide them)**, click on the drop-down arrow next to the Gridlines button and then click on the picture that shows the type of gridlines you want. Use the same technique with the Special Effect button to add a flat, raised, or sunken effect to the gridlines.

 **NOTE**

When you choose a sunken or raised effect for gridlines, Access always places horizontal and vertical lines on the grid. When you choose a flat effect for gridlines, Access can apply horizontal gridlines only, vertical gridlines only, both types of gridlines, or no gridlines.

Changing the Datasheet Appearances in One Fell Swoop

Instead of using the Formatting (Datasheet) toolbar to tweak appearances one at a time, you can use the Format ► Cells and Format ► Font commands on the menu bar to set several appearances at once.

- To change the appearance of the gridlines or choose a background color, choose Format ► Cells.
- To change the font name, font style, size, color, and other font effects, choose Format ► Font.
- To change the default appearance of datasheets for all databases that you open, choose Tools ► Options and then click on the Datasheet tab. See Chapter 15 for more about personalizing Access.

When the Cells Effects or Font dialog box appears, choose the settings you want. The sample area in the dialog box will reflect your current selections. When you're done, click on OK to accept the changes; or click on Cancel (or press Esc) to discard them.

Selecting and Arranging the Datasheet Rows and Columns

While in datasheet view you can rearrange the datasheet columns, adjust the height of rows, change the column widths, and even hide columns.

Selecting Datasheet Columns

If you want to resize, move, or hide more than one adjacent column at a time, you first must select the columns you want to work with. Here are some techniques to use:

- To select one column, click on the field selector at the top of the column.
- To select multiple columns, drag the mouse pointer through several field selectors. Or click on the field selector for the first column you want to select. Then use the horizontal scroll bar if you need to and Shift-click on the field selector for the last column you want to select.
- To deselect selected columns, click in the data area of any column.

NOTE

When you move the mouse pointer to a field selector, the pointer changes to a thick, black ↓ shape.

Here's an example of a datasheet with one column selected:

Product ID	Product Name	Unit Price
1	Basketball	\$4.95
2	Football	\$5.65
3	Soccer ball	\$12.95
4	Volleyball	\$3.25
5	Golf balls	\$6.75

Arranging Datasheet Rows and Columns

You can use the following tricks to adjust the height and width of rows and columns, to move columns, and to hide and redisplay columns:

- **To change the height of all the rows**, drag the bottom edge of a row selector (shown at left) up or down. Or choose Format ► Row Height or right-click on a row selector and choose Row Height; then enter a height (in points) or select Standard Height to use Access's standard row height and click on OK.
- **To change one column's width**, drag the vertical bar next to that column's field selector (shown at left) to the left or right. Or to quickly get the best possible fit for the column, double-click on that vertical bar.
- **To change the width of one or several adjacent columns**, select the column(s) you want to resize. Next, choose Format ► Column Width; or right-click on any data within the selection and choose Column Width. In the Column Width dialog box, enter a width (in number of characters) or select Standard Width and click on OK, or click on Best Fit. Alternatively, just drag the vertical bar next to a selected column's field selector to the left or right.

NOTE

When right-clicking on records after selecting multiple columns, be sure to right-click on *data* within the selection. Do not right-click on a field selector or you'll turn off the selection in adjacent columns.

- **To move column(s)**, select the column(s) you want to move. Then click on one of the highlighted field selectors and drag the selection to the left or right. (The mouse pointer changes to the shape shown at left as you drag.)
- **To hide columns**, select the column(s) you want to hide. Next choose Format ► Hide Columns; or right-click on any data within the selection and choose Hide Columns.

- To **hide or redisplay any columns you wish**, choose Format ► Unhide Columns. Select (check) the column names you want to show, deselect (clear) the ones you want to hide, and then click on Close.

Freezing and Unfreezing Columns

When the table is wider than the screen, scrolling to the rightmost columns will force the leftmost columns off the edge of the window. Instead of scrolling back-and-forth to figure out which record the cursor is in at the moment, you can freeze one or more columns so they never scroll out of view.

In Figure 8.4 we froze the Company Name, Contact First Name, and Contact Last Name columns in the Customers table. Notice the heavy vertical line between the last frozen field (ContactLast Name) and the first unfrozen one (PhoneNumber). This makes it easy to scroll to the Phone Number field without losing sight of the customers' names.

To freeze one or more columns:

1. Select the column or columns you want to freeze.
2. Choose Format ► Freeze Columns, or right-click on any data within the selection, and then choose Freeze Columns from the shortcut menu.

The selected columns move to the leftmost positions in the datasheet automatically and remain visible as you scroll the datasheet columns to the right. A heavy vertical line separates the frozen columns from the unfrozen ones.

To unfreeze the columns, choose Format ► Unfreeze All Columns.

NOTE

If the horizontal scroll bar disappears after you freeze columns, you won't be able to view the unfrozen columns or scroll to them. To solve this problem, either unfreeze all the columns or resize the frozen columns smaller. Then resize the datasheet window larger (if necessary) until the horizontal scroll bar reappears.

FIGURE 8.4

The first three columns are frozen so they don't move out of view when we scroll to the right.

	Company Name	Contact First Name	Contact Last Name	Phone Number	F
▶	ABC Corporation	Andy	Adams	(415) 555-5938	(4)
	RNAA Associates	Hanley	Strappman	(907) 555-7584	(9)
	Reese Clinic	Susita	Schumack	(505) 555-5939	(5)
	WorldWide Widgets	Shirley	Ujest	(208) 555-8097	(2)
	University of the Elite	Wilbur	Stumingi	(307) 555-4680	(3)
	Precision Bagpipes	Sheila	Stumingi	(619) 555-4725	(6)
	Database Search and	Anita	Adams	(505) 555-1232	(5)

Record: 14 of 17 | 1 of 7

Saving or Canceling Your Datasheet Changes

If you've customized the datasheet view, you'll be asked if you want to save the layout changes when you close the table. To keep the customization settings for future sessions, click on **Yes**. To discard the settings, click on **No**.

You also can save your changes to the datasheet layout at any time. To do so, choose **File > Save** or press **Ctrl+S** or click on the **Save** button on the **Table Datasheet** toolbar.

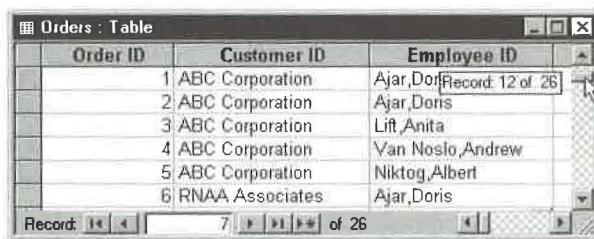
Now we'll switch gears and show you how to navigate forms and datasheets and how to enter data into your tables.

You can find more details about customizing the appearance of datasheet view by searching for topics under *Datasheet View* in the Access Help Index.

Navigating Forms and Datasheets

You can use any of these techniques to *navigate* (move around in) a table. (Of course, you won't be able to scroll from record to record until you put some data in the table.)

- **To move through records**, use the navigation buttons at the bottom of the form or datasheet window. Or choose **Edit > Go To** and then choose the appropriate command from the pull-down menu. The **Go To** options are **First**, **Last**, **Next**, **Previous**, and **New Record**.
- **To scroll through records in datasheet view**, use the vertical scroll bar at the right edge of the window. As you drag the scroll box, the current record number and total records will appear next to the scroll bar, like this:



- **To scroll through columns in datasheet view**, use the horizontal scroll bar at the bottom edge of the window.
- **To scroll more fields into view in form view**, use the vertical scroll bar at the right edge of the window or the horizontal scroll bar at the bottom edge of the window.

NOTE

As usual, scroll bars appear only if the current window is too small to hold all the information at once. (If the window is too small, however, scroll bars won't appear. Just resize the window larger as needed.)

- **To move from field to field and from record to record**, use the keys listed in Table 8.2.
- **To go to a particular record based on the contents of a field**, you can use Find. (For example, you can look up *Doe* or *Granolabar* in the LastName field of the Customers table). See Chapter 9 for more details.

