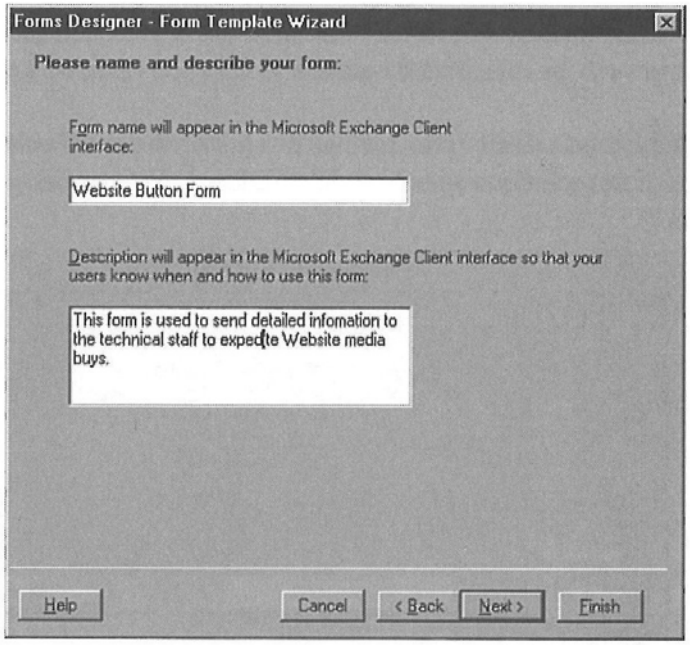


FIG. 33.5
The Finish screen of the Wizard shows you the next steps you'll need to take when designing your form.

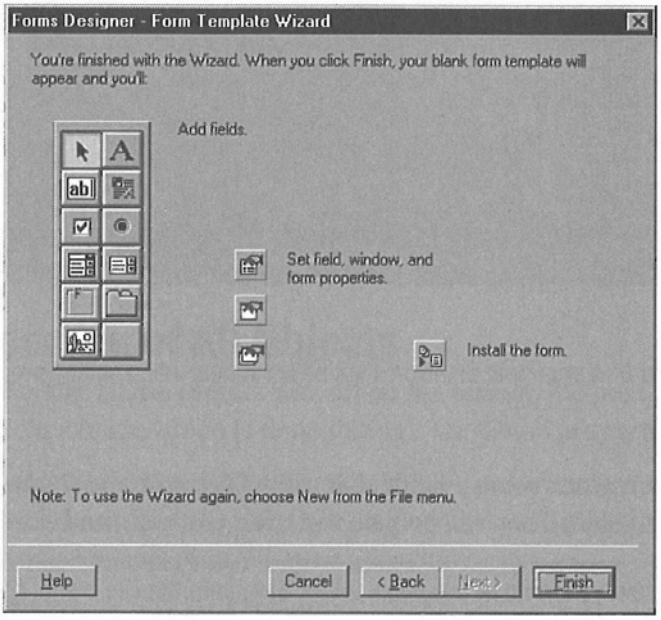


FIG. 33.6
Clicking Finish lays out the default fields onto the form and brings up the screen where you can add fields.

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NOTE You could use an Entry Field for this field, but for this example, it is good to try to experiment with the different field types. ■

Select the Listbox tool from the toolbar. Drop it onto the left side of the form and size by using the same technique as before. In addition, type **Company** into the caption (see Figure 33.7).

