

# Creating Simple Forms

So far, you've learned how to create tables that house your data, queries that search it, and reports that prepare it for printing. You've also created action queries that automate big updates. But your actual database users (whether that's you or someone else) will spend most of their time on an entirely different job: daily database upkeep.

Database upkeep includes reviewing, editing, and inserting information. Real databases go through this process continuously. In a typical day, the staff at Cacophoné Studios adds new students, the customer service department at Boutique Fudge places new orders, and the Gothic Wedding planners tweak the seating arrangements. Bobbleheads are bought, addresses are changed, purchases are logged, test scores are recorded, and your data grows and evolves.

You can perform your daily upkeep using the datasheet (Chapter 3), but that isn't the easiest approach. Although the datasheet packs a lot of information into a small space, it's often awkward to use, and it's intimidating to Access newcomers. The solution is *forms*: specialized database objects that make it easier for anyone to review and edit the information in a table.

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**Note:** Remember, if you're using Access in a business environment, different people probably use your database. You may create it, but others need to be able to use it to perform a variety of tasks—usually data entry and searches. These other folks may not be as Access-savvy as you are.

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## Creating Forms

Forms get their name from paper forms that people use to record information when a computer isn't handy. Depending on your situation, you may create an Access form that resembles a paper form that your company or organization uses. If you're working at a bank, you can create an Access form that lays out information in the same basic arrangement as a paper-based customer application form. This arrangement makes it easy to copy information from the paper into your database. However, most of the time the forms you design won't have a real-world equivalent. You'll create them from scratch, and use them to make data entry easier.

To understand why forms are an indispensable part of almost all databases, it helps to first consider the datasheet's shortcomings. Here are some areas where forms beat the datasheet:

- **Better arrangements.** In the datasheet, each field occupies a single column. This arrangement works well for tables with few fields, but leads to endless side-to-side scrolling in larger tables. In a form, you can make sure the data you need is always in sight. You can also use color, lines, and pictures to help separate different chunks of content.
- **Extra information.** You can pack a form with any text you want, which means you can add clues that help newbies understand the data they need to supply. You can also add calculated details—for example, you can calculate and display the total purchases made by a customer without forcing someone to fire up a separate query.
- **Table relationships.** Many tasks involve adding records to more than one related table. If a new customer places an order in the Boutique Fudge database, then you need to create a new record in the Customers and Orders tables, along with one or more records in the OrderDetails table. A form lets you do all this work in one place (rather than forcing you to open two or three datasheets).
- **Buttons and other widgets.** Forms support *controls*—buttons, links, lists, and other fancy pieces of user interface matter you can add to your form. The person using your database can then click a button to fire off a related task (like opening another form or printing a report).

Properly designed forms are what the geeks call a database's *front end*. In a database that uses forms, you can edit data, perform searches, and take care of all of your day-to-day tasks without ever touching a datasheet.

### Building a Simple Form

As with reports, Access gives you an easy and a more advanced way to construct a form. The easy way creates a readymade form based on a table or query. Keen eyes

will notice that this process unfolds in more or less the same way as when you automatically generate a simple report.

Here's how it works:

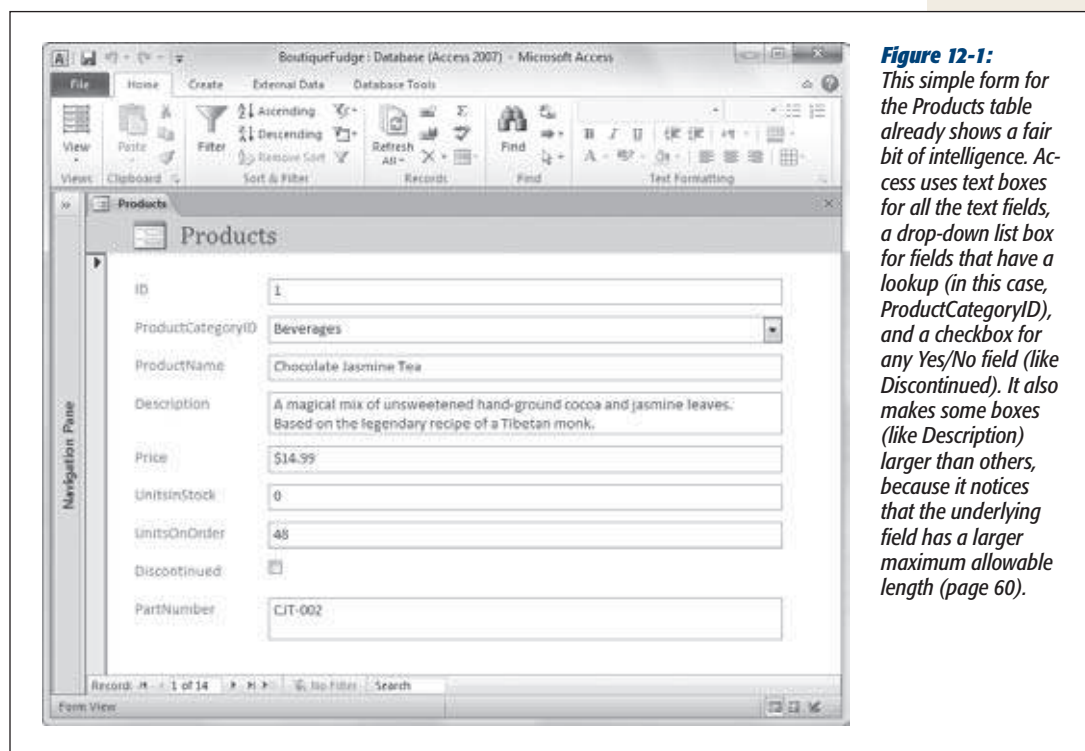
1. In the navigation pane, select the table or query you want to use to generate the form.

Try the Products table from the Boutique Fudge database.

2. Choose **Create**→**Forms**→**Form**.

A new tab appears, with your form in Layout view. The simple form shows one record at a time, with each field on a separate line (Figure 12-1).

When you first create a form, Access arranges the fields from top to bottom in the same order in which they're defined in the table. It doesn't make any difference if you've rearranged the columns in the datasheet. However, Access leaves any columns you've hidden in the datasheet (page 94) out of the form.



**Figure 12-1:** This simple form for the Products table already shows a fair bit of intelligence. Access uses text boxes for all the text fields, a drop-down list box for fields that have a lookup (in this case, ProductCategoryID), and a checkbox for any Yes/No field (like Discontinued). It also makes some boxes (like Description) larger than others, because it notices that the underlying field has a larger maximum allowable length (page 60).

## UP TO SPEED

## Form Facts

A number of factors influence Access and affect the way it creates a simple form for a table. Here are the most important:

- **Field size.** Access sizes text boxes based on the amount of data it expects the field to contain. If you don't reduce the Field Size property of your fields (page 60), your form will end up with huge text boxes that waste valuable space. To reclaim the extra room, you have to resize the text boxes by hand.
- **Linked tables.** If you create a form for a parent table that's linked to a child table, you end up with a special type of form that shows related records. For example, if you create a form for the Categories table (a parent of the Products table), your form shows all the category fields, as you would expect, and a grid that lists the linked product records in each category. You'll take a closer look at using forms with linked tables in Chapter 13 (page 434).

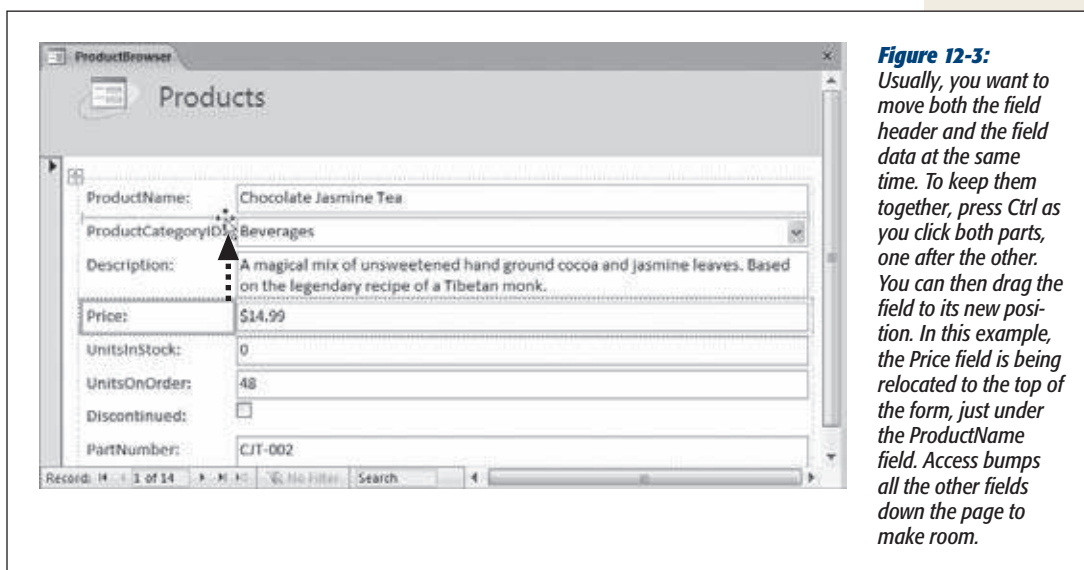
- **Field count.** If your table has lots of information, then Access may decide to create more than one column in your form (Figure 12-2). Interestingly, this decision actually depends on two details: the number of fields in your table *and* the current size of the Access window. So if you've resized the Access window to a relatively small stature, you're more likely to get additional columns.

Once the form layout is set, it stays the same unless you take control and start moving things around. For example, if you change the Field Size of a field after you generate a form, the size of the existing text box remains unchanged. Similarly, if you generate a form while the Access window is small, you get several scrunched-up columns of fields. These columns don't change if you make the Access window bigger.

**Figure 12-2:**  
In this form for the Customers table, Access can't fit all the fields using the ordinary one-field-per-line arrangement. Instead, it adds a second column.

### 3. Arrange the fields in the order you want by dragging them around.

Although a simple form doesn't look like the simple reports you learned about back in Chapter 10, you can actually work with it in much the same way. One of the easiest ways to tailor your form is to drag fields from one place to another (Figure 12-3).



**Figure 12-3:** Usually, you want to move both the field header and the field data at the same time. To keep them together, press **Ctrl** as you click both parts, one after the other. You can then drag the field to its new position. In this example, the **Price** field is being relocated to the top of the form, just under the **ProductName** field. Access bumps all the other fields down the page to make room.

**Tip:** You can add or remove fields in a form in the same way you do with a report. If the Field List pane isn't open, then choose **Form Layout Tools | Design → Tools → Add Existing Fields**. Then, drag the field you want from the Field List pane onto the form. To remove a field, click to select it on the form, and then press **Delete**. However, keep in mind that people often use forms to add records, and if you want to preserve that ability, you need to make sure your form includes all the required fields for the table.

### 4. Change the widths of your columns.

When you create a new form in Layout view, Access makes all the fields quite wide. Usually, you'll want to shrink them down to make your form more compact. It's also hard to read long lines of text, so you can show large amounts of information better in a narrower, taller text box.

To do so, just click to select the appropriate field; a yellow rectangle appears around it. Then, drag one of the edges. Figure 12-4 shows this process in action.

**Note:** You may like to make a number of changes that you can't accomplish just by dragging, such as adding a new column or giving each field a different width. To make changes like these, you need to understand layouts, which are covered on page 385.

**Figure 12-4:**

Here, the Description field is being heightened to fit more lines of text at a time. You can also make a field wider or narrower, but there's a catch—when you do so, it affects the entire column. In this report for the Products table, every field always has the same width. (You'll learn how to get around this limitation later on page 385.)

5. Optionally, you can double-click a field header to edit its text.

This option lets you change ProductCategoryID to just Category.

6. Optionally, you can tweak the formatting to make the form more attractive, by changing fonts and colors.

You can most quickly change the formatting of your form by selecting the appropriate part (by clicking), and then using the buttons in the ribbon's Form Layout Tools | Format→Font section. You can also use the Form Layout Tools | Format→Number section to adjust the way Access shows numeric values. You learned about all your formatting options in Chapter 11 when you built basic reports. You can also use themes to quickly change the font of every control on your form, and the color of the title region. Just choose from the Form Layout Tools | Design→Themes section.

Often, you'll want to format specific fields differently to make important information stand out. You can also format the title, header section, and form background. Figure 12-5 shows an example of judicious field formatting.

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**Tip:** To select more than one part of a form at once, hold down Ctrl while you click. This trick lets you apply the same formatting to several places at once.

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7. Save your form.

You can save your form at any time by choosing File→Save. Or, if you close the form without saving it, Access prompts you to save it at that time.

**Figure 12-5:** You can select the field header (Price, for example) and the box with the field value separately, which means you can give these components different formatting. This form gives a shaded background fill to the Price, UnitsInStock, and UnitsOnOrder fields. It also gives a larger font size to the Price field and Price header, so this information stands out.

## Using AutoNumber Fields in Forms

As you already know, the best way to uniquely identify each record in a table is with an AutoNumber field (page 77). When you insert a record into a table that has an AutoNumber field, Access automatically fills in a value for that field. All the tables you'll see in this book include a field named ID that uses the AutoNumber data type.

Only Access can set an AutoNumber field. For that reason, you may not want to show it in your forms. (If you decide not to show it, just select it in Layout view and then press Delete.) However, there are some reasons that you might actually want to keep the AutoNumber field on display:

- **You use the AutoNumber field on some type of paperwork.** Cacophoné Studios puts each student's ID number on their registration papers. When you need to look up the student record later on, it's easier to use the ID number than search by name.
- **You use the AutoNumber field as a tracking value or confirmation number.** After you enter a new order record in the Boutique Fudge database, you can record the order record's ID number. The next time you have a question about the order (has it shipped?), you can use the ID number to look it up.

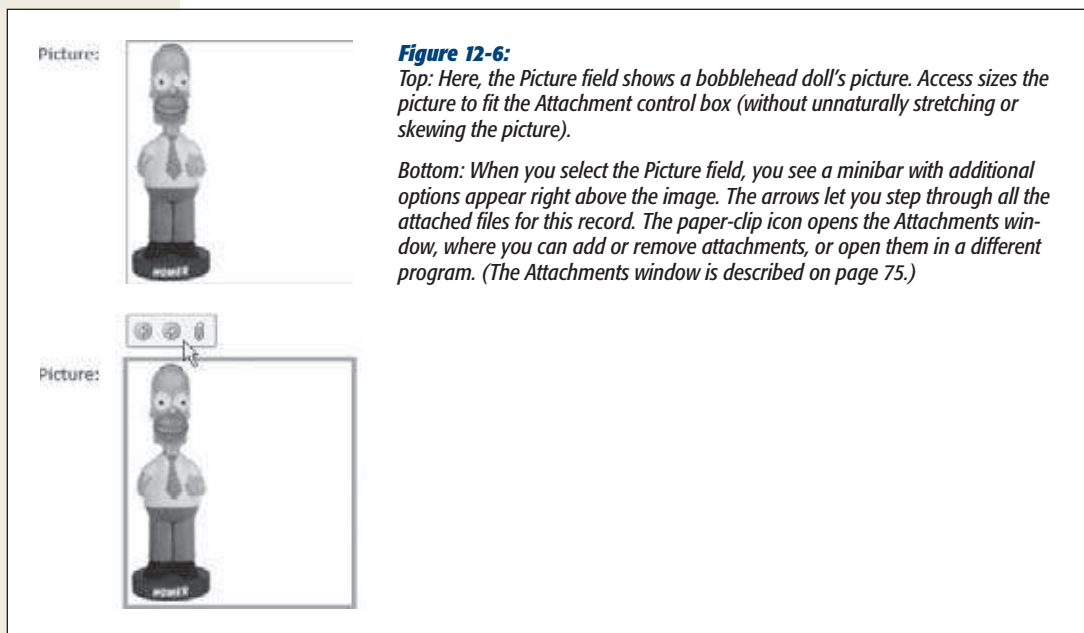
Depending on how you use the ID number, you may choose to place it at the bottom of the form rather than in its usual position at the top. That approach avoids confusion. (It's less likely that people will try to type in their own ID numbers when they create new records.)

## Showing Pictures from a Table

As you learned in Chapter 2, you can store a picture file as part of a record by using the Attachment data type. Forms handle attachments gracefully using the *Attachment control*. The Attachment control has one truly useful perk—it shows picture content directly on your form.

Here's how it works. If your attachment field stores a picture, then that picture appears in the Attachment control box so you can admire it right on your form. This behavior is a great improvement over the datasheet, which forces you to open the picture file in another program to check it out. Even better, if the attachment field stores more than one picture, then you can use the arrows on the handy pop-up minibar to move from one image to the next, as shown in Figure 12-6.

As you know, attachment fields can store any type of file. If you're *not* storing a picture, then the Attachment control isn't nearly as useful. All you see is an icon for the program that owns that file type. If your attachment field contains a Word document, then you see a Word icon. If it contains a text document, then you see a Notepad icon, and so on. If your attachment fields don't include pictures, you may as well resize the box for the Attachment control so that it's just large enough to display the file type icon. There's no reason to make it any bigger, because the rest of the space will be wasted.





## Using Forms

Now that you've created your first form, it's time to take it for a test spin. All forms have three different viewing modes:

- **Layout view.** This is the view you've been using so far. It lets you see what your form looks like (with live data), rearrange fields, and apply formatting.
- **Design view.** While Layout view provides the simplest way to refine your form, Design view gives you complete power to fine-tune it. In Design view, you don't see the live data. Instead, you see a blueprint that tells Access how to construct your form. You'll start using Design view later in this chapter.
- **Form view.** Both Layout view and Design view are there to help you create and refine your form. But once you've perfected it, it's time to stop designing your form and start *using* it to browse your table, review the information it contains, make changes, and add new records.

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**Note:** When you open a form by double-clicking it in the navigation pane, it opens in Form view. If you don't want this view, then right-click your form in the navigation pane, and choose Layout View or Design View to start out in a different view.

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To try out the form you created, switch it to Form view if you're not already there. Just right-click the tab title, and choose Form View.

In Form view, you can perform all the same tasks you performed in the datasheet when you worked with a table. With a simple form, the key difference is that you see only one record at a time.

Most people find forms much more intuitive than the datasheet grid. The following sections give a quick overview of how you can use Form view to perform some common tasks.

### Finding and Editing a Record

Rare is the record that never changes. Depending on the type of data you're storing, most of your work in Form view may consist of hunting down a specific record and making modifications. You may need to ratchet up the price of a product, change the address details of an itinerant customer, or reschedule a class.

Before you can make any of these changes, you need to find the right record. In Form view, you have four ways to get to the record you need. The first three of these methods use the navigation controls that appear at the bottom of the form window.

- **By navigating.** If your table is relatively small, then the fastest way to get going is to click the arrow buttons to move from one record to the next. Page 96 has a button-by-button breakdown.

## UP TO SPEED

**Different People, Different Forms**

In many situations, you'll want to create more than one form for the same table. That way, you can design forms to help with specific tasks.

At Boutique Fudge headquarters, a single person is in charge of setting prices. This individual (known as the Price Fudger) reviews the product list every day and tweaks the prices based on the current inventory. To do this, the Price Fudger needs just three pieces of information for each product: the field values for ProductName, Price, and UnitInStock. To streamline this process, you can create a form that includes just these details.

To make this form really practical, you can add some features that you haven't seen yet, but which are described later in this chapter. You can do things such as prevent changes in all the fields except Price to guard against accidental changes, you can pack several records onto the form

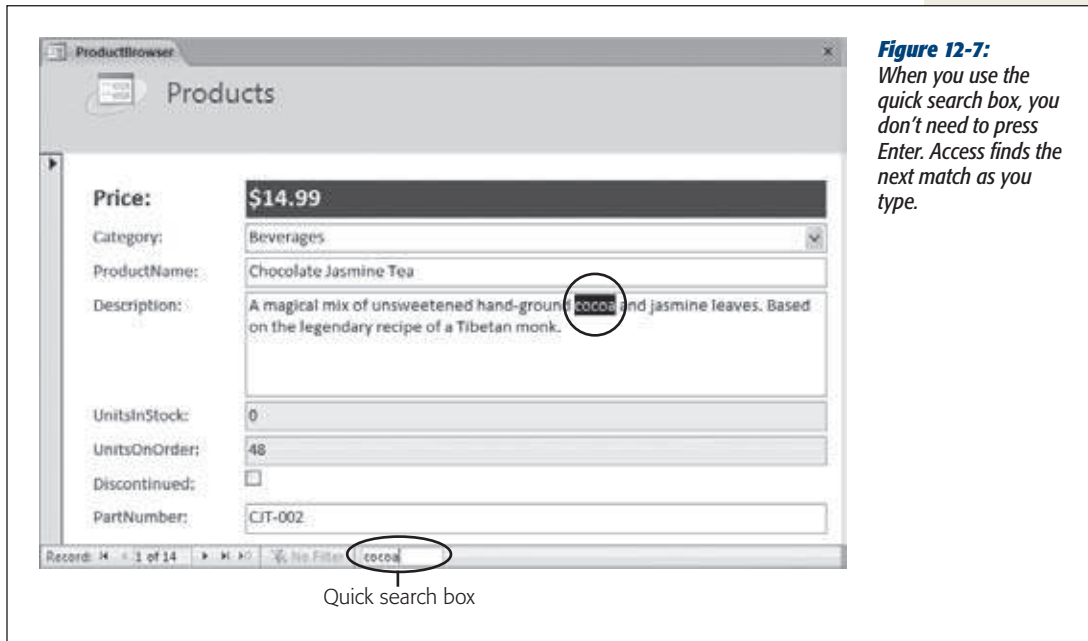
for a quick, at-a-glance price setting, and you can filter the product list down to leave out discontinued items. These steps make the form better suited to the task at hand. And if you really want to impress your fellow Access fans, then you can throw in the macro and code features described in Part 5 to create buttons that perform a task (like jacking up a price by 10 percent) *automatically*.

It's up to you how many forms you want to create. Some people try to create as few forms as possible and make them flexible enough to work for a variety of different tasks. Other people create dozens of specialized forms that can save time. In a large company like Boutique Fudge, each department (like sales, shipping, customer service, and so on) will probably use its own tailored form. Every form guides employees to do exactly what they need to do (and stops them from doing what they shouldn't).

- **By position.** If you know exactly where your record is, then you can type in the number that represents the position (for example, 100 for the 100th record), and then press Enter. If you don't get exactly where you want, then you can also use the navigation buttons to move to a nearby record.
- **By searching.** The quick search feature finds a record with a specific piece of text (or numeric value) in one of its fields. To use quick search, type the text you want to find in the search box, as shown in Figure 12-7. If you want a search that examines a specific field or gives you additional options, then use the Home→Find→Find command, which is described on page 105.
- **By filtering.** Using filtering, you can narrow down the displayed records to a small set. Filtering's best-kept secret is that you can use a feature called *filter by form* to quickly hunt down a single record. You'll see how that works on page 381.

Once you've found the record you want to change, you can edit it in the same way you would in the datasheet. If you make a change that breaks a rule (like typing the text *Exasperated Bananas* in a date field), then you get the familiar error messages.

Access commits any change you make as soon as you move to another record or field. To back out of a change, press Esc before you move on. When you do, the original value reappears in the cell, and Access tosses out your changes. And if you do commit a change by accident, then you can use the Undo button in the Quick Access toolbar (above the ribbon), or press Ctrl+Z, to reverse it.



## Adding a Record

As you already know, you add a new record in Datasheet view by scrolling to the very bottom of the table, and typing just underneath the last row. In Form view, the concept is similar—scroll to the very end of your table, just past the last record.

You'll know you've reached the magic ready-to-add-a-record spot when all the fields in your form are blank (Figure 12-8). To save yourself the scrolling trip, use the New Record button at the bottom of the form.

If you've decided that you don't want to add a new record after all, then press Esc twice. The first time you press Esc, Access wipes out the value in the current field.

The second time, Access removes all the other values you entered. Now that your form has been restored to its original emptiness, you can safely scroll off to another record.

If you scroll away from your new record while there's still some data left in it, then Access creates the new record and adds it to the table. You can't reverse this action. If you want to get rid of a newly created record, then you need to delete it, as described in the next section.

**Figure 12-8:**

When you create a new record, you start off with a clean slate that shows your form's formatting but no values. If you've set any default values for the table (page 122), then you see them appear instead of the blank values. In the Products table, the UnitsInStock field has a default value of 10.

Click here to insert a new record  
at the end of your table

## Deleting a Record

When you find a record that shouldn't exist, you can wipe it out in seconds. The easiest way to delete the current record is to choose Home→Records→Delete. But you have another option. You can select the whole record by clicking the margin on the form window's left side. Then you can liquidate it by pressing Delete.

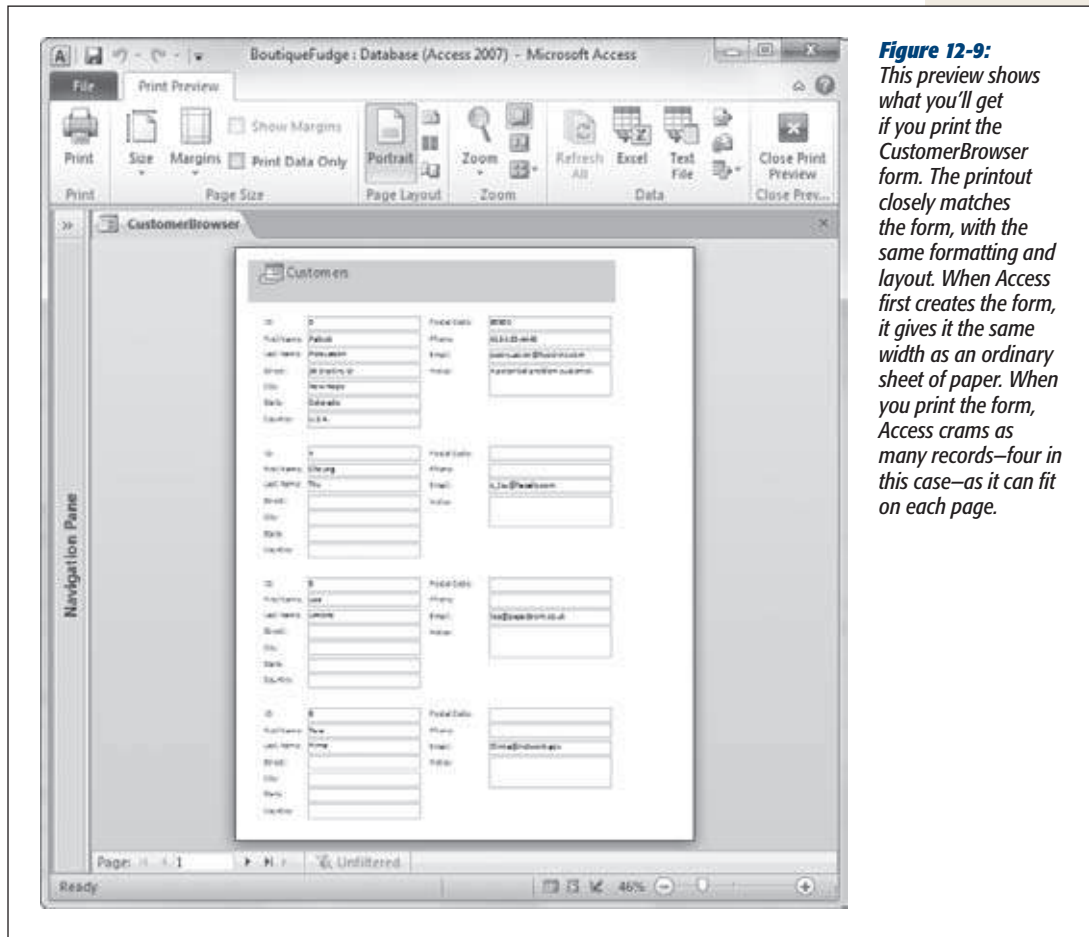
No matter what approach you use, Access asks you for confirmation before it removes a record. You can't recover deleted records, so tread carefully.

## Printing Records

Here's a little-known secret about forms: You can use them to create a quick printout. To do so, open your form, and then choose File→Print→Print. The familiar Print dialog box appears, where you can choose your printer and the number of copies you want.

When you print a form, Access prints *all* the records, one after the other. If you want to print just the current record, then, in the Print dialog box, choose the Selected Records option before you click OK.

You can also use File→Print→Print Preview to check out the result before you send it to the printer (Figure 12-9). Click Print Preview→Close Preview→Close Print Preview to return to your form.



Although you might be tempted to use forms as a convenient way to create snazzy printouts, you'll always get more features and better control if you use reports.

## Sorting and Filtering in a Form

Sorting and filtering are two indispensable features that Access gives you with Form view. Learning how to use them could hardly be easier—in fact, you already learned everything you need to know when you tackled the datasheet in Chapter 3. The creators of Access took great care to ensure that filtering and sorting work the same in forms as they do in the datasheet. You use the same commands, on the same part of the ribbon, to put them into action.

## Sorting a Form

As you've probably realized by now, forms show your data in raw, unsorted order. So records appear in the order you created them. (The only exception is if you create a form that gets its data from a query, and that query uses sorting.)