TABLE 8.2: SUMMARY OF KEYBOARD TECHNIQUES FOR NAVIGATING A TABLE

KEY(S)	DESCRIPTION
F2	Switches between navigation and editing modes.
F5	Selects the record number box (see Figure 8.5). Type a new record number and press Enter to go to that record.
↑, ↓	Moves to next or previous record (datasheet view), or next or previous field (form view).
Ctrl+↑, Ctrl+↓	Moves to first or last record in a table (highlight remains in current column or field).
←, →	Moves to next or previous character (editing mode), next or previous field (navigation mode).
Ctrl+←, Ctrl+→	Moves one word left or right in editing mode.
Tab, Shift+Tab	Moves to next or previous field.
Enter	In datasheet view, moves to next field. In form view, ends a short line or paragraph or inserts a blank line in a memo field or text field that has Enter Key Behavior property set to New Line In Field.
Ctrl+Enter	Ends a short line or paragraph or inserts a blank line, in a memo field or lengthy text field that has Enter Key Behavior set to Default.
PgUp, PgDn	In datasheet view, scrolls up or down one window full. In form view, scrolls to previous or next record. On a multipage form, scrolls to the previous or next page, or to the same page on the previous or next record.

Continued ▶

TABLE 8.2: SUMMARY OF KEYBOARD TECHNIQUES FOR NAVIGATING A TABLE (CONTINUED)

KEY(S)	DESCRIPTION
Ctrl+PgUp, Ctrl+PgDn	In datasheet view, scrolls right or left one window full. In form view, scrolls to previous or next record.
Home, End	Moves to first or last field of record (navigation mode), or to start or end of text line (editing mode).
Ctrl+Home, Ctrl+End	Moves to first field of first record or last field of last record (navigation mode), or to start or end of text or memo field (editing mode).

For quick reminders about how to scroll through records, search Help for Shortcut Keys, Datasheet And Form View Keys or Datasheet View, Navigating, or Form View, Navigating.

Adding Data to a Table

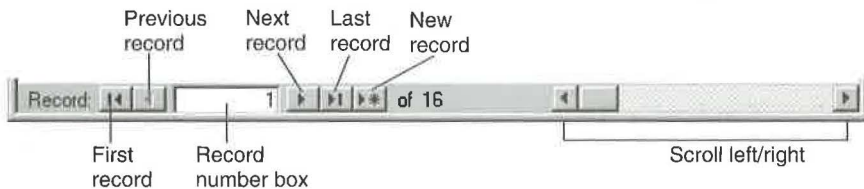
Adding new data to a table is just a matter of going to a new, blank record and typing the contents of each field. After filling one field, you can press Tab or Enter to move to the next field. Or click on the next field you want to add data to—just as though you’re filling in a Windows dialog box. Here are the steps:

1. Open the table in datasheet view or open a form in form view. Then, if the cursor is not already in a blank record, use one of these techniques to go to a new, blank record:
 - Click on the New Record toolbar button (shown at left).
 - Choose Edit ► Go To ► New Record from the menu bar.
 - Click on the New Record button on the navigation bar near the bottom of the window (see Figure 8.5).



FIGURE 8.5

Navigation buttons on the navigation bar.



2. Type whatever you want to put into the current field (the field where the cursor is). Then press Tab or Enter to move to the next field or click on the next field you want to fill.
3. Repeat step 2 until you've finished entering data in the record.

Tips for Adding Records

Here are some pointers for adding records to a table:

(AutoNumber) If the table contains an AutoNumber field, that field will display just the word (*AutoNumber*) or a portion of that word. Don't worry about it, and don't try to change it. Access will fill that field automatically when you enter data into some other field in the record.

Empty To leave a field empty, don't type anything into that field. Just press Tab to move to the next field or click on the field you want to fill next. (You cannot move to another record if you leave a Required field blank.)

Date/Time You can press Ctrl+; to insert the current date. Or press Ctrl+Shift+; (that is, Ctrl+;) to insert the current time.

Ditto If you want to repeat the field entry from the previous record into a new record, press the Ditto key (Ctrl+" or Ctrl+').

Hyperlink Fields Use the techniques for filling in hyperlinks discussed later in this chapter.

OLE/Memo Fields Use the special techniques for filling in OLE (pronounced "olay") object and memo fields, discussed later in this chapter.

After you fill in the last field of a record, you can press Tab or Enter to go to the next blank record. If you don't want to add another record, close the table or form (or go to a previous record). Don't worry about accidentally creating a blank record.

NOTE

As you type into a text or memo field, Access will correct certain mistyped words, such as *hte* (changed to *the*), *THEy* (changed to *They*), and *sunday* (changed to *Sunday*) as soon as you move the cursor out of the word. This magic is the work of AutoCorrect, which you'll learn about in Chapter 9. There you'll also learn how to check spelling in text and memo fields.

Saving a Record

Access saves the entire record to disk when you move to another record—you need not do anything special to save each record. However, if a record can't be saved because it

fails validity checks, you'll see an error message describing the problem. See "Troubleshooting Data Entry and Editing Problems" later in this chapter for help.

For quick reminders on how to add records to a table, go to the Access Help Contents, open the *Working With Data* book, and peruse any of the related subtopics and books that interest you.

The Tiny Icons

While you're adding and editing table data, you'll see these icons at the left side of the datasheet or form window.



Current record.



New, empty record.



Record is being edited; current changes not saved yet.

How Do I Insert a Record?

You don't. This might seem odd, especially if you're a spreadsheet user. However, there's no reason to insert a new record between existing records in Access because you can sort the records in any order, at any time. So just continue to add new records to the bottom of the table and then use techniques described in Chapter 9 to alphabetize or sort the records later.

Changing Data in a Table

Changing the data in a table is easy. Just move the cursor to the data you want to change and then use standard Windows text-editing techniques to make your changes. It's important, however, to check the screen to see whether the field contents are selected before you make a change. Figure 8.6 shows the difference.

- If the current field contents are selected, anything you type will instantly replace the current field contents. To deselect before typing, press F2 or click where you want to make a change within the field.
- If the field contents are not selected, anything you type will be inserted at the cursor position. You can use the ← and → keys to position the cursor within the field.

FIGURE 8.6

Text selected indicates navigation mode; text not selected indicates editing mode.

Product ID	Product Name	Unit Price
1	Basketball	\$4.95
2	Football	\$5.65

Record: 1 of 10

Product ID	Product Name	Unit Price
1	Basketball	\$4.95
2	Football	\$5.65

Record: 1 of 10

**TIP**

If you accidentally replace all the contents of a field when you meant to insert text, you can use any undo technique to immediately fix the error. That is, press Esc or click on the Undo toolbar button or choose Edit ► Undo or press Ctrl+Z.

Navigation Mode versus Editing Mode

Whether a field's contents are selected when you first get to that field depends on whether you're using *Navigation mode* (keyboard) or *Editing mode* (mouse) to move from field to field:

- If you enter a field using the keyboard (for example, by pressing →, ←, Tab, or Shift+Tab), that field's contents are selected instantly. This mode is called *Navigation mode* because the arrow keys navigate you from one field to the next.
- If you move the cursor to a field by clicking, the cursor moves to the exact mouse pointer position and text is not selected. This mode is called *Editing mode* because the arrow keys position the cursor for editing the field's contents.

To switch quickly between Navigation and Editing modes, press the F2 key any time.



Keys for Editing Table Data

Table 8.3 summarizes keys you can use to edit data in datasheet view and form view. Remember that you also can use the mouse to select text within a field: Simply drag the mouse pointer through text to select that text within a field.

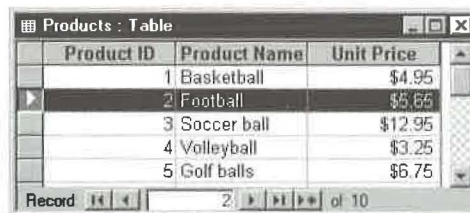
If you ever need reminders on editing data, look up the topic *Fields, Editing Data Within*, and subtopics under *Data Entry* in the Access Help Index.

TABLE 8.3: KEYS FOR EDITING DATA IN A TABLE

KEY	DESCRIPTION
F2	Switches between navigation mode (where pressing arrow keys selects a field) and editing mode (where pressing arrow keys moves the cursor within a field).
Backspace	Deletes selection or deletes character to left of cursor.
Delete	Deletes selection or deletes character to right of cursor.
Insert	Toggles between insert and overwrite modes.
Ctrl+' or Ctrl+'' (same as Ctrl+Shift+')	Copies data from field above.
Escape (Esc)	Undoes changes to field (first press) then remaining changes to record (second press).
Ctrl++ (plus sign)	Adds new record.
Ctrl+-	Deletes current record.
Ctrl+;	Inserts the current date.
Ctrl+:	Inserts the current time.
Shift+Enter	Saves the current record, as long as data in that record passes all validity checks.
Ctrl+Alt+Spacebar	Inserts field's default value (if any).