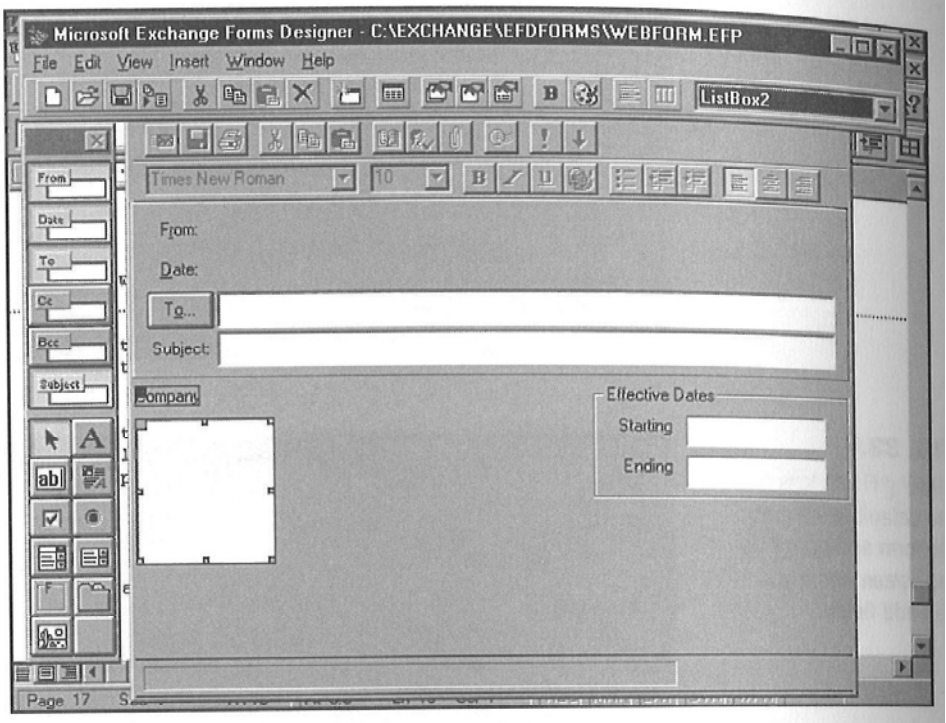


FIG. 33.7
You now have four elements on your form: a frame, two entry fields, and a listbox.

NOTE The items that appear in the listbox will be input later when setting properties for each field. ■

12. Next add three more entry fields that will sit between the frame on the right and the listbox on the left. They will contain the URL, OurURL, and Size fields.

TIP It is a good idea to save your form at this point. Select Save from the File menu, give your form the name WEBFORM, and click OK.

13. Next you create the frame for the Transport field. This will consist of creating a frame with three radio buttons. The frame caption should read "Transport," and the three radi buttons should have the captions "America Online," "Compuserve," and "Internet," respectively.

    As a reminder, click within a caption to change the text and drag the edges of the box to resize. To move boxes around, click somewhere inside the box when the cursor is an arrow and drag the item around the form. If you are familiar with Windows applications this should be familiar to you.

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NOTE You'll notice that the listbox containing the company field has been extended. It is very easy to control the length of the box by dragging on the border. ■

14. You only need to create three more fields: entry fields that will hold the Address, Contact, and ContactPhone fields. They are shown in Figure 33.8.

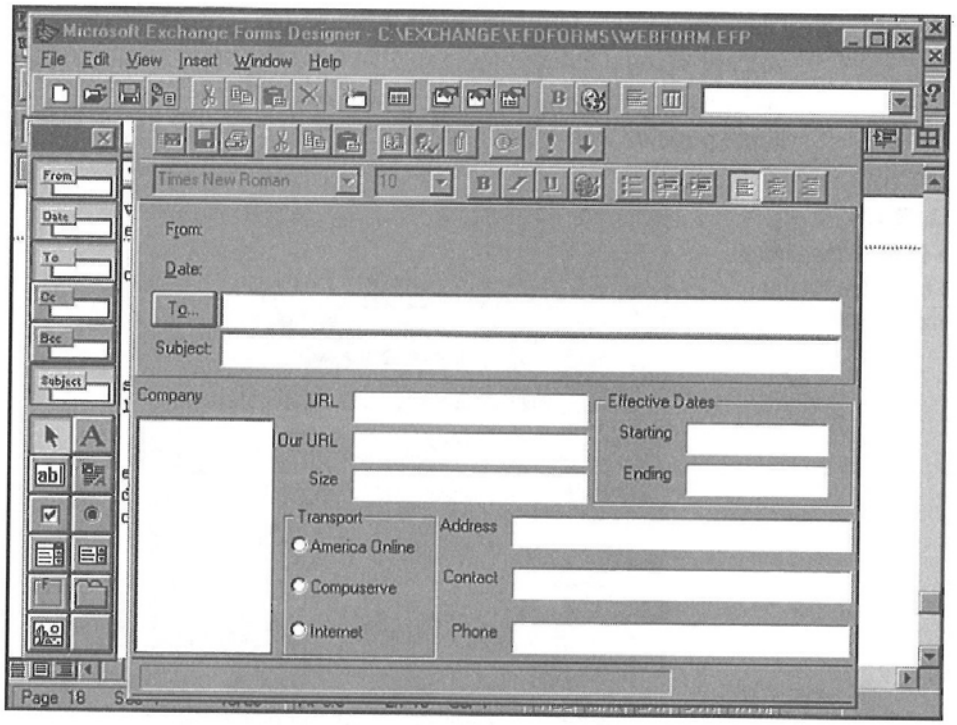


FIG. 33.8
The form is now completed.