Fortunately, sorting is easy. In fact, you can sort the records that are shown in a form in exactly the same way you sort records in a datasheet. Choose the field you want to use for sorting, right-click it, and then choose one of the sorting options. In a text-based field, you'll see the sorting choices "Sort A to Z" (for an alphabetical sort) and "Sort Z to A" (for a reverse-alphabetical sort). You can also use the Ascending and Descending buttons on the ribbon's Home>Sort & Filter section.

For more information about your sorting options (including how to sort by multiple fields), see page 97.

## Filtering a Form

Filtering is a feature that lets you cut down the total number of records so you see only those that interest you. Filtering can pick out active customers, in-stock products, expensive orders, and other groups of records based on specific criteria.

In a form, you have the following filtering choices:

- **Quick filter** shows you a list of all the values for a particular field and lets you choose which ones you want to hide. It's easy to use, but potentially time-consuming. If you want to hide numeric values that fall into a certain range, then you'll get the job done much faster with the "filter by condition" approach (as described later). To show the list of quick filter values, move to the field you want to filter, and then click Home>Sort & Filter>Filter. Page 100 has full details about quick filters.
- **Filter by selection** applies a filter based on an existing value. First, find the value in one of the records, right-click it, and then choose a filter option. You can right-click a price value of \$25, and then choose "Greater Than or Equal to 25" to hide low-cost items. For more information, see page 101.
- **Filter by condition** lets you define the exact criteria you want to use to filter records. You don't need to base it on an existing value. To add this sort of filter, right-click the field and then look for a submenu with filtering options. This menu item is named according to the data, so text fields include a Text Filters option, number fields have a Number Filters option, and so on. You can learn more about this type of filter on page 103.
- **Advanced filters** are filters that you design using a window that looks just like the query designer. The advantage of advanced filters is that you can apply filters on more than one field in a single step. To create a set of advanced filters, choose Home>Sort & Filter>Advanced>Advanced Filter/Sort.

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**Note:** If you insert a new record that doesn't match the currently active filter conditions, your new record disappears from sight as soon as you add it. To get it back, remove the filter settings using the ribbon: Select the Home tab, click the Advanced button in the Sort & Filter chunk, and then choose Clear All Filters. Or, use the Toggle Filter button to temporarily suspend your filter settings (and click Toggle Filter later to get them back).

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## Using the Filter by Form Feature

One other filtering technique works with forms: *filter by form*. Essentially, “filter by form” transforms your form into a full-fledged search form. Using this search form, you supply one or more criteria. Then you apply the filter to see the matching record (or records).

Although you can use “filter by form” with the datasheet, it really shines with forms. “Filter by form” is particularly useful for searching out a single hard-to-find record. (If you want to use filtering to pull out a whole group of records, one of the other filtering options is generally easier.)

Here's how to use the “filter by form” feature:

1. **Choose Home→Sort & Filter→Advanced→Filter By Form.**

Access changes your form to Search mode. In Search mode, your form looks exactly the same, except all the fields are blank.

If you've already used the “filter by form” feature and you're returning to change the filter settings, then you should start by clearing the previous set of filters. To do so, right-click a blank spot on the form surface, and then choose Clear Grid.

2. **Move to the field you want to use for filtering.**

A drop-down arrow appears in the field.

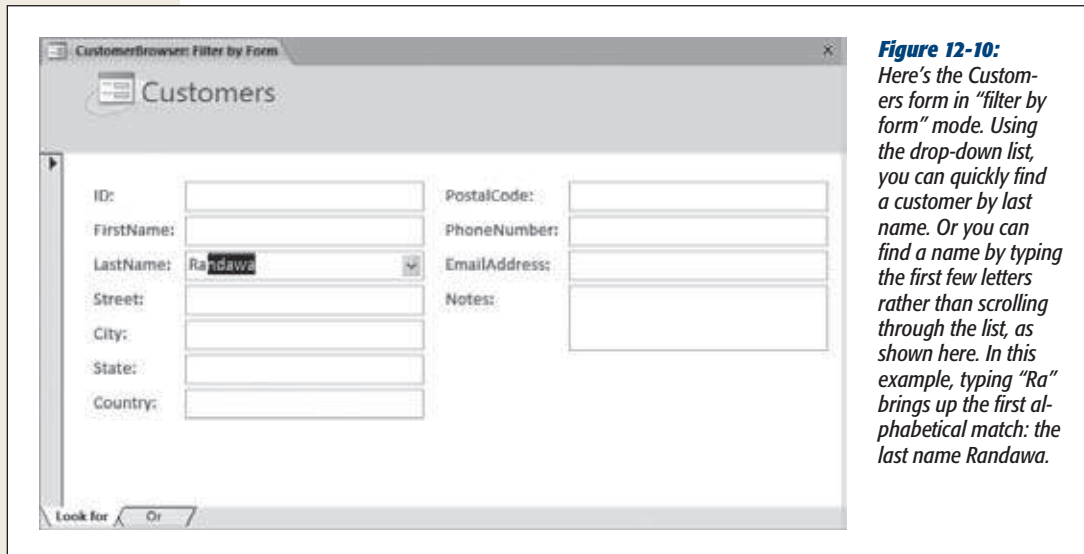
3. **Click the drop-down arrow, and then choose the value you want to include in your results.**

The drop-down list shows all the values from the different records in the table (Figure 12-10). When you choose one, it appears in the field box in quotation marks.

4. **If you want to apply a filter to more than one field, then return to step 2.**

Use multiple filter conditions if a single filter condition may result in more matches than you want. If you don't remember a customer's last name, you could apply a FirstName filter. But if that customer has a common first name, then you may also want to apply a filter on another field, like City.

If you don't want to use exact matches, then you can write in more complex filters using an expression. Use <10 to find numeric values under 10, and *Like Jon\** to find text values like “Jones,” “Jonathon,” and “Jonson.” Filtering is particularly useful with date fields. “Building filter expressions” has the full scoop on filtering expressions.



**Figure 12-10:** Here's the Customers form in "filter by form" mode. Using the drop-down list, you can quickly find a customer by last name. Or you can find a name by typing the first few letters rather than scrolling through the list, as shown here. In this example, typing "Ra" brings up the first alphabetical match: the last name Randawa.

5. If you want to perform more than one filtering operation and combine the results, then click the Or tab and fill out more filter settings (Figure 12-11).

If you fill out your first search form so that it matches the LastName "Gorfinkel", and the second search form to match the FirstName "Jehosophat", your results will include all the records that have the last name Gorfinkel *and* all those that have the first name Jehosophat. However, if you put both those filter conditions on the same search form, your matches include only people named Jehosophat Gorfinkel.

6. Right-click a blank spot on the form surface, and then choose Apply Filter/Sort.

Access switches back to your normal form and then applies the filter settings. At the bottom of the form, between the navigation buttons and the search box, you see the word "Filtered" appear to let you know that you aren't seeing all the records.

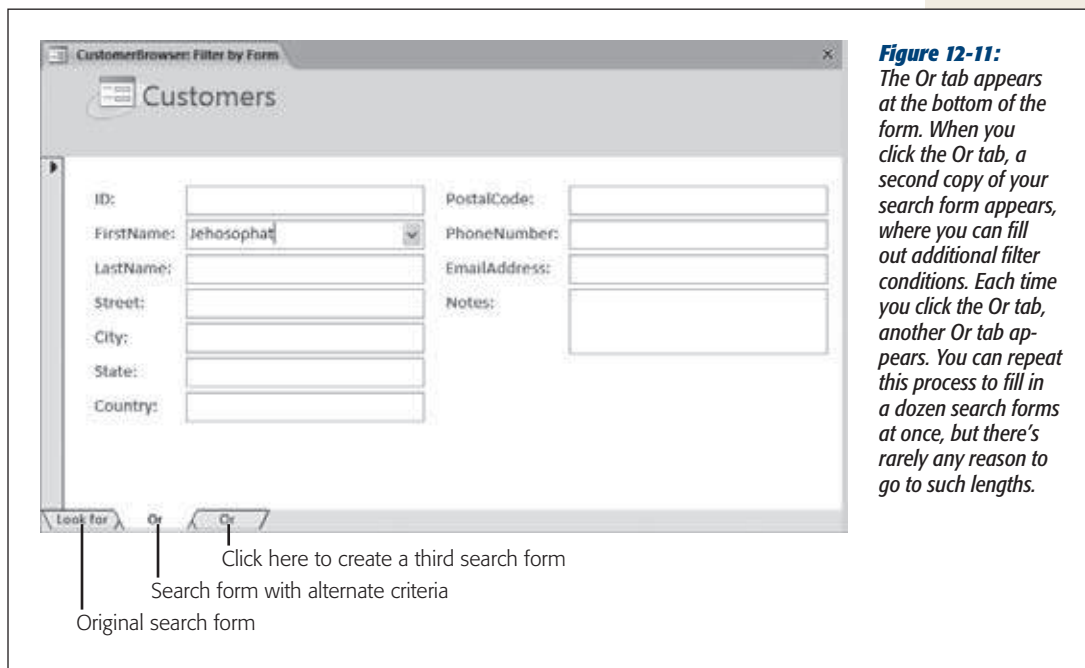
If you decide not to apply the filter settings, just close the search form. Access switches back to your normal form, but doesn't apply any filtering.

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**Tip:** To remove your filter settings but keep them handy for later use, choose Home→Sort & Filter→Toggle Filter. To reapply the filter settings later on, click Toggle Filter a second time. Access stores the most recent filter settings with your form, so they're always available.

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**Figure 12-11:** The Or tab appears at the bottom of the form. When you click the Or tab, a second copy of your search form appears, where you can fill out additional filter conditions. Each time you click the Or tab, another Or tab appears. You can repeat this process to fill in a dozen search forms at once, but there's rarely any reason to go to such lengths.

## Saving Filters for the Future

One of form filtering's limitations is that Access remembers only your most recent set of filters. If you've perfected a complex filter expression that you want to reuse later, this quality is a problem. As soon as you apply a different filter, you'll lose all your hard work.

Fortunately, you have several solutions to this dilemma. One option is to create a whole new query that performs the filtering and to use that query in a whole new form. This choice is a good one if you want to use your filter criteria to perform a specific task, and you also want to customize the way the form works or the way it displays its data.

On the other hand, if you don't plan to use your filtering settings very often, but you just want to have them on hand for the next time you need them (or if you need to store dozens of different filter settings, and you don't want to be stuck with dozens of nearly identical forms), there's a better option. You can save your filter settings as a query in your database. Then, when you want them back, you can load them up and apply them to your form.

Here's how to pull this trick off:

### 1. Apply your filters.

Use any of the techniques described on page 380.

2. Choose Home→Sort & Filter→Advanced→Advanced Filter/Sort.

This action opens a query window. This query uses the same data source (table or query) as your form, and it applies your filtering using the Criteria box under the appropriate field (page 192). You don't need to make any changes in the query window because Access automatically fills in the Criteria box (or boxes) based on the current filter settings.

3. Choose Home→Sort & Filter→Advanced→Save as Query. Supply a name for this query, and then click OK.

Although you can use this query like a normal query, you probably won't. To prevent confusion, use a different type of name, like CustomerBrowser\_Filter, that clearly indicates this query is designed for form filtering.

The next time you want to retrieve your filter settings and reapply them, open your form and follow these steps:

1. Choose Home→Sort & Filter→Advanced→Advanced Filter/Sort.

This action shows the query window.

2. Choose Home→Sort & Filter→Advanced→Load From Query.

Access shows all the queries that use the same table and don't involve joins.

3. Pick the filter query you created earlier, and then click OK.

The filter settings for that query appear in the query window.

4. Right-click anywhere on the blank space in the query window, and then choose Apply Filter/Sort to put your filter settings into effect.

---

**Tip:** You can use this trick to apply the same filter expression to *different* forms, as long as these forms include the fields you want to filter. (You can use the filter settings that you created for the CustomerBrowser form to filter another form that shows a list of customers, but not a form that shows products.)

---

## Creating Fancy Forms

So far, all the forms you've been creating look fairly similar: All the fields get channeled into one or more columns of tightly packed information. In many cases, that system works perfectly fine. But sometimes you want to let your inner form designer come out and play.

You've already seen this idea with reports in Chapter 11. Once you break a report out of its layout table, you can create a printout that looks more like a retail product catalog than like a drab table of information. The same principle is at work with forms—once you decide to leave the Simple World of Simple Forms, you can create forms that are a lot more original. You can create forms that use white space to break up dense groupings of information; forms that add graphical frills like pictures, lines, and rectangles; forms that pack information more tightly or more loosely; forms that resemble the paper documents they're based on; and so on.

## Manipulating Layouts

Like reports, forms use a helpful feature called a *layout*: a formatting container that Access uses behind the scenes to arrange a group of controls. If you widen one field in a layout, all the other fields in it are widened as well. If you move a layout, all the controls move along with it. And if you rearrange a layout, all the controls maintain a consistent amount of spacing.

---

**Note:** Remember, *controls* are the ingredients you can add to a form or report. Controls include things like labels, pictures, and text boxes. You use some controls to display fixed content (like your form title), while others have dynamic content (like the field values from the current record).

---

Starting on page 390, you'll learn how to get absolute control over your forms by pulling them out of their layouts. Access pros do this all the time, and there's no more powerful approach. However, there are two reasons that you might not want to jump into Design view:

- If all you want is a relatively straightforward data entry form, Design view might be overkill. It takes more work to create an arrangement of fields in Design view than it does in Layout view, and it's more work to modify and maintain your form as your database evolves.
- If you have secret ambitions to get your forms online, Layout view is your only option. Access's web database feature (as described in Chapter 23) puts limits on the things you can do with database objects. One feature it doesn't support is layout-free forms. So if you want to design forms that can run on the Web, you need to know how to get the most out of layouts.

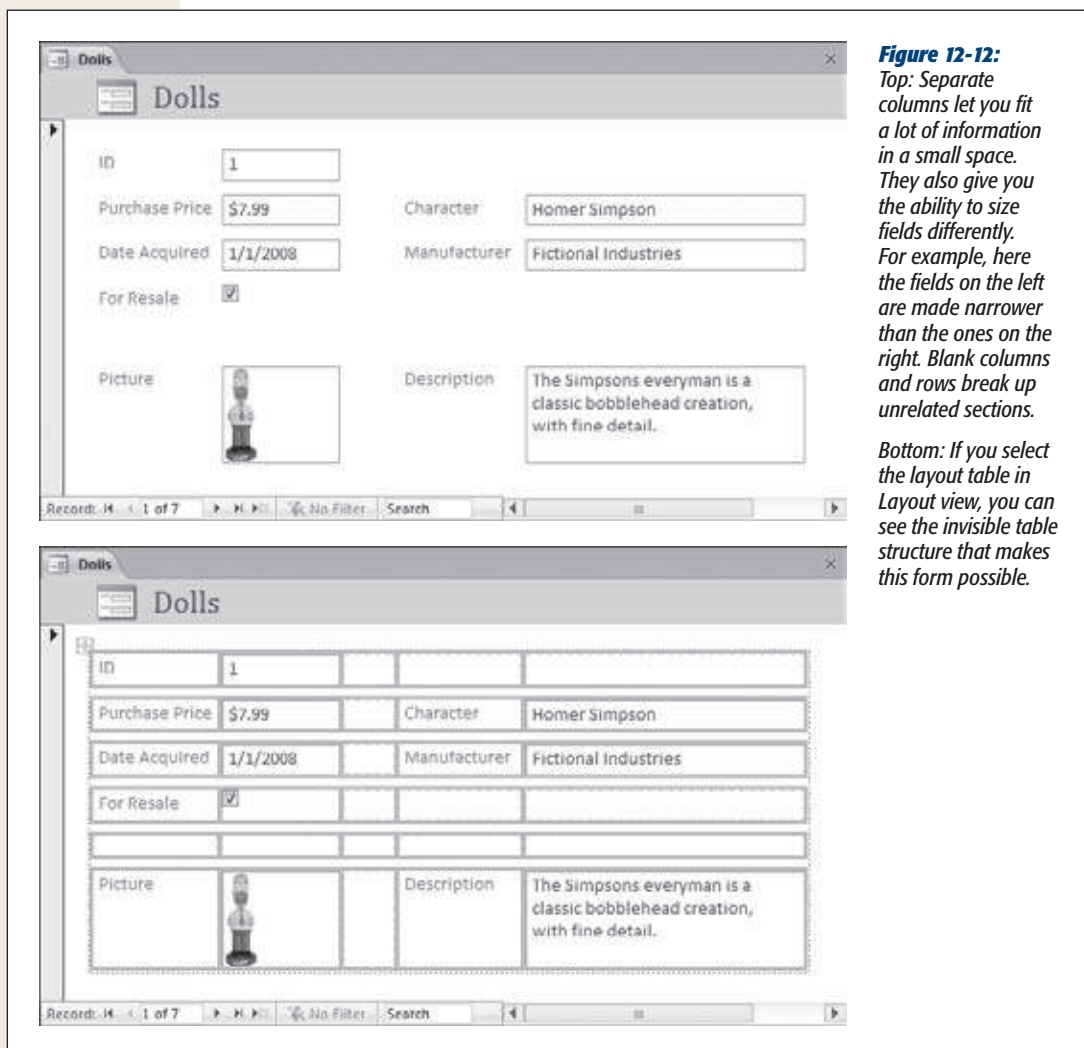
Rest assured, if you decide to stick with Access's layout feature, you can still customize your forms. In fact, crafty form designers know a few tricks to keep using layouts but still make more free-flowing forms. The secret is understanding that a layout is really an invisible table. In a simple form, that table corresponds exactly with the structure of your fields. In this case, the layout is formed out of a fairly standard combination of columns and rows, and each field header or field value takes a single slot in that table. However, you can shape the table into something different in the following ways:

- **Adding extra columns.** Lets you place your fields in discrete groups in different columns.
- **Adding blank columns, rows, or individual cells.** Lets you add extra spacing just where you want it.
- **Splitting and merging cells.** These options, which are new in Access 2010, let you break out of the rigid grid of a table by subdividing individual cells or grouping adjacent cells together. You can use these options to give more space to some fields than to others.

You perform all of these tasks in Layout view, using the buttons in the Form Layout Tools | Arrange section of the ribbon. The following sections demonstrate how to use these commands to create more nuanced layouts.

### Inserting columns and rows

The form in Figure 12-12 demonstrates several enhancements over a barebones layout. It uses multiple columns to separate fields, and blank rows and columns to add space. Although Layout view doesn't give you as much flexibility as Design view, you can still use it to do a surprising amount of customization.



If you want to try creating this form for yourself, follow these steps:

1. **Start by creating a simple form for the Dolls table in the Bobblehead sample database.**

Use the standard process: select the Dolls table and choose Create→Forms→Form. Initially, Access generates a form that has just one column.

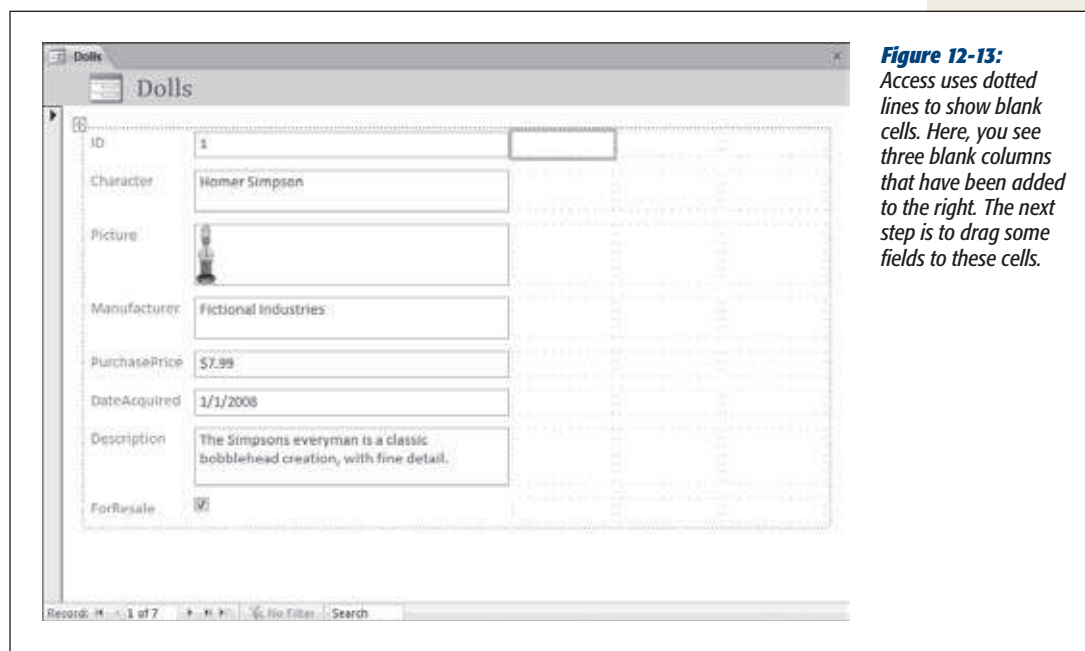
2. **Add the extra columns.**

To add a new column in the simple Dolls form, click any field value and choose Form Layout Tools | Arrange→Rows & Columns→Insert Right. Click Insert Right three times to add three columns: one for blank space, one for the fields' captions, and one for the field values.

3. **Drag the fields into the newly created columns.**

Although you can drag the field header and the field value separately, you can get things done faster if you select them both at once. Just click the header and press Ctrl as you click the value. Then, drag your mouse to the cell where the field header should go (Figure 12-13).

**Tip:** If you're really crafty, you can even drag several fields at once. Just pretend you're dragging the top-left cell from your selection to a new place, and the other cells will follow into the rows below and the columns on the right.



**Figure 12-13:** Access uses dotted lines to show blank cells. Here, you see three blank columns that have been added to the right. The next step is to drag some fields to these cells.

**4. Delete any blank cells that you don't want.**

In this case, it makes sense to remove the rows that held the fields that you've now dragged to the new column. To delete a cell, click it and press Delete, or Ctrl-click to select several at once, so you can clear them out in one fell swoop.

**5. Resize your columns.**

Once your data is in place, you need to size your columns to balance out the two field groups and the blank space in between.

**6. Add any extra blank rows you need.**

For example, to add the blank row between ForResale and Picture, just click the ForSale field and choose Form Layout Tools | Arrange→Rows & Columns→Insert Below.

***Splitting and merging cells***

The previous example split a simple form into multiple columns. This gives you the flexibility to resize these columns separately (for example, making the Character field larger than the PurchasePrice field). However, all the values that fall in the same column (like Character, Manufacturer, and Description) are forced to have the same width. Similarly, fields that fall on the same row (like Picture and Description) automatically have the same height. That's just the nature of a table.

To get around this limitation, you can subdivide individual cells so they have extra rows and columns. Or, you can perform the same task in reverse, and group separate cells into a bigger section. With these techniques, you can create forms like the one shown in Figure 12-14.

Here's how to create this form:

**1. Start with the form from the previous example.**

Although you could create a new form from scratch (just select the Dolls table and choose Create→Forms→Form), you'll get the job done quicker by starting with the form from the previous example, which already has some of the extra cells you need.

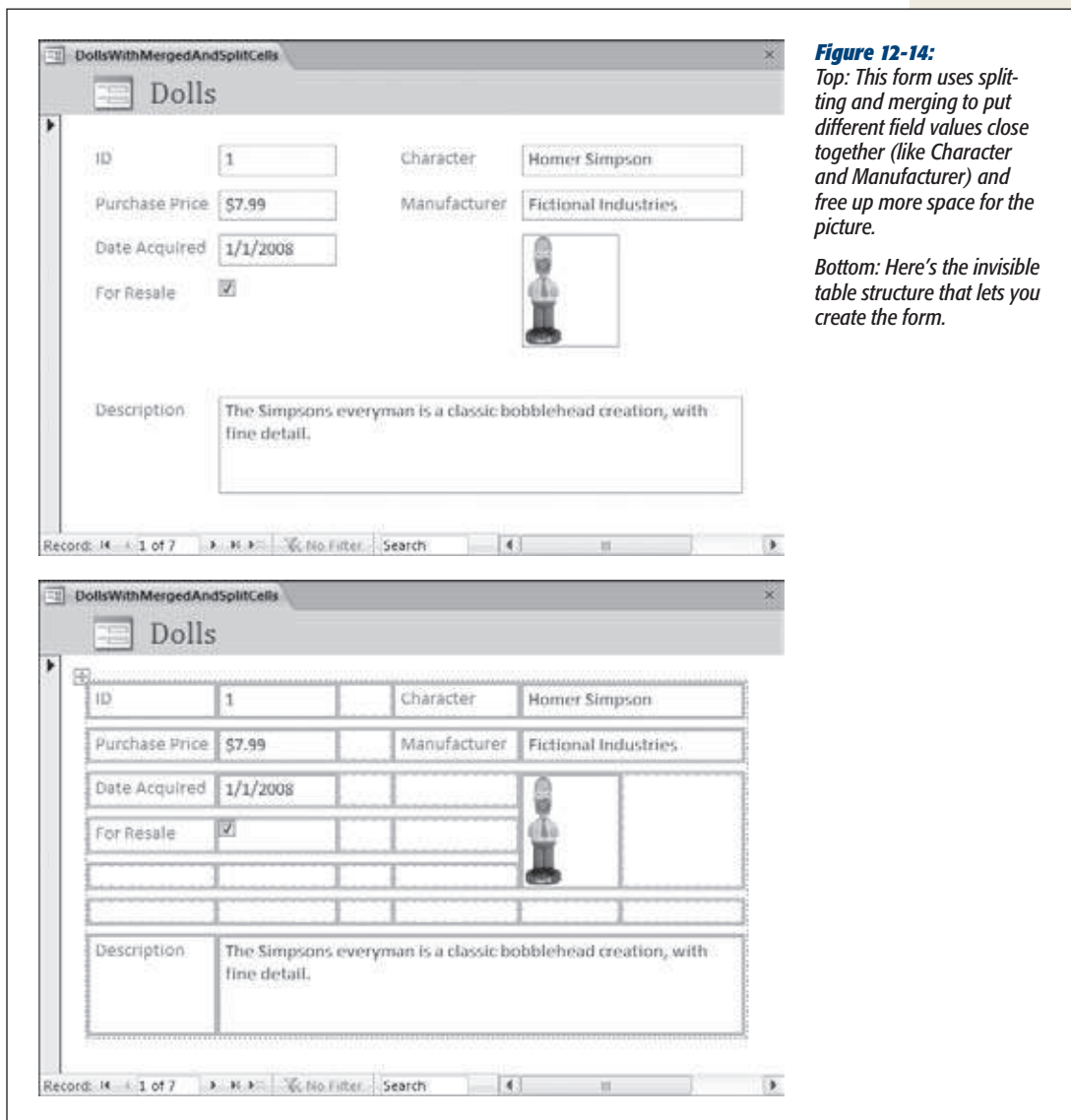
To create your form, begin by dragging the fields to their new locations. Along the way, split and merge cells to get the right table structure.

**2. Merge cells together if you need to get more space.**

For example, in the form shown in Figure 12-14, several columns are merged at the bottom of the form to create a wide cell for the Description field. To create this effect, Ctrl-click as many adjacent cells as you need. Then, to combine them, choose Form Layout Tools | Arrange→Merge/Split→Merge. You can then drag a field with a large value into the newly merged cell you've created. In this example, that's the Description field.

3. Split cells if you need to get extra slots to pack information more closely together.

For example, in the form shown in Figure 12-14, the Picture field is only half the width of the Manufacturer and Character fields. In this example, the half-size Picture field makes sure Access doesn't draw a big border around a small image. However, you can also use the extra space next to it to wedge in more fields.



To add the blank cell, begin by clicking the Picture field value and then choosing Form Layout Tools | Arrange→Merge/Split→Split Horizontally. The cell changes into two side-by-side cells, with the picture on the left. You can then choose the blank cell on the right and further subdivide it (for example, you can split it into multiple vertical cells if you want to place more fields in this space).

#### 4. Clean up your form.

In this case, that means removing the “Picture” caption and the blank rows that were left behind, and resizing your columns. You may also decide to edit field captions (if so, select each caption by double-clicking) to add spaces or to use clearer names.

### Liberating Controls from Layouts

If you want to be able to arrange your controls with exact precision, then you need to start by removing them from the layout. (And, as with reports, it takes a fair amount of time to place each control by hand and still make sure things looks nice.)

Before you pull a control out of its layout, make sure you’re in Layout view or Design view (by right-clicking the tab title, and then choosing Layout View or Design View). Layout view is a bit nicer to look at, but Design view makes it a bit easier to move your fields. When you drag a field header (like the label that contains the word “ProductName”) in Design view, the linked control that shows the field value moves along with it. In Layout view, you need to move both pieces separately, which makes for twice as much work. (Incidentally, you *can* drag the captions and field boxes separately in Design view too, if you understand where to click. Page 342 explains.)

To actually remove a field from its layout, right-click the field you want to reposition, and then choose Layout→Remove. Finally, drag the field to its new location. Figure 12-15 shows an example of a form that doesn’t use layouts for any of its controls.