Selecting Records and Fields

The row selector at the left of each record lets you select an entire record with a single mouse-click:



In datasheet view, you can select several adjoining records (see below) by dragging the mouse pointer through their record selectors. Or you can click on the record selector of one record and then Shift-click on the selector of another record. Or you can select all the records in the table by clicking on the table selector in the upper-left corner of the table (refer to Figure 8.1).

Product ID	Product Name	Unit Price
1	Basketball	\$4.95
2	Football	\$5.65
3	Soccer ball	\$12.95
4	Volleyball	\$3.25
5	Golf balls	\$6.75

Table 8.4 summarizes ways to select and deselect data in a table. The sections that follow explain how to delete, copy, and move the selected data.

TABLE 8.4: TECHNIQUES FOR SELECTING DATA IN A TABLE

TO SELECT...	DO THIS...
Part of field contents	Drag mouse pointer through a portion of the field, or use Shift+→, Shift+←, Shift+Home, or Shift+End.
Word to left or right	Press Shift+Ctrl+→ or Shift+Ctrl+←.
Full field contents	Move to the field with an arrow key or press F2 to switch from cursor to selection or click on the field name (the label portion, not the field contents) in form view.
Entire record	Click on the record indicator at the far left edge of the record or form, or choose Edit ► Select Record or press Shift+Spacebar (navigation mode).
Multiple records	In datasheet view, drag the mouse pointer through appropriate record selectors, extend the selection by Shift-clicking on the last record you want to select, hold down the Shift key while clicking on adjacent record selectors, or extend the selection using Shift+↓ or Shift+↑
Entire Column	In datasheet view, click on field selector at top of column or press Ctrl+Spacebar in navigation mode.

Continued ►

TABLE 8.4: TECHNIQUES FOR SELECTING DATA IN A TABLE (CONTINUED)

TO SELECT...	DO THIS...
Multiple columns	Drag mouse pointer through field selectors, Shift-click on multiple field selectors, or press Ctrl+Spacebar to select column; then Shift+→ or Shift+← to extend selection.
Entire table (in datasheet view)	Choose Edit ► Select All Records or press Ctrl+A or Ctrl+Shift+Spacebar or click on table selector (see Figure 8.1).
Without using the mouse	Hold down the Shift key while moving the cursor with the arrow keys. Or press F8 to switch to “extend” mode (EXT appears in status bar) and then use the cursor-positioning keys or mouse to extend the selection area. Or press F8 repeatedly to select the word, field, record, and then entire table. To turn off extended selection, press Esc (EXT disappears from status bar).
Cancel selection	Press the F2 key or click on any data.

Deleting Data

Deleting data is simply a matter of selecting the data you want to get rid of and then pressing the Delete key.

Deleting Data within a Field

Here are two ways to delete data within a field:

- Place the cursor where you want to start deleting data and then press the Delete or Backspace key as needed to delete one character at a time.
- Select the data within the field and then press Delete or Backspace to delete all the selected text at once.

If you change your mind and want to bring back the deletion, press Esc or click on the Undo toolbar button. Or choose Edit ► Undo Delete from the menu bar or press Ctrl+Z.

Deleting Records

To delete entire records:

1. Select the records you want to delete using the record selector at the left of each record.
2. Press Delete (or choose Edit ► Delete). You'll be asked if you're sure about deleting the record(s).



WARNING

When you delete one or more records, there's no way to undo that deletion unless you re-enter those records from scratch. So think carefully before you proceed.

3. Click on Yes to delete the selected records or click on No to avoid deleting the records.



If you want to delete the current record only, here's a shortcut. Make sure the cursor is in the record you want to delete and then click on the Delete Record toolbar button (shown at left) or choose Edit ► Delete Record. Answer Yes or No as appropriate when asked to confirm the deletion.

Other Ways to Delete Records

There are still other ways to delete records. For example, you can delete all the records that meet some criterion, such as all types of Billiard Balls in the Products table. How can you do this? One way is to create a filter (Chapter 9) that isolates those records, select all those records (choose Edit ► Select All Records or press Ctrl+A), and then press Delete. Another way is to construct a Delete query (see Chapter 10).

Copying and Moving Data

You can use all the standard Windows cut-and-paste techniques to move and copy selected data within a table, as well as between Access and other programs. Here is the general technique:

1. Select the data you want to move or copy.
 - **If you want to copy (duplicate)** the selected data, click on the Copy toolbar button or choose Edit ► Copy or press Ctrl+C.
 - **If you want to move** the selected data, click on the Cut toolbar button or choose Edit ► Cut or press Ctrl+X.

2. Move the cursor to where you want to put the data you copied or cut, and then click on the Paste toolbar button or choose Edit ► Paste or press Ctrl+V.

NOTE

To add records to the end of an Access table, choose Edit ► Paste Append in step 2.

Access will try to complete your request, though it may need more information, depending on where you cut or copied *from* and where you pasted *to*. Read any messages that appear on the screen and respond accordingly.

When Cut-and-Paste Won't Work

Access might not be able to paste selected data into a table for several reasons:

- Access cannot paste incoming data that is incompatible with the current data type(s). For example, you can't paste letters into a Number or Currency field.
- Access cannot paste incoming data that duplicates data in a primary key field or that duplicates data in an indexed field that doesn't allow duplicate entries.
- If the incoming data is too long for the field, data that doesn't fit will be truncated (chopped off). You can increase the amount of data that a field will hold by changing the field's Field Size property (see Chapter 6).
- If the incoming data fails a validation check that you've defined for the field, you can't paste the faulty data.

If Access can't complete a paste operation for any of these reasons, it will place problem data in a table named Paste Errors. You can open the Paste Errors table to view the data that wasn't pasted and then perhaps paste data from that table into the original table on a field-by-field basis.

Using Hyperlinks in a Table

When you include a Hyperlink field in a table, you can use it to jump to almost any kind of information from a datasheet or a form. All you have to do is click on the hyperlink address shown in the field to take off to another program or object. Here are some examples of the kinds of data a hyperlink address can point to:

- A Web page on the Internet
- An object like a form or a report in an Access database
- A word processing document, a spreadsheet, or a graphic

For example, we can add a hyperlink field to the Products database in the Order Entry1 database and use it to link to a page of product information stored locally or on the Internet. Once a hyperlink address that points to the page is entered, a single click on it opens the page with Microsoft Internet Explorer. Similarly, you could use a hyperlink field in the Employees table to jump to a resume or photo for each person.

You can also include hyperlinks on forms and reports without including a hyperlink field in the underlying table. This method works when you don't need to store different hyperlinks for each record in a table (See Chapter 13). In this chapter, though, we'll focus on techniques for using hyperlinks that are stored in table fields.

These are the general steps using hyperlinks in an Access table:

1. Select the table you want to add a hyperlink field to in the Database window and click on Design.
2. Add a new field to the table and assign it the Hyperlink field type. Repeat this step for each hyperlink field you want to include in the table. For the example mentioned above, you would add a field called Related Product Info to the Products table. (See Chapter 6 for details on adding fields to a table and making other structure changes.)
3. Click on the View button on the toolbar to switch to Datasheet view. Select Yes when asked if you want to save your changes to the table's structure.
4. Move the cursor to the hyperlink field and click on the Insert Hyperlink button on the toolbar to enter a hyperlink address in the table. Fill in the Edit Hyperlink dialog box as described below and click on OK. Or use one of the other methods outlined later in this section for entering a hyperlink address into a field.

To use the hyperlink, just click on it. Figure 8.7 shows the Products table with a hyperlink entered in the Related Product Info for Red Bean Seasoning. The hyperlink points to the file `c:\Program Files\MS Office 97\Access\Samples\cajun.htm`. After clicking on the hyperlink, the Internet Explorer window opened to display `cajun.htm` as in Figure 8.8.