Setting the Properties of All Objects

Now that the form has all the objects laid out on the screen, the next step is to make them actually perform functions, which is done through the use of properties.

Setting Form Field Properties First set the properties for all the fields on the form. The reason the fields come first is that each field is given a name in the properties field that makes it easier to reference when setting Window properties.

1. Double-click the Company field; the properties screen will appear as shown below. There are tabs of information: General, Format, and Initial Value.

TIP You can select the field and press F4 instead of double-clicking the object. For fields in tight areas of the screen, this is the preferred method because double-clicking these areas sometimes yields strange results, such as the selection of text.

2. On the General tab, enter **Company** into the Reference Name field. The reference name is simply the variable name assigned to the field. You will use this when determining things such as tab order.

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3. Check the Required check box (see Figure 33.9). This field is required because without a company name, the rest of the fields cannot be complete. The purpose you established earlier will aid you in determining whether a field is required or not.
4. Click the Format tab. This tab controls the font, alignment, appearance, and style of the field value and the caption. The formatting defaults are correct for your purposes for this application.
5. Click the Initial Value tab (see Figure 33.10). This tab differs for each kind of field. Since you are using a listbox, this tab gives you the opportunity to fill in the values in the list and select a default. Fill in the values according to Figure 33.9. These are the names of some popular web sites that sell advertising space.

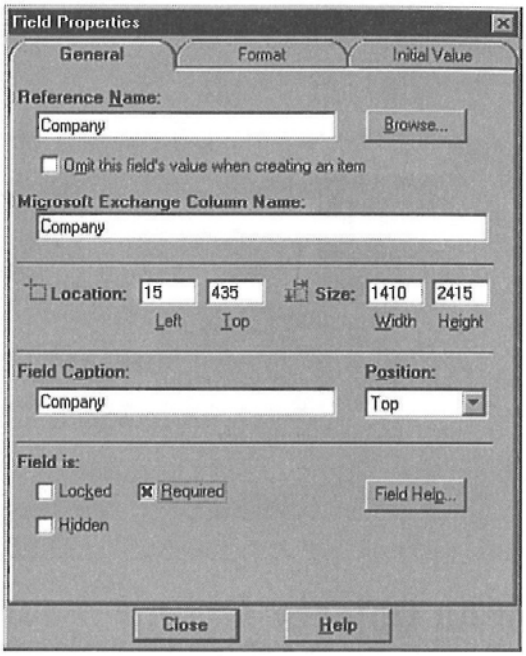


FIG. 33.9
The General Properties are complete for the Company field.

6. Click the Close button.
7. Move the pointer over the URL field and double-click.
8. On the General tab, type **URL** as the Reference Name (see Figure 33.11).
9. Check the Required check box.
10. Complete the procedures in steps 7 through 9 for all the fields remaining on the form. The Reference Name will match the Caption in the General tab of all the fields (excluding spaces).
11. Double-click the Internet radio button in the Transport frame.
12. Click the Initial Value tab.
13. Click the selected radio button.
14. Select Close.

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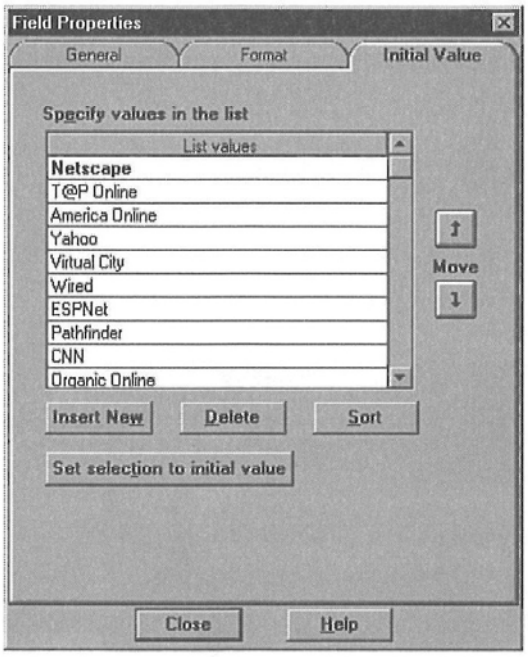


FIG. 33.10
Highlight any entry and click the Set selection to initial value button to make it the default.

