Understanding Forms

Forms are tools for entering, editing or viewing information in tables or queries. They can also be used for searching, and even for printing although reports are more commonly used for this task. You can perform some calculations in form fields as well. Because forms are input tools, any changes or deletions made to a record using a form will affect the original table. Undo will not restore such records.

Giving users forms instead of tables lets them enter and manipulate data while protecting the tables’ structure (field properties, etc.).

The Create Ribbon: Forms Group

Create a form using the Quick Form buttons

In the Navigation Pane, click to select the table or query to base the form on, then click the Create tab to view the Create Ribbon. Click the desired Quick Form button:

1. Form: This button generates a stacked form. Fields in each record are arranged in a column, with labels beside them. Normally you see a single record on the screen. Note: If there is one related table, Access generates a subform.
2. More Forms: Displays a menu with several types of forms:
   a. Multiple Items: Generates a form with a tabular layout. Fields in each record are arranged horizontally, with labels in a header section over each field. Many records display at once.
   b. Datasheet: Like the Multiple Items form, a Datasheet displays many records at once. Datasheets look like Access tables, but they don’t permit users to alter table properties.
   c. Split Form: A hybrid of Stacked and Datasheet forms. At the top, the current record is displayed in stacked fashion; at the bottom, a datasheet displays many records at once.

Forms created by these tools all have:
- Fields arranged in the same order as they appear in the table structure or the query design grid
- The same name as the table or query the form is based on. (You should rename the form when saving it.)

Once created, you can refine a form in Design View or Layout View.
Form Sections

The header and footer areas, which are the same for all records, frame the detail area of the form, which shows the details of a particular record. Labels and buttons placed in the header and footer will always be available to users.

Form Controls

Any object on a form (like a text box, or a graphic) is called a control. Common control types include:

- Label: \[\] displays text; use for titles, captions etc.
- Text box: \[\] Used to display data from tables, do calculations, accept input from users
- Combo box: \[\] Combination of a text box and a list box. Type in the text box or select from the list to add a value to the underlying field.
- List box: \[\] Displays a scrollable list of values for users to choose from.
- Image: \[\] Places a picture on a form or a report.
- Subform: \[\] Use to display data from more than one table on a form or report.

- **Bound Controls** are connected to a data source (like a combo box that lets you choose the customer for an order.) In Design View, they display the name of the bound field; in Form or Layout View, they display database records. Any control added by dragging from a field list will be bound to that field.
- **Unbound Controls** are not connected to a data source. Controls added from the Controls group on the Design Ribbon start out unbound, and some control types such as pictures and labels are always unbound. Unbound text boxes are often used for calculations.
Edit a Form: Layout view vs. Design view

Layout view and Design view are the two views in which you can make design changes to forms. There is a lot of overlap between these views, but certain tasks are easier to perform in one than the other.

Layout view was new in Access 2007. It is more visually-oriented than Design view; the controls display real data, making it easier to resize controls and perform similar layout tasks. Use Layout View to:

- Resize controls to fit the existing data.
- Work in a view that is similar to Print Layout in Word (what you see is what you get).
- Design web forms [and reports]. Design View is not available for web database objects.

Design view gives you a more detailed view of the structure of the form. You can see the Header, Detail, and Footer sections for the form, and control their sizes. You cannot see the underlying data while you are making design changes; however, there certain tasks only work in Design view. Use Design View to:

- Add a wide variety of controls to the form, such as labels, images, lines, and rectangles.
- Edit text box control sources in the text boxes themselves, without using the property sheet.
- Resize form sections, such as the Form Header or the Detail section.
- Change form properties that cannot be changed in Layout view.

Edit a form in Design View

On the Home Ribbon, click the dropdown arrow below the View button in the Views group. Click the Design View button at the bottom of the list.

In design view, the usable form area appears dotted, with ruler marks every inch. Even though both sets of controls display the same text, they are not the same. The labels on the left (unbound controls) can be changed freely. The text boxes on the right are bound to the corresponding table field. Changing the text in a bound text box usually breaks this connection and causes an error.

Use the rulers to verify display/printing dimensions.

Drag the bottom of any section to adjust its size. Dragging at the bottom of the dark area changes the size of the form header.