### Using Tabular Layouts

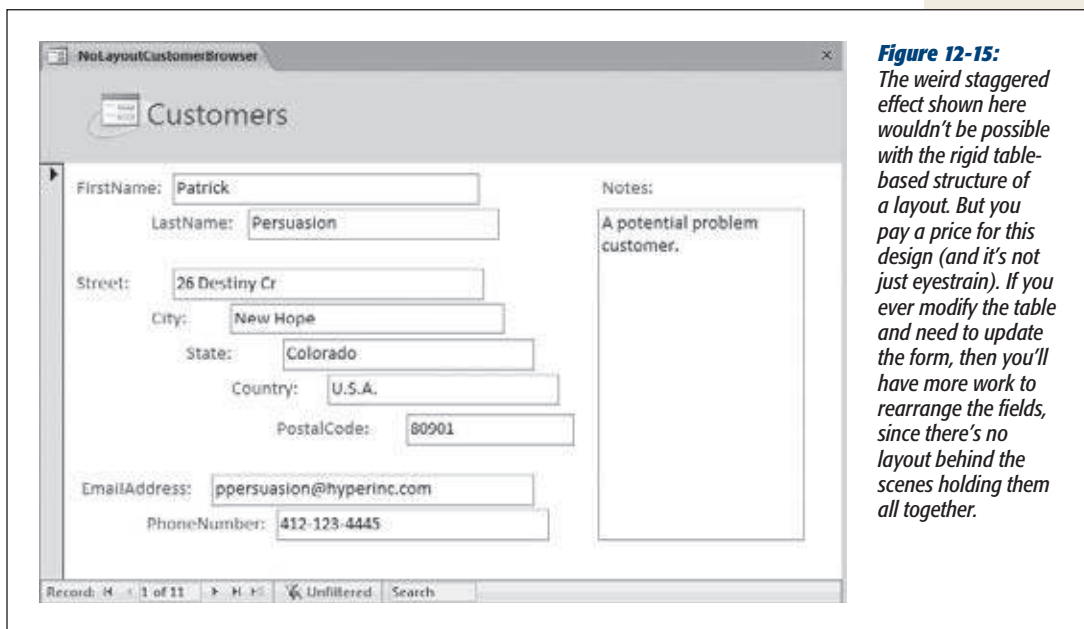
Layouts can organize controls in two different ways: in stacked groups (where each field is in a separate row) and in tables (where each field is placed in a separate column). Usually, stacked group layouts are more useful for forms, while tabular layouts make sense for densely packed reports. However, you may occasionally choose to use a tabular layout in a form. You’d do this most often when you want to show more than one record at a time; it’s often easier to fit more onscreen when you pack fields into columns.

To change an ordinary form (with a stacked layout) so that it uses a tabular layout, follow these steps:

1. **Open the form in Layout view. Select all the fields on your form by Ctrl-clicking them one at a time.**

To save some time, look for the four-way-arrow icon that appears at the table’s top-left corner when you select something inside it. You can click this icon to select the whole layout in one shot.





**Figure 12-15:**

*The weird staggered effect shown here wouldn't be possible with the rigid table-based structure of a layout. But you pay a price for this design (and it's not just eyestrain). If you ever modify the table and need to update the form, then you'll have more work to rearrange the fields, since there's no layout behind the scenes holding them all together.*

## 2. Right-click your selection, and then choose Layout→Tabular.

When creating a tabular layout, Access puts each field caption in the form's header area and the corresponding field value underneath. You'll need to perform some drag-and-drop fiddling to get all the fields in the right order, and to make them the right sizes.

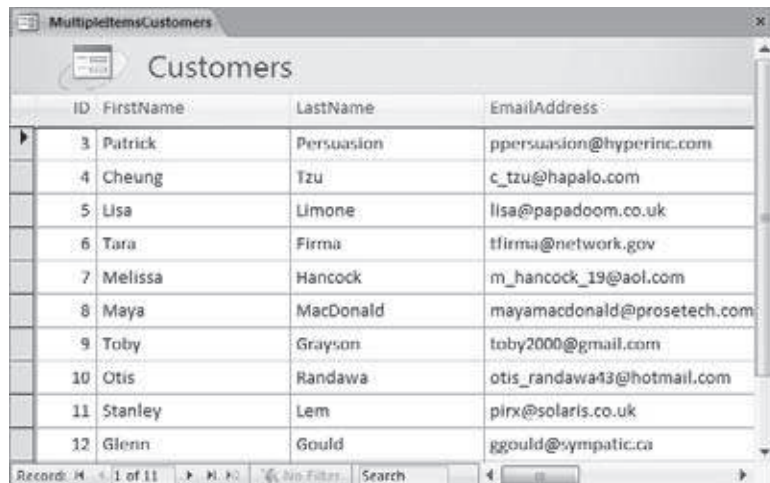
This process is a bit awkward. Fortunately, there's a shortcut. If you know you want to use a tabular layout, then you can create one from the beginning. Instead of choosing Create→Forms→Form to create your form, choose Create→Forms→More Forms→Multiple Items. Doing so creates a form that uses a tabular layout *and* shows more than one record at a time (Figure 12-16).

## Showing Multiple Records in any Form

You can show more than one record in a form even if you don't use a tabular layout. In fact, as long as your form is fairly compact, it's easy. Here's how:

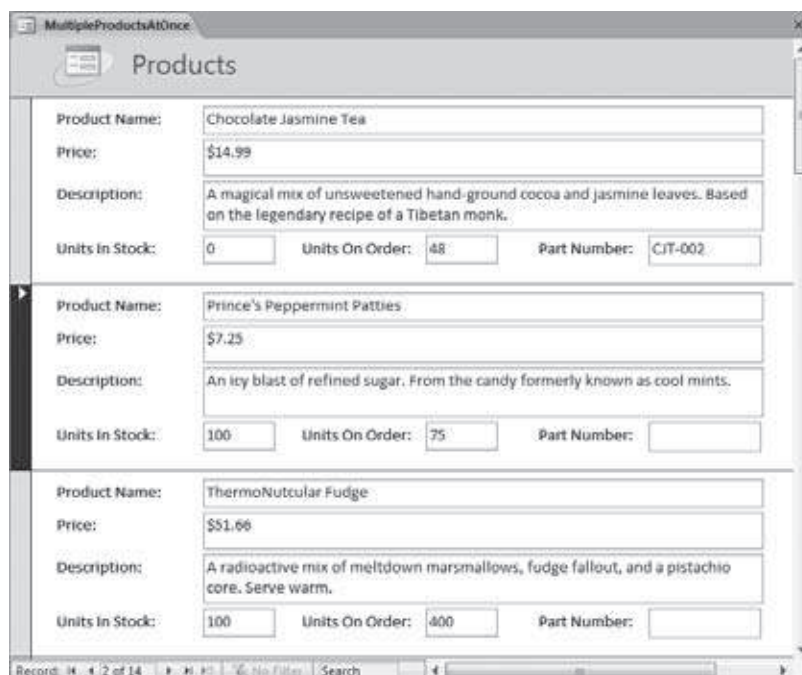
### 1. Arrange your form so that it's as compact as possible.

When showing multiple records, they're placed one above the other, as shown in Figure 12-17. So the shorter you make your form, the more records you can see at once. On the other hand, it doesn't matter how wide or narrow your form is (so long as everything fits on your screen at once).



ID	FirstName	LastName	EmailAddress
3	Patrick	Persuasion	ppersuasion@hyperinc.com
4	Cheung	Tzu	c_tzu@hapalo.com
5	Lisa	Limone	lisa@papadom.co.uk
6	Tara	Firma	tfirma@network.gov
7	Melissa	Hancock	m_hancock_19@aol.com
8	Maya	MacDonald	mayamacdonald@prosetech.com
9	Toby	Grayson	toby2000@gmail.com
10	Otis	Randawa	otis_randawa43@hotmail.com
11	Stanley	Lem	pirx@solaris.co.uk
12	Glenn	Gould	ggould@sympatic.ca

**Figure 12-16:** Usually, tabular layouts go hand-in-hand with forms that show lots of records at once, like the form shown here.



Product Name:	Chocolate Jasmine Tea				
Price:	\$14.99				
Description:	A magical mix of unsweetened hand-ground cocoa and jasmine leaves. Based on the legendary recipe of a Tibetan monk.				
Units In Stock:	0	Units On Order:	48	Part Number: CJT-002	
Product Name:	Prince's Peppermint Patties				
Price:	\$7.25				
Description:	An icy blast of refined sugar. From the candy formerly known as cool mints.				
Units In Stock:	100	Units On Order:	75	Part Number:	
Product Name:	ThermoNuclear Fudge				
Price:	\$51.66				
Description:	A radioactive mix of meltdown marshmallows, fudge fallout, and a pistachio core. Serve warm.				
Units In Stock:	100	Units On Order:	400	Part Number:	

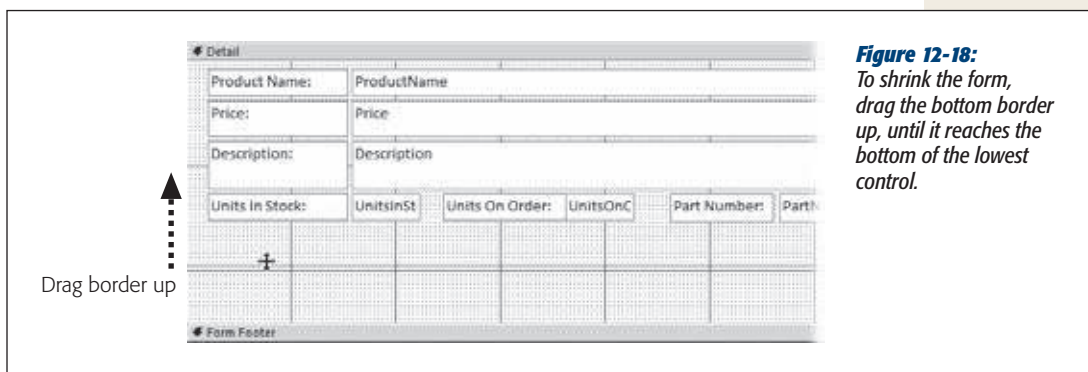
**Figure 12-17:** Now you can see three products all on the same screen. (Notice how the bottom three fields have been removed from the top three fields' stacked layout so they can fit more tightly together.) The arrow in the margin indicates that the second record is the current record. To see more records, you can use the familiar record navigation buttons at the bottom of the form, or you can use the scroll bar on the right.

2. Switch to Design view, if you're not there already.

As always, you can switch to Design view by right-clicking the tab title and then choosing Design View.

3. Resize your form so there's no blank space, as shown in Figure 12-18.

As you rearrange your controls, you'll free up space at the bottom of your form. However, it's up to you to reclaim this space by shrinking the overall form. If you try to shrink a form but it remains stubbornly locked in place, there's probably a control on the form that extends into that space. You need to shrink the control first and then the form.



**Figure 12-18:**  
To shrink the form,  
drag the bottom border  
up, until it reaches the  
bottom of the lowest  
control.

**Note:** To fit more than one record into view at once, the form window needs to be larger than the actual form.

4. If the Property Sheet isn't visible, then choose Form→Design→Tools | Design→Tools→Property Sheet.

As you learned in Chapter 11, the Property Sheet lets you tweak the settings for controls and other items. In this case, the setting you need to change isn't available in the ribbon. Instead, it's buried in the Property Sheet.

5. In the Property Sheet list box, choose Form.

This action shows settings that apply to the entire form, not just a single control.

6. Click the Format tab, and then find the Default View setting.

The Default View setting appears near the top of the list. It lets you control how the form appears when you first open it.

7. Choose Continuous Form.

The most common options are Single Form (which shows a single record of information), and Continuous Form (which shows multiple records, one after the other). You can also choose a non-Form view, like Datasheet (the boring

spreadsheet-like tables you learned about in Chapter 3), PivotTable, or PivotChart. Finally, you can use Split Form for a view that combines the datasheet with your custom form. You'll learn more about this option in the next section.

8. **Optionally, set the Dividing Lines property to Yes to show a thin horizontal line between each record.**

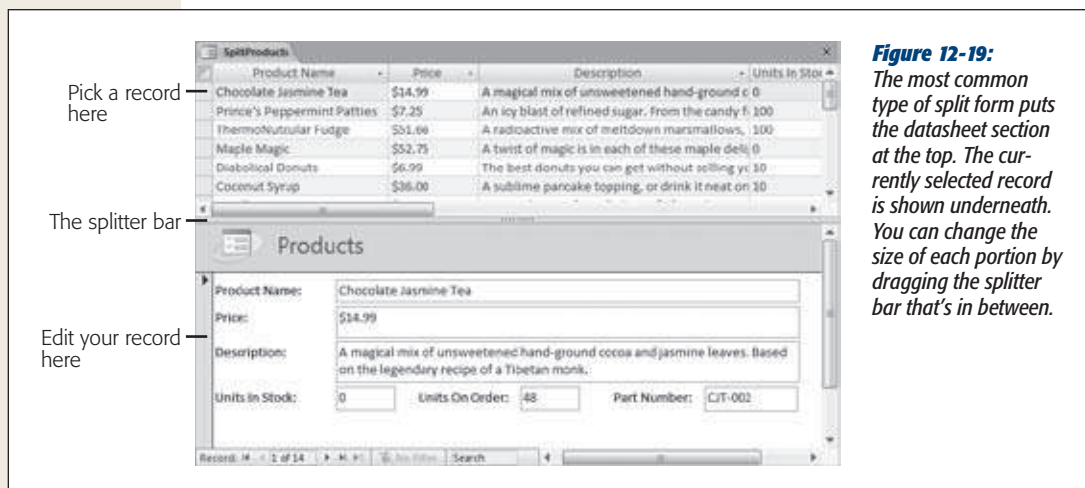
Now, when you switch back to Form view, you'll see several records at once, provided they fit into the window.

## Split Forms

Both single-record view and multiple-record view have their advantages. With single-record view, you have plenty of room to examine one record, and you don't get distracted by onscreen clutter. With multiple-record view, you can compare the current record to other nearby records.

Access has a type of form that lets you get the best of both worlds: *split forms*. Split forms combine two views of your data in one form. The idea is that you can use the datasheet to scroll through all your records, and use the form to view or edit a record—but all in the same window. Figure 12-19 shows an example.

**Note:** Usually, you'll use the datasheet to move to the record you want to edit and the form to review or edit it, but that's not the only possible setup. You can change records in the datasheet, and you can navigate using the navigation buttons at the bottom of the form.



**Figure 12-19:** The most common type of split form puts the datasheet section at the top. The currently selected record is shown underneath. You can change the size of each portion by dragging the splitter bar that's in between.

It's easy to create a split form—choose Create→Forms→More Forms→Split Form. However, you need to know a little bit more if you want to convert an existing form into a split form, or if you want to change how Access presents the two sections of a split form.

The secret lies in changing the form settings using the Property Sheet. Here's how:

1. Switch your form to Design view.
2. If the Property Sheet isn't already visible, then show it by choosing Form Design Tools | Design→Tools→Property Sheet.
3. In the Property Sheet drop-down list, choose Form.
4. Choose the Format tab, which includes all the settings that relate to split forms.
5. Find the Default View, and then set this to Split Form. Now you get the two-part window shown in Figure 12-19.

Several more settings let you control how split forms work. Table 12-1 has the details.

**Table 12-1.** Form Properties for Split Forms

Property	Description
Split Form Orientation	Using this setting, you can place the datasheet portion of the window at the top (the standard choice), at the bottom, on the left, or on the right.
Split Form Size	Sets how large the datasheet portion of the window appears. You'll need to experiment with different numbers to find what works. Most people prefer to size the split window by hand in Form view.
Split Form Splitter Bar	If you change this setting to No, there won't be a splitter bar in between the two portions of the window. You (or the person using the form) can't change the space allocated to each portion by dragging the splitter bar. Instead, you'll be stuck with the size that's specified in the Split Form Size setting.
Save Splitter Bar Position	If you change this setting to Yes, every time you move the splitter bar, the datasheet size is recorded in the Split Form Size setting. The next time you open the form, the splitter bar is positioned where it was most recently. If you change this setting to No, then Access doesn't save your position changes. The splitter bar reverts to its original position, as set in the Split Form Size property.
Split Form Datasheet	Change this setting to Read Only if you want to prevent people from changing data in the datasheet section of the window. (They can still use the datasheet to navigate from one record to another.) Doing so is one way to prevent errors caused by accidental key presses. If you want to prevent edits altogether, then use the Allow Edits, Allow Deletions, and Allow Additions settings described in Table 12-2.
Split Form Printing	Tells Access whether to use the Datasheet view (Datasheet Only) or the Form view (Form Only) to create a printout. The standard setting is Form Only, which means Access organizes the information in your printout to fit your form's layout.

## More Useful Form Properties

So far, you've used the Property Sheet to change the view of your form, letting an ordinary form show multiple items or a split view. However, the Property Sheet is packed with many more settings. Some are useful; others you'll almost never touch. Table 12-2 lists a few more settings that may come in handy.

**Table 12-2.** *Useful Form Properties*

Property	Tab	Description
Record Source	Data	Where the data comes from. This property is usually the name of a table or query in the database. However, if you're technically inclined, then you can type a new SQL command (page 203) directly into this field.
Filter	Data	The filter expression that's used to limit results. You can set this field by hand, or build a filter expression using the ribbon, as described on page 380.
Filter On Load	Data	If set to Yes, the filter expression is applied as soon as you open the form. If No, the filter expression is stored, but not applied until you choose Home→Sort & Filter→Advanced→Apply Filter/Sort.
Order By	Data	The sorting expression you use to order results. You can set this field by hand, or set the sort order using the ribbon, as described on page 380.
Order By On Load	Data	If set to Yes, Access applies the sort order as soon as you open the form. If No, the sort order is stored but not applied. That option isn't particularly useful—unless you open the Property Sheet again and set Order By On Load back to Yes, the stored sort order won't ever come into effect.
Allow Filters	Data	If set to No, you can't use any of the filtering commands described in this chapter. Instead, you'll always see all the records.
Caption	Format	The text that appears in the tab title (or in the window caption, if you're using overlapping windows instead of tabbed documents). If you leave this blank, then Access uses the form's name as the caption.
Allow [...] View	Format	These settings let you turn off a particular view. For example, if you set Allow Layout View to No, you don't see the option for switching your form to Layout view.
Allow Edits	Data	If set to No, you can't change any data in the form. However, you can still add a new record with all-new data. The standard option is Yes.
Allow Deletions	Data	If set to No, you can't delete any record while using this form. The standard option is Yes.
Allow Additions	Data	If set to No, you can't insert a new record with this form. The standard option is Yes.

**Table 12-2.** Useful Form Properties

Property	Tab	Description
Data Entry	Data	If set to Yes, this form can <i>only</i> be used to add new records. When you switch to Form view, you don't see any of the existing records. Instead, you see a blank slate where you can add a new record. As you add new records, they remain visible—at least until you close the form and reopen it.
Record Selectors	Format	If set to No, your form doesn't include the margin on the left. This margin has two roles. First, it shows an arrow next to the current record (which is useful in forms that show several records at a time). Second, if you click the margin, then you can select the entire record (after which you can quickly delete it with the Delete key).
Navigation Buttons	Format	If set to No, your form doesn't include the handy navigation controls at the bottom that let you jump from record to record. You're most likely to use this option if you're designing a form with a radically different appearance and you don't want any of the Access staples, or if you're creating your own navigation buttons that use VBA code.

**Note:** Some form properties apply only in the rare case that you're using free-floating windows (page 46). In this situation, you can choose whether the window is automatically centered (Auto Center), whether it can be resized (Border Style), whether it includes minimize and maximize icons (Min Max Buttons), and so on. These properties have no effect if your database is using the more standard tabbed windows.

## The Form Wizard

By now, you've learned how to create a number of common forms. Access gives you one other way to build a form: using the Form wizard. The Form wizard has an uncanny similarity to the Report wizard you used in Chapter 11. It asks you a series of questions and then builds a form to match. However, the questions are fairly rudimentary, and the form it builds is little more than a good starting point for further customization.

Here's how to put the Form wizard through its paces:

1. Choose **Create**→**Forms**→**Form Wizard**.

The first step of the Form wizard appears.

2. From the drop-down list, choose the table you want to use.

In the Available Fields list, the wizard shows all the fields that are in your table.

3. Add the fields you want to include, as shown in Figure 12-20. When you're finished, click **Next**.

You can choose fields from more than one table, provided these tables are related.



## UP TO SPEED

## The Access Form Family

Access forms manage to please just about everyone. If you're in a hurry, then you can create a readymade form with a basic layout and add a dash of formatting. Or, if you're feeling a creative buzz coming on, you can pull your fields out of the standard layouts and place them absolutely anywhere. In other words, forms are flexible—time-pressed business types get the convenience they need, while serious artistes get the creative control they demand.

Here's a roundup of all your form choices:

- **A simple form** shows one record at a time in a basic stacked layout. To create a simple form, select a table and choose Create→Forms→Form. Or choose Create→Forms→Blank Form to start from scratch in Layout view.
- **A layout-less form** lets you place controls anywhere you want on a form. It's up to you whether you want to show a single record at once, or several records at a time. When creating a layout-less form, you need to do all the work. You can get started by choosing Create→Forms→Form Design.
- **A tabular form** shows records in a tabular layout. Usually, tabular forms show several records at once (which gives the appearance of a table). To quickly create one of these babies, choose Create→Forms→More Forms→Multiple Items.
- **A PivotChart or PivotTable form** is a form that exists for the sole purpose of showing a PivotChart or PivotTable (see Chapter 9). You can create these forms by choosing Create→Forms→More Forms→PivotChart or Create→Forms→More Forms→PivotTable.
- **A datasheet form** looks exactly like the Datasheet view you get with a table. This form isn't as powerful as other form types, but it's still useful if you want a customized datasheet-like view of your data. You can create a datasheet form that shows fewer columns, uses filtering to hide certain records, prevents record insertions, uses different formatting, and so on. To create a datasheet form, choose Create→Forms→More Forms→Datasheet.
- **A split form** combines two types of form in one window. One portion of the window shows the current record in a simple form. The other portion of the window shows a datasheet with several records. To create a split form, choose Create→Forms→More Forms→Split Form.
- **A modal dialog** is a special type of form. Rather than show data from a table, the modal dialog asks you a question. The idea is that you can pop it up at some critical moment as part of an automated task. To create a modal form, you choose Create→Forms→More Forms→Modal Dialog. To use a modal form, you'll need to mix in some VBA code. You'll see an example that uses a modal form on page 594.

#### 4. Choose a layout option for your form.

Your layout options include:

- Columnar creates a form with a stacked layout. It's similar to clicking Create→Forms→Form in the ribbon.
- Tabular creates a form with a tabular layout. It's similar to clicking Create→Forms→More Forms→Multiple Items in the ribbon.
- Datasheet creates a datasheet form. It's similar to selecting Create→Forms→More Forms→Datasheet in the ribbon.



- Justified creates a form that doesn't use any set layout. Instead, it packs controls closely together, combining several fields on a single line if they're small enough to fit. A justified form is the only kind of form you can't create directly from the ribbon using another command. It's similar to the layout-less forms you designed on page 390.

**Note:** Justified forms are difficult to modify later. For example, if you need to add a field into the middle of a layout form, you're stuck with the painstaking task of moving many more fields out of the way to new positions. Often it's easier to recreate the form from scratch using the wizard.

5. **Click Next.**

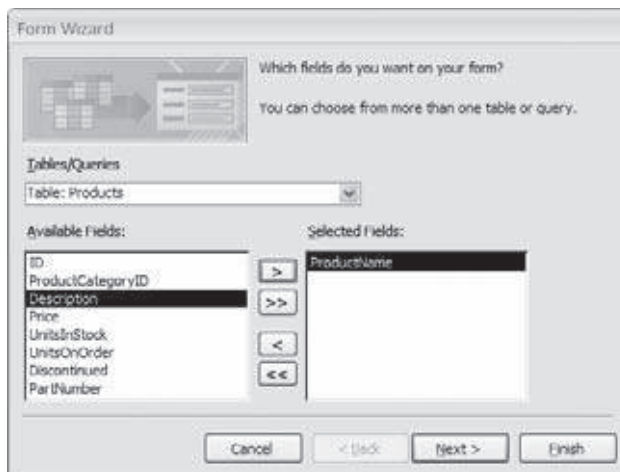
The final step of the Form wizard appears.

6. **Enter a name for your form.**

When the Form wizard finishes, it immediately saves your form using this name.

7. **Choose “Open the form to view or edit information” if you want to start using your form to work with data, or “Modify the form’s design” if you want to adjust it in Design view first. Then, click Finish.**

Access saves your form and opens it in Form view or Design view, depending on your choice.



**Figure 12-20:**

To add a field, select it, and then click the > button to move it from the Available Fields list to the Selected Fields list. To add all the fields, click >>.



# Designing Advanced Forms

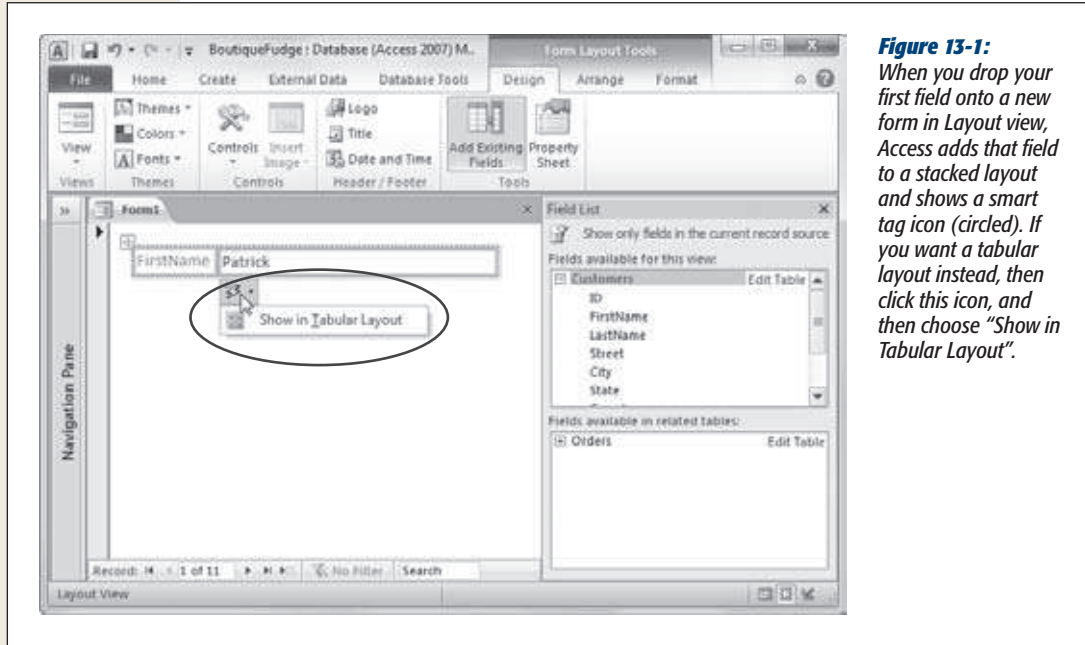
**A**s you learned in the previous chapter, forms can streamline day-to-day tasks and even give your database a sharp, distinctive look. To be a master database builder, you need to be able to craft top-notch forms.

In this chapter, you'll take form building to the next level with a whole new arsenal of techniques. First, you'll learn how to create a form in the no-holds-barred Design view, where you can tweak and polish every square inch of your form. Then, you'll take a tour of Access's different controls, and jazz up your form with links, tabbed panels, and buttons. You'll also learn how to work with linked tables by creating special types of forms called *subforms* that work in harmony with other forms.

## Customizing Forms in Design View

In the previous chapter, you learned how to quickly create different forms using the ribbon's buttons and the Form wizard. But serious form gurus take a different approach—they build a form by hand. There are two ways you go about this task:

- **Create a form in Layout view.** Choose Create→Forms→Blank Form. Then, drag the fields you want from the Field List pane onto your form (Figure 13-1). You learned everything you need to pull this off in Chapter 12. You can quickly create a standard form with a stacked or tabular layout, but it doesn't give you any extra frills.
- **Create a form in Design view.** Choose Create→Forms→Form Design. Now you'll start with a blank form in the design window. You can drag fields onto your form from the Field List pane (just as you do in Layout view), and you can add a wide variety of more specialized controls from the ribbon.



**Figure 13-1:** When you drop your first field onto a new form in Layout view, Access adds that field to a stacked layout and shows a smart tag icon (circled). If you want a tabular layout instead, then click this icon, and then choose “Show in Tabular Layout”.

**Note:** If you don’t see the Field List pane, then choose Design→Tools→Add Existing Fields (while in Design view or Layout view).

Of course, while you’re working with a form, you can easily jump back and forth between the two views. (Just right-click the tab title and choose the view you want, or click the view buttons at the window’s bottom-right corner.) You can add fields to your form using either view. However, when you add fields in Layout view, Access automatically positions them in a layout. When you add fields in Design view, they start out layout-free. Access assumes that people who use Design view want more control over how their fields are placed.

There’s another, more important difference between Layout view and Design view. In Design view, you have access to a greater selection of controls. These controls make the difference between the cookie-cutter forms Access creates automatically, and forms that exhibit your own style.