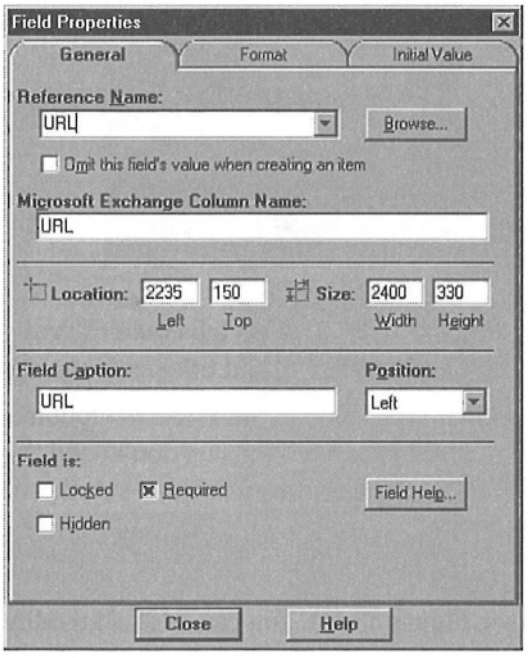


FIG. 33.11
The General tab contains the same information regardless of field type.

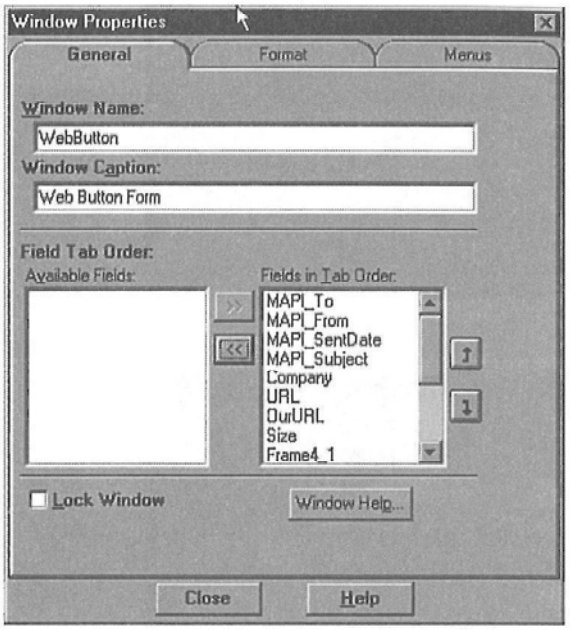
You've now completed all the form properties required for this form. You'll probably need to set other properties for other forms, and this example provides you with a good starting point.

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Setting Window Properties Forms contain fields and windows. Just as fields have properties, so do windows. Follow these steps to set window properties:

1. Select Window Properties from the View menu.
2. Type **WebButton** into the Window Name field.
3. Type **Web Button Form** into the Window Caption field.
4. Establish the tab order by selecting fields and clicking the button marked. See Figure 33.12 for an example of the field order.

FIG. 33.12
The layout of the window is determined by its properties.



5. Click the Format tab (see Figure 33.13). This tab contains properties for window behavior. Background color, window icon, and title-bar icons are set using this tab.
6. Click the Formatting toolbar check box in the Window Options section. Since all the necessary fonts are configured for each field, you don't need the Formatting toolbar for this specific application. It has been removed to show you the variations you can make to a form. (You can leave.)
7. Change the Window Sizing Options drop-down box to Resizeable.
8. Click the Menus tab (see Figure 33.14). You can add and modify menu items here. For your form, you do not need to modify this at all. Refer to the online help and Microsoft documentation for more information on modifying menus.
9. Click the Close button.

The Window Properties have now been set. This is the second tier of properties you need to set for your form. This chapter now moves on to the third and final set of properties that control how the form itself interacts with the user.

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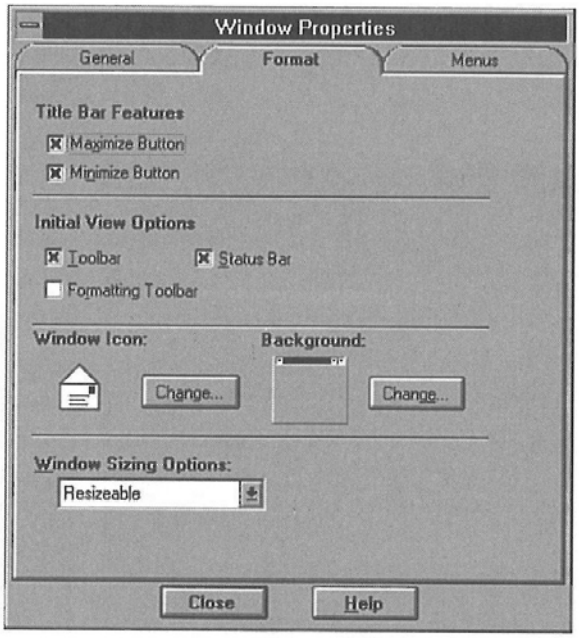


FIG. 33.13
Your Format properties are now complete.