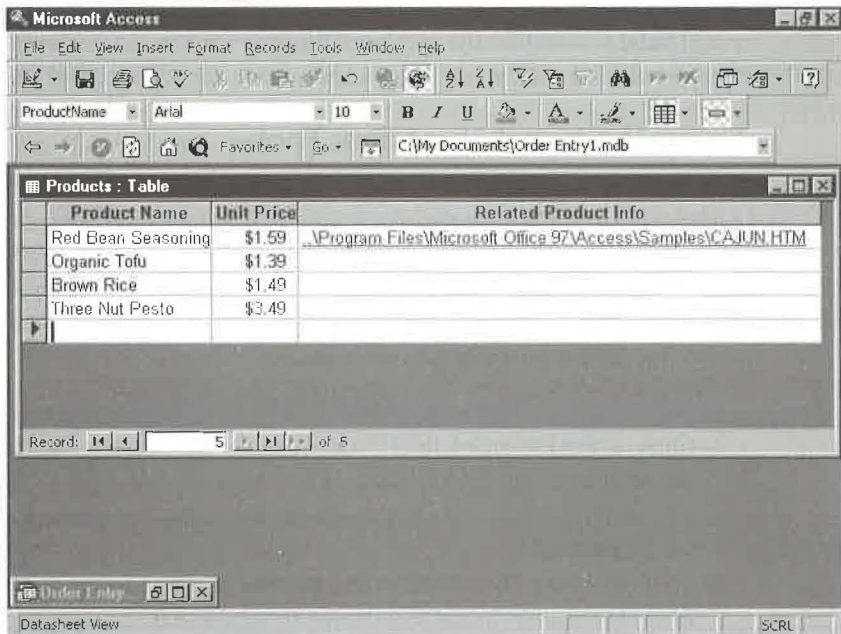
Entering Hyperlink Addresses

In the last example, we used the Insert Hyperlink button on the toolbar to enter an address in a hyperlink field. You can also enter the same information in several other ways:

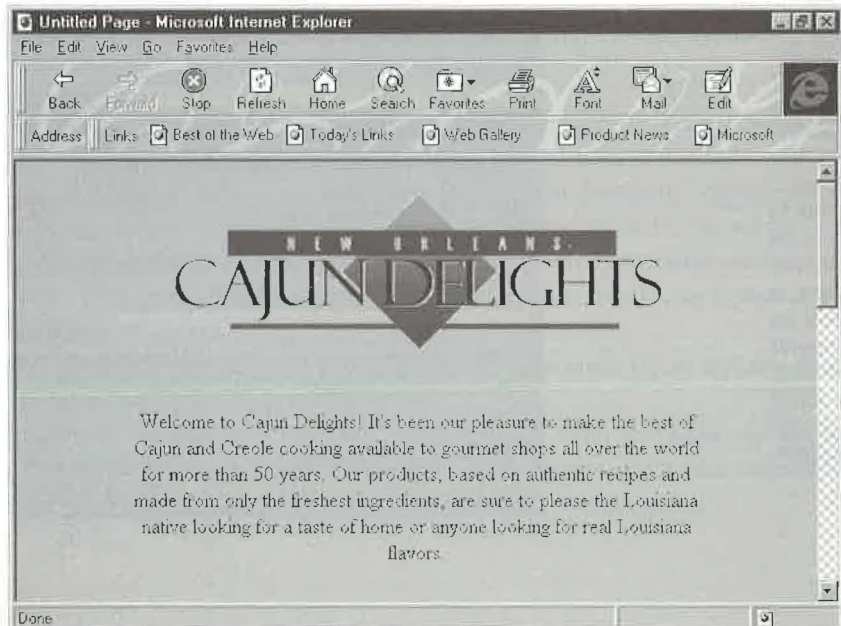
- Use the Insert Hyperlink tool.
- Type in an address yourself.
- Copy and paste an address from a document into the hyperlink field.
- Copy and paste text from an Office document to create a hyperlink to that spot in the document.
- Drag and drop to create a hyperlink to an Office document, an icon, or a .url file.

FIGURE 8.7

In the Products table, the record for Red Bean Seasoning has a hyperlink address entered in the field Related Product Info. When this hyperlink is clicked, the file cajun.htm is opened.

**FIGURE 8.8**

The HTML file cajun.htm was opened by clicking on a hyperlink to it in the Products table.



All of the above techniques do not work for all situations. For example, you can't drag and drop a hyperlink from one Access form to another form or a datasheet. So you'll have to consider the nature of the hyperlink you are creating before you choose the best way to enter the linking address.

Using the Insert Hyperlink Tool

The Insert Hyperlink tool opens a dialog box that lets you create hyperlinks to Internet addresses (.url files), documents on your computer or network, or an Access database. This dialog box includes an option that lets you jump to a specific spot. For example, you can move to a bookmark in a Word document, a named range in a spreadsheet, or an object in an Access database.

To use the Insert Hyperlink tool:

1. Open the datasheet or form with the hyperlink field you want to edit.
2. Click on the hyperlink field if it is empty to activate the Insert Hyperlink button on the toolbar. If the field already contains a hyperlink address, don't click on. (You'll end up jumping to the address.) Instead, use the Enter key, Tab, or an arrow key to select the field.
3. Click on Insert Hyperlink on the toolbar or select Insert ► Hyperlink to open the Insert Hyperlink dialog box shown in Figure 8.9.

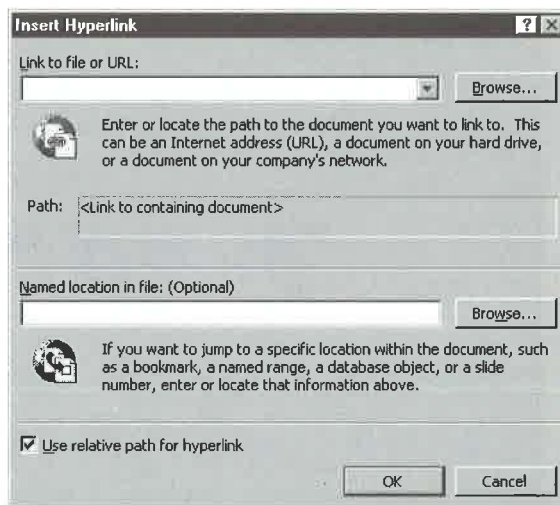


FIGURE 8.9

The Insert Hyperlink dialog box helps you enter hyperlink addresses. You can use a hyperlink to jump to an Internet address, a document on your computer or network, or an object in an Access database.

4. Enter a file name or URL in the box under *Link to file or URL*:. If you click on Browse, you can make your selection using a Link to File dialog box that works like other Open File dialog boxes. If you check the *Files of type* drop-down menu in this dialog box, though, you'll find options for All files, Office files, Internet files, Documents, Workbooks, Presentations, Binders, Databases, Projects, Shortcuts, HTML Files, Text Files, GIF Files, JPEG Files, VRML Files, and Templates.
5. Click on Browse for *Named location in file: (Optional)* if you want to jump to a specific spot in the file you entered in step 4. The appearance of the Select Location dialog box depends on the type of document you are jumping to with the hyperlink. If you are linking to an Access database, you will see a window similar to a Database window. Make your choice and click on OK to return to the Insert Hyperlink dialog box.
6. Click on OK to enter the address in the hyperlink field.

**NOTE**

By default, a hyperlink address first appears in a hyperlink field as blue underlined text as in Figure 8.7. Once you use the hyperlink, it changes to purple text. You can change these defaults with the Options dialog box. Choose Tools ► Options, click on the General tab, and change the settings in the Hyperlinks section before you click on OK.

Typing In Hyperlink Addresses

You don't have to go through the Insert Hyperlink dialog box to enter an address in a hyperlink field. If you prefer to type it in yourself, go right ahead. However, You must follow these rules:

- A hyperlink address can have up to four parts, separated by the pound sign #: an optional display message that appears in the field instead of the address, the address, and an optional subaddress (pointing to a specific location). (Some addresses for Word documents may have a subsubaddress, but this is filled in by Access.)
- If you are entering an address that begins with http, you don't need to enter the pound signs. For example, you can enter `http://www.microsoft.com` instead of `# http://www.microsoft.com##`.
- You can also leave off the pound signs if you are entering an address without an optional display message or a subaddress.
- To refer to an object in the open database, just enter the name of the object. If more than one object has that name, say both a table and a form called Products, precede the name with the object type as in `Form Products`.

Table 8.5 shows a few examples of hyperlink addresses. For more examples and details on entering hyperlink addresses, display the Access Help for *Entering a hyperlink address*, under *hyperlinks, addresses*, and click on *Type the address (show me the syntax)*. You can also click on the Office Assistant button on the toolbar and search for *Entering a hyperlink address*.

NOTE

After you enter an address in a hyperlink field, it may look different in datasheet or form view. Access strips off the pound signs and subaddresses. To see the entire address, press F2. You can edit the address when it is displayed in this mode. Or right-click on the address and choose **Hyperlink ► Edit Hyperlink** to change the link using the Edit Hyperlink dialog box.

TABLE 8.5: EXAMPLES OF HYPERLINK ADDRESSES

ENTER THIS ADDRESS	TO JUMP TO
http://www.microsoft.com	http://www.microsoft.com
Form Products	The form called Products in the open database.
Resume#c:\My Documents\Resume.doc##	The Word file called Resume in c:\My Documents; Resume will be shown in the hyperlink field instead of the complete address.
c:\My Documents\Resume.doc	The Word file called Resume in c:\My Documents.