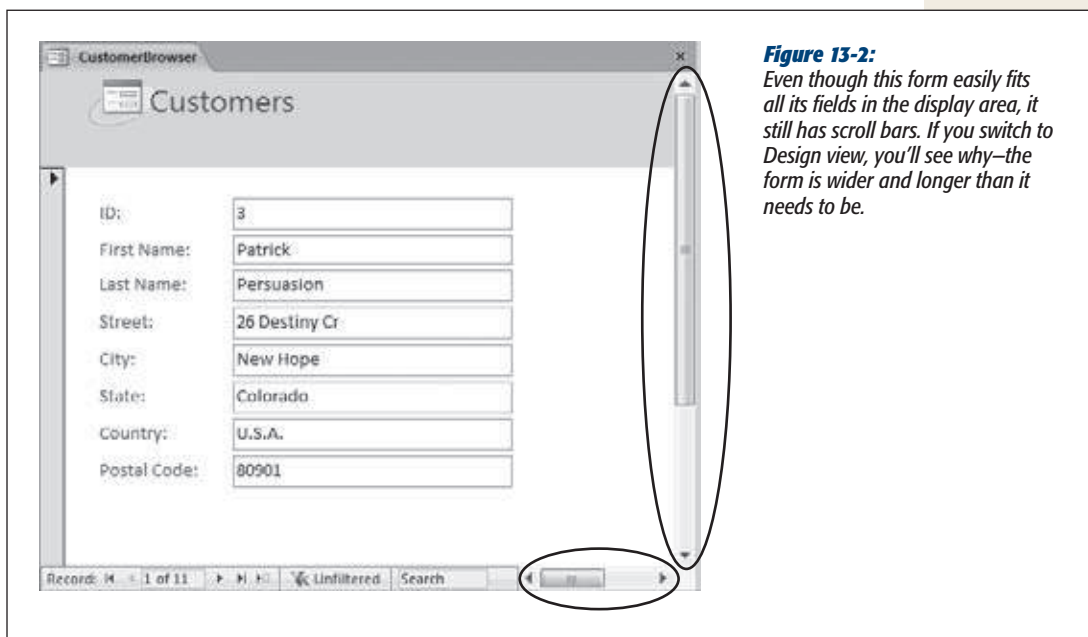
## Form Sections: The Different Parts of Your Form

In Chapter 12, you learned that a report is divided into separate sections (like a report header, a details section, a report footer, and so on), each of which appears in a specific place. The same is true for forms. However, newly created forms start life with only one section: the Details section, which defines the content for each record.

If you want to add a title or logo at the top of your form, or some sort of summary information or message at the bottom, you'll want to include a header and footer section. To add these elements to your form, right-click anywhere on the form's surface, and then choose Page Header/Footer.

When working with form sections, remember to keep them small (as shown in Figure 13-2). Each form section should be just large enough to fit the content you're displaying. If you create an oversized form with a lot of blank space, the results look unprofessional. You'll get unnecessary scroll bars on your form's sides, which let you scroll off into nothingness.

**Tip:** You can't make a form smaller than the controls it contains. This fact is the source of a frequent stumbling block for form designers. If Access doesn't let you resize a form, then something, somewhere, is still too big. (If all else fails, check that you don't have a large box in the form header or form footer sections.)



**Note:** If your database is set to use overlapping windows instead of tabs (page 46), then you'll see a slightly different problem—your form windows are unnecessarily large. In fact, they may not even fit in the main Access window, in which case Access chops off the edges.

## Adding Controls to Your Form

You first learned about controls—graphical widgets like labels and text boxes—when you created advanced reports in Chapter 12. Access gives you the same ability to use controls with forms. In fact, you use the same ribbon section to add them. However, many of the controls that didn't make much sense with reports really shine with forms.

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**Note:** Behind the scenes, everything on a form is actually a control. Each time you add a field, you end up with two linked controls: a label that displays the field name, and a text box that holds the field value.

---

One of the simplest and most useful controls is the humble label. Using the label, you can add formatted text anywhere on your form. You could choose to use labels to highlight additional instructions, as shown in Figure 13-3.

**Figure 13-3:**

*Use labels to add helpful instructions (or cheeky commentary) to your forms. Line and rectangle controls add a little polish.*

To add a control, follow these steps:

1. **Head to the ribbon's Form Design Tools | Design→Controls section.**

The Controls section has one-stop shopping for all the controls you can use.

---

**Tip:** It's equally valid to insert many controls in Layout view, using the ribbon's Form Layout Tools | Design→Controls section. These tools are particularly handy if you want to add a control into a layout table, so you don't need to fiddle with its exact position and size. However, the Controls section in Layout view leaves out quite a few controls in an attempt to make Layout view seem simpler to use than Design view. For that reason, this book assumes you mostly add your controls in Design view.

---

2. **Optionally, switch on the Use Control Wizards button.**

Some types of controls, like buttons and lists, come equipped with helpful wizards. As soon as you drop one on your form, the wizard pops up to help you perfect it. Ordinarily, wizards are switched on. However, control experts who know exactly what they want may find that the wizards just slow them down.

To see the Use Controls Wizards button, head to the Form Design Tools | Design→Controls section of the ribbon, and click the drop-down arrow to the right of the control gallery. When the Use Control Wizards button is *not* highlighted, the Control wizards leave you alone.

**3. Click the icon for the control you want.**

On most people's screens, Access can't fit the control name on the ribbon's control button. (Thirty-inch monitor owners, congratulate yourselves and skip to the next paragraph.) Hover over each control icon for a moment, and Access displays the control name in a tooltip.

Once you click your icon, it remains highlighted. Your mouse cursor changes to a cross with a small picture of the control superimposed. That change is your indication that your control is ready and waiting for you to drop it onto the form.

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**Tip:** If this is your first time experimenting with controls, why not try the label—it's easy to master, and genuinely useful.

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**4. To place your control on the form, drag the mouse cursor to draw the control on the form.**

If you don't get it right the first time, then you can always drag a control to a new position, or drag its borders to resize it.

If you decide that you don't want to add the control you picked, then just press Esc, or click the arrow at the far left of the control gallery. Either way, your mouse pointer returns to normal, and you can now click on the form to select an existing control.

**5. If your control has a Control wizard and you choose to use Control Wizards (see step 2), the wizard appears now.**

Answer all the questions to configure your control, or just press Esc to skip out of the wizard, and do all the configuration on your own.

**6. If you're adding a label, supply some text for the control.**

After you drop a label onto your form, Access waits for you to type in some text (which is set in the Caption property). If you don't type anything for your label, Access assumes you don't really want the label, and just gets rid of it.

**7. If the Property Sheet isn't already visible (at the right side of the window), click Form Design Tools | Design→Tools→Property Sheet to show it.**

To configure the control's many settings, or properties, you need to use the Property Sheet.

**8. Change the appropriate settings in the Property Sheet.**

If you've added a bound control (see the box on page 406), select the Data tab, and then set the Control Source field to the name of the field you want to display.

**Tip:** If you have a label control that doesn't fit all the text you've entered, you can bump its size up in one step. Just right-click the control, and then choose Size→To Fit. Access resizes the label so it's just large enough to fit all its content. Don't try this with other controls like text boxes—it won't work.

**9. Optionally, give your control a better name by setting the Name property (in the Other tab).**

If you've just created a new label, Access bestows a name like "Label46". If you want to honor your control with something more becoming, just change the text in the Name property. You'll have an easier time finding your control in the drop-down list in the Property Sheet next time you want to change it.

**10. Format your control.**

Although you can adjust many formatting details via the Property Sheet, the ribbon is much easier to use. Use the Form Design Tools | Format→Font section for basic font and color formatting, and use the Form Design Tools | Format→Control Formatting section to add a stylized border around your control.

**UP TO SPEED**

**Bound Controls**

A *bound* control is a control that displays the value in a database field. (It's called a bound control because it's "bound"—tightly linked—to the appropriate field in your table.) The most familiar example is the text box, but other bound controls include the checkbox, the list box, and so on.

When you add a bound control, you need to specify the linked field so Access knows what to display. You can most easily add a bound control by dragging a field from the Field List pane and letting Access create the control for you. However, there's no reason you can't choose to create a bound control by hand.

Begin by dropping the right control type (like a text box) onto your form. Then, select the Data tab and look for the Control Source setting. This setting is where you fill in the corresponding field. For example, a text box with a Control

Source set to ProductName displays the contents of the ProductName field on your form.

Of course, this procedure works only if the form's data source—the table *or* query on which you're building the form—has the field you want to use. To change a form's data source, select Form in the Property Sheet, click the Data tab, and then look for the Record Source property. The Record Source property has the name of the linked table or query or an SQL SELECT command (page 203) that gets the records you need. To choose a different table or query, type in its name. Or, click the ellipsis button in the Record Source box to open a query window that lets you pick and choose exactly the fields you want to use, from as many linked tables as necessary, with the exact filtering and sorting options you want.

**The Control Gallery: A Quick Tour**

Later in this chapter, you'll consider how to create some popular form designs with controls. But first, it's worth taking a quick overview of all the controls on the ribbon so you can see exactly what's available (and what isn't). Table 13-1 introduces you to every member of the control family.



## GEM IN THE ROUGH

**Reusing Your Favorite Border Settings**

If you head to the Form Design Tools | Design→Controls section of the ribbon and click the drop-down arrow on the right side of the control gallery, you'll see an often overlooked button named Set Control Defaults. This button lets you reuse border settings over and over again. That way, if you come up with a nifty border for one control, you can quickly apply it to others.

Here's how it works. Suppose you create a label and use the buttons in the Form Design Tools | Format→Control Formatting section to apply a carefully formatted border around it, with just the right thickness (hairline), color (fuchsia), and line style (dotted). You can reuse these set-

tings by selecting the newly created label control and then clicking Set Control Defaults. Now, the next time you add a label to this form, it'll automatically have the same border settings. However, these settings don't affect the labels you add to other forms.

The Set Control Defaults command works on a per-control basis, so you can store different border settings for labels, pictures, text boxes, and so on. Although it's an interesting frill, many Access experts prefer to use a different technique to apply the same formatting to several controls: they select them all at once, and then choose the border options.

**Table 13-1.** Form controls

Control	Description
Text Box	Displays the value of a field from a record. You can also use a text box to show the result of an expression, as described on page 353.
Label	Displays fixed text. Perfect for captions, notes, and helpful instructions.
Button	Performs an action (when the user clicks it). For example, you could add a new record or show a different form. Page 431 explains how to configure a button's action.
Toggle Button	Shows a button that can be in two different states: normal and pressed. You switch it from one state to the other by clicking it. The toggle button is a rarely used oddity, but you can substitute it for the check box to display the value of a Yes/No field. In this case, the button is depressed if the field value is Yes.
Combo Box	Displays a list that pops into view when you click the drop-down arrow. This list can be a list of values you supply, or it can be drawn from another table. Access automatically uses a combo box for lookup fields or linked tables.
List Box	Displays a large box with a list of items. This list can be a list of values you supply, or it can be drawn from another table. You can use list boxes and combo boxes interchangeably—the key difference is the fact that list boxes take more space, and combo boxes let you type in your own values that aren't in the list.
Check Box	Displays the value of a Yes/No field. If it's Yes, the check box has a checkmark.
Attachment	Shows the first file in an attachment field. If this file is a picture, the picture is displayed directly on the form. Otherwise, all you see is a small icon that indicates the file type. If the attachment field holds more than one file, then you can step through each one using the arrows in the minibar (which appears when you click this field), as described on page 374.

**Table 13-1.** Form controls

Control	Description
Image	Displays a picture that you supply. Perfect for logos and eye candy that sets your form apart. Set the Size Mode property to determine whether your picture is chopped down to fit its box (Clip), stretched to fit (Stretch), or resized without changing the shape (Zoom, which is the standard setting). You can even use the Picture Tiling property to repeat a picture over a larger surface. To keep your pictures (and database files) small, use compact .jpg files rather than bloated .bmp files.
Hyperlink	Displays a fixed hyperlink—blue underlined text that, when clicked, transports the clicker to a specific web page. Page 425 shows how it works.
Web Browser	Places a web page window right inside your form. You can use this area to show an external website or some database content, as demonstrated on page 426.
Navigation Control	Lets you use web-style navigation tabs, which sit in a strip at the side or top of your form. You'll use this feature on page 457.
Line and Rectangle	The line and rectangle controls are just decoration. Skillful designers use them to separate sections and highlight important information.
Tab Control	Displays several tabs of information. You can see the content in one tab at a time—you click to pick which tab you want. This Windows staple lets you pack more information into a smaller space. Page 423 shows an example.
Option Group and Option Button	The option group is a rectangular container that holds one or more option buttons. The form user can select just one of these option buttons at a time.
Subform	Displays a form inside a form. Usually, a subform shows linked records from a related table. You'll see how this works on page 435.
Chart	Creates a basic chart using the Chart wizard that's included with Office. Alas, charts aren't very well integrated into Access. If you want to provide a graphical view of your data, then you're better off using a pivot chart (see Chapter 9) or just exporting your raw data to Excel, which is much more capable.
Unbound Object Frame	Shows content, which is known as an <i>object</i> , from another program using a somewhat old-fashioned standard called OLE. You can use this control to do things like embed a spreadsheet, audio file, or Word document within your form. Most folks resist the urge, because the results tend to be awkward and confusing.
Bound Object Frame	Similar to the unbound object frame, but this control retrieves the object you want to display from a field in the current record. This feature seems nifty, but the quirky and outdated OLE standard causes more trouble than it's worth. If you want this sort of feature, then you're far better off using an attachment field with an attachment control (page 374), which is designed to solve these problems.
Page Break	Indicates where a page break should fall. This control has an effect only when you use your form to create a printout. Usually, you should steer clear of this control in forms and use it exclusively in reports, which are tailor-made for printing.

## FREQUENTLY ASKED QUESTIONS

**The Windows Control Face-Lift**

Why do controls look old-fashioned in my Access 2003 database?

Most people know Windows XP as the operating system that ushered in a whole new era of slightly different-looking buttons. Microsoft, in its relentless drive to make minor cosmetic changes, used Windows XP to redesign the visual appearance of common controls like buttons and checkboxes, and later operating systems (like Windows Vista and Windows 7) followed suit.

To the untrained eye, the differences between Windows XP design frills and its predecessors are slight. For example, Microsoft replaced boxy gray buttons with carefully rounded buttons that glow with a hint of yellow shading when the mouse hovers over them. Most Windows programs take advantage of the new look, but some are still trapped in the past.

In Access 2010, your form controls automatically get the modern look. However, there's a possible exception. If you open a database that you created with Access 2003 (or an

even older version), then your forms keep their original outdated appearance. Access doesn't want to tamper with any aspect of your form's appearance, in case it throws off your whole design.

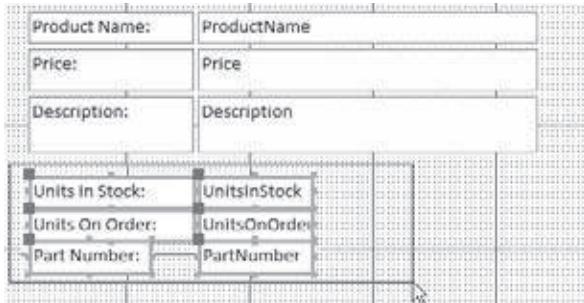
Fortunately, you can have the final say. If you've opened an old database, here's how to get the new look:

1. Choose File→Options.  
The Access Options dialog box appears.
2. In the list on the left, choose Current Database.  
Access displays settings that pertain to the currently open database file.
3. In the Application Options section, find the setting "Use Windows-themed Controls on Forms". If you want the Windows XP styles, then turn on the checkbox here. If you don't, then remove the checkmark.
4. Click OK.

**Arranging Controls on Your Form**

By now, you're probably comfortable working with controls in Design view. Here's a quick refresher if your memory needs a little jumpstart:

- **Create a control.** Use the ribbon to pick the control you want, and then draw it in the right place.
- **Move a control.** Just click and drag it. You can also move several controls at once, as explained in Figure 13-4.
- **Resize a control.** Drag the edges of the rectangle that surrounds it. If you have a linked label-and-text-box combination (which Access creates when you add a field), then be careful to click the right part. Figure 11-9 (page 342) shows where to click to move just the caption, just the field value box, or both.
- **Modify a control.** Select it, and then, in the Property Sheet, find the setting you want to change.
- **Delete a control.** Select it, and then press Delete to wipe it out forever.



**Figure 13-4:**

*To move multiple controls at once, start by clicking somewhere on the form surface. Drag a selection box around all the controls you want to move, as shown here. Then, once all the controls are highlighted, drag any one of them. All the controls move as a unit. (You could also hold down Shift, and click each control one by one.)*

If your controls aren't contained in a layout, it can be difficult to get them neatly arranged. To help, Access supplies some shortcuts that can line up rogue controls and iron out minor variances. The following sections provide a few useful tips for using these features.

#### POWER USERS' CLINIC

### Breaking Free from the Grid

When you place or move a control in Design view, Access always lines it up with the nearest part of the grid. (The grid lines are represented by all those dots that appear underneath your controls in Design view.) Access does this lining up because it makes it easier to create a consistent form. If controls were completely free-floating, it would be difficult to line up two controls next to each other. Even if you don't have shaky hands, it's hard to control the mouse that precisely!

However, in some situations, you may want to nudge a control just between the grid dots. Usually, it's because your form includes pictures, and you're trying to create a snazzy effect.

In such cases, Access lets you free yourself from the grid. Just choose Form Design Tools | Arrange→Sizing & Ordering→Size/Space→Snap to Grid. Ordinarily, this

button is highlighted to indicate that controls are always lined up with the grid. To turn it off, click it. You can turn it back on when you're finished by clicking it again.

Incidentally, if you find that the grid dots are distracting, you can hide them by choosing Form Design Tools | Arrange→Sizing & Ordering→Size/Space→Grid. And if you decide that you do want your controls to line back up with the grid, then just select them all, right-click the selection, and then choose Align→To Grid. Access bumps each control over to the nearest grid line. Use Size→To Grid to make sure their heights and widths also fit the grid.

### Aligning controls

If you have a group of controls that needs to be neatened up, select them all (by drawing a selection box, as shown in Figure 13-4), right-click the selection, and then

choose an option in the Align submenu. Use the ever-popular “left” option to line all the controls up along their left edges. You can also line up controls on the right (see Figure 13-5), or bottom edges.



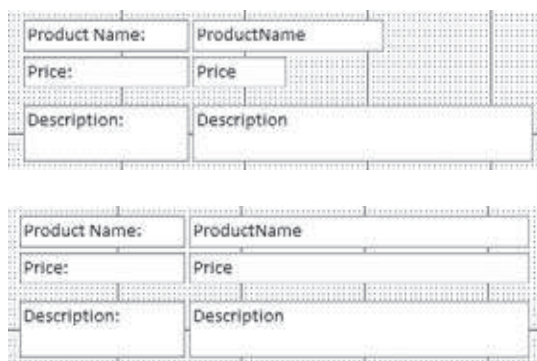
**Figure 13-5:**  
*Top: These controls look messy.*

*Bottom: Even though the controls aren't in a layout, you can line them up properly using the Align options. Here, someone used the Align → Right command to pull them together against the right edge.*

**Note:** Many of the commands you'll learn about in the following sections for alignment, sizing, positioning, and anchoring, exist in two places. You can get them from the Form Design Tools | Arrange tab of the ribbon or by right-clicking a selection of one or more controls and looking in the pop-up menu. The menu approach is often faster, but the ribbon approach is sometimes more convenient for setting complex formatting.

### Sizing controls

If you have controls of different sizes, then you can tell Access to make them all the same size. Select them all, right-click the selection, and then choose an option from the Size menu. Use To Widest to make all the controls as wide as the widest one of the bunch (see Figure 13-6). Alternatively, you can shrink controls by choosing To Narrowest, or change their heights with To Tallest and To Shortest.



**Figure 13-6:**  
*The To Widest command makes all these text boxes (top) the same width (bottom), which creates a cleaner and more visually pleasing form.*

### ***Spacing controls***

If you have controls that are scattered unevenly over the form, you can reposition them so that a consistent amount of space appears between them. To do so, select all the controls, and then head to the ribbon's Form Design Tools | Arrange→Sizing & Ordering→Size/Space menu. Under the Spacing heading, you'll find several commands to adjust the spacing between controls:

- **Equal Horizontal** spaces out controls so they're an even distance apart (from side to side).
- **Equal Vertical** spaces out controls so they're an even distance apart (from top to bottom).
- **Increase Horizontal** and **Increase Vertical** add a bit more space between all the controls you've selected.
- **Decrease Horizontal** and **Decrease Vertical** remove a bit of space between all the controls you've selected.

### ***Controls that overlap***

If you have overlapping controls, you may want to decide which one is placed on top and which one on the bottom. To do so, select one of the controls, right-click it, and choose Position→Bring to Front (to move the control to the top) or Position→Send to Back (to banish it to the background).

It goes without saying that most forms don't have overlapping controls. The exception is if you're aiming for a unique graphical effect, or if you're trying to use a rectangle to frame a bunch of controls (in which case the rectangle needs to sit behind the other controls).

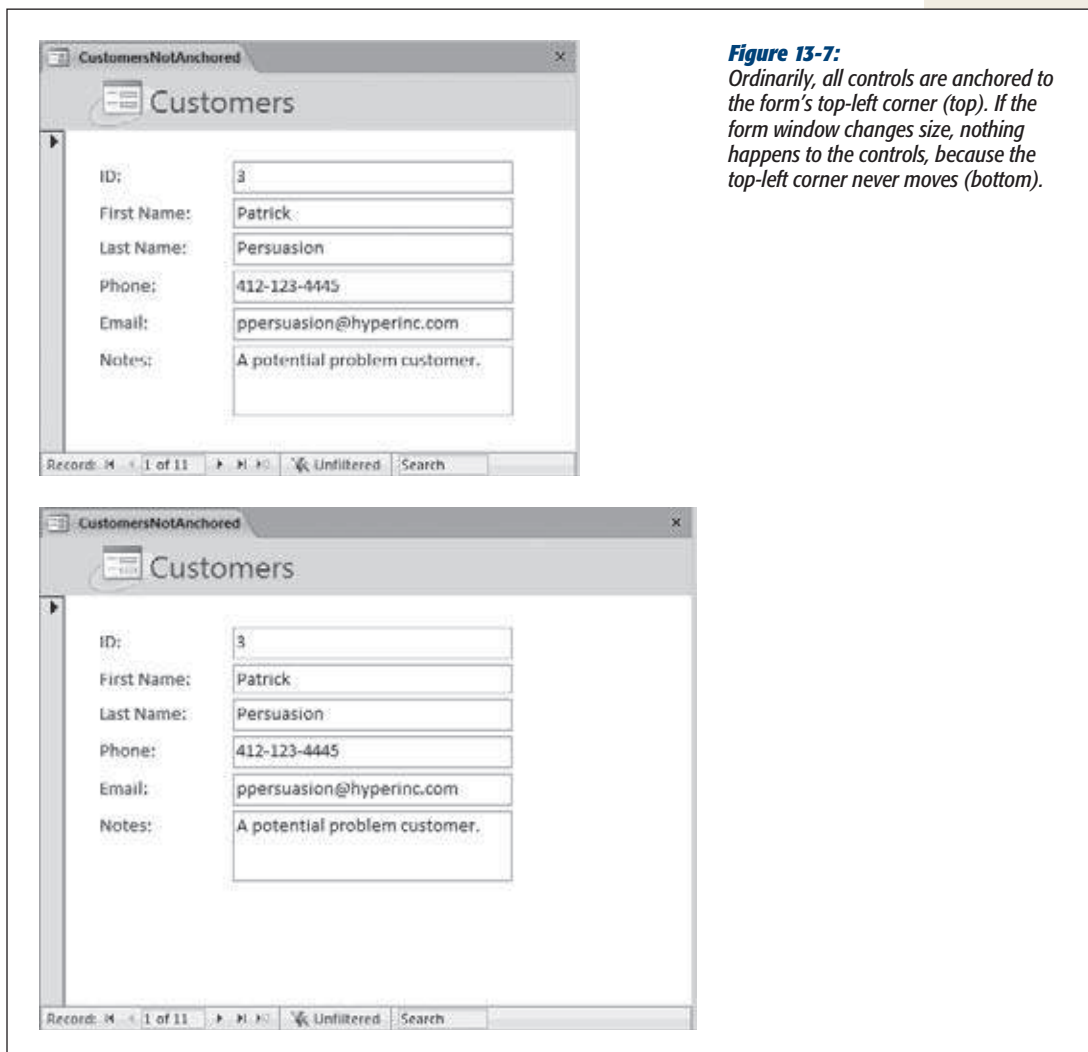
### **Anchoring: Automatically Resizing Controls**

Ordinarily, your controls have a fixed, unchanging size. This characteristic lets you precisely arrange a large number of controls next to each other. However, fixed-size controls also have a downside. If you resize the Access window to make it very large, then the controls can't use the extra space. Conversely, if you make the Access window very small, then you're sure to cut off part of your form. In other words, fixed-size controls make for easy design, but they're inflexible.

Most people don't worry too much about these limitations. They design their forms to fit comfortably on an average-sized screen. However, if you have one or more fields that display a large amount of data—like a memo field (page 61) that's chock-full of text—you might want to get a bit more ambitious.

Access includes a feature called *anchoring*, that lets you create controls that can grow to fill extra space when the Access window is resized. Anchoring is a little tricky to get right, but if you have huge text fields, it's worth the trouble.

Essentially, anchoring lets you attach a control to the sides of the form. As a result, when the form changes size, the control is dragged to a new position or resized. Figure 13-7 shows an ordinary form that uses standard anchoring settings. Nothing happens when this form is resized.



If you anchor a control to a form's right side, it's a different story. As the form is resized wider, the control hugs the right side, moving to a new position. Similarly, if you attach a control to the bottom of the window and make it taller, then the control keeps close to the bottom, no matter how small or large the window becomes. The really exciting bit is what happens when you anchor a control to opposite sides. In

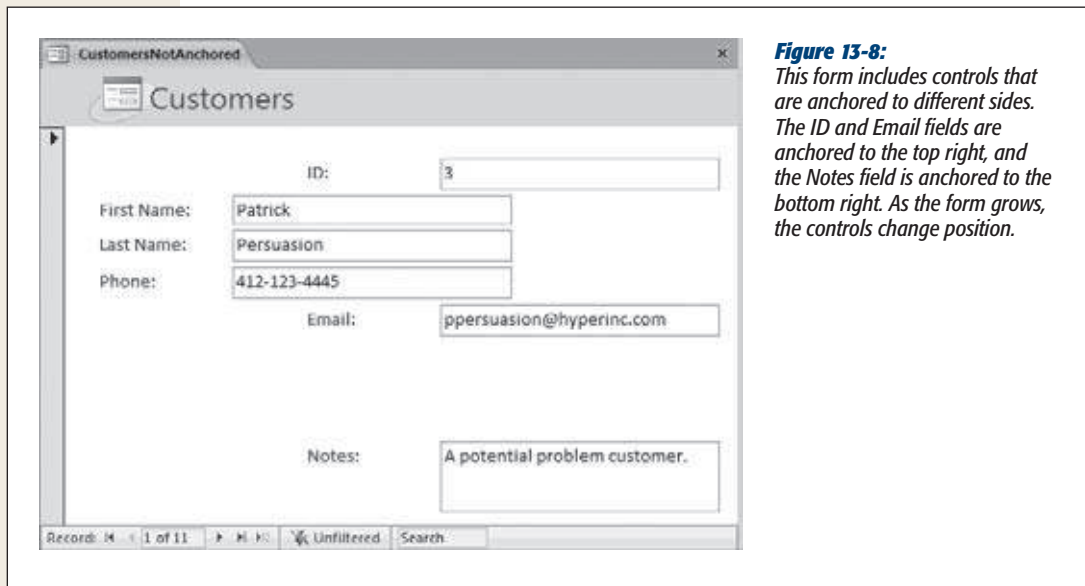


this case, its position doesn't change, but its *size* does. If you anchor a control to a form's left and right sides, then the control widens as the form widens. Figure 13-8 shows how life changes when you anchor your control to different sides.

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**Note:** The amount of space between the control and the anchored side always remains the same.

---



**Figure 13-8:**  
*This form includes controls that are anchored to different sides. The ID and Email fields are anchored to the top right, and the Notes field is anchored to the bottom right. As the form grows, the controls change position.*

Theoretically, you can use anchoring to create all kinds of bizarre effects. You could anchor controls to all different sides of the form, so they move and overlap as the form changes size, scrambling the form in complete confusion. More realistically, people use anchoring to achieve two effects, which are demonstrated in the following two sections.

### ***Making controls as wide as the form***

Ordinarily, you size a text box, and its size never changes. But with anchoring, you can make controls stretch wider or narrower to match your Access window's size. And as long as you don't put any other controls in the way, you don't have a problem with overlapping controls.

Just follow these steps:

1. First, make sure your form doesn't have extra blank space. In Design view, shrink the width of the Details section so it's just wide enough to fit your controls.

If you leave extra blank space, then it's harder to see anchoring at work. Flip back to Figure 13-2 for a quick review of how to size forms properly.