Drag the right edge of the dotted area side to side to adjust the form width (all sections)

Drag here (the bottom of the dotted area) to adjust the size of the detail area

Drag here to adjust the size of the form footer
Form Design Tools: The Arrange Ribbon

This ribbon contains tools for sizing and arranging controls:

- **Remove a Layout from selected controls so they can be moved/resized at will**
- **Adjust white space inside the borders of a control**
- **Adjust space around the outside of a control**
- **These tools resize selected controls relative to one another**
- **Edit your layout (add rows, columns, merge and split cells) with tools analogous to Word Table tools**
- **These tools realign selected controls relative to one another**

Arranging Controls in Layouts

When Access creates a form, it generates either a Stacked or a Tabular layout. In either case, the controls are locked in a grid arrangement. They can be resized as a group and can be dragged and dropped from place to place in the grid.

- In a Stacked layout, all labels are treated together, and all text boxes are treated together. If you resize a text box or label, all the others are resized together.
- In a Tabular layout, the field labels are in the page header and the text boxes are in the Detail area below. Resizing a text box or a label automatically resizes its partner, and adjacent controls move over into the empty space. You can rearrange the columns by dragging controls from one column to another.
- Change spacing between controls using the Control Padding button in the Position group of the Arrange Ribbon.
- Adjust spacing within the borders of a control with the Control Margins button in the Position group.
- Controls can be repositioned using the Move Up and Move Down buttons in the Move group on the Arrange Ribbon, and also by dragging. They can only be moved in a straight line within their layout - for example, you can drag a field up or down in a column, but not off at an angle.
- Enlarge or customize a layout using the tools in the Rows & Columns group and the Merge/Split group on the Arrange Ribbon.
- New fields can be dragged and dropped directly into the layout (see Add bound controls using the Field List, page 7).

Select groups of controls in a form

- Use Shift+Click to select multiple controls, or
- Lasso controls: Position the mouse pointer over an empty area of the form, press and hold the left mouse button, and drag across the controls you want to select. A box will appear, and whatever the box touches or encloses when you let go the mouse button will be selected.
Arranging controls without a layout

Remove the existing layout by selecting all the controls and clicking Remove in the Table group on the Arrange Ribbon. The controls can now be moved and resized freely.

When forms and their labels are in the same section of the form, each form and label pair is treated as a unit. Dragging either one moves both.

Dragging with the mouse:

- Dragging on any part of the label other than a handle moves both associated controls.
- Dragging on the extra-large handle in the upper left corner of the control moves the selected item only.
- Dragging on the sizing handles changes the size of the controls.
- If several controls are selected, they will all be resized or moved together.

Align, resize and arrange multiple controls

- To align controls, select them, then click the Align button in the Sizing and Ordering group on the Arrange Ribbon. Click the desired type of alignment (Left, Right, Top, etc.). All controls will be lined up with the control farthest in the specified direction.
- To make a group of fields a uniform size, select them, then click the Size/Space button in the Sizing and Ordering group on the Arrange Ribbon. Choose an option from the Size controls at the top of the menu. (ex: “To Widest” makes all selected fields the same width as the widest selected field).
- To adjust vertical or horizontal spacing of controls, select them then click the Size/Space button in the Sizing and Ordering group on the Arrange Ribbon. Choose an option from the Spacing controls in the middle of the menu.
- The ability to group controls on a form is new in Access 2010. Select several controls and click the Size/Space button in the Sizing and Ordering group on the Arrange Ribbon. At the bottom, click the Group button under “Grouping”. The selected controls will now be moved and resized together.
Form Design Tools: The Design Ribbon

This ribbon contains tools for adding controls and choosing a database theme:

- Click the View Button to move between Form View, Layout View and Design View.
- Add additional fields to the form from its control source (the table or query the form is based on).
- Use the Property Sheet for fine control.
- Use tools in this group to add new controls to the form.
- Add standard items to the header and footer or remove them.
- Rearrange the order in which users tab through fields.
- Select a theme (a set of colors, fonts and effects) for all forms and reports in the database.

Using Themes

Themes are coordinated sets of colors and fonts designed to give a set of documents a consistent look. Office 2007 introduced Themes in Word, Excel and PowerPoint; Access 2010 is the first version of Access to use them.

To change the database theme, click the Theme button in the Themes group on the Design Ribbon. Click the desired theme from the list. All forms and reports in the database will be changed to match the new Theme.

Change tab order in a form

When users move from field to field using the Tab key, Access follows the order that was established when the form was created. Even after fields have been moved, Access still follows the original order.

To reset the tab order, click the Tab Order button in the Tools group on the Design Ribbon. On the Tab Order box, drag fields up or down to set the desired order, or click Auto Order to automatically set the order top-to-bottom and left-to-right.
Add bound controls using the Field List

On the Design Ribbon, click the Add Existing Fields button in the Tools group. The Field List will appear at the right of the window.