Copying and Pasting Hyperlink Addresses

If you have a hyperlink address somewhere in a document or on an Internet Explorer screen, you can copy and paste it into a hyperlink field:

1. Select the address you want to copy in the document or in the Internet Explorer window.
2. Click on Copy on the toolbar.
3. Move to the hyperlink field you want to paste the address into. (Don't click on the field if it already contains an address since we want to edit, rather than jump, at this point.)
4. Click on Paste on the toolbar. If the address you selected was recognized as a defined hyperlink, you can instead use Paste As Hyperlink on the Edit menu.

Creating Hyperlink “Bookmarks”

To create a link to a specific location in a document:

1. Select the place you want to jump to in the document or other Office file.
2. Click on Copy on the toolbar.
3. Move to the hyperlink field you want to paste the address into. (Don't click on the field if it already contains an address since we want to edit, rather than jump, at this point.)
4. Choose Edit ► Paste As Hyperlink.

Dragging and Dropping Hyperlinks

There's yet another way to get a hyperlink address into a hyperlink field, dragging and dropping. This technique does have a limitation, though. You can't drag and drop from one Access form to another form or a datasheet. However, you can drag a hyperlink address in a document (defined or not), a selected portion of a document, an icon on the Windows desktop, or a .url file.

1. Select the place in the document, the hyperlink address, or the icon you want to jump to.
2. Right-click and drag the selected item to the hyperlink field in form view or datasheet view.
3. Choose Paste Hyperlink when Access shows you a shortcut menu.

Editing a Hyperlink Address

To change a hyperlink address:

- Move the cursor to the address without clicking on it. Then press F2 and edit. Press F2 again to select the entire field again.
- Right-click on the address, choose Hyperlink ► Edit Hyperlink and change the address using the Edit Hyperlink dialog box. Click on OK to save your change.

Deleting a Hyperlink Address

To delete an address from a hyperlink field:

- Move the cursor to the address without clicking on it. Then press Del.
- Or,
- Right-click on the address and choose Cut.

Using OLE to Store Pictures, Sounds, and Other Objects

You can put pictures, sounds, charts, videos, and other objects into a field in a table using OLE. Of course, you can put such objects into a field only if you've defined that field's data type as OLE Object (see Chapter 6).

NOTE

Do not confuse an *OLE object* (such as a chart, sound clip, or drawing) with an *Access database object* (such as a table, form, report, or macro). An OLE object is created in a program outside of Access. Once you've embedded or linked the OLE object into an Access table field, you usually can update the object without leaving Access.

Suppose you're creating a table to store information about employees and want to store a résumé in each record. Furthermore, you want to use WordPerfect, Microsoft Word, or Windows WordPad to create and edit those résumés. In those instances, you must define the field that should contain the résumé as the OLE Object data type—not the Text or Memo data type.

Figure 8.10 shows the structure of a table named Star Search Models (not part of the sample databases discussed in other chapters) that we'll refer to as we work through some examples here. Notice that we've defined several fields as the OLE Object data type.

FIGURE 8.10

A sample table named Star Search Models with several fields defined as the OLE Object data type.



OLE has been around since the release of Windows 3.1. If you're already familiar with the concepts and jargon that go along with that technology, skip to "An Easy Way to Insert Objects" later in this chapter. But if you're new to OLE, you'll get a crash course next.

About OLE Servers and Clients

OLE lets you insert objects from one Windows program into another. The OLE world has two main types of programs, *servers* and *clients*.

Server An OLE server is a program that can "serve up" objects for use in other programs. Examples of OLE servers include the Windows Paint, Sound Recorder, and WordPad applets that come with Windows, the Microsoft Graph program that comes with Access, and the other programs in Microsoft Office (including Word, Excel, and PowerPoint).

Client An OLE client is a program that can accept the services (that is, the objects) provided by programs such as those named above.

NOTE

Access can act as a client or a server. Thus, you can embed or link an Excel spreadsheet into an OLE Object field in Access (here, Access is a client). You also can embed or link an Access database into an Excel spreadsheet by choosing Insert ► Object from the Excel menu bar (here, Access is a server and the database appears in the spreadsheet as a "package").

You rarely have to worry about whether a program is a server; all you really care about is the object. Let's say you scan a photograph and store that photo in a file named HelenPhoto.bmp. All you have to do is tell Access to stick HelenPhoto.bmp into any OLE object field, and you're done.

About the Source Program

Another buzzword that tags along with OLE is *source program*. In OLE the source program is the one that's used to create or edit the object. Suppose you use Microsoft Word to type a résumé and save that résumé as a file named HelenResume.doc. In this case, HelenResume.doc is the OLE object, which you can put into your Access table, and Word is the *source program* for that object.

Similarly, if you have a sound file named HelenVoice.wav on your disk, its source program probably is Windows Sound Recorder or some other sound-editing program.

Linking versus Embedding

The two ways to insert an OLE object into an Access table are called *embedding* and *linking*. Here's the difference in a nutshell:

Embed A separate copy of the object is put into your table. The copy in your table is completely independent of the original object.

Link Access maintains a connection to the original source object, so if one copy changes, the other copy changes as well.

Imagine that you created a document with Word and saved it with the file name `He1enResume.doc`. Then you inserted that document into an Access table. A week later, you fire up Word and change `He1enResume.doc`. If you originally *embedded* `He1enResume.doc` in your Access table, the copy in your Access table will not reflect the changes you made via Word. But if you *linked* `He1enResume.doc` into your Access table, the copy in your Access table will reflect those changes.

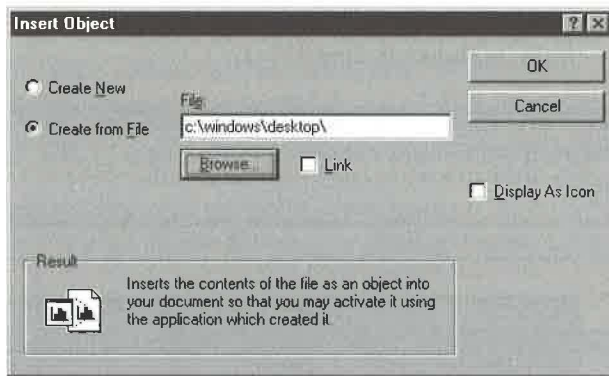
An Easy Way to Insert Objects

The easiest way to insert (link or embed) an object into your Access table is simply to pull in a completed copy of the object. A *completed copy* is an object such as a sound, picture, or other document that's already stored on disk. (You'll learn how to create OLE objects on the fly later in this chapter.) You need to know where that object is stored and what its name is. For example, a recorded sound might be stored as `c:\Mymedia\HelenVoice.wav`.

If you know the name and location of the object you want to insert into your file, here's how to insert that object:

1. Start Access and open the appropriate database and table. (You can open the table in either datasheet view or form view; it doesn't matter which. Just don't use design view!)
2. Move to the record and OLE Object field where you want to put the object.
3. Right-click on the field and choose Insert Object, or choose Insert ► Object from the Access menu bar.

4. Click on the Create From File option button in the Insert Object dialog box that appears. The dialog box will look something like this:



5. Type the exact location and name of the object you want to insert (for example, c:\Mymedia\HelenVoice.wav) into the File text box. If you don't know the exact location and name, you can use the Browse button to look for the object.
6. Do any of the following:
- To establish a link between the original object and the copy that's in your table, select (check) the Link checkbox.
 - To embed a copy of the object in your table, leave the Link checkbox cleared.
 - To display the object as an icon only, select (check) the Display As Icon checkbox.
 - To display the full object (such as a photo), leave the Display As Icon dialog box cleared.
7. Click on OK.

What the Object Looks Like

What you'll see once the object is in your table depends on several factors:

- In datasheet view, only a brief description of the object is visible, as shown below.



- In form view, the actual object appears if it's a picture, chart, or some other visual object (see Figure 8.11).
- If the object is a sound or another nonvisual item, or you selected Display As Icon when you inserted the object, an icon representing the object appears on the form, as shown in Figure 8.11.

NOTE

We used techniques explained in Chapters 11 and 13 to create the form shown in Figure 8.11.

FIGURE 8.11

OLE objects from the *Star Search Models* table, shown in form view.