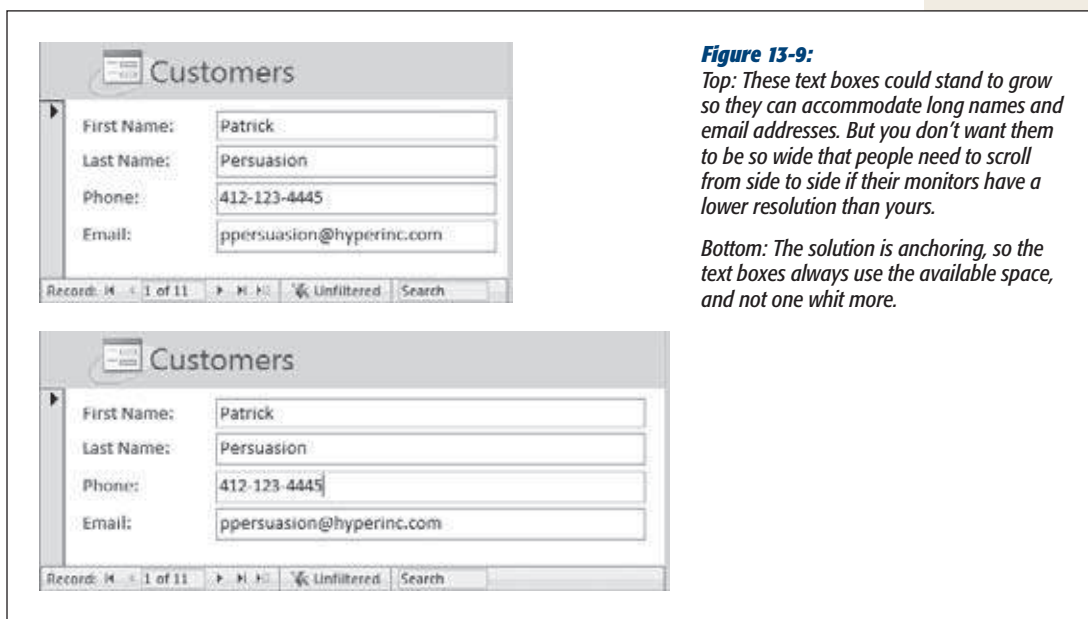


2. Choose the controls that you want to expand along with the window's size.

If you have the form shown in Figure 13-7, you may choose all the text boxes. Hold down the Shift key while you click to select them all.

Figure 13-9 shows the final result you're after.

**Note:** If your controls are in a layout, you need to remove them from the layout before you apply anchoring. Although you can apply anchoring settings to an entire layout container, they won't work the way you want them to because they'll influence the size of both the field value boxes and the field captions.



3. Choose Form Design Tools | Arrange→Position→Anchoring→Stretch Across Top. (If you prefer to adjust your anchoring settings in Layout view, then choose Form Design Tools | Arrange→Position→Anchoring→Stretch Across Top.)

This action anchors your control to three sides of the form: the top, left, and right. The top anchoring just makes sure the control stays at the same vertical position if the form window grows taller or shorter. The anchoring to the left and right sides ensures that the text box grows as the form widens, and shrinks as it narrows.

**Making a single control as large as possible**

In the previous example, you saw how to use anchoring to make a control grow horizontally. You can also use anchoring to make a control grow vertically, but there's a

catch. In most forms, you have several controls placed one on top of the other. If you're not careful, when a control gets taller, it starts blotting out the control underneath it.

The solution is to make sure that only one control on the form can grow vertically. This control (probably a large field that's stuffed with text) then expands to consume all the extra space. All the controls above this control must be anchored to the top of the form. All the controls underneath it must be docked to the bottom so they stay out of the way.

Here's how to put this model into practice:

1. **In Design view, shrink the width of the Details section so it's just wide enough to fit your controls.**

As with all types of anchoring, extra space is your enemy.

2. **Select the control that you want to grow vertically to get the extra space.**

Consider the form in Figure 13-10, which shows customers. In this case, it's the Notes field that has the most text and would benefit most from the extra space. Even if you anchor the Notes field to both sides, you'll still get only a bit of extra space. Better to use whatever blank space you can get at the bottom of the form.

3. **Choose Form Design Tools | Arrange→Position→Anchoring→Stretch Down and Across.**

This action anchors your control to all four sides of the form: the top, bottom, left, and right. As a result, the control grows when the form is widened or heightened. If you want the control to grow vertically but not horizontally, you choose Anchoring→Stretch Down instead.

4. **Select the first control under the control that grows vertically. Choose Form Design Tools | Arrange→Position→Anchoring→Bottom Left.**

This action anchors the control to the left and bottom sides. That way, as the form is heightened, the control drops down to make space for the one above.

You could also use the Stretch Across Bottom option. In this case, the control is still anchored to the bottom, but it grows horizontally to fit the width of the form.

---

**Note:** In the previous example, you didn't need to anchor the labels in front of every field, because they stayed fixed in place. However, in this example, you do need to use Bottom Left anchoring for all the labels that appear underneath the control that stretches vertically. (Otherwise, this label doesn't line up with its value box.) You never use one of the stretch anchoring options with a label, because you don't want your label to change size.

---

5. **Repeat step 4 for each control underneath.**

If you forget a control, you see a telltale sign. When you resize the form window smaller, some controls overlap because the different anchoring settings don't agree.

Assuming you anchor everything correctly, you get the result that's shown in Figure 13-10.

**Figure 13-10:**  
Now, when the form gets taller, the Notes field  
gets the extra room.

## Tab Order: Making Keyboard Navigation Easier

When you're using a form to edit a record, you need to skip from one field to another. You can jump anywhere you want by using your mouse, but hard-core keyboard jockeys don't waste time raising their fingers from the keys. Here's where the Tab key comes into the picture.

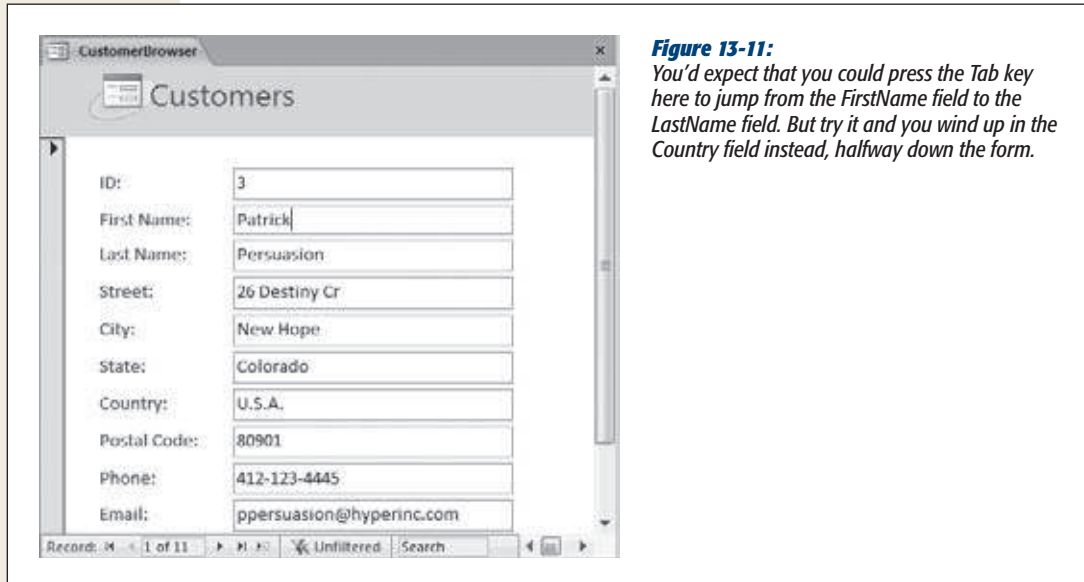
You probably already know that the Tab key lets you move from one control to another in any Windows application. The Tab key also works in the datasheet, letting you skip from one column to the next. So it should come as no surprise that the Tab key also works in your forms.

The first time you press Tab in a form, you may be in for an embarrassing surprise. If you've spent a fair bit of time fiddling with your controls and rearranging them, then the Tab key doesn't necessarily take you to the control you expect. Figure 13-11 illustrates the problem.

---

**Note:** The Tab key always works correctly if you're using a tabular or stacked layout, because Access keeps it up to date as you move the controls around. It's only when you've taken your controls *out of* a layout that you'll see the problem described here.

---



**Figure 13-11:**

*You'd expect that you could press the Tab key here to jump from the FirstName field to the LastName field. But try it and you wind up in the Country field instead, halfway down the form.*

Getting a form straightened out so that the Tab key moves from one control to the next in an orderly fashion is called setting the *tab order*. Essentially, every control that supports tabbing has three important properties (which you can find in the Other tab in the Property Sheet). These properties are:

- **Tab Stop** determines whether a control supports tabbing. If set to Yes, you can tab to this control. If you change this setting to No, then it doesn't matter how much tabbing you do—you'll never get here. When you first add a control, this property is always set to Yes.
- **Auto Tab** has an effect only if the control is using an input mask (see page 128). If you set Auto Tab to Yes, then as soon as you type the last character into the mask, you're automatically tabbed to the next control. This feature is handy for really fast data entry, but it can be annoying if you make a mistake, because you're tabbed out of the control before you can fix it.
- **Tab Index** controls the tab order—in other words, where you go each time you press Tab. When you first open a form, you start at the control that has a tab index of 0. When you press Tab, you then move to the control with the next highest tab index (like 1). This process continues until you reach the control with the highest tab index. Press Tab again, and you'll start back at the beginning.

---

**Note:** The only controls that have these properties are controls that can accept *focus*—in other words, controls you can click and interact with. Obviously, text boxes, checkboxes, and buttons support tabbing. However, labels and pictures don't, because there's no way to interact with these items.

---

Every time you add a new control, Access gives it a new, higher tab index. Even if you drop a new control at the top of the form, Access puts it at the end of the tab order. To fix this problem, you could select each control in Design view, and then change the Tab Index setting by hand. However, a much less time-consuming alternative lets you set the tab order for the entire form in one go. Here's how it works:

1. **Right-click a blank spot on the form design surface, and then choose Tab Order.**

The Tab Order dialog box appears. It lists all the controls on your form that support tabbing, from lowest to highest Tab Index.

2. **In the Selection list, choose the section of your form you want to work with. It's almost always the Details section.**

The Tab Order dialog box lets you set the tab order separately for each section of your form. If your form includes a header and footer, you can choose to work with the header, footer, or Details section. However, it's very rare to find a form that has controls to support tabbing outside the Details section.

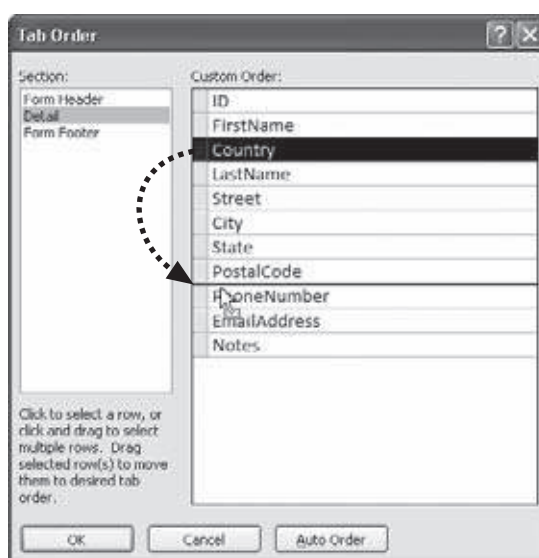
3. **If you want to let Access take a crack at setting the correct tab order, then click Auto Order.**

When you click Auto Order, Access sets the tab order based on the controls' position. The order goes from left to right, and then from top to bottom. Most of the time, the Auto Order feature gets you the correct tab order (or at least gets you closer to it).

4. **To move a single control to a new position in the tab order, drag it.**

This step is a bit tricky. Figure 13-12 shows how it works.

5. **Click OK when you've got the tab order perfected.**



**Figure 13-12:**

*To reposition a control in the tab order, begin by clicking the gray margin that's just to the left of the control. The entire row is selected. Next, drag the control to a new position on the list. In this example, the Country field is being moved down the tab order.*

---

**Tip:** The tab order goes both ways. You can move one step forward in the tab order by pressing Tab, and you can move one step backward by pressing Shift+Tab.

---

## Taking Control of Controls

So far, you've seen how to create a form from scratch and how to add all the controls you want. However, you haven't used this newfound power to do anything special. Sure, you've picked up the ability to add extra labels, lines, and rectangles. But that kind of eye candy pales in comparison to the truly helpful features Access lets you add to your forms. Want to prevent people from entering buggy data? Check. Want to add web-style hyperlinks? No problem. The list of what you can do to soup up your forms' abilities is almost endless. The following sections show you the most popular ways to take charge of the controls on a form.

### Locking Down Fields

In a database, almost every piece of information is subject to change. However, that doesn't mean people should have free range over every field.

Suppose Boutique Fudge creates a form named CurrentOrders that lets people in the warehouse review outstanding customer orders, sorted by date. The warehouse personnel need to review each order, pack it up, and then ship it out. The only change they need to make is to update the order status (to indicate when it's been sent out), or to add a record to the shipment log. Other details, like the order date, the order contents, and the customer who's receiving the order, should be off limits. The warehouse people have no reason to change any of this information.

Forms are powerful tools in scenarios like this, because they let you prevent changes in certain fields. That way, there's no chance that a misplaced keystroke can wipe out a legitimate piece of information.

Every bound control (a control that displays a field from your table) provides the following two properties that you can use to control editing. You can change these properties using the Property Sheet in Design view (page 350).

- **Locked** determines whether you can make changes in a field. If Locked is set to Yes, then you can't edit the field value. However, you can still select the text in a text box, and then copy it.
- **Enabled** lets you deactivate a control altogether. If Enabled is set to No, the control appears with dimmed (gray) text. Although you can still see the field value in a disabled control, you can't interact with it in any way. If it's a text box, you can't even select and copy the text it contains.

---

**Note:** If you want to prevent edits altogether, consider using the Allow Edits, Allow Deletions, and Allow Additions form properties instead, which are described on page 396.

---

## Prevent Errors with Validation

In Chapter 4, you learned how to prevent errors from creeping into your tables by using validation rules, default values, and input masks. This bulletproofing is an essential part of database design.

However, validation rules don't help in some situations because the rules apply sometimes, but not always. You don't want the salespeople at Boutique Fudge to enter a new order with an old date. Clearly, that's a mistake—a new order should receive today's date. To try and stamp out the problem, a clever database designer like yourself may use the following validation rule on the OrderDate field:

```
<=Date()
```

However, a few weeks later you discover that the catering department neglected to enter the information about *their* orders on time. For recordkeeping purposes, these orders need to indicate when the order was originally placed. So you need to remove your well-intentioned validation rule before you can enter these records.

It turns out situations like these abound in real life. Fortunately, there's a way to handle this scenario without giving up on validation. The trick is to place the validation in the controls on the form. That way, different forms can use different validation rules. If you want to make completely unrestricted changes, then you can edit the data directly using the datasheet for the table.

If you plan to move the validation out of your tables and into your forms, then you'll be interested in the following control properties, which you can tweak in the Property Sheet:

- **Validation Rule** sets an expression that the value must meet to be considered valid. For example, the expression `<=Date()` compares the current field value to the date returned by the `Date()` function (which is today's date). The entry is allowed only if it's today's date or before. You can find many more examples of validation expressions on page 136.
- **Validation Text** sets the error message that appears if you attempt to enter a value that violates the validation rule. This custom text replaces Access's generic error message—"The value you entered does not meet the validation rule defined for the field or control"—which doesn't make much sense to real people.
- **Input Mask** sets a pattern that both guides and restricts people's input. Input masks are a good way to deal with fixed-length text values like phone numbers, postal codes, and social security numbers. Page 128 has more about how input masks work and how to create them.
- **Default Value** sets the value that appears in a field when you create a new record. (You're free, of course, to change the default value if it's not what you want.) You'll find it particularly useful to set default values at the form level, because defaults often apply to a specific task rather than to the entire table.

**Note:** You can set a default value for the same field at the table level *and* the form level. If you do, the form's default value takes over.

## Performing Calculations with Expressions

An expression is a formula that manipulates some information, like numbers, dates, or text, and displays the final result (see Figure 13-13). Often, expressions perform calculations with field values. You've used expressions before to crunch the numbers in queries (Chapter 7) and reports (Chapter 10), and now you'll put them to work in your forms.

To create an expression, follow these steps:

1. Add a text box control to your form (from the ribbon's Form Design Tools | Design→Controls section).

You need to use the text box, because it can show dynamic values like expressions. A label can show only a fixed piece of text, so it's no help.

2. In the Property Sheet, choose the Data tab. Place your expression in the Control Source setting.

Remember, expressions start with the equal sign. The expression `=Price*1.15` calculates the price with tax for a product by multiplying the value in the Price field by 1.15.

**Figure 13-13:**

*In this form, the expression `= "You have " & [DueDate]-Date() & " days to finish"` calculates the number of days between the current date and the project due date, and places that number in a complete sentence. You'll see this information appear as soon as you type in a due date and move to another field. (You can get around this requirement, and force the fields to update themselves as you type, by using a tiny bit of VBA code that triggers a recalculation. Page 590 shows an example.)*

3. Optionally, set Enabled to No to hammer home the point that this value can't be edited.

When you create a control that uses an expression, Access doesn't let you edit the calculated value. It's just as if you set the Locked property to Yes. However,



some people may still *try* to change this value. If you think this scenario is a problem, set Enabled to No so that the control appears dimmed and nobody can tab to it. This setting also means that you can't copy the value in the text box.

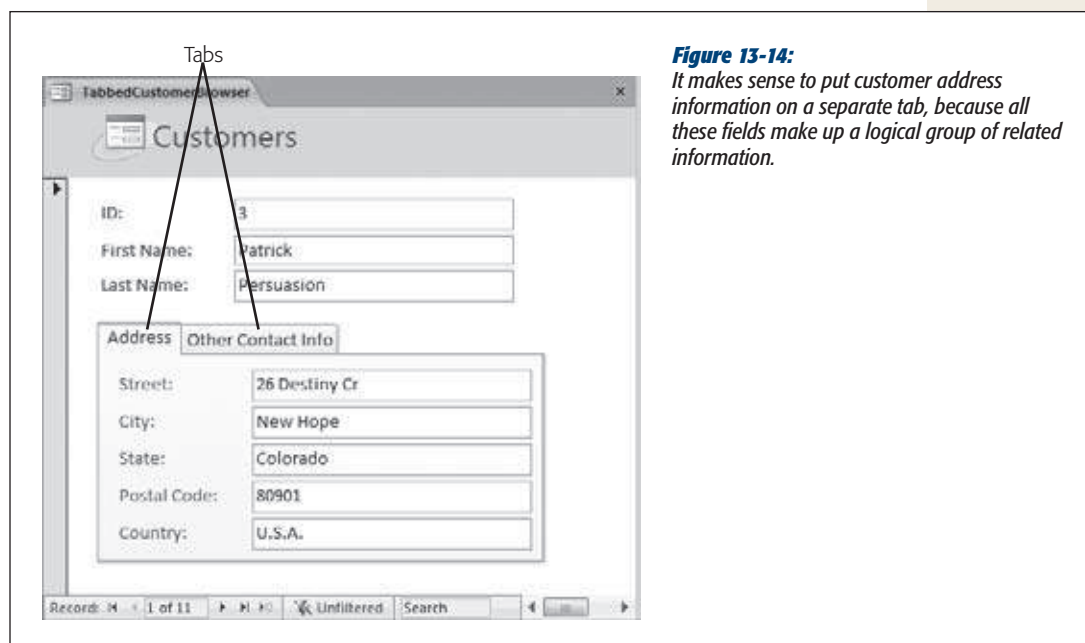
#### 4. Optionally, apply formatting.

You can adjust fonts and colors using the ribbon's Form Design Tools | Format→Font section. You can configure the way Access shows numeric values using the Form Design Tools | Format→Number section.

**Note:** To remove the border around a text box (so it looks more like a label), select it in Design view, choose Form Design Tools | Format→Control Formatting→Shape Outline, and then pick the first item in the list (which is blank, signifying "no line").

## Organizing with Tab Controls

One of the control world's unsung heroes is the *tab control*, which lets you present large amounts of content in a limited space. The tab control's trick is the way it lets you organize this content into separate *pages*. You can see only one page at a time, and you choose which one by clicking the corresponding tab (see Figure 13-14).



The tab control isn't all good news. Its main drawback is that you need to use extra clicks to get from one tab to another. For that reason, the tab control isn't a great choice in forms that you've set up to create new records. In those instances it's better

to streamline the new-record creation process and have all the controls on one page, so you can move through them quickly. A tab control makes most sense in forms that are primarily designed for editing or reviewing data. If this data can be subdivided into logical groups, and if editing tasks often involve just one group, then the tab control is a good choice.

To use a tab control, follow these steps:

1. In the ribbon's Form Design Tools | Design→Controls section, click the Tab Control.

2. Draw the tab control onto your form in the place you want it.

You'll want to make it fairly large, so it can accommodate the content you'll place inside.

3. Add all the tab pages you need.

Every new tab control starts with two pages. You can move from page to page by clicking the correct tab.

To create a new page, right-click any tab and choose Insert Page. To remove an existing page, right-click it and choose Delete Page.

4. Give the tabs good names.

The tabs that Access creates start out with pointless names like Page19 and Page20. To change the name, select the page, and then change the Caption setting in the Property Sheet. The page that displays customer address fields could have the caption "Address Information".

To rearrange your pages, right-click the tab control, and then choose Page Order. Access opens a Page Order dialog box with a list of tabs. To change the order of a tab, select it, and then click Move Up or Move Down.

---

**Note:** If you create more pages than can comfortably fit in your tab control, Access adds a strange scroll bar in the top-right corner that lets you scroll through the tabs. To avoid this oddity, resize your tab control so that it's wide enough to fit every tab, or avoid using long tab names.

---

5. Place controls on the different pages.

You can drag controls from the rest of your form onto a page, or you can add new controls from the ribbon. Either way, remember to select the tab you want first, and then add the controls you need. Even in Design view, you can see only one page of a tab control at a time.

---

**Tip:** If your controls are in a layout, you can't drag them into a tab. Instead, select them, right-click your selection, and then choose Cut. Next, right-click inside the tab page where you want to place them, and then choose Paste.

---

## Going Places with Links

Links are the less powerful cousin of buttons. Whereas command buttons (page 431) can perform almost any action, links are limited to exactly two tasks:

- Launching your default browser and navigating to a specific site.
- Opening a file (like a Word document) in the program that owns it.

To create a link, follow these steps:

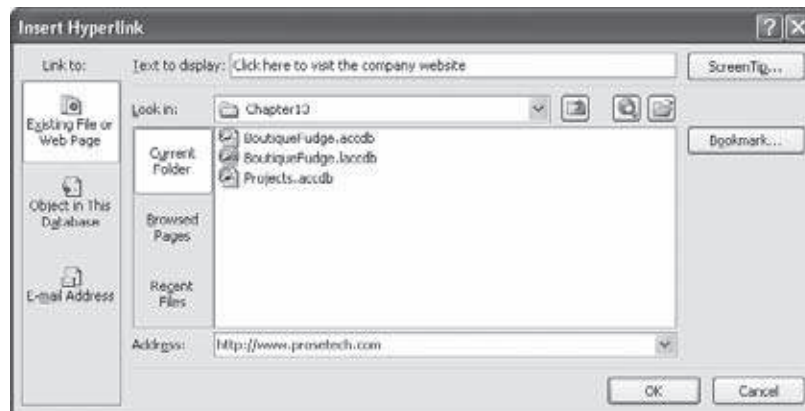
1. In the ribbon's **Form Design Tools | Design→Controls** section, click the **Hyperlink**.

The Insert Hyperlink dialog box appears (see Figure 13-15). Using this window, you can supply the text for the link and the destination where the link transports people when clicked.

2. Click the **Existing File or Web Page** option on the dialog box's left side.

You can also use the “Object in This Database” option to create a link that opens another database object, like a form. However, command buttons are better suited to this task.

Alternatively, you can choose E-mail Address to create a link to an email address. When you click this link, your default email program launches and creates a new message with the starter text you supply.



**Figure 13-15:** Someone is about to create a new hyperlink. It will appear with the text “Click here to visit the company website” (which, of course, you can edit to say anything you want).

3. In the “Text to display” text box, enter whatever you would like the link to say. Common choices for the text include the actual web address (like *www.mycompany.com*) or a descriptive message (like “Click here to go to my company’s website”).

4. If you want to set a custom tooltip for this hyperlink, then click the ScreenTip button. Type in your message, and then click OK.

As you no doubt already know, a tooltip is a little yellow message-bearing window that opens above a hyperlink when your mouse pointer hovers over the link. If you don't specify a custom tooltip, then Access shows the full path or URL (web address) instead.

5. If you want to add a link to a document, browse to the appropriate file, and then select it. If you want to add a link to a web page, then type the URL into the Address text box.

If you're adding a link to a document, then Access sets the address to the full file path, as in *C:\Documents\Resume.doc*. You can type this path in, and if your network supports it, you can use UNC (Universal Naming Convention) paths that point to a file on another computer using the name of the computer, as in *\\SalesComputer\Documents\CompanyPolicy.doc*.

---

**Note:** You're free to link to files on your computer or those that are stored on network drives. Just remember that when you click the link, Access looks in the exact location you've specified. If you move the target file to a new location, or you open the database on another computer, Access can't find the linked file.

---

6. Click OK to insert the hyperlink.

The new hyperlink appears on your form. You can then drag it wherever you want.

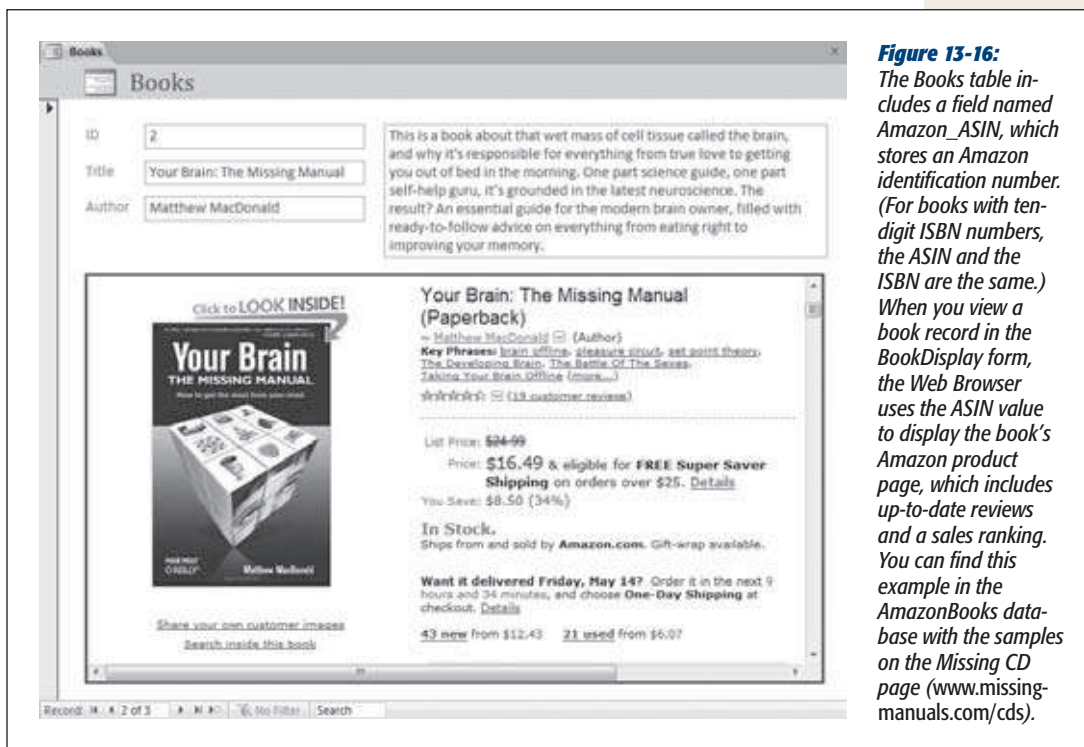
To use a hyperlink, just click it. You'll notice that the mouse pointer changes to a pointing hand as soon as you move over the hyperlink.

## Showing Web Pages with the Web Browser

Access includes a Web Browser control that lets you embed a web browser window in a form. This way, you can display web pages that are in some way related to your record data.

There are two scenarios where the Web Browser control makes sense:

- You have a record that includes a web link (otherwise known as a URL). For example, a Businesses table might include a field named *CompanyWebSite*. When you view a business record in a form, you can use the Web Browser control to show that website.
- You have a record that includes some data that can be incorporated into a web link. For example, you might have a product code that can be fused into a URL to send a browser to a product catalog page on your company's website. Figure 13-16 shows an example.



Here's how to use the Web Browser control to build an example like the one shown in Figure 13-16:

1. In the ribbon's Form Design Tools | Design→Controls section, click the Web Browser Control and drag it onto your form.