The Field List shows selected fields in use on the form, fields in the form’s tables, and fields in related tables. Drag desired fields from the Field List and drop them on the form. For most fields, the new control will appear as a text box, along with a matching label containing the field name.

If your form controls are in a layout, drop new controls directly into position in the grid – a yellow guide line will tell you where the field will land if you drop it.

Add Headers and Footers to your form

In Office 2010, headers and footers are automatically created for forms made from the Create Ribbon. On other forms, add them by turning on any object in the Header/Footer group or by right clicking in the Detail area and clicking the Header and Footer button.

Add unbound controls to a form using the Controls group on the Design Ribbon

On the Design Ribbon, click the desired control in the Controls group. Next, click the form where you want to create the object, or use the mouse to draw a rectangle the desired size of the control. (See description of common control types on page 2.)

Modify a control's type

Right click a control and click Change To in the pop-up menu. Any available alternative types will be visible on the list that appears. Combo boxes, list boxes and text boxes are interchangeable, as are toggle boxes, option buttons and check boxes.

* Bound controls for lookup fields inherit the lookup property, so instead of a text box Access generates a combo box. Yes/No fields appear as a check box.
Use the Property Sheet

The Property Sheet is the most powerful tool for modifying your form. Open the Property Sheet by clicking the Property Sheet button in the Tools group on the Design Ribbon.

The Property Box shows the properties of the selected control or form section, and it will change to show properties of whatever you click.

Many properties are inherited from the original tables. For example, if a table contains a lookup field, Access will create a combo box for it in the form.

Important Properties:

- **Control Source**: This can be a property of a control or of the form as a whole.
  - For bound controls, this is the field to which the control is bound.
  - You can bind an unbound control to a field by selecting the field in the control’s Control Source property.
  - For calculated controls, this is the expression that is being calculated.
  - For the form, this is the table(s) the form is based on.

- **Format**: Select from available formats for the selected field type. Ex: Format a calculated control as currency; select from seven date/time formats.

- **Allow Additions, Allow Deletions, Allow Edits**: These are properties of the form itself. Normally these are all set to “Yes”, but you can create a read-only form by setting these to “No”. The user can then look up information in the form but cannot make changes to it.

- **Data Entry**: Setting the data entry property of a form to Yes hides existing records. Users can add new records but not change older ones.

Sort in a combo box

Open the Property Sheet, and click the control. Click the Row Source property and then click the Build button ( ). A special query window, The SQL Statement Query Builder, will open. Set up the sorting you want the same way you would in a query.

Create a calculated control in a form

Add an Unbound control to the form, then open the Property Sheet. Click the Control Source box on the Data tab. As in a query, type in an expression (ex:=[Quantity]*[Price]) or click the Expression Builder button ( ) to create a more complicated expression.
**Subtotal a calculated field**

This shortcut saves you some typing (and in older versions of Access, it is the only good way to subtotal):

In Design view, click the calculated field, copy it, and paste it into the form footer (or if the calculated field is in a subform, paste into the subform footer).

Open the Property Sheet, and click the control. In the Control Source property, click at the beginning of the expression and type in: =Sum( then go to the end of the expression and add the final ).

Add a label to the subform and type in an appropriate description (ex: “Order Total”)

**Form Design Tools: The Format Ribbon**

This ribbon contains tools for changing the appearance of your form and its controls. The tools in the Font and Number groups work like those in other Office applications. The Background group lets you quickly add a background image to your form, or create alternate shaded rows in datasheet or tabular forms.

![Format Ribbon](image)

Use the Form Wizard to create a hierarchical form (one-to-many form) based on related tables

In a one-to-many form, the main form will represent the “one” side of the relationship; the subform will represent the “many” side. (ex: customers to orders: one customer can place many orders.) The main form will “frame” the subform.

1. Click the Create tab to view the Create Ribbon, and click the Form Wizard button. The Form Wizard box will appear.
2. On the wizard screen, use the drop down arrow to select the first table or query whose fields you wish to have in your form. Use the ➡️ and/or ➡️ buttons to move some or all fields to the Selected Fields list at the right; use the ◀️ and/or ◀️ buttons to remove some or all fields. Click a related table and select fields from it in the same way. Continue until all the fields you need are in the “Selected Fields” list. Click the Next button.
3. Choose how Access will divide the fields into a Main Form and a Subform. The main form will be based on the field you select at the left; Access will choose which fields will then go in the subform. Click Next.