Microsoft Access

File Edit View Insert Format Records Tools Window Help

Star Search Models Information Form

ModelID

Star Search Models ☆☆

Last Name	Wheels	Photograph 	Talents Major cuteness Can work a PC Has played numerous vegetables in school plays
First Name	Helen		
Address	8891 W. Speedway	Voice 	Resume Resume of Helen Wheels 1990-present Spokesmodel for Rubber Baby Buggy Bumpers, Inc.
City	Tucson		
State/Province	AZ	Video 	
PostalCode	85711		
Home Phone	(602) 555-4747		

Record: 1 of 1

Form View

Activating and Editing OLE Objects

Some objects that you put into a table, such as photos or charts, are meant to be looked at (though you also might need to edit them sometime). Other objects, such as sounds and

animation clips, are meant to be activated. You can activate or edit an object by double-clicking on it. What happens after you double-click depends on the type of object:

- **If you double-click on a displayed object**, you'll open the *source program* for that object. The object will appear either in a separate program window or in a frame that allows in-place editing within the Access window. You can change that object if you wish. To return to Access, exit the source program by choosing its File ► Exit command or click on its Close button (if a separate window opened) or click outside the editing frame (if the object appears within the Access window). Respond to any prompts that appear on the screen.
- **If you double-click on a sound, video, or similar object**, Access will "play" the object.

TIP

You can right-click on an object to open an instant menu of commands relevant to that type of object.

Other Ways to Insert Objects

Access gives you several more ways to insert objects. You can use cut-and-paste techniques to insert all or part of an existing object. Or create an object right from your Access table. Or use drag-and-drop to embed an object from the server program into an Access OLE object field. The next few sections describe these tricks.

Using Cut-and-Paste to Insert (Part of) an Object

You can use the Windows Clipboard to cut and paste all of an object, or part of an object, into an Access table:

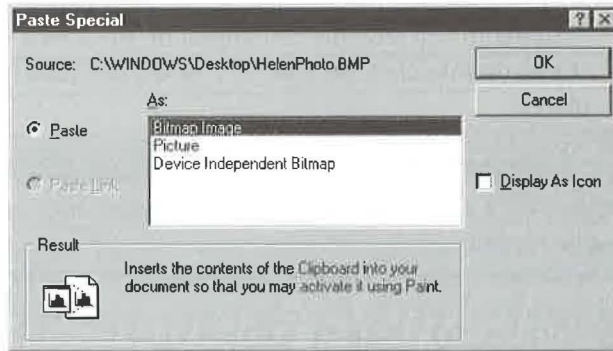
1. Open your Access data in datasheet view or form view.
2. Start the object's source program. For example, to start Paint, click on the Start button on the Windows Taskbar and then choose Programs ► Accessories ► Paint.
3. Create or open the object you want to insert into your Access table in the source program. If you want to link the object, the object must be saved in a named file on disk.

TIP

To insert only part of the object, select that part using the program's techniques. For example, use the Select tool in Paint to select a portion of the picture.

4. Press Ctrl+C or choose Edit ► Copy from the source program's menu bar.
5. Click on the Microsoft Access button on the Windows Taskbar.

6. Put the cursor in your Access table in the appropriate field.
7. Do one of the following:
 - To **embed the object**, press Ctrl+V or choose Edit ► Paste from the Access menu bar. Then skip the rest of the steps below (you're done).
 - To **link the object or change its data type**, choose Edit ► Paste Special from the Access menu bar. You'll see a Paste Special dialog box similar to this one:



8. Choose options that reflect what you want to do. For example:
 - Choose Paste to embed the object from the option buttons or Paste Link to link it.
 - Choose a different paste format from the As list. For example, choosing Picture embeds the object as a picture that cannot be modified or activated.
 - Select (check) Display As Icon to display the object as an icon. The icon will appear along with a Change Icon button that lets you change the icon if you wish.
9. Click on OK.

The form in Figure 8.11 shows a Paint picture that we selected and pasted into our Access table. Remember that only a brief description of the object will appear in datasheet view. (We'll explain how to make the picture fit better into its container soon.)

Creating an Object Just Before You Insert It

To create an OLE object before you place it in an Access field:

1. Start in datasheet view or form view, with the cursor resting in the OLE object field that will contain the object.

2. Choose Insert ► Object from the Access menu bar or right-click on the field and choose Insert Object.
3. Choose Create New in the Insert Object dialog box.
4. Double-click on the type of object you want to create from the list of object types.
5. Create the object in the source program.
6. Choose File ► Exit from the source program's menu bar (if the program opened in a separate window) or click outside the OLE object field (if you're editing in place).
7. Click on Yes or OK if asked about updating the embedded object.

That's it—you're done. You should be able to see the object in its field whenever you're in form view.

Using Drag and Drop and OLE 2

You've probably heard about OLE 2, the version of OLE that supports drag-and-drop and in-place editing. *Drag and drop* means that you can copy an object from any source to any destination just by dragging it across the screen. No need to go through any menus or the Windows Clipboard.

In-place editing means that when you double-click on an OLE object in (say) your Access table, you won't be taken to the object's source program. Rather, the tools and capabilities of the source program will "come to you."

NOTE

The Microsoft Office, Corel WordPerfect Suite 7, and Corel Office Professional suites are examples of Windows programs that support OLE 2. If you have Microsoft Word installed, try using it as the server as you follow the steps below.

Using drag-and-drop to embed an OLE object from a server document into your Access table is easy:

1. Open your Access table or form as usual and scroll to the record that contains the OLE object field you want to update.
2. Start the OLE 2 server program and then open or create the object you want to embed into your Access table.
3. Select the object using normal selection techniques for the server program.
4. Make sure you can see the server program and your Access table or form. To do this quickly, open the two program windows you want to work with (and close or minimize others to reduce clutter); then right-click on an empty part of the Windows Taskbar and choose Tile Horizontally or Tile Vertically.

5. Do one of the following to drag-and-drop the selected object:

- To **copy the selected object** from the server program to the Access table field, hold down the Ctrl key while dragging the selection from the server program to the appropriate OLE Object field in your Access table or form.
- To **move the selected object** from the server program to the Access table field, drag the selection (without holding down the Ctrl key) from the server program to the appropriate OLE Object field in your Access table or form.

To conserve memory, close the server program.

Drag and Drop from Access to Other Programs

In addition to dragging and dropping from some program into Access OLE object fields, you also can drag and drop selected data from Access to other programs. Not all programs support such shenanigans, but WordPad, Word, and Excel certainly do. Suppose you want to drag and drop some data from Access into a Word table or an Excel spreadsheet. Here's how:

1. Select the rows in Access datasheet view.
2. Open a Microsoft Word for Windows 95 document or a Microsoft Excel for Windows 95 worksheet.
3. Make sure you can see the windows for both Access and the program you'll be dropping the data into. To do so, right-click on an empty part of the Windows Taskbar and choose Tile Horizontally or Tile Vertically.
4. Move the mouse pointer just to the right of a row selector within the selected Access data. The mouse pointer changes to a hollow white arrow when it's positioned correctly.
5. Drag the selection to the Word document or Excel spreadsheet window and then release the mouse button. The selected data from Access will be copied to the Word document or Excel spreadsheet.

About Bound and Unbound Objects

In this chapter, we've discussed techniques that are specific to putting a "bound OLE object" into a table field. By *bound* we mean that the object is "tied to" a specific table.

As you'll see in later chapters (and various Help windows), however, Access can store an *unbound* OLE object, which is an OLE object that's attached to a form or report, rather than to a table. You'll learn how to put an unbound OLE object on a form in Chapter 13.

For more information about linking and embedding objects, look up *OLE Objects* and its subtopics in the Access Help Index.

Special Techniques for Memo Fields

If you need to type lots of text into a memo field, your best bet is to create a form for that table (see the “Talents” memo field back in Figure 8.11). Alternatively, you can press Shift+F2 to open a Zoom box. Either trick will give you more space to work in. As you’ll soon discover, what happens when you press the Enter key in a memo field can vary, but here’s what’s most common:

- **If you’re typing in a memo field on a *form***, pressing Enter ends a short line, starts a new paragraph, or inserts a blank line in the text, as it does in most word processing programs.
- **If you’re typing in a memo field on a *table datasheet***, pressing Enter leaves the field and moves onto the next field or record.
- **If you’re typing data in a *Zoom box***, pressing Enter (or clicking on OK) closes the Zoom box. To insert a new line instead of leaving the field or closing the Zoom box, press Ctrl+Enter (instead of Enter) to end a short line or paragraph or to insert a blank line.



Try using the Zoom box (Shift+F2) any time you need to enter more text than will fit in the standard input area. The Zoom feature is available in property sheets, datasheet view, and grid cells in the design views for tables, queries, advanced filter/sort, and macros.