Assuming you have Control Wizards switched on (page 404), the Insert Hyperlink dialog box appears. Using this somewhat awkward window, build the URL you want to use with the Web Browser. You have to assemble the web address out of several distinct pieces, each of which is classified differently. But if you understand the basics of expressions, it's far easier to press Esc (or click Cancel) and configure the Web Browser on your own, as described in the next step.

2. Using the Property Sheet, choose the Data tab and set the Control Source property with an expression that builds the web address.

A URL is nothing more than a long piece of text. As you've already learned, any expression can join pieces of text together using an & symbol (which is known as the concatenation operator). With this in mind, it's easy to build an expression that creates the URL you need.

Consider the example shown in Figure 13-16. Amazon URLs can be written in several different forms, but one of the most common is this:

```
http://amazon.com/o/ASIN/ASIN-VALUE-HERE
```

So, if a book has an ASIN of 1449382371, you can reach its Amazon product page by typing this URL into a browser:

```
http://amazon.com/o/ASIN/1449382371
```

Now, assuming the ASIN is stored in a field named Amazon\_ASIN, you can build the right URL for any record by using this straightforward expression:

```
= "http://amazon.com/o/ASIN/" & [Amazon_ASIN]
```

And that's what you need to type into the Control Source property.

### 3. Switch to Form view and try it out.

As you move from one record to the next, the matching Amazon page loads up in the web browser window.

---

**Note:** When you set the Web Browser URL, you set its starting point. The person using the form can click hyperlinks to navigate somewhere else. However, the Web Browser control doesn't include an address bar, so the person can't type a URL to just anywhere.

---

## Navigating with Lists

There are two list controls in Access forms: the *list box* and the *combo box*. The difference is that the list box shows several items at once (depending on how large you make it). The combo box shows just one item—to see the list, you need to click the drop-down arrow.

Access gives you two ways to use list controls:

- **You can use them to edit a field.** Access automatically creates a combo box control when there's a lookup defined for the field. This combo box works the same as a lookup list in the datasheet.
- **You can use them to navigate to the record you want.** In this case, the list shows the field value for every record in the table. When you choose one of the values, Access jumps to the corresponding record.

Using lists for navigation is a true Access power trick. If you often look for a record using the same criteria (like if you hunt down products by name or employees by Social Security number), this technique is much faster than using the navigation buttons or filtering the records.

Here's how to add a navigation list for an existing form:

#### 1. Make sure the Control Wizard feature is turned on.

If you're not sure, check that the Form Design Tools | Design→Controls→Use Control Wizards button is highlighted.

2. In the ribbon's Form Design Tools | Design→Controls section, click List Box or Combo Box.

Both these controls work exactly the same when you're using them for navigation. The only difference is that the List Box takes more space. If you decide to use it, then place it at the side of the form. People usually choose the Combo Box (Figure 13-17).

3. Draw the control on the form.

As soon as you finish, a wizard appears to help you set up the list (Figure 13-18). This process works in a similar way to the Lookup wizard you used to set up table relationships (page 167).

4. Choose "Find a record on my form", and then click Next.

If you don't see the "Find a record on my form" option, there are two possible problems:

Most likely, the data source of your form isn't a table or query object. This situation occurs if you start with a blank form and then build it up with fields from the Field List pane. Access writes a query statement on the fly and uses that query as the form's data source. Ordinarily, this sleight of hand isn't a problem, except it confuses the List Box and Combo Box wizards. The fix is to change the form's data source so it points directly to the table that has the data: Open the Property Sheet, choose Form in the list at the top, click the Data tab, and then set the Record Source underneath to the correct table (or, optionally, to a query object in your database).

The other, less likely, snafu is that you have a new, completely blank form. This form isn't set up to display any records, so you can't use a list to hunt one down.

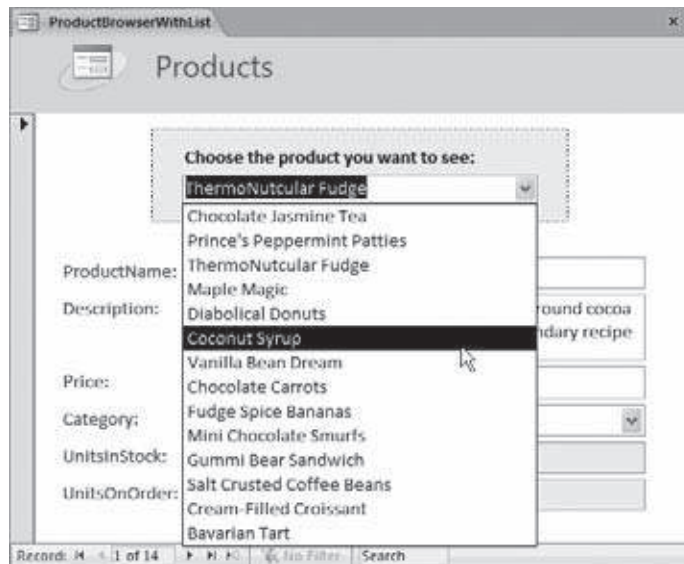
5. Choose the field you want to use for the lookup, and then click Next.

The example in Figure 13-17 uses the ProductName field. Technically, the list always works the same way—it finds items based on their unique primary key value (page 81). The list you're creating actually has two columns. The first column stores the primary key, and the second column shows the value that's in the field you selected. However, on your form, you don't see the primary key, because it's hidden.

---

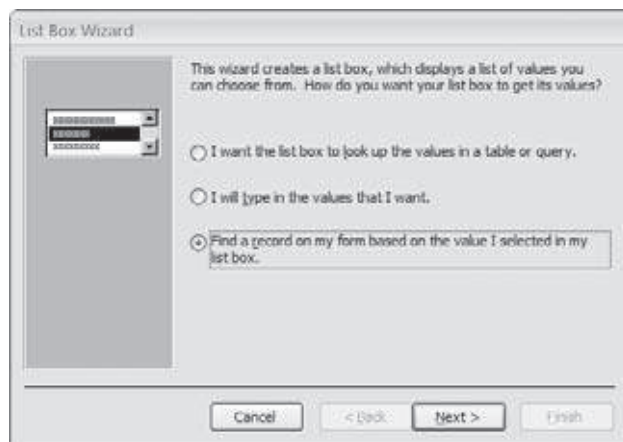
**Note:** This technique doesn't work as well if the field you pick allows duplicates. If you create a list that uses the LastName field, you may spot more than one MacDonald. In this case, consider adding more than one field to your lookup list (like both the LastName and FirstName).

---



**Figure 13-17:**

In this form, a Combo Box lets you jump to the product you want with one click. Notice that this list doesn't take the place of the ProductName text box control. You use the list to find the record you want, and the text box to change the product name. Of course, if you never need to change product names in this form, you don't need to include the ProductName text box.



**Figure 13-18:**

When you create a list, the List Box wizard lets you choose to use it for editing or navigation.

6. Leave the “Hide key column” checkbox turned on, and click Next to continue.  
If you don't plan to show the primary key column—and usually you won't—just click Next to breeze past this window.



#### 7. Enter a text caption for your list.

This caption appears in a label next to the list control. You may want to use something like “Click the product you want to see”. You can move or delete the label after the fact.

#### 8. Click Finish to create the list.

Now you can try out your list. Right-click the tab title, and choose Form View to switch back to the form. Then, choose an entry from the list to jump straight to the appropriate record.

---

**Note:** List-based navigation has one quirk. If you change the value that appears in the list, then Access doesn't update the list until you move to another record. In the previous example, this property means that if you rename a product, then the old name appears in the list until you move on.

---

## Performing Actions with Command Buttons

The last control you'll consider is one of the most powerful. Command buttons let you trigger just about any action, like opening a new form, printing a report, or polishing off last year's taxes. (All right, some tasks are more difficult than others, but if you're willing to hunker down with some Visual Basic code, almost anything is possible.)

When you add a button to a form, Access launches the useful Command Button wizard, where you can choose the action you want from a list of readymade choices. The Command Button wizard then helps you build a macro (see Chapter 15) that does whatever you requested.

The choices in the Command Button wizard provide a good menu of possibilities. Some Access fans find that they can do almost everything they want to do by just using buttons and the wizard. Other people eventually want to do something more original, in which case they need to create their own macros or write custom code (tasks you'll tackle in ).

The following steps lead you through the Button wizard:

1. In the ribbon's Form Design Tools | Design→Controls section, click the Button.
2. Draw the button onto your form.

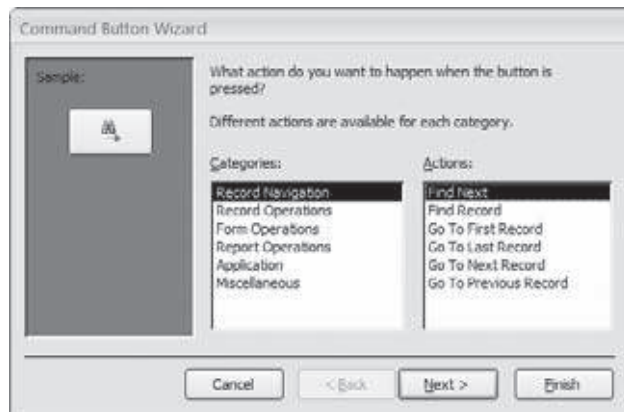
When you finish, the Control wizard starts, and gets right down to business. The first questions it asks is what action you want to perform (see Figure 13-19).

3. Choose the action you want to perform.

Most actions are self-explanatory. Here are some of the highlights:

- In the **Record Navigation** category, you can use commands like Go To First Record, Go To Last Record, Go To Next Record, and Go To Previous Record to create your own navigation buttons. If you do, then set the form's Navigation Buttons property to No to hide the standard buttons.

- **In the Record Operations category**, you can create a new blank record (Add New Record) or do something with the current one (like Delete Record, Duplicate Record, and Print Record). You can even choose to commit changes right away before you navigate to the next record (Save Record), or undo the last change (Undo Record).
- **In the Form Operations category**, you can close the current form (Close Form) or print it (Print Current Form). You can also open another form (Open Form), which is one of the most used button actions because it helps you move from task to task.
- **In the Report Operations category**, you can work with other reports using commands like Open Report, Preview Report, and Print Report. These actions help you make the jump from reviewing data (in a form) to printing it (in a report).
- **In the Application category**, you're limited to one action—the self-explanatory Quit Application.
- **In the Miscellaneous category**, you'll find options to run a separate query (Run Query) or fire off a macro (Run Macro). You'll learn how to create macros in Chapter 15.



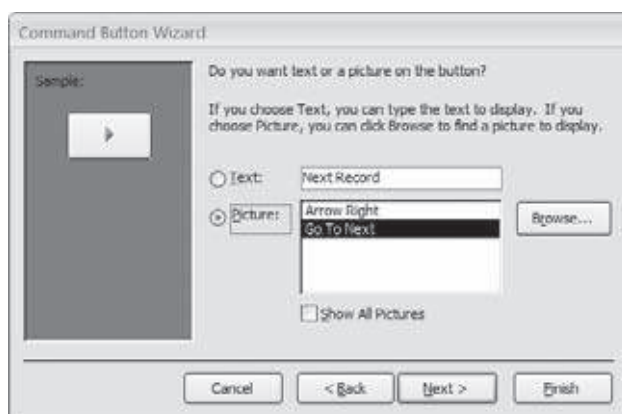
**Figure 13-19:**

*You can instruct your form to carry out six categories of actions. Once you select a category (in the list on the left), you see a list of actions in that category (in the list on the right).*

#### 4. Click Next.

The next step depends on what action you selected. Some actions require extra information. If you chose to show a form or print a report, Access prompts you to pick the form or report you want to use.

Once you've finished supplying any extra information, Access asks you to supply the button text and choose a picture (Figure 13-20).

**Figure 13-20:**

*Pictures are tempting, but the ones Access includes are decidedly old-fashioned. Most Access fans decide to create picture-less buttons. If you want to include a picture, then turn on the Show All Pictures checkbox to see everything Access has to offer (even pictures that may not make sense for your current action), or use the Browse button to add your own picture.*

**Note:** Any bitmap (.bmp file) works for your button picture, so long as it's small enough to fit. Icons, .jpeg, and .gif files are also acceptable.

**5. Enter some text and choose a picture. Then, click Next.**

You can change these details after the fact by modifying the Caption and Picture properties (which appear in the Format tab).

**6. Supply a name for the button.**

The name is what appears in the Property Sheet list. Better names make your button easier to find. And if you write code that works with your buttons (Chapter 17), better names make for code that people can more easily read and understand.

**7. Click Finish.**

To try out your button, switch to Form view, and then give it a click.

**8. Optionally, use the commands in the Form Design Tools | Format→Control Formatting section of the ribbon to give your button a slick new style.**

Buttons have a unique ability. With a few mouse clicks you can replace the drab look of a vanilla button with a fancy style that incorporates visual effects (like a bevel edge, shadow, glow, or outline). The fastest way to transform your button is to select it and pick a fancy style from the Form Design Tools | Format→Control Formatting→Quick Styles menu. Figure 13-21 shows several stylized buttons.

The quick styles change several formatting characteristics at once, but you can also refine your button with more targeted changes using the Shape Fill, Shape Outline, and Shape Effects menus, which are also found in the Form Design Tools | Format→Control Formatting section of the ribbon.



**Figure 13-21:**

*This form includes several exotic button specimens that you can create by choosing an option from the Form Design Tools | Format→Control Formatting→Quick Styles menu.*

## Forms and Linked Tables

As you learned in Chapter 5, few tables are truly independent. Most are linked to others in a web of relationships. Forms can take advantage of these relationships to show linked information. You can use a single form to view (and edit) information about customers and their orders. Or, you can look at products and product categories. This freedom just isn't possible in the Datasheet view.

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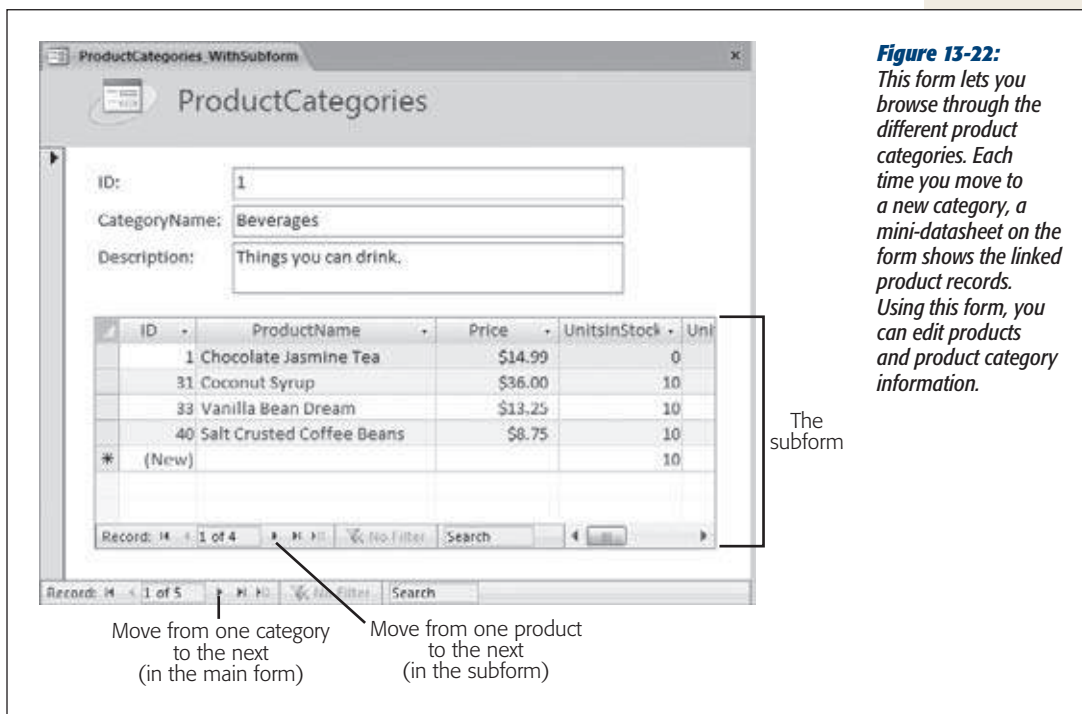
**Note:** Enterprising Access developers use *join queries* (page 208) to show information from more than one table. However, you can't edit the linked information in a join query. In a properly designed form, you don't have this limitation—you can change the information in both the parent and child records.

---

## Table Relationships and Simple Forms

Access is intelligent enough to notice relationships when you create a new form for a parent table. To see what this ability means in practice, select a table that's the parent of another table. You can use the ProductCategories table in the Boutique Fudge database, because every category is a parent record that's linked to one or more child records in the Products table. (You can also use the Customers table, because customers are linked to orders, or the Orders table, because orders are linked to order items. To try this, use the Boutique Fudge database that's included with the downloadable content for this chapter.)

Figure 13-22 shows what happens if you select the ProductCategories table and then choose Create→Forms→Form. (Don't create a split form or a multi-item form. Access ignores relationships when you create these form types.) Access creates a form that displays the records you expect (the categories) and the linked records in the child table (in this case, the products).

**Figure 13-22:**

This form lets you browse through the different product categories. Each time you move to a new category, a mini-datasheet on the form shows the linked product records. Using this form, you can edit products and product category information.

If your table is the parent of more than one child table, then Access shows only records from one table. It chooses the first relationship it finds. If this relationship isn't the one you want, don't worry—it's easy to change it once you understand how the subform control works. The next section has the inside scoop.

## The Subform Control

Access shows linked records using the subform control. You can add the subform control to any form to show linked records. It's available in the ribbon's Form Design Tools | Design→Controls section with all the other controls. If you add it by hand, then Access prompts you to pick the table you want to show.

Three properties determine what the subform control shows. First, the Source Object property identifies the object in the database that has the related records. You can choose an existing table, query, or form.

The next two properties—Link Master Fields and Link Child Fields—let you define the way the two tables are related. The master field is the field in the form, and the child field is the field in the source object. In the product category example, the master field's ID (in the ProductCategories table) and the child field's ProductID (in the

Products table). Once this link is defined, Access knows how to filter the subform. It looks at the master field and displays only records that have the same value in their child fields. In Figure 13-22, Access shows only the products in the current category.

Usually, the master field corresponds to the parent table, and the child field is in the child table. However, you can reverse this relationship. You could create a form of products that includes a subform that shows each product's matching category. When you use this approach, the subform includes only a single record (because only one parent is linked to any child).

Now that you understand how the subform control works, you can add it to your forms with wild abandon. There's no reason you can't add several subforms to show a whole collection of related data at once. If you're creating a form for the Customers table, then you could display two subforms—one for the orders made by that customer, and one for the payments. You just need two subform controls with different data sources.

---

**Tip:** When your form includes a subform, consider using the anchoring features described on page 412 so the subform grows to fit the available space when the form is resized.

---

## Creating Customized Subforms

When you set the Source Object property to a table or query, Access always displays the linked records in a mini-datasheet. If you're intent on customizing every last piece of your form, you may not want that behavior. Interestingly, Access lets you control exactly how linked records are shown, if you do a little more work.

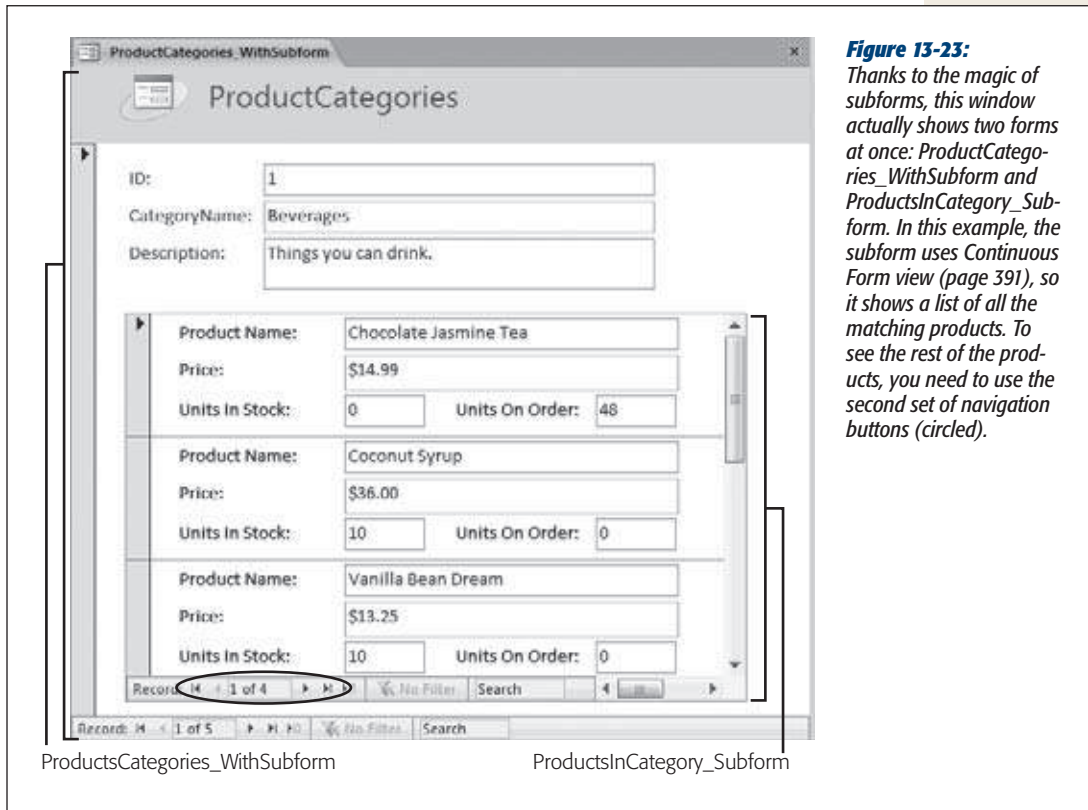
The trick is to set the Source Object to the form that you want to show in the subform control. Then, the form appears in its default view mode, which is whatever that form's Default View property is set to. You can show linked records in a tabular or stacked form. Figure 13-23 shows an example.

Depending on the effect you're trying to achieve, you may already have a suitable form lying around ready to use. If you're designing a form for the ProductCategories table, you can use the form you created for the Products table in a subform control. However, you'll often want to use a completely separate form so you can customize it. In the Products table example, you may want to show products differently in the subform than they appear in their own dedicated form. After all, there's less space available when you use the subform control, so you may choose a more compact format and leave out the report header altogether.

---

**Tip:** If you choose to create a dedicated form to use with a subform control, consider indicating that in the name. The name "ProductsInCategory Subform" suggests a form that's designed for use as a subform.

---



Sometimes, try as you might, there's no way to fit everything in the small subform area of a form. In this case, you have two options: Try to rearrange your subform to make it more compact, or use two separate forms. Page 463 in Chapter 14 shows how you can use navigation and filtering to show related records in a separate form.





# Building a Navigation System

Throughout the last 13 chapters, you've assembled all the pieces for a first-rate database. But without a good way to bring them all together, they're just that—a pile of unorganized pieces.

The best Access databases include some way for people to jump from one part of the database to another. The goal is to make the database more convenient and easier to use. Rather than forcing you to hunt through the navigation pane for the right object, these databases start with some sort of menu form and let you work your way from one task to another by clicking handy buttons. This sort of design is particularly great for people who aren't familiar with Access's kinks and quirks. If the navigation system is built right, these people don't need to know a lick about Access—they can start entering data without learning anything new.

You already know most of what you need to create a first-rate navigation system. Now you need a new perspective on databases—namely, that they can (and should) behave more like ordinary Windows programs, and less like intimidating forts of data. In this chapter, you'll learn different ways to add user-friendly navigation tools to a database. You'll learn how to show related information in separate forms, make a form appear when you first start the database, and create navigation forms (that is, forms that direct people to other forms). But first, you'll start by taking a closer look at the navigation pane to learn how you can control navigation without creating anything new.

## Mastering the Navigation Pane

Chapter 1 introduced the navigation pane, and you've used it ever since to breeze around the database. However, the navigation pane starts to get congested as your

database grows. Depending on your monitor size, once you hit about 20 database objects, they don't fit into view all at once. As a result, you need to scroll from top to bottom to find what you need, which can be a major pain in the wrist.

One way you can combat this confusion is by designing your own menu forms that let you move around the database. But before you jump to that solution, it's worth considering some of the features built right into the navigation pane. These features may solve the problem with less work.

## Configuring the Navigation List

For starters, consider using filtering to cut down the amount of information shown in the navigation pane. You might have a database with three dozen objects, only 10 of which you use regularly. In this case, there's no reason to show the objects you don't use.

Essentially, Access lets you make two decisions with the navigation pane:

- You can choose the way objects are arranged in the navigation pane. This process is known as *categorizing* your database objects.
- You can choose which objects are hidden from view. This process is known as *filtering* your database objects.

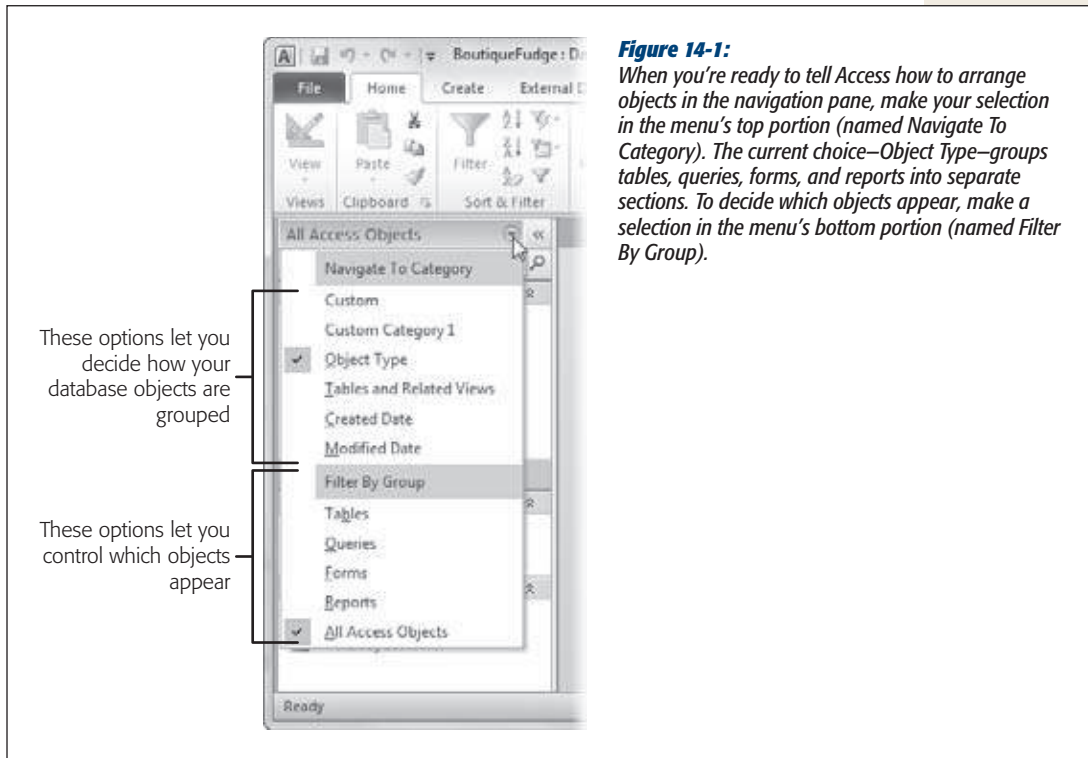
The confusing part is that you make both these choices using the same menu. To open this menu, click the drop-down arrow in the navigation pane's title region. Figure 14-1 explains how it works.

You can choose to categorize the navigation pane in five ways:

- **Object Type** groups database objects based on the type of object. This method clearly distinguishes tables from forms, reports, and other sorts of objects, imposing order on the unruliest database. This viewing mode also works particularly well if you don't remember the exact name of the object you want. For example, if you know you need to print a report that shows a list of classes, then you can head straight to the Reports group.

When you use Object Type, the filtering list lets you see just a single type of object. If you've created forms for every task you need, then select Forms to see your forms and hide everything else.

- **Tables and Related Views** groups database objects based on the table they use. If you've created two forms, three queries, and a report for a Students table, you'll see all these objects together in one group (under the heading "Students"). The challenge with this option is that you can have a hard time telling the difference between the different types of database objects, particularly if you use similar names. You need to look carefully at the icon to determine whether a given item is a form, a report, or something else.

**Figure 14-1:**

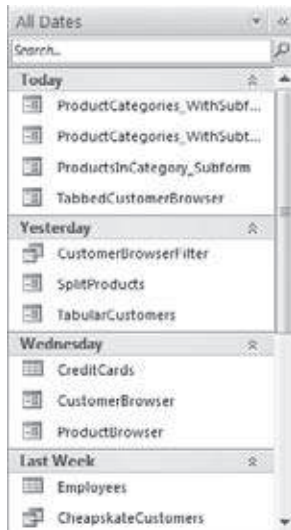
When you're ready to tell Access how to arrange objects in the navigation pane, make your selection in the menu's top portion (named *Navigate To Category*). The current choice—*Object Type*—groups tables, queries, forms, and reports into separate sections. To decide which objects appear, make a selection in the menu's bottom portion (named *Filter By Group*).

**Note:** Many database objects use more than one table. If you create a query that uses a join (page 208) to show products with category information, then your query uses both the Products and ProductCategories tables. In “Tables and Related Views” mode, you see this query in two places—under the Products heading *and* under the ProductCategories heading.