4. Choose the layout you want for your subform, and click Next.
   a. Tabular: Fields in each record are arranged horizontally, with headers over each field. Many records fit on the screen at once. Recommended, because you can see the subform footer and use it for subtotals.
   b. Datasheet: Fields are arranged horizontally, and formatted to look like a spreadsheet. Many records can be viewed at once.

5. Give names to your form and subform. Click Finish. Your form will be displayed in Form View, ‘ready to use’ (see image, next page).

Working with Subforms

- When in the main form’s design view, the subform is shown as a large “control”, and it is also a form in its own right.
- To resize the subform, click it once to display sizing handles, and drag them until the subform is the right size. Click a second time to “go into” the subform and make changes to its controls.
- You can also open the subform in its own window by clicking it, then clicking the tool of that name in the Tools group on the Design Ribbon.
Remove navigation buttons from bottom of subform

One source of confusion when using subforms is that there are two sets of navigation buttons, one at the bottom of the subform and the other below the main form.

To remove these buttons, open the Property Sheet for the subform and choose Format. Set the Navigation Buttons property to No.

Practice Assignment:

1. Create a simple form to enter new donors into the database.
   a. Click once on the Donors table to select it. View the Create Ribbon, and click the Form button in the Forms group.
   b. The new form opens in Layout View. Switch to Design View and delete the inset table.
   c. Select the labels in the Details area and format them to have colored text (font color) and a contrasting color background (background color). Make all color choices from the Theme Colors at the top of the color lists.
   d. Select the text boxes containing the donor fields and make them smaller. Switch to Layout View if desired to be sure you aren’t making the boxes too small to show all the information.
   e. Change the label in the form header to read “Add New Donors”. Give the label a different fill color and font color from the labels in the Detail area. Delete the logo placeholder beside the label.
   f. Give the header and the detail area pale background colors.
   g. On the Design Ribbon, select a different theme. All your colors should shift to the new theme colors, and your font scheme will probably change as well. Save your form as Donor Entry Form.
   h. Switch back to form view, and use the form to enter the following data (remember, click ![button to create a new record; Access automatically assigns ID numbers to the new Donors):

<table>
<thead>
<tr>
<th>LastName</th>
<th>FirstName</th>
<th>Address</th>
<th>City</th>
<th>State</th>
<th>Zip</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bush</td>
<td>Barbara</td>
<td>1201 15th Street NW</td>
<td>Washington</td>
<td>DC</td>
<td>20005</td>
<td>(202) 955-6183</td>
</tr>
<tr>
<td>Obama</td>
<td>Michelle</td>
<td>1600 Pennsylvania Avenue NW</td>
<td>Washington</td>
<td>DC</td>
<td>20500</td>
<td>(202) 456-1111</td>
</tr>
</tbody>
</table>
2. Create a simple form to enter repeat donors’ contributions into the database.
   a. In the Navigation Pane, click on the Contributions table. View the Create Ribbon, and click the Form button in the Forms group. The new form opens in Layout view. Save the form as Contribution Entry Form.
   b. Switch to Design View.
      i. In the Form Header, edit the label to read “Contribution Entry Form”.
      ii. Format the form and its controls with colors and fonts you like.
      iii. If necessary, adjust field sizes to better display data.
   c. Switch back to form view, and use the form to enter the following data:

<table>
<thead>
<tr>
<th>Donor</th>
<th>Project</th>
<th>Date</th>
<th>Payment Method</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pat Crist</td>
<td>Food Bank</td>
<td>12/31/03</td>
<td>Cash</td>
<td>$ 50.00</td>
</tr>
<tr>
<td>Wayne Underwood</td>
<td>Clothes Closet</td>
<td>12/28/03</td>
<td>Credit Card</td>
<td>$ 45.00</td>
</tr>
<tr>
<td>Wayne Underwood</td>
<td>Operating Fund</td>
<td>12/28/03</td>
<td>Credit Card</td>
<td>$ 45.00</td>
</tr>
<tr>
<td>Bill Green</td>
<td>Utilities Fund</td>
<td>12/29/03</td>
<td>Check</td>
<td>$ 50.00</td>
</tr>
<tr>
<td>Bill Green</td>
<td>Food Bank</td>
<td>12/29/03</td>
<td>Check</td>
<td>$150.00</td>
</tr>
<tr>
<td>Ted Smith</td>
<td>Food Bank</td>
<td>12/31/03</td>
<td>Cash</td>
<td>$ 90.00</td>
</tr>
<tr>
<td>June Stapleton</td>
<td>Clothes Closet</td>
<td>12/31/03</td>
<td>Check</td>
<td>$ 95.00</td>
</tr>
</tbody>
</table>