Controlling the Enter Key Behavior

A property named *Enter Key Behavior* is what controls the behavior of the Enter key within forms. To change this property, switch to the form’s design view. Then click on the control that has the property you want to change, open the property sheet (View ► Properties), click on the Other tab on the property sheet, and then click on the Enter Key Behavior box. Now change the property to either of these settings:

Default When selected, Access takes the action specified in the Move After Enter setting anytime you press Enter in the field during data entry. For controls that display text fields, the Enter Key Behavior property usually is set to Default.

NOTE

To change the default Move After Enter setting, choose Tools ► Options from the menu bar, click on the Keyboard tab in the Options dialog box, and then choose one of the Move After Enter settings. Your options are Don't Move, Next Field (the default choice), or Next Record. Click on OK. See Chapter 15 for more about personalizing Access.

New Line In Field When selected, Access inserts a new-line character anytime you press Enter in the field during data entry. For controls that display memo fields, the Enter Key Behavior property usually is set to New Line In Field. See Chapter 13 for more about changing properties on forms.

Special Techniques for Sizing Photographs

Photographs are tricky little devils to put into tables or onto forms because any distortion or clipping is so immediately obvious. Suppose you scan a 3-x-5-inch photo and use the OLE techniques described earlier in this chapter to put a copy of that photo into a field in an Access table. In your form, you try various size modes—Clip, Stretch, and Zoom—as shown below. But nothing quite gives the fit you're looking for.



The problems are

Clip The photo is larger than its frame in this case, so Clip shows only the upper-left corner of the photo.

Stretch The photo stretches (or shrinks) along both axes to fit within the frame, which distorts the picture.

Zoom The photo stretches (or shrinks) along one axis to fit in the frame, which minimizes distortion but leaves a big chunk of white space within the frame.

The solution to the problem is straightforward—crop and size the photo *while you're scanning it* so that it will fit nicely into its container. Let's take it from the top so you can see how to measure the size of a container exactly.

TIP

Another solution to the problem of ill-fitting photos is to size the container on the form to fit the photos. Of course, all the photos you intend to display on the form must be the same size.

Step 1: Create the Table and Field

First, if you plan to put a photo in each record of a table, you'll need a field in the table's structure to hold the photo. That is, you need to give that field a data type of OLE Object. For example, the Photograph field of the Star Search Models table (see Figure 8.12) is an OLE Object field that can store photos. After creating the table structure, close and save it in the usual manner.

Step 2: Create the Form

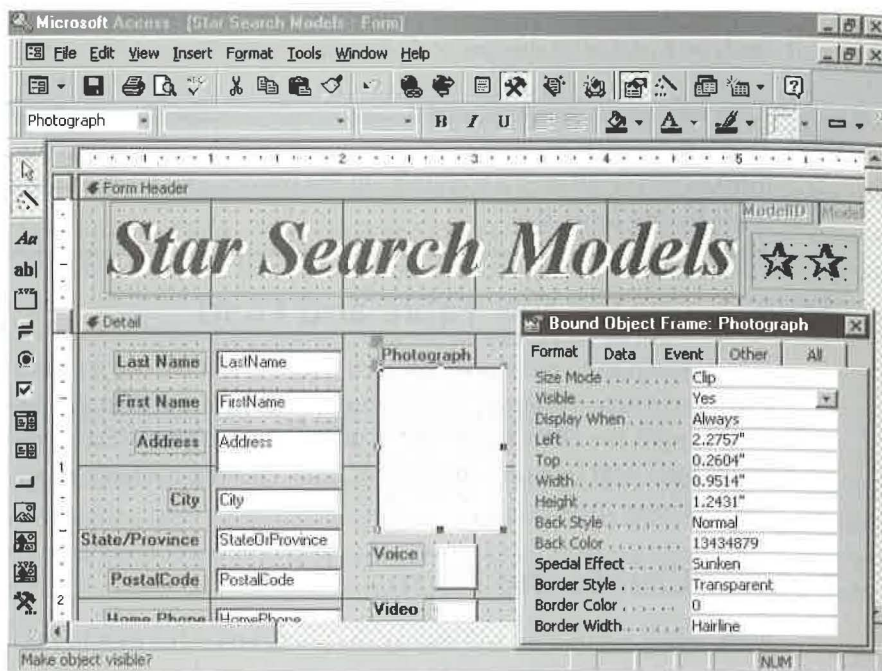
Next, create a form that will display the photo and other data in the table. Use the techniques described in Chapters 11 and 13 to create the form and to size, position, and align its controls to your liking. The form in Figure 8.11, shown earlier, certainly will do the trick for displaying photos and other information. (If you just want to use a simple form, click on your table name in the database window and then choose Insert ► AutoForm, as described earlier in this chapter.)

Step 3: Measure the Photo's Container

When you're happy with the general appearance of the form, open it in (or switch to) design view. Click on the control that will display the photo, open the property sheet (View ► Properties), and then click on the Format tab. Locate the Width and Height properties and jot down those measurements (you'll need them in a moment). Figure 8.12 shows our Star Search form in design view. The control that displays the photo is selected and its property sheet is open. As you can see, the width of that control is .9514 inches, and its height is 1.2431 inches.

FIGURE 8.12

The control that will display the photo in our sample form measures .9514 inches wide and 1.2431 inches tall.



Step 4: Scan, Crop, and Size the Photo

Once you know the size of the container that will display the photo, you can scan the photo and also crop and size it to its container. Remember to do this while you're scanning so that you don't have to resize the photo after it has been stored on disk. Not surprisingly, most scanner software offers much more control and flexibility in this respect than a program such as Access, which is designed to do other things.

In Figure 8.13, we've scanned a photo using the scanning software (DeskScan II) that comes with the HP ScanJet IIc (other scanning programs offer similar capabilities). We've scaled the image to 28 percent and framed a portion measuring 0.95 inches wide by 1.25 inches tall—pretty close to the size of the container in our Access form.

Be sure to size and crop, to the same size as the container, any other photos you'll be putting into the table.

Step 5: Link or Embed the Picture

Save the scanned image. Then return to your Access database, open your form, and put the picture in its container using the OLE techniques described earlier. If you sized the

FIGURE 8.13

While scanning this photo, we cropped the portion that we want to appear on the screen, and sized it to fit perfectly in its container.



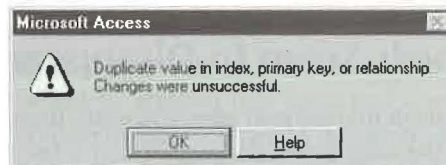
image carefully, it should fit perfectly into its frame without distortion, as shown earlier in Figure 8.11.

Troubleshooting Data Entry and Editing Problems

Next we'll look at solutions for some common problems that you might encounter when entering and editing data.

Duplicate Key Message

If the new record you entered into the table duplicates the contents of the primary key field in some other record, you'll see this error message when you try to move to another record:



This message can be confusing because it doesn't appear until after you've filled in the record. Remember that it's referring to the field you defined as the primary key (or to an indexed field that doesn't allow duplicates) when you created the table's design.

To wiggle out of this jam, click on OK. Then do one of the following:

- **To correct the duplicate**, move the cursor to the field that defines the primary key and enter a new, unique value in that field.
- **To avoid adding the record at all**, choose Edit ► Undo Current Field/Record or press Esc to erase the entire new record.

If you really *do* need to put duplicate entries into the field, get out of the jam as described above. Then return to the table's design view and either remove the No Duplicates (or primary key property) from that field or use two or more fields to define the primary key.

Can't Have Null Value in Index

If you see the message *Index Or Primary Key Can't Contain A Null Value* when you attempt to leave a record, it means you've left the primary key field (or an indexed field with the Required property) in the current record empty. Click on OK to return to the table. Then fill in the field that requires a value. Or to delete the entire new record, choose Edit ► Undo Current Field/Record or press Esc.

Value Isn't Appropriate for This Field Type

If you enter the wrong type of data into a field, you'll see a message that the data you entered doesn't fit the Data Type or FieldSize property setting for the field. For example, this message will appear if a field is defined as the Date/Time data type in the table design and you try to type a name, address, or dollar amount into that field.

Once again, click on OK to clear the message, enter the correct type of data into the field, and then save the record again (by moving to some other record). Or press Esc to have Access undo your changes to the record.

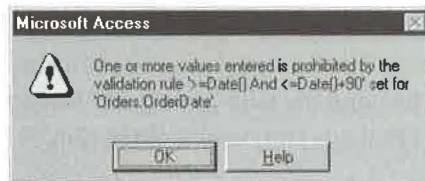
New Records Seem to Disappear

If records seem to disappear after you enter them, don't panic. Simply close the table and open the table again. Remember that if the table has a primary key, Access maintains an ongoing sort order based on the field(s) that define the primary key. However, it doesn't re-sort the table until after you close it. (Waiting to re-sort the table makes data entry faster.)