When you use “Tables and Related Views”, the menu’s Filter By Group section includes every table in your database. If you choose a specific table, then you see only the objects that are related to that table. You can also choose Unrelated Objects to see any objects that don’t fit into one of the table-specific categories, like code files.

- **Created Date** groups database objects based on the time they were created. Access creates a group for Today, groups for the recent days of the week (Monday, Sunday, and so on), and groups for longer intervals (Last Week, Two Weeks Ago, and so on). You probably won’t use this view mode regularly, because as time passes, the objects move from one group to another. However, it’s a good way to hunt down recent work.

When you use Created Date, the filtering options let you pick out just those object that were created today, yesterday, last week, last month, and so on (as shown in Figure 14-2). If you remember when you created an important form or report, but don't know its name, this ability can save serious time.



**Figure 14-2:**  
*When grouping by Created Date, you see groups that organize your objects based on when they were created.*

- **Modified Date** works like the Created Date option, except it lets you pick out database objects that have been changed recently. This option is handy if you want to ignore tables and other objects that you rarely use.

When you use Modified Date, you get all the same filtering options you do with Created Date.

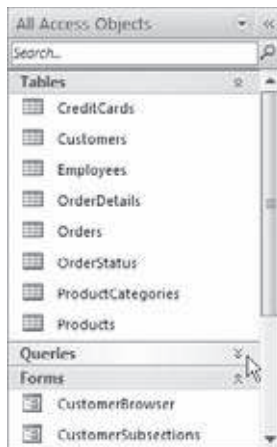
- **Custom** lets you choose exactly what database objects are shown and which ones are hidden. This choice is good if you have certain commonly used objects, and others that you want to tuck out of sight. You'll try out custom groups on page 446.

---

**Tip:** You can quickly apply filtering. Right-click a group heading, and then choose Show Only [Group-Name]. To show just tables when grouping by Object Type, right-click the Tables group, and then choose Show Only Tables. To remove the filtering, right-click the navigation pane again, and then choose Show All Groups.

---

When you apply filtering in the navigation pane, Access completely hides whatever you don't want to see. But as you probably already know, Access gives you another option. You can click the collapse arrows next to a specific section to shrink it so that only the section title is visible (Figure 14-3). You can then pop it back into display when you need it.

**Figure 14-3:**

Click the collapse arrows to quickly hide the objects in a particular section. In this example, the Queries group is collapsed neatly out of the way.

## GEM IN THE ROUGH

### Sort and View Options in the Navigation Pane

The navigation pane has many carefully buried settings you can configure. For example, if you don't like the way items are ordered in each group, you have several sorting options. To see them all, right-click the navigation pane's title bar, and then choose the Sort By submenu.

As you'll see, you can apply an ascending or descending sort according to any of the following criteria:

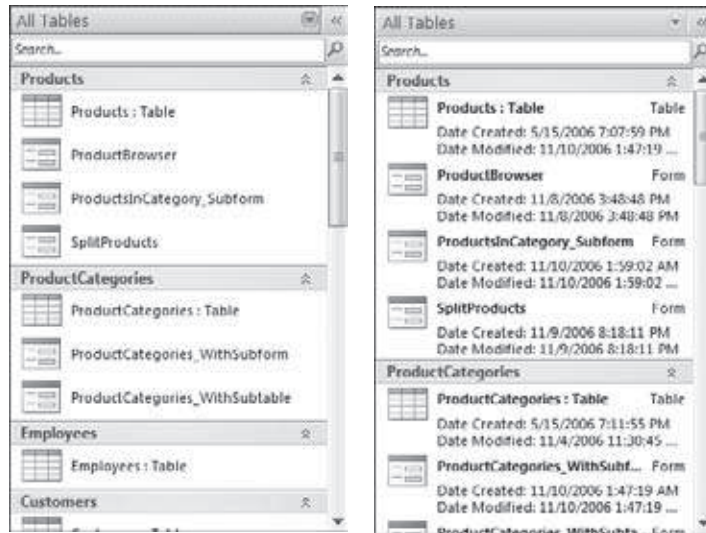
- **Name** sorts according to the database object's name.
- **Type** sorts according to the object type (form, report, table, and so on). This option has no effect if you're already grouping by object type.

- **Created Date** and **Modified Date** sort so that older or newer objects appear first.

You can also change what the navigation pane looks like by right-clicking the navigation pane's title, and then choosing an option from the View By menu. Figure 14-4 compares the different settings.

### Better Filtering

The filtering system has one limitation—it lets you choose only one category at a time. If you've chosen "Tables and Related Views", then you can filter the list down to the objects that are related to a single table. However, you can't choose to include two (or more) table groups. Similarly, if you choose Object Type, then you can show all the forms or all the reports in your database, but you can't show forms *and* reports without including everything else (although the collapsing trick shown in Figure 14-3 helps to reclaim most of the space).

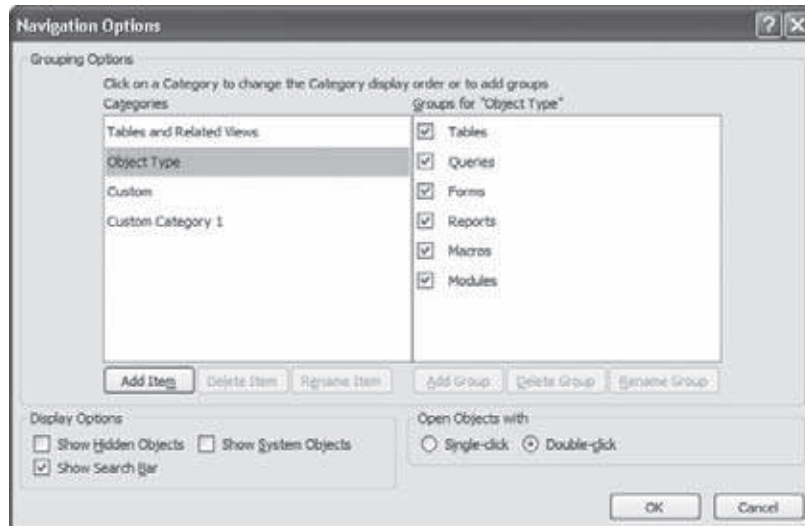


**Figure 14-4:**

So far, you've been using list view in the navigation pane, the most compact option. However, Access also lets you use a slightly bigger icon view (left), or a details view that includes information about when an object was created and last modified (right).

You can use an easy way around this restriction. To get more control over filtering, follow these steps:

1. Right-click the navigation pane's title bar, and then choose Navigation Options. The Navigation Options dialog box appears (Figure 14-5).



**Figure 14-5:**

The list on the left shows the different ways you can categorize the navigation pane. You don't see the Created Date and Modified Date options, because you can't customize those. The list on the right shows the groups in the currently selected category.

2. Choose the category you want to customize—either “Tables and Related Views” or Object Type.

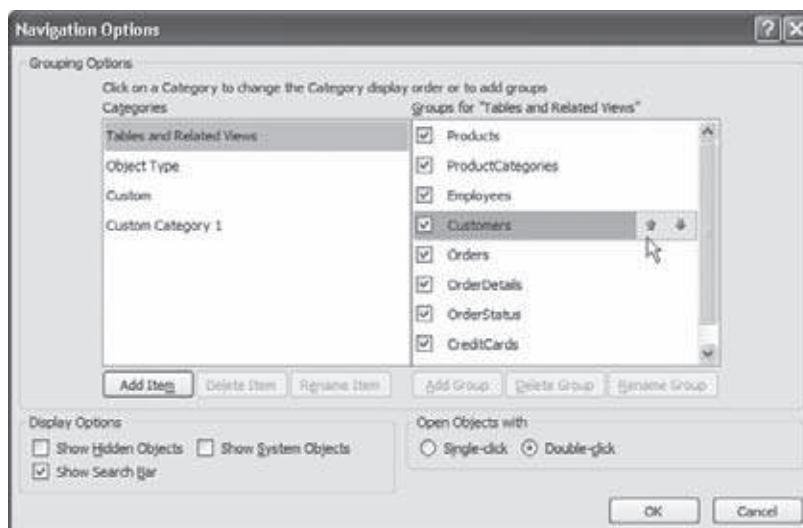
The list on the right shows all the groups in that category.

3. If you don’t want a category to appear in the navigation list, then clear the checkmark next to it.

If you want your navigation pane to show only reports and forms, choose the Object Type category, and then clear the checkmark next to Tables, Queries, Macros, and Modules.

4. If you’re customizing the “Tables and Related Views” category, then you can also change the order of the groups, as shown in Figure 14-6.

The only item you can’t move is Unrelated Objects, which always appears at the bottom. And you can’t change the order of the groups in the Object Type category at all.



**Figure 14-6:**  
To move a group, just select it. An up-and-down-arrow icon appears in the item, as shown here. You can click these arrows to move the group up or down.

5. Click OK to close the window.

**Note:** Many databases get a whole lot clearer the moment you hide the extra objects. If you’ve outfitted your database with a full complement of forms and reports, these objects may be all you need to see. So why not go ahead and hide the lower-level tables, queries, and code?

## Hiding Objects

Hiding the groups you don’t want to see is all well and good—but what if there’s a single object you want to tuck out of sight? Maybe you want to make sure other

people who use your database aren't distracted by a few potentially risky action queries (Chapter 8) that they really shouldn't use. No problem. Just right-click the query in the navigation pane, and then choose "Hide in this Group".

---

**Note:** When you hide an object, it's hidden in the current view mode, in the current group. (Remember, in "Tables and Related Views" mode, some objects may appear in more than one group.) If you want to hide an object everywhere, you need to track it down in each group, and hide it there.

---

To reveal a hidden object, you first need to configure the navigation pane so that it shows hidden objects. To do so, right-click the title bar, choose Navigation Options, add a checkmark in the Show Hidden Objects box, and then click OK. Now, hidden objects appear in the navigation pane, but they're slightly faded so you can distinguish them from the other non-hidden objects. To unhide an object, right-click it, and then choose "Unhide in this Group".

All of these approaches—filtering, custom groups, hidden objects—are designed to make your database easier to use. These approaches don't provide any security. (A person who really wants to use a database object can just change the navigation settings to get to it.)

---

**Note:** On page 608, you'll learn how to divide a database into separate files, which gives you the best way to keep some database objects out of the wrong hands. However, no matter what you do, Access is *not* bulletproof. Access is designed to be intuitive, capable, and easy to use. Unlike server-side databases like SQL Server, it's not designed to lock out bad guys if they get hold of your database files.

---

## Using Custom Groups

Ordinary people don't think in terms of tables and database objects. Instead, they think about the *tasks* they need to accomplish. But none of the readymade grouping options fit this approach. Fortunately, you can build your own groups that do. Here's how:

1. **Click the drop-down arrow in the navigation pane's title bar, and then choose Custom.**

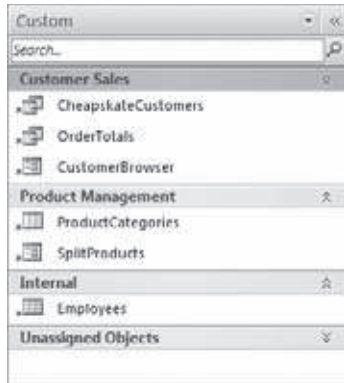
In a new database, you start out with two groups in the Custom view. The first, Custom Group 1, is empty. The second, Unassigned Objects, contains all the objects in your database.

2. **You can create a new group and move an object into it in one step. To do so, right-click the object you want to relocate (in the Unassigned Objects section), and then choose Add To Group→New Group. Enter the group name, and then press Enter. Figure 14-7 shows the results.**

Repeat this step to create all the groups you need. If you want to move an object into an existing group, right-click it, choose Add To Group, and then pick the corresponding group name.



**Tip:** For speedier work, just drag and drop your objects into the right groups.



**Figure 14-7:**

*It's often a good idea to create groups that reflect specific types of tasks, as in this database.*

3. You can also rename, remove, and reorder your groups. The easiest way to do this is to use the Navigation Options dialog box. Right-click the navigation pane's title, and then choose Navigation Options.

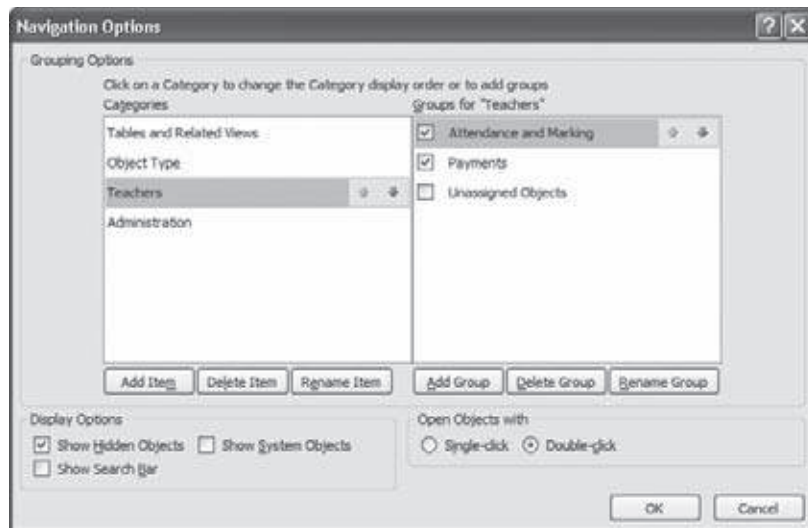
The Navigation Options dialog box lets you make a few useful group-related things happen:

- Select a group, and then click Rename Group to apply a new name.
- Remove your group—just select it, and then click Delete Group.
- Add a group, by clicking Add Group. It starts with no objects.
- Rearrange your groups. Just click one, and then use the arrow icons that appear to move it up or down.
- Move your custom category to a different place in the list, which affects how the menu appears when you click the drop-down arrow in the navigation pane.
- Hide a group (temporarily, or for the long term). Just remove the checkmark next to the group.

The only thing you can't do with groups in the Navigation Options dialog box is change the objects that each group contains. (To change them, you need to drag your objects around the navigation pane, as described in step 2.)

You can also change the name of the view that *contains* all your groups. Initially, this category is named Custom, but you can change it to something more descriptive by selecting it in the Navigation Options dialog box, and then clicking the Rename Item button. And if you're more ambitious, you can create more than one top-level custom view mode. Click Add Item to add a new one, and Delete Item to remove it. Figure 14-8 shows an example with several custom categories.

4. Click OK when you're finished making your changes.



**Figure 14-8:**

*One reason you might create multiple views is if different people use your database. In the Cacophoné Studios example, the administrative staff sees forms for creating classes and adding students (using the Administration view), while the teachers get to print attendance lists and create assignments (using the Teachers view, which is selected here). As you can see, the Teachers view contains a category named "Attendance and Marking" and one named "Payments". Each has its own set of forms and reports.*

## Searching the Navigation List

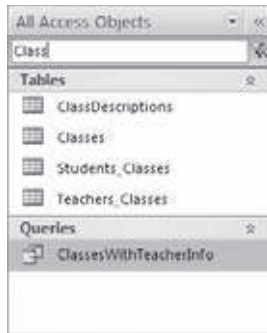
If you just can't bear to have anything out of your sight, you may need to put up with a cumbersome long list of objects in the navigation pane. However, Access still provides you with one convenient feature that can save you hours of scrolling.

It's the *search box*, and it lets you jump to an object almost instantaneously, provided you know its name.

To show the search box, follow these steps:

1. Right-click the navigation bar's title, and then choose Navigation Options.
2. In the Navigation Options window, choose Show Search Bar.
3. Click OK.

The search box appears at the top of the list in the navigation pane. As you type, Access filters the list so it includes only matching objects (Figure 14-9).

**Figure 14-9:**

The search box matches objects that contain the text you type. So if you type *Class*, you'll see objects like *Classes* and *Students\_Classes*.

## Building Forms with Navigation Smarts

The navigation pane is an invaluable tool for getting around your database, but it doesn't suit everyone. People who've never used Access before might find it a little perplexing, and there's nothing stopping someone from changing the navigation options (and opening objects they shouldn't).

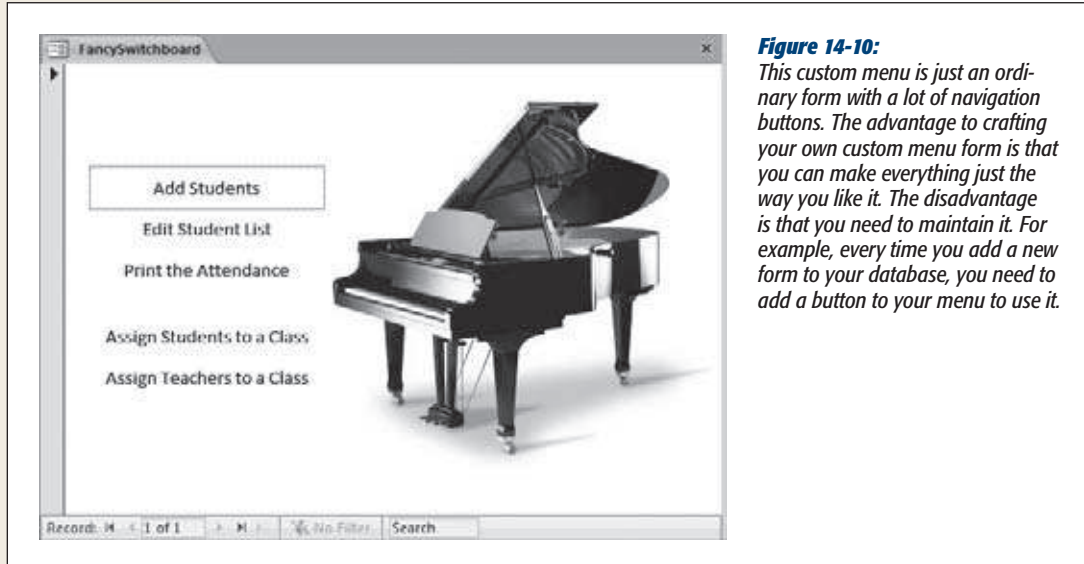
To get more control and to add a friendly veneer, many Access experts build navigation features into their forms (and occasionally their reports). After all, a form gives you virtually unlimited possibilities for customization. You can add a paragraph of text, throw in a hot pink background and a company logo, and reduce confusing options to a few fat, friendly buttons.

If you do decide to use forms for navigation, your first decision is what kind of form to build. Access gives you a wide range of options, and you'll explore them in the following sections.

### Custom Menu Forms

A *menu form* has just one purpose—to transport people to other forms (usually, when they click a button). A typical menu form doesn't display any information—it simply provides a stack of buttons that lead to different places. It serves as both a starting place and the central hub of activity for your database.

Building a custom menu form is one of the simplest and most effective ways to provide navigation for your database. You simply create a series of buttons and configure each one to show the appropriate form (as described on page 431). You can even place a background picture on your form, or add an effect to make your buttons stand out. Figure 14-10 shows an example.



**Tip:** Check out the Missing CD page at [www.missingmanuals.com/cds](http://www.missingmanuals.com/cds) to see a screencast (an animated tutorial) that demonstrates how to build the custom menu in Figure 14-10. The screencast was created using Access 2007, but the process is the same for Access 2010. Surf to the Missing CD page for *Access 2007: The Missing Manual* to check it out.

This menu form presents a clean blank surface along with an image control that shows a snazzy graphic. It also includes several ordinary button controls that were created with the Command Button wizard (page 431). Each button's Back Style property is set to Transparent, to give it a more modern flat look. The Cursor On Hover property is set to "Hyperlink hand" so that the mouse pointer changes to a pointing hand when you move over a button, which lets you know that you can click there.

Another approach is to use a picture as the background for the whole form and to put other controls on top of the background. To do this, you need to set these properties on the form: Picture (the picture file you want to show), Picture Tiling (whether the image should be repeated to fill the available space), Picture Alignment (use Top Left so that it starts from the form's top-left corner), and Picture Size Mode (use Clip, so the picture isn't stretched, resized, or otherwise mangled). All the controls you place on top of a form with a background picture should have their Back Style property set to Transparent so that the picture shows through.

**Note:** Before you invest a lot of effort building your own menu forms, check out Access's navigation form feature at the end of this chapter (page 457). It's a simple menu-making approach that may be just the ticket if you can make do with a little less flexibility.

## NOSTALGIA CORNER

**Switchboard Forms**

Previous versions of Access promoted a menu-building feature called switchboard forms. The idea was simple: You run through a short wizard, and Access creates a menu form for you, complete with a stack of buttons. Interestingly, Access stores all the data for a switchboard form in the database, which means you can change the menu options by simply editing a table.

Unfortunately, switchboard forms also have a long list of shortcomings. They're limited to eight forms per page. They support a multiple pages feature, but it's almost as annoying as the touchtone menus on automated voicemail systems that force you to go through level after level of options. And worst of all, the switchboard forms Access creates are scandalously ugly.

Access 2010 still includes the switchboard generator, but it's no longer on the ribbon. Instead, Microsoft recommends you create your own menu form, or use the new navigation form feature (page 457). But if you feel a wave of nostalgia coming on, you can give the old switchboard wizard a whirl. To access it, you need to customize the ribbon, as described in the Appendix. Just choose the "Commands Not in the Ribbon" option, look for the command named Switchboard Manager, and add it back to the ribbon. But don't be surprised if the result is tackier than the pants Uncle Stan wears to his New Year's Eve disco party.

**Designating a Startup Form**

Since a custom menu form is the gateway to your Access database, it's a good starting point for folks who are going to use your database. You can tell Access to open any form automatically when someone first opens your database. Here's how:

**1. Choose File→Options.**

The Access Options window appears.

**2. In the list on the left, click Current Database.**

The settings for the current database appear.

**3. Under the Application Options heading, look for the Display Form box. Choose your custom menu form in the list.**

Now, whenever you open the database, Access launches your form immediately.

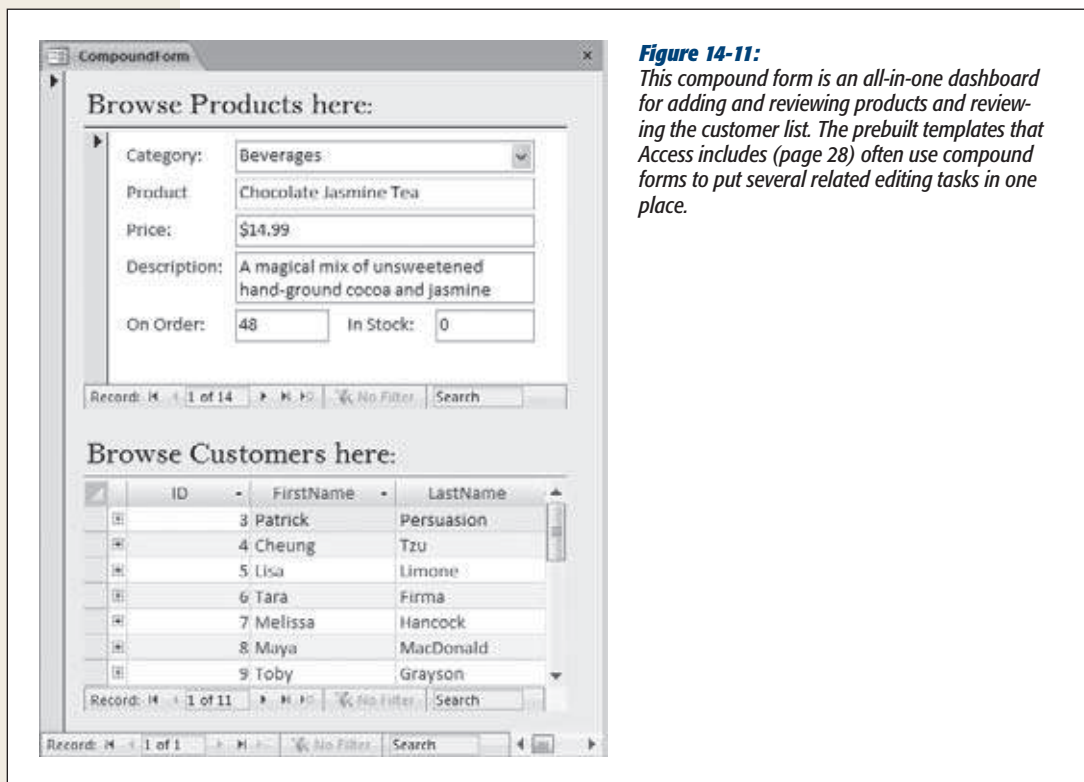
**4. Optionally, if your custom menu completely eliminates the need for the navigation pane, look under the Navigation heading, and clear the checkbox next to the Display Navigation Pane setting.**

**Compound Forms**

Alternatively, you could forget about designing a way to jump from form to form, and instead create a form that brings everything you need into one place. This trick, called a *compound form*, uses the subform control you learned about on page 435.

In Chapter 13, you learned how the subform control lets you show related data (like a list of products for the current product category). However, the subform also makes sense if you want to show several *unrelated* tables in one place. Just leave the Link Master Fields and Link Child Fields properties of the subform empty—that way the subform shows all the records without filtering. Figure 14-11 shows an example.

**Tip:** You can use a shortcut to create a compound form. First, choose Create→Forms→Form Design to create a blank new form. Find a form you want to use in the subform, and then drag it from the navigation pane to your new form’s design surface. Access creates a subform control that shows that form. You can also drag a table onto your form, in which case Access creates a subform for that table (and asks you to pick a name for it).



**Figure 14-11:** This compound form is an all-in-one dashboard for adding and reviewing products and reviewing the customer list. The prebuilt templates that Access includes (page 28) often use compound forms to put several related editing tasks in one place.

If you’re using “Tables and Related Views” mode in the navigation pane, a compound form usually appears in the Unrelated Objects area. That’s because the form itself doesn’t use any tables. Instead, it contains subforms, and these subforms use the various tables you’re displaying.

## Showing All Your Forms in a List

You may find one last trick useful when building a navigation hub. Rather than create a button for each form you want to use, you can create a list control that has them all. When the person using the database picks a form from the list, Access jumps to that form. This approach works well if you have a large number of forms, which would irredeemably clutter the button-only approach.

---

**Tip:** This technique works as well for reports as it does for forms.

---

The first step is to put the form names in a list box. Access gives you three ways to do this:

- **Type the names in by hand.** Just drop a combo box control onto your form. When the wizard starts, choose “I will type in the values that I want”, and then enter the form names in the appropriate order.

---

**Note:** Page 428 has more about the List wizard. Just remember, at the end of the wizard, you need to choose “Remember the value for later use”. Your list is used for navigation, not record editing.

---

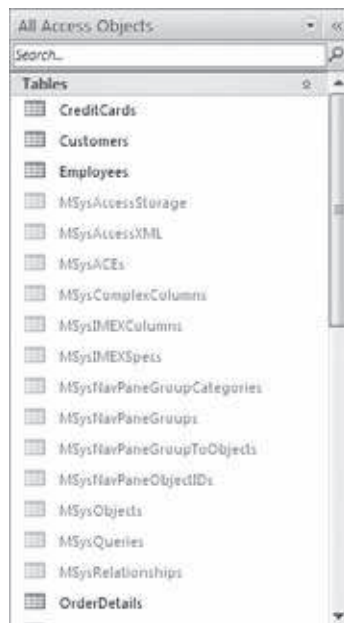
- **Pull the names out of a custom table you create.** Create a new table, and then fill it with the names of the forms you want to show in the list. Then, when you create the combo box, choose “I want to look up the values in a table or query”, and then specify your custom table.
- **Pull the names out of the system table.** For a really nifty trick, you can get the full list of forms straight from your database. The trick is to use one of the hidden *system tables*. These system tables are tables that Access uses to keep track of database objects. Every Access database has these tables, but tucked out of sight.

The first two options are straightforward. The third option is more impressive, but it takes a little more work. Ordinarily, the system tables are hidden from sight. You can pop them into view (see Figure 14-12) by choosing Show System Objects from the Navigation Options window. Showing the system tables isn’t a good choice for the long term, because any change you make in these tables could damage your database and confuse Access.

Even if you don’t show the system tables, you can still use them. The most interesting system table is MSysObjects, which lists all the objects in your database. You can get a list of all the forms in your database by querying this table with an SQL command (see page 202 for a refresher on how queries use SQL). The Name field provides the database objects’ name. The Type field contains a numeric code that identifies the type of object. Table 14-1 lists the types in which you may be interested.

**Table 14-1.** Useful Type Codes

Object	Type
Table	1
Query	5
Form	-32768
Report	-32764



**Figure 14-12:**

Here, the navigation pane shows a bunch of system tables, which are ordinarily hidden. You can open them to take a look, but you'll have a hard time making sense of the (mostly numeric) data they contain.

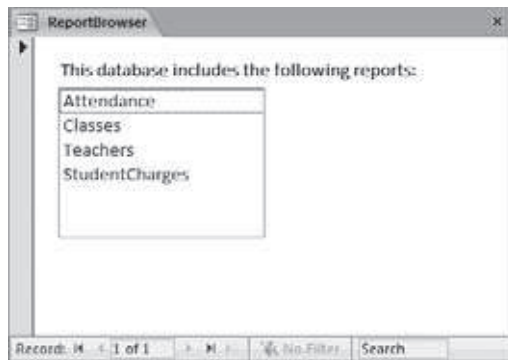
Based on this information, you can get a list of forms by retrieving the Name field, and then filtering out those records with a Type value of -32768.

