Lab 2: Using the Data Control

For background information on this lab, click each of these topics:

Objectives

In this lab, you will use the Data control to build a data-entry form.

After completing this lab, you will be able to:

- Use the Data Form Wizard to build a Master/Detail form.
- Manipulate a database by using the Data control and data-bound controls.
- Use the DBGrid control to view and edit data.
- Use the DBCombo control for data entry.

Prerequisites

Before working on this lab, you should be familiar with the following concepts:

- Basic understanding of databases
- The contents of this chapter

Lab Setup

To complete this lab, you need the following setup:

- Visual Basic 5.0 or later
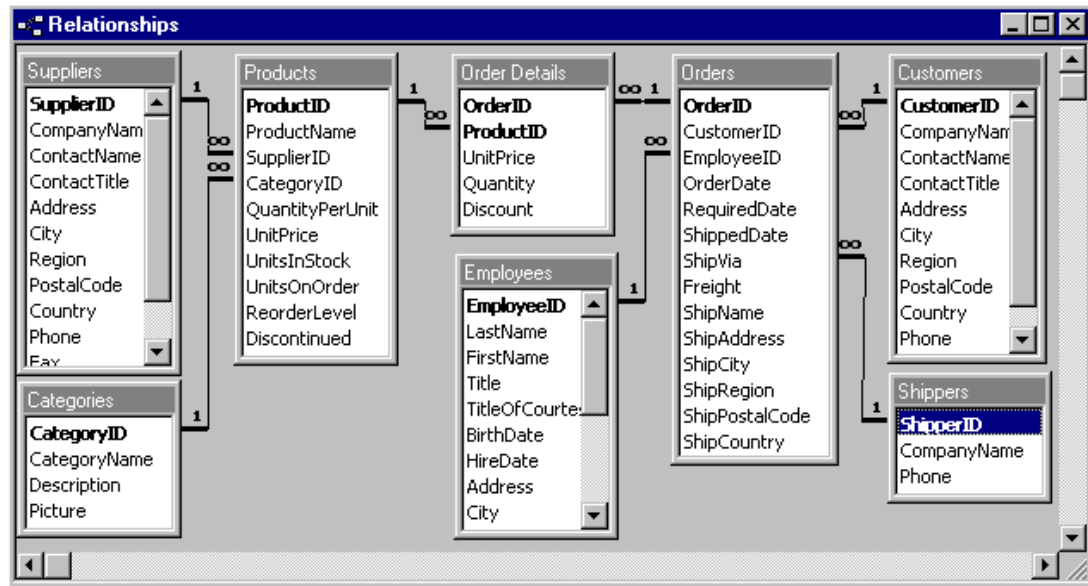
To see a demonstration of the completed lab solution, click this icon.

Estimated time to complete this lab: **60 minutes**

Note There are project and solution files associated with each lab. If you installed the labs during Setup, these files are in the folder *<Install Folder>*\Labs on your hard disk. If you did not install the labs during Setup, you can find them in the \Labs folder of the *Mastering Microsoft Visual Basic 5* CD-ROM.

In the database labs, you will be working with the Nwind.mdb database. To see the schema for this database, click this icon.

Exercises

The following exercises provide practice working with the concepts and techniques covered in Chapter 2.

Exercise 1: Creating a Data Entry Form

In this exercise, you will use the Data Form Wizard to create a Master/Detail data entry form using the Orders and Order Details tables in the Nwind.mdb database.

Exercise 2: Using the DBCombo Control

In this exercise, you will enhance the Orders form by replacing the Employee ID text box with a data-bound combo (**DBCombo**) control.

Exercise 3: Using the Validate Event

In this exercise, you will use the **Data** control's Validate event to confirm changes made to the Orders table.

Exercise 1: Creating a Data Entry Form

In this exercise, you will use the Data Form Wizard to create a Master/Detail data-entry form by using the Orders and Order Details tables in the Nwind.mdb database.

▶ **Create the Orders form**

1. Create a new Standard EXE project.

2. Using the Add-In Manager, load the Data Form Wizard.

   The Data Form Wizard command should now appear on the **Add-Ins** menu.