Note that the controls made with the Lookup Wizard appear as combo boxes rather than text boxes. Use the combo boxes to easily pick donor names, projects and payment methods from the lists.

d. Bonus Points: Add a “Donor Name” control to the form. Use the Fields List to add the LastName and FirstName fields from the Donors table (it will be visible as a related table) and then delete them. Create an unbound text box and change its control source property to =*[FirstName]&” “&[LastName]. Position the control next to the Donor ID control. The donor’s full name should be displayed in the box.

3. Create a one-to-many form (a form with a subform) to enter new donors and their first contributions into the database:
   a. View the Create Ribbon, and click the Form Wizard button in the Forms group. Create the form as follows:
      i. In the wizard, select the Donors table and add all fields to the form, then select the Contributions table and add the ProjectID, Date, PaymentMethod and Amount fields.
      ii. On the next screen, view the data "by Donors" and select "Form with subforms".
      iii. Choose a tabular layout for the subform.
      iv. Save the forms as “First Contribution” and “Contribution Details Subform”.
      v. Click "Modify the form's design", then click Finish. The form will open in Design View. (At any point, feel free to switch back and forth between Design View and Layout View.)
b. Rearrange the selected fields as follows. (If necessary, select all the controls in the main form and click Remove in the Control Layout group on the Arrange Ribbon.)

<table>
<thead>
<tr>
<th>DonorID</th>
<th>DonorID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donor Name</td>
<td>FirstName</td>
</tr>
<tr>
<td>Address</td>
<td>Address</td>
</tr>
<tr>
<td>City, State and Zip</td>
<td>City</td>
</tr>
<tr>
<td>Phone</td>
<td>Phone</td>
</tr>
</tbody>
</table>

Edit the label text to match the shaded labels in the left column, and delete any extra labels, including the Contribution Details label beside the subform. Use alignment and sizing tools to arrange the fields. Reset the tab order using the Tab Order button in the Tools group on the Design Ribbon.

c. In the form header, resize the label saying “First Contributions” to about five inches wide. Edit its text to say “Northeast Ohio Outreach: Contributions”. Save the form.

d. Shrink the main form to 8 inches wide. (If any controls are too wide and are blocking you, shrink them or move them to the left.)

e. Click in the subform to work inside it.

i. Select all the controls in the subform using the lasso tool, then apply a tabular layout to them using the buttons on the Arrange Ribbon.

ii. Shrink the controls (the labels and text boxes should shrink at the same time) until the fields are a reasonable size to display their contents. Drag the dotted edge of the subform background (header or detail area is OK) and drop the edge close to the rightmost control. It should be around 5” wide. Scroll the window so you can see the left edge of the subform.

iii. Unroll a half-inch section of Form Footer and place a Text Box in the footer. Align this control under the Amount text box, and make it the same size and format. Open the Property Sheet and type =Sum([Amount]) in the Control Source property. Format the field as currency and close the Property Sheet. Change the label text to "Total Contributions:" and align its right edge with the CheckNo text box.

f. Return focus to the main form by clicking outside the subform. Click on the form selection box in the upper left corner of the form (the black square in the corner between the rulers), to select the entire form, and open the Property Sheet. Click the Caption property and type "NEO Outreach Contribution Form".

g. Choose a theme, and format the form with colors and fonts you like. Close the box and save your form.
h. Switch to Form View and enter the following first-time donors and their contributions:

<table>
<thead>
<tr>
<th>Rosalynn Carter</th>
<th>Hillary R. Clinton</th>
</tr>
</thead>
<tbody>
<tr>
<td>800 Wheatley Street</td>
<td>476 Russell Senate Office Bldg.</td>
</tr>
<tr>
<td>Americus, GA 31709</td>
<td>Washington, DC 20510</td>
</tr>
<tr>
<td>(229) 928-1234</td>
<td>(202) 224-4451</td>
</tr>
<tr>
<td>Food Bank</td>
<td>Utilities Fund</td>
</tr>
<tr>
<td>12/26/03</td>
<td>12/31/03</td>
</tr>
<tr>
<td>Credit Card</td>
<td>Check</td>
</tr>
<tr>
<td>$100.00</td>
<td>$100.00</td>
</tr>
</tbody>
</table>