You can most easily build this bit of logic into your list control by adding your list to the form and skipping out of the wizard (press Esc when it starts). Then, you can configure the control using the Property Sheet. In the Data tab, find the Row Source property, and then enter the following SQL statement, which performs the query you need:

```
SELECT Name FROM MSysObjects WHERE MSysObjects.Type=-32768
```

You now have a list that shows all the forms in the database. You can substitute the number -32764 for -32768 to get reports instead; Figure 14-13 shows the results.



**Figure 14-13:**

*This form shows a list of all the available reports.*

So far, you've seen only half of the solution you need. You've learned how to get the list into the right control, but at the moment nothing happens when you *use* the control. You really need a way to jump to the selected form or report.

It turns out that this solution is a bit more advanced than the examples you've seen so far. To make it work, you need to customize a macro. (A *macro* is a list of one or more instructions stored as a database object so you can use it anytime.)

As you learned in Chapter 13, when you create a command button, the Button wizard asks you a few questions, and then builds the macro you need. However, the Button wizard is woefully underpowered. For instance, while it can create a macro that navigates to a specific form, it can't create a macro that can go to any form. But with just a little more work, you can create a simple macro with the wizard, and then fix it up to really suit your needs. Here's how:

1. **Drop the button onto your form.**

Place it next to the combo box control. The Button wizard launches.

2. **Choose the Report Operations category and the Open Report action, and then click Next.**

Or, if you're showing a list of forms, choose the Form Operations category and the Open Form action.

3. **Pick any report (or form), and then click Next.**

It doesn't matter what you choose here, because you'll change this part later.

4. **Complete the wizard.**

Make sure you give your button a suitable caption, like "Go", "Open Form", or "Show Report".

Once the wizard is finished, it's time to take a closer look at the button in the Property Sheet.

5. In the Property Sheet, select your newly created button, and then switch to the Event tab.

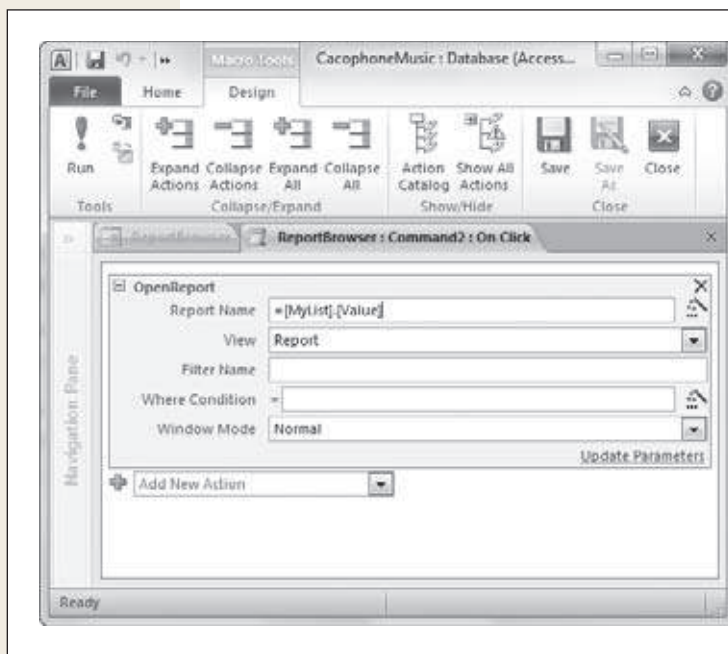
*Events* are occurrences that can trigger your macros. For example, every button has an OnClick event that takes place when you click the button.

6. Find the OnClick property, and then click inside the property box, where it says “[Embedded Macro]”.

An ellipsis (...) appears at the corner of the box.

7. Click the ellipsis to edit the macro.

A macro-editing window appears. It shows a single action (named either OpenReport or OpenForm, depending on what you chose in step 2). Click to select this action. Each configurable piece of information turns into a text box (Figure 14-14).



**Figure 14-14:**

*You'll learn much more about this window in Chapter 15. For now, all you need to know is that this macro has a single action, named OpenReport. The Report Name text box is the one we're interested in, because it tells Access which report to open.*

8. In the Report Name (or Form Name) text box, type the expression =MyList.Value.

This expression finds your combo box and pulls out the currently selected value. It assumes your combo box is named MyList. If not, change the expression accordingly. (If you don't remember the name of your list control, click to select it, and then look at what name appears in the drop-down list at the top of the Property Sheet.)

9. Close the macro window, and then choose Yes to save your changes when prompted.

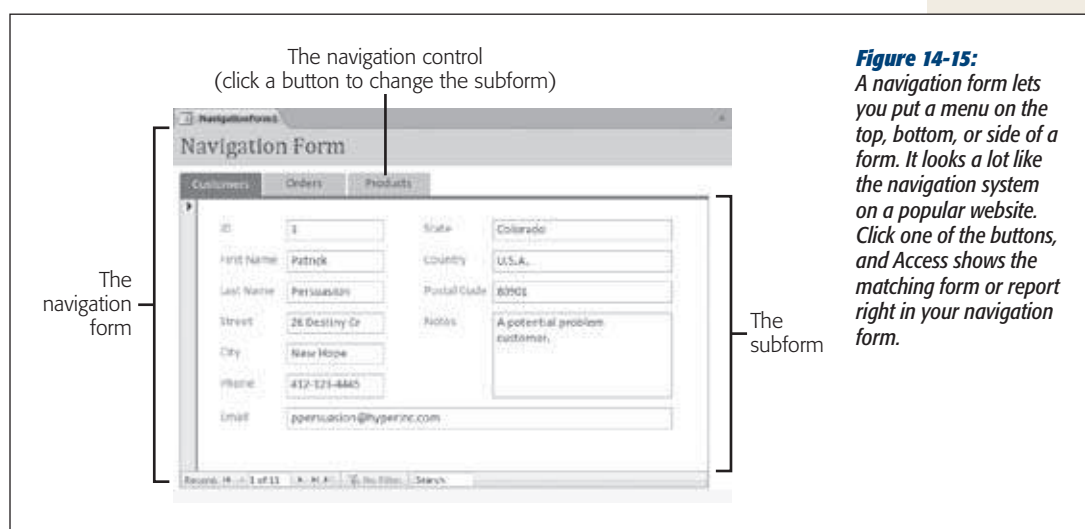
You return to the form design window.

## 10. Switch to Form view, and then try out your new list mojo.

You should be able to select a form in the list, and then click the button to open the form you chose.

## Navigation Forms

If you're tired of building navigation forms on your own, you'll be happy to learn about Access's *navigation forms*. This feature lets you create a form that has a tab-based menu built right into it. Figure 14-15 shows an example.



**Figure 14-15:** A navigation form lets you put a menu on the top, bottom, or side of a form. It looks a lot like the navigation system on a popular website. Click one of the buttons, and Access shows the matching form or report right in your navigation form.

Behind the scenes, navigation forms use some of the same techniques you've already learned about. For example, when you choose a new form from the menu, the navigation form brings it into view using a subform. But the best part is that you can create a fairly complex navigation form just by dragging and dropping your forms into the navigation menu. In a few short minutes, you can build a complete menu for your database.

As great as they are, navigation forms have two limitations:

- **You can't completely change the way they look.** Even though you can make the individual navigation buttons look different with colors and shape effects, they're always arranged the same basic way—as a strip along one of the sides of your form.
- **They force you to work on one form at a time.** Whenever you click a navigation button, the current subform is closed and a new subform is loaded. But in certain editing situations, you might want to have two forms open at once, so you can edit two different records at the same time. One way to accomplish this is to create buttons that open forms in separate tabs (as you'll see on page 463).

You can then move back and forth between the tabs at will. Another option is to include both forms as subforms in a single superform (a technique that's demonstrated on page 451). Either way, these techniques don't neatly fit into navigation forms.

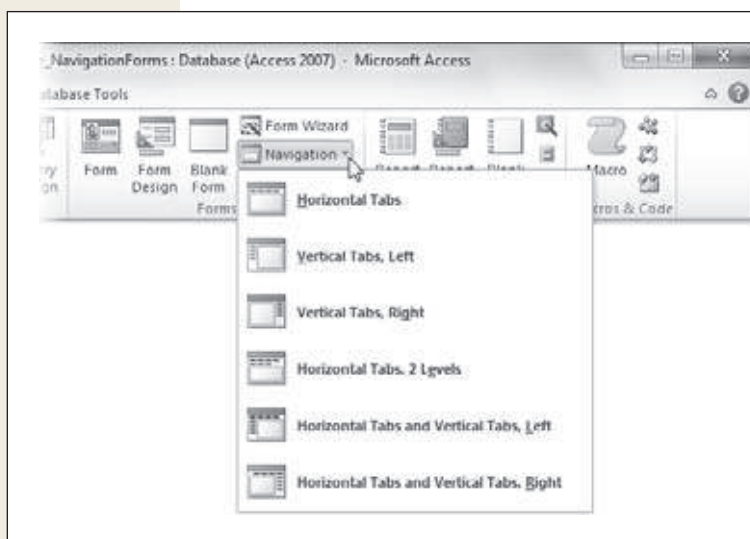
If you can live with these restrictions, navigation forms are a great way to give your database an attractive navigation system with minimal work.

### Creating a Single-Level Navigation Form

Here's how to create a navigation form like the one shown in Figure 14-15.

1. To create your navigation form, pick one of the top three options from the Create→Forms→Navigation menu (see Figure 14-16).

Access gives you six different navigation forms to choose from, which vary in two ways. First, there's the location of the navigation menu—the most common choices are on the top or side. Second, the menu can be either a simple single-level menu or a more complex two-level menu. (You'll learn about two-level menus in the next section.)



**Figure 14-16:**

*The bottom three options use two-level menus. The person using the form must first click one of the top-level buttons, and then click another sub-level button to see a form. Two-level menus aren't quite as convenient as single-level menus, but they're the only way to go if you have a huge number of forms, or if you want to arrange forms according to specific types of tasks.*

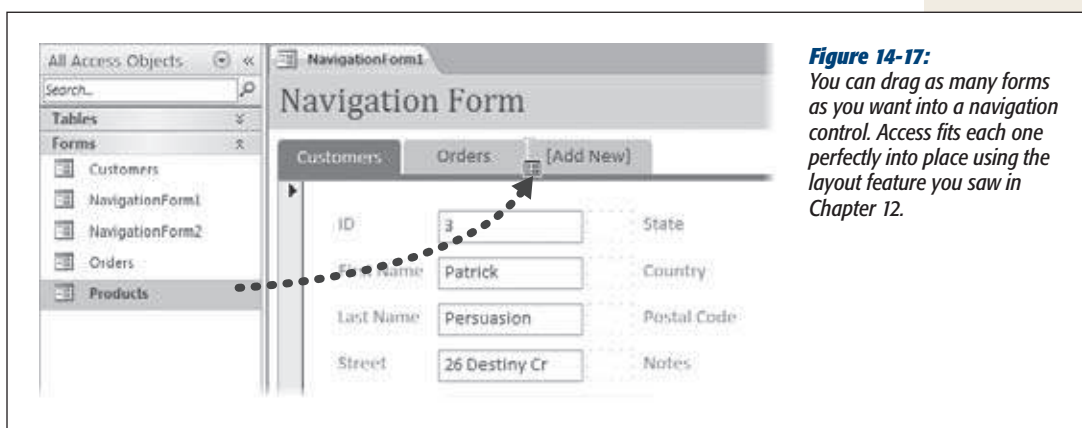
When your navigation form first appears, you'll see a linked combination of two controls: a large, blank subform, and a navigation control (a thin strip of buttons) off to one side. These two pieces are connected by a layout table.

**Note:** Unlike many other form design tasks, navigation menus are easier to create in Layout view than in Design view. That's because the drag-and-drop feature that lets you quickly fill your navigation menu with forms needs Access's layout feature to make sure each button gets put in the right place.

2. To add a navigation button for one of your forms, click the form in Access's navigation pane, and drag it onto the navigation control (Figure 14-17).

When you release the form onto the navigation control, Access adds a new navigation button for it.

**Tip:** There's no need to limit yourself to forms. You can just as easily drag reports onto a navigation control.



**Figure 14-17:** You can drag as many forms as you want into a navigation control. Access fits each one perfectly into place using the layout feature you saw in Chapter 12.

3. If you want to change the navigation button caption, double-click the caption and type the new name.

For example, you might prefer the button for `TaxReportsYearEnd` to read “View Tax Reports”. You can also drag the right or bottom edge of the new navigation button to make it larger, so you can fit more text.

4. Repeat steps 2 and 3 until you've added all the forms you want.

To remove a form that you don't want, click it once and then press Delete.

When you've finished, you can switch to Design view and try out your form. A simple click of a button takes you to the matching form—and best of all, you didn't need to write any code or work your way through any wizards.

## DESIGN TIME

## Making Navigation Forms Shine

The standard-issue Access navigation form is pleasant, but a little plain. Fortunately, you can use a number of easy tricks to make your navigation forms stand out. Here are the best:

- **Adjust the headers.** In a freshly created navigation form, you see two headers at once—the header of the navigation form, and the header of the form you’re viewing in the navigation control. You can declutter your navigation form by removing one (or both) of these headers. The example in Figure 14-17 has the header cut from the Customer form inside the navigation control. You don’t need that header anyway, since the currently selected navigation button indicates the current form. In Figure 14-18, the header is removed from the navigation form instead. After all, the navigation form’s header doesn’t really provide any information about the content you’re currently looking at.
- **Apply anchoring.** As you learned on page 412, anchoring lets specific controls grow to fill the available space in a form. Because the navigation subform will be called on to show forms of different sizes, it’s a perfect candidate for anchoring. To apply anchoring, select the navigation subform (*not* the combination of subform and navigation buttons). The easiest way is to look for a control with a name like NavigationSubform in the Property Sheet list. Then make a selection from the Form Layout Tools | Arrange→Position→Anchoring menu. Two common choices are Stretch Down and “Stretch Down and Across”.
- **Check the padding on the navigation control.** When you create a navigation form with buttons on the left or right side, Access inserts a little gap between your buttons and the navigation subform. You can remove this gap by selecting the strip of navigation controls and choosing Form Layout Tools | Arrange→Position→Control Padding→None.
- **Add a splash with fancy buttons.** Your buttons can be shaped, colored, and outfitted with a small set of special effects. You’ll learn how on page 462.

**Figure 14-18:** This navigation form uses several tricks to improve its appearance. It has no header, the navigation buttons are artfully styled, and the navigation subform uses anchoring so it expands to fill the available space. You can find this example, along with all the navigation forms in this chapter, on the Missing CD page ([www.missingmanuals.com/cds](http://www.missingmanuals.com/cds)).

## Creating a Two-Level Navigation Form

Creating a two-level menu is almost as easy as creating a simple single-level menu. Here's how to do it:

1. To create your navigation form, pick one of the bottom three options from the **Create→Forms→Navigation menu**.

Your navigation form gets a linked combination of three controls: a large, blank subform, and two navigation controls.

The navigation control at the top is the top-level menu. The navigation control underneath or off to the side is the submenu. The person using your navigation form will choose a category from the top-level menu, and then pick one of the forms listed in the submenu.

---

**Note:** You can think of it as a collection of one-level menus. Each one-level menu has a single caption and a group of forms. The form user chooses which menu appears by clicking the appropriate button in the top-level menu.

---

2. Begin by adding a heading for your top-level menu. To do this, click “[Add New] text in the top level” and type in a new caption.

You might create headings for different tasks (like Sales, Stock Management, and Reporting) or for different form users (like Sales Department, Warehouse, and Admin). Figure 14-19 shows an example.



**Figure 14-19:**

Here the top-level menu is on top, and the submenu is underneath. When you click a different top-level heading, you see a different submenu. In this case, clicking Reporting brings up a list of reports you can run.

3. To add the submenu for this heading, drag a form from the navigation pane onto the submenu.

When you release the form onto the navigation control, Access adds a new navigation button for it.

4. Repeat step 3 to add more forms to this group. Or, repeat step 3 to add a new top-level category.

If you want to change a submenu, just click the top-level heading to select it (at which point the corresponding submenu appears). You can then add new forms or remove existing ones.



---

**Note:** The example in these steps uses the top-level menu exclusively for categories, and the submenu for forms and reports. However, you can drag forms into the top-level menu too, although it can be a bit confusing. For example, if you drag a Customers form into a top-level menu, Access creates a button that shows the Customers form directly, rather than showing a submenu.

---

## Fine-Tuning Your Navigation Buttons

Ordinary navigation buttons don't look *bad*, but with a little more effort you can replace them with something a bit more stylish.

Your first option is to add a picture to a navigation button, which can either replace your text or sit alongside it (Figure 14-20). Before you do so, open the Property Sheet by choosing Form Layout Tools | Design→Tools→Property Sheet. Then, select a button and set the following properties:

- **Picture.** Click in this box and then click the ellipsis (...) to pick your picture file. Make sure you use a small picture (a tiny icon-sized image is best), otherwise you'll obliterate the button caption text.
- **Picture Caption Arrangement.** This determines how your picture and text share the button space. Choose No Picture Caption to display the picture only. The other options set where the text should go, which means that Left puts the text on the left side of the picture, Top puts it above the picture, and so on. Depending on your arrangement, you may need to enlarge the button, which you can do easily by dragging its edge.

Your second option is to alter the button's appearance using the formatting commands in the Form Layout Tools | Format→Control Formatting section of the ribbon, just as with ordinary buttons. Here's a quick review:

- **Shape Fill.** Changes the color of your button, even giving it a smoothly blended gradient.
- **Shape Outline.** Changes the thickness, color, and style (for example, dashed or solid) or the border around the edge of your button.
- **Shape Effects.** Adds a shadow, glow, blurred edge, or beveled edge to your button.
- **Quick Styles.** Gives you a choice of snazzy, readymade button designs that change the fill, outline, and effect all at once. Figure 14-18 features an example with stylized buttons.
- **Change Shape.** You may not have noticed it, but the navigation buttons automatically use a slightly different shape than normal buttons, with a gently rounded top edge that makes them look more like tabs.

Access's designers added the Change Shape feature so you can give your buttons this distinctive shape, too. If you don't want the standard tab titles, you have a few other choices to choose from, including circles, ordinary rectangles, tabs with even more rounding on the top edge, and rectangles with a chip off the top-right corner (Figure 14-20).





**Figure 14-20:**  
*Here, tiny icons make it obvious which form is for viewing data, and which is for editing it.*

## Linking to Related Data

A menu or navigation form providing a bird's-eye view of your database. However, your work doesn't end here. A well-designed navigation system lets you move easily from one form to the next, so you can move efficiently through your entire database.

The secret to form-to-form navigation is thinking about your *workflow* (that is, the order in which you move between tasks when working on your database). Suppose you're a furniture company selling hand-painted coffee tables. What happens when you receive a new order? Probably, you start by creating or selecting the customer (in one form), and then you add the order information for that customer (in another form). The menu doesn't need to go directly to the order form. Instead, you should start with a customer form. That form should provide a button (or some other control) that lets you move on to the order form.

You need to go through a similar thought process to create forms for, say, the customer service department. In their case, they need a way to pick a customer and to see, at a glance, the billing and payment details, the order information, and the shipping records. The best solution in this scenario could be to create a compound form that pulls everything together.

Getting from one form to another is easy. All you need is the right button. The following two sections walk you through two common examples.

## Showing Linked Records in Separate Forms

In Chapter 13, you learned how a subform control can show linked records in one place (page 435). However, subforms don't always give you enough room to work. Depending on the way you work and the sheer volume of information you're facing, you may prefer to show the related records in a different place. You could add a button to your form that pops open another form with the linked records. The trick to making this work is using filtering in the second form so that it shows only the related records. Figures 14-21 and 14-22 show an example with the Cacophoné Studios database.

The screenshot shows a Microsoft Access form titled 'Classes'. It contains several text boxes for data entry: ID (containing '4'), Class Name (containing 'Funk 101'), Starting Date (containing '1/1/2008'), Ending Date (containing '6/3/2008'), Max Enrollment (containing '14'), Class Day (a dropdown menu showing 'Wednesday'), and Class Time (containing '12:30 PM'). Below these fields is a button labeled 'See Students in this Class'. The form has a status bar at the bottom showing 'Record: 1 of 7' and a search box.

**Figure 14-21:**

The Classes form shows a list of classes. Click “See Students in this Class” to open a second form (Figure 14-22).

The screenshot shows a Microsoft Access form titled 'StudentEnrollments'. It displays a list of three students, each with their name, phone number, and email address. The students are Tony Pisuale, Horatio Ernst, and Tom Nabook. The form has a status bar at the bottom showing 'Record: 1 of 5' and a search box.

**Figure 14-22:**

The StudentEnrollments form homes in on the students in just one class.

You can create the two forms that appear in Figures 14-21 and 14-22 without much effort. The tricky bit is creating the “See Students in this Class” button.

Here's what you need to do to wire up a button that opens another form to show related records:

1. **Open the parent form in Design view (or Layout view).**

Here, you start with the Classes form.

2. **Find the control gallery in the ribbon. Then click the Button icon, and draw the button onto your form.**

In Design view, you can find all the controls in the Form Design Tools | Design→Controls section. In Layout view, they're in the Form Layout Tools | Design→Controls section.

Once you add the button to your form, the Button wizard springs into action.

3. **Choose the Form Operations category, choose Open Form, and then click Next.**

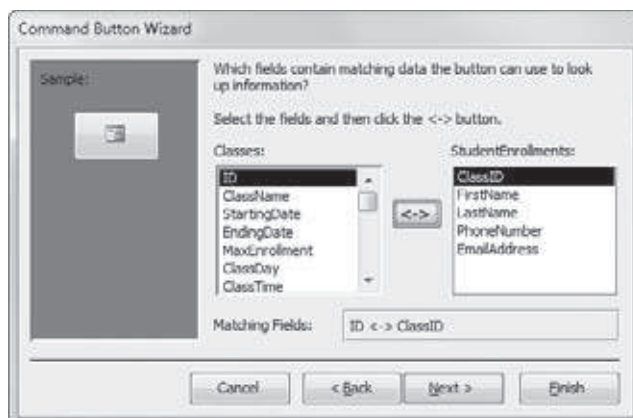
The next step in the wizard shows all the forms in your database.

4. **Choose the child form that has the related records, and then click Next.**

In this case, choose the StudentEnrollments form.

5. **Choose "Open the form and find specific data to display", and then click Next.**

The next step appears, with a list of fields in both forms (Figure 14-23). It's now up to you to tell Access how to filter the second form based on the first.



**Figure 14-23:**

On the left is a list of fields from the table that the original form uses (in this case, *Classes*), and on the right is a separate list of fields from the table that the new form uses (*StudentEnrollments*). It's up to you to tell Access how these two tables are related.

6. **In the list on the left, choose the unique identifying field from the first table.**

In this case, it's the ID field from the Classes table.

7. **In the list on the right, choose the matching field from the second table.**

It's the ClassID field from the StudentEnrollments table.

8. Click the two-way arrow button.

The two fields appear in the Matching Fields box. In the Cacophoné Studios example, you'll see the text "ID <-> ClassID". This tells Access to show an enrollment record only if the ClassID value in the StudentEnrollments form matches the ID value in the Classes form. In other words, you're getting the student enrollments for the current class.

9. Click Next.

From this point on, the Button wizard shows the standard steps you learned about earlier (page 431).

10. Supply a name for the button, and then click Finish.

To try your link, switch to Report view and then click your link. When you click the "See Students in this Class" button and the StudentEnrollments form appears, your filtering takes effect.

---

**Note:** Nothing stops someone from *removing* your filtering using the ribbon's Home→Sort & Filter→Toggle Filter command (or clicking the Filtered button that appears at the bottom of the form, next to the navigation buttons). If you don't want to allow this flexibility, you can configure the StudentEnrollments form so it doesn't let anyone change its filtering settings. To do so, open the form in Design view, select the Form item in the Property Sheet list, and then change the Allow Filters property from Yes to No.

---

## Showing More Detailed Reports with Links

You can use a similar technique to allow navigation in reports. If you want, you can create a way to jump from one report to another, related report. In fact, the macro you need to create is almost identical to the one in the previous example.

Usually, Access experts use this technique to start with a general report and let people click their way to a more detailed report that highlights part of the data. Figure 14-24 and Figure 14-25 show an example.

---

**Note:** Reports are designed to be printed. For that reason, big gray buttons look a little out of place. Your other option—linking—as shown in this example, is much more common because it shows the data you need to print and adds interactivity at the same time.

---

To create this navigation, you need to begin by creating a text box that looks like a hyperlink. (You can't use the bonafide hyperlink control, because it displays only fixed, unchanging text. Instead, you need a way to display a field's content as a link—in this example, the customer ID.) You can then create a macro that, when the text field is clicked, springs into action to move you to the new report. This macro's job is to open the detailed report that you want, and then apply filtering so that only the related records appear.

OrderTotal	Customer ID	LastName	FirstName
\$569.94	5	Limone	Lisa
\$27.99	8	MacDonald	Maya
\$144.00	9	Grayson	Toby
\$96.00	10	Randawa	Otis
\$144.00	11	Lem	Stanley
<b>\$981.93</b>			

Page 1 of 1

**Figure 14-24:**  
The first report (*TotalsByCustomer*) shows all the customers and their total orders. Click a single customer, and then Access launches the more detailed report shown in Figure 14-24.

ProductID	Price	Quantity	Line Total	Order Date
Maple Magic	\$48.00	2	\$96.00	02-Aug-07
Chocolate Jasmine Tea	\$14.99	5	\$74.95	02-Aug-07
Maple Magic	\$48.00	8	\$384.00	02-Aug-07
Chocolate Jasmine Tea	\$14.99	1	\$14.99	02-Aug-07
			<b>\$569.94</b>	

Page 1 of 1

**Figure 14-25:**  
Here's the *CustomerPurchases* report that profiles the selected individual's spending habits. A string-building expression (= "Products Purchased By" & [FirstName] & " " & [LastName]) puts the current customer's name into the title.

You can easily format the text box. You can select any control, and then change its color, font, and so on, using the commands in the ribbon. However, you don't even need to perform this work. That's because every text box has an odd property named *Is Hyperlink*—set this to Yes, and the text box morphs into a blue underlined piece of text, which is just what you want.

Once that's out of the way, it's time to add the macro you need. You can use the following steps with the Boutique Fudge database (included with the downloadable content for this chapter) to add a link that opens the CustomerPurchases report to the TotalsByCustomer report.

---

**Note:** A macro is a list of actions that you want Access to perform. In the next chapter, you'll explore macros in depth. For now, you'll learn just enough to create the navigation feature you need.

---

**1. Open the report you want to use in Design view (or Layout view).**

In this example, everything starts at the TotalsByCustomer form.

**2. If the Property Sheet isn't visible, then choose Report Design Tools | Design→Tools→Property Sheet.**

In Layout view, the tab title is different, so the full command is actually Report Layout Tools | Design→Tools→Property Sheet.

**3. Decide what field you want to use to create the link and then select it.**

Usually, you'll want to use the unique ID value that links two tables together. Here, you use the ID field that stores the customer ID. If you haven't already, you should format this field to look like a link using the Is Hyperlink property.

Now it's time to create and attach your macro.

**4. In the Property Sheet, switch to the Event tab, and then click the On Click box. Click the ellipsis (...) button.**

The Choose Builder dialog box appears and asks you how you want to create the code that runs when the link is clicked.

**5. Choose Macro Builder and then click OK.**

The macro-editing window appears. Initially, it's blank except for a single drop-down list with the text "Add New Action".

**6. In the Add New Action list, click the drop-down arrow and choose OpenReport.**

You can also use OpenForm to launch a form (for editing) when the report link is clicked.

Once you choose an action, a bunch of text boxes with related settings appears. Access also moves the Add New Action list down so it's under your newly added action.

**7. Click in the Report Name box, and type the name of the report you want to use.**

In this example, that's CustomerPurchases.

**8. Click in the Where Condition box, and type in your filter expression. Your filter needs to select customers that match the ID value in the current record.**

This filter expression needs to select the linked records. In the current example, you're interested in records that have the current customer ID.

Your expression needs to pick the right field in the report you're opening (the CustomerID field in the CustomerPurchases report), and then match it to the field where you clicked the link (the ID field in the TotalsByCustomers report). Here's the expression you need:

```
[CustomerID]=[Reports]![TotalsByCustomer]![ID]
```

The syntax `[Reports]![TotalsByCustomer]![ID]` is just a fancy way to tell Access to go looking for the ID value it needs on a currently open report named TotalsByCustomer. Once it finds that value, Access uses it to filter the new report that you're opening (the CustomerPurchases report) so it only shows records that have a matching value in the CustomerID field. In other words, you're telling Access to show the purchases made by this customer only.

9. **Close the macro window, and then choose Yes to save your changes when prompted.**

You return to the report design window.

10. **Switch to Report view and then try out your link.**

Now you can click the link to drill down to the more detailed report.

As always, you can try this example for yourself using the sample databases for this chapter.