3. On the **Add-Ins** menu, click **Data Form Wizard**.

4. Select the Data Form Wizard options, as shown in the following table.

   For more information about the Data Form Wizard, see Using the Data Form Wizard.

Option	Value
Database format	Access
Database Name	*<VB Install Folder>*\Nwind.mdb
Form Layout	Master/Detail

Master Record Source	Orders table
Master Fields	OrderID, CustomerID, EmployeeID, OrderDate, ShipName
Detail Record Source	Order Details table
Detail Fields	All fields in the Order Details table
Field to link Master and Detail	OrderID
Available Control	All
Form Name	frmOrders

5. In the **Project Properties** dialog box, set **Startup Object** to **frmOrders**.

6. Run the application.

   Your form should resemble the following illustration.

Note The Data Form Wizard creates a control array for all text boxes on a form. For more information about control arrays, search on "control arrays" in the Visual Basic Help index.

▶ **Examine the form created by the Data Form Wizard**

1. Quit the application, and note the following properties and events of the form.

   a. The **DatabaseName** and **RecordSource** properties of the **Data** control.

   b. The **Data** control event procedures, in particular the Reposition event, which ensures that the Master/Detail records are synchronized.

   c. The **DataSource** and **DataField** properties of each of the text boxes.

   d. The Click event procedure for each of the command buttons.

   e. The **DataSource** property of the **DBGrid** control.

2. Save the form as Orders.frm, and save the project as Orders.vbp in the folder *<Install Folder>*\Labs\Lab02.

Exercise 2: Using the DBCombo Control

In this exercise, you will enhance the Orders form by replacing the Employee ID text box with a data-bound combo (**DBCombo**) control. This will enable users to select employees by name without having to know their ID.

▶ **Add a data control**

1. Open the Orders form.

2. Add a new **Data** control to the form.

3. Set the **Name** property to datEmployees.

4. Set the **DatabaseName** property to *<VB Install Folder>*\Nwind.mdb.

5. Set the **RecordSource** property to Employees.

6. Set the **Visible** property to **False**.

   The **Data** control is hidden because it is used only to supply information to the data-bound combo box. The user does not interact with this control directly.

▶ **Add a DBCombo control**

1. On the Orders form, replace the Employee ID text box with a data-bound combo box.

   You will need to add the control to the Toolbox before you use it on the form.

2. Set the **RowSource** and **ListField** properties of the data-bound combo box so it contains the Employee Last Name. Set the **RowSource** property to datEmployees, and the **ListField** property to LastName.

3. Set the **DataSource**, **DataField**, and **BoundColumn** properties of the data-bound combo box so that the correct data is returned to the Orders table.

   Set the **DataSource** property to datPrimaryRS (the **Data** control created by the Data Form Wizard), and set the **DataField** and **BoundColumn** properties to EmployeeID.

   Set the **DataSource** property to datPrimaryRS (the data control created by the Data Form Wizard).

   Set the **DataField** property to EmployeeID.

   Set the **BoundColumn** property to EmployeeID.

4. Test the application.

    Your form should resemble the following illustration.

   As you move between records, does the data bound combo box display the correct information?

   If you select a new employee, is that information saved correctly in the Orders table?

    For more information about using the **DBCombo** control, see Using the DBCombo Control.

Exercise 3: Using the Validate Event

In this exercise, you will use the **Data** control's Validate event to confirm changes made to the Orders table.

1. Edit the Validate event for the **Data** control in the Orders table.

2. If any edits have been made to the current record, use a message box to prompt the user to the save changes.

3. If the user answers No to saving changes, delete the changes by using the **Save** argument.

4. Run the application.

5. Edit the ShipName field, and move to the next record.

   You should be prompted to save the changes. Choose No, and check to see if the changes are canceled.

If your code is not working properly, click this icon to see the solution for the lab.

```
Dim iResponse As Integer
If Save = True Then 'data has changed
    'get rid of changes if user does not want to save
    iResponse = MsgBox("Save changes?", vbYesNo)
    If iResponse = vbNo Then
        Save = False
    End If
End If
```