So even though new records are at the bottom of the table when you enter them, they'll be in their proper sort-order position the next time you open the table. You can scroll around to find those records to verify that they're in the table.

Data Fails Validation Rule

If you've assigned a validation rule or the Required property to a field (see Chapter 6) and the new data in the field fails the validation rule, you'll see this message (or whatever custom message you defined for the field):



Click on OK to clear the message. You must change the field value so it passes the validity check, or delete the entire record, before you can move on to another field.

If the data is indeed valid and your validity check is at fault, make the field pass the currently assigned validity check or delete the record. Then return to the table's design view and fix the Validation Rule property for that field. If necessary, fix fields that violate the newly assigned validation rule.

Access Won't Let You Add or Change Any Data

Several factors can prevent you from adding or changing data.

- **If you can't change any data in the table**, the Allow Edits property may be set to No for your form.
- **If you can't edit certain fields**, the Enabled and Locked properties for that field on your form may be set to prevent editing. See Chapter 13 for more about forms and field properties.
- **If you're sharing data on a network**, you may be warned that a record you just changed has been changed by another user since you started editing it. You can then save the record and overwrite the changes the other user made (click on Save Record), copy your changes to the Clipboard and display the other user's changes in the field (click on Copy To Clipboard), or drop your changes (click on Drop Changes). If you chose Copy To Clipboard, you can then choose Edit ► Paste Append to add your record from the Clipboard to the table.

- **If you're working on a secured system**, the database administrator (the person in charge of keeping the database secure) can withhold the right to change, and even view, certain data. If you can't get at some data you need to change, ask your database administrator to extend your rights as necessary.
- **If the current record contains an AutoNumber field that displays (AutoNumber) and you can't move the cursor to a new record**, try entering data into any field in the current record (except the AutoNumber field). Once some data exists, the AutoNumber field will be updated and you can move the cursor to a new record.

Changing the Table Design from Datasheet View

Earlier we said that datasheet view is just for entering data and that table design view is just for changing the table's structure. Actually, that statement was a teeny tiny lie. The truth is that you can use datasheet view to

- Change a field (column) name
- Insert a new text field, hyperlink field, or lookup field
- Delete a field
- Create a table from a blank datasheet

As you'd expect, the changes you make to the table's structure in datasheet view also will be reflected in design view, and vice versa. So, if you'd like to change your table's design without leaving datasheet view, read on. (Sorry, you can't change the structure of linked tables.)



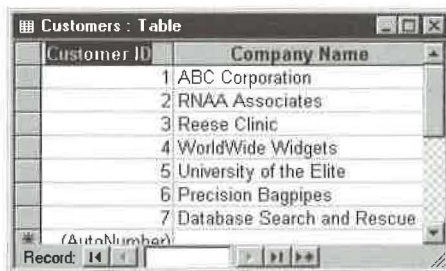
WARNING

Changing field names and deleting fields can have important consequences for objects in your database that expect those fields to be available. So don't make design changes in datasheet view unless you're sure they won't adversely affect other objects. Also be aware that Access doesn't ask for permission to save the changes when you insert a column from datasheet view.

Renaming a Column

You can change a column name while you're in datasheet view. To tell Access which column you want to rename, use one of these techniques.

- Double-click on the field selector at the top of the appropriate column. The column name will be selected, as shown below:



- Click on the field selector at the top of the column whose name you want to change. Then right-click on the selection and choose Rename Column. Again, the column name will be selected.
- Click anywhere in the column whose name you want to change and then choose Format ► Rename Column. You guessed it, the column name will be selected.

With the column name selected, type a new name and then press Enter. Access will change the name in the field selector. If you switch to table design view, you'll see that the Field Name has changed there as well.

Inserting a Text Column

To insert a new column (field) to the left of any existing column in the datasheet, open the table in datasheet view, and then:

1. Click in the column that will become the new, blank column, and then choose Insert ► Column. Or right-click on the field selector at the top of the appropriate column and choose Insert Column. A new column will appear in the datasheet.
2. Rename the column as explained in "Renaming a Column," above.

The new field will have a Text data type and a field size property of 50. If you don't like these settings, switch to table design view and change them.

Inserting a Hyperlink Column

To insert a new hyperlink column (field) in a datasheet:

1. Click in the column that will become the new, blank column and then choose Insert ► Hyperlink Column. Or right-click on the field selector at the top of the appropriate column and choose Insert Column. A new column will appear in the datasheet.

2. Rename the column as explained in “Renaming a Column.”
3. If you used the right-click method and chose Insert Column, enter a valid hyperlink address such as <http://www.microsoft.com> in any row of the new column. Access will recognize the address as a hyperlink and convert the field type from Text to Hyperlink.

Inserting a Lookup Column

Chapter 6 gave you the full scoop on defining lookup fields from table design view. Here’s how to insert a new lookup column (field) from datasheet view:

1. Click in the column that will become the new, blank column and then choose Insert ► Lookup Column. Or right-click on the field selector at the top of the appropriate column and choose Insert Lookup Column. The Lookup Wizard will take over.
2. Respond to each Lookup Wizard dialog box (see Chapter 6), choosing options and clicking on the Next button as usual. When you’ve filled in the last dialog box, click on Finish to create the lookup column.
3. Rename the column (if necessary), as explained above in “Renaming a Column.”

The new field’s Data Type and field properties will be set automatically. Of course, you can switch to table design view and change the data type and field properties if you wish.

Deleting a Column

Deleting a column in datasheet view is easy, but be careful! When you delete a column, you’re also deleting all the data in that column. What’s more, you can’t undo the column deletion. Here are the steps:

1. Do one of the following:
 - Right-click on the field selector at the top of the column you want to delete (the column will be selected) and choose Delete Column.
 - Click on any data in the column and then choose Edit ► Delete Column.
2. Decide if you want to permanently delete the selected field and data. If you’re sure you want to delete the column, click on Yes. If you’ve changed your mind, click on No to leave the column alone.

If you chose Yes in step 2, the column will disappear from the datasheet (and from the list of fields in design view).

NOTE

If you try to delete a field that's part of a relationship, an error message will tell you to delete its relationships in the Relationships window first. Click on OK to clear the error message, go to the Relationships window and delete the relationship (see Chapter 6), and then try deleting the field again.

Creating a Table from a Blank Datasheet

If you're more accustomed to using spreadsheets than databases, you might prefer to create tables from a blank datasheet, like this:

1. Open the database in which you want to create the new table.
2. Click on the Tables tab on the datasheet window and then click on the New button.
3. Click on Datasheet View in the New Table dialog box and then click on OK (or double-click on Datasheet View).
4. Type data into each column and row of the datasheet, as needed.
5. Use the techniques described earlier under "Renaming a Column" to name the columns (initially, they'll be named Field1, Field2, Field3,...).
6. Click on the Save toolbar button or choose File ► Save to save your changes and name the table.
7. Type a table name (up to 64 characters) in the Save As dialog box and then click on OK.
8. Decide if you want to define a primary key. Click on Yes to assign a primary key with a field name of ID or click on No to save the table without a primary key when asked.

Access will evaluate the data you've entered and automatically create appropriate field types and formats. To further customize the design of your new table, switch to design view and change the design as needed. When you're finished using the table, click on its Close button or press Ctrl+W.

For more information about changing the table design from datasheet view, look up *Datasheet View* in the Access Help Index and then choose either of these subtopics: *Adding Fields To Tables* or *Field Names*. For details about deleting fields, look up *Delete Fields In Datasheet View* in the Access Answer Wizard, double-click on *Delete A Field*, and then click on *Delete A Field From A Table In Datasheet View*.

Where to Go from Here

In this chapter, you've learned the basics of customizing datasheet view, entering data, and changing the table structure from datasheet view. Continue with Chapter 9 now to

learn how to sort (or alphabetize) your data, search for particular records, filter out unwanted records temporarily, and print your data.

What's New in the Access Zoo?

If you used an earlier version of Access, you'll be quite comfortable entering and editing data in Access 97 tables and forms. All the basics remain the same. The big new addition is hyperlinks, as explained in

Chapter 7. If you want to use hyperlink fields in your databases, check out the section in this chapter on "Using Hyperlinks in a Table". You'll find out how to enter and edit hyperlinks and use them to jump to all kinds of data on the Internet, in other Office programs, and in Access databases.







Chapter

9

Sorting, Searching,
Filtering, and Printing



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