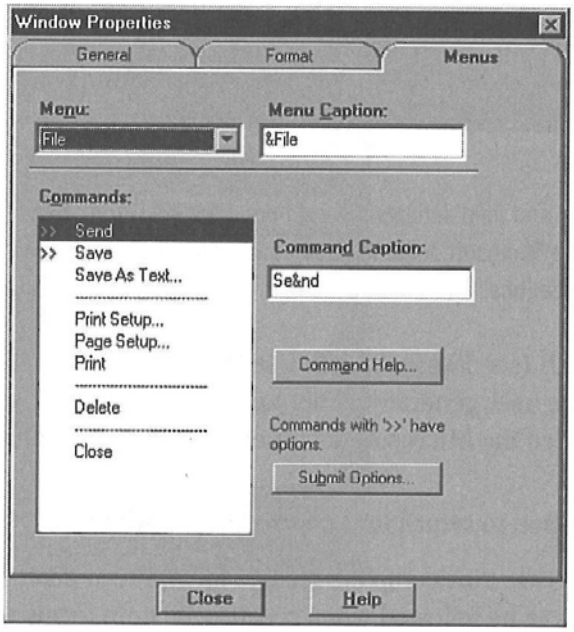


FIG. 33.14
The Menus tab gives you the opportunity to change the menus at the top of the screen.

Setting Form Properties You'll now set the form properties. Follow the step-by-step model, using the various figures to keep you on track:

1. Select Form Properties from the View menu.

TIP You can also press Ctrl+F to get to the Form Properties.

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This brings up the properties that define your form. As you can see, the General tab contains the Form Display Name and Description you entered in the wizard (see Figure 33.15). There are no other mandatory properties you need to set for this application.

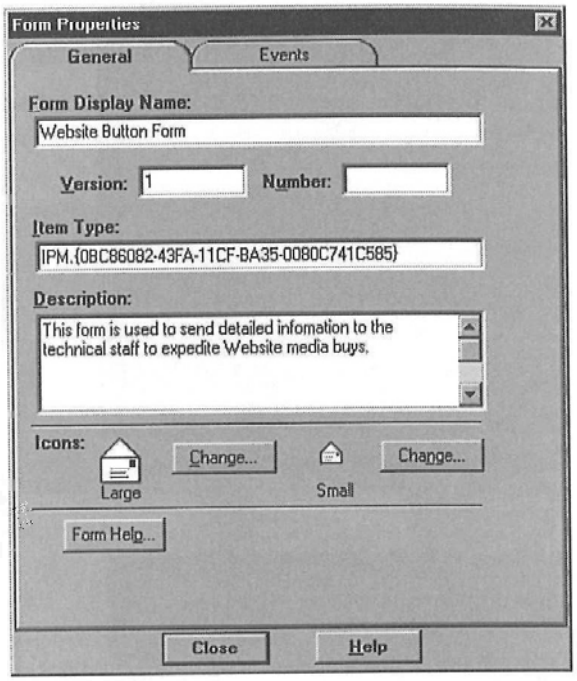


FIG. 33.15
Use the General tab to control how the user sees your form.

NOTE Although the icon and help settings are set here, they are not modified for this application. Please refer to the Microsoft documentation and online help for more information on setting up help for your applications. ■

2. Click the Events tab (see Figure 33.16). Use this tab to define how the form will react to different events the user generates. This particular form requires no modification of these properties. See the Microsoft documentation and the online help for a full description of these fields.
3. Click the Close button to return to the main editing window.

All the needed properties are now complete for this form. From here, you'll continue on with the list of steps that need to be followed when creating custom forms with Exchange.

Installing the Form

When you install a form, Visual Basic code is generated, and an executable file is generated that Exchange runs when someone calls the form. This code can be called up within Visual Basic later on to add more functionality to the form or application. Follow these steps to install the form:

1. In the Viewer, create a new private folder called **Web site Buttons** in your Mailbox container (see Figure 33.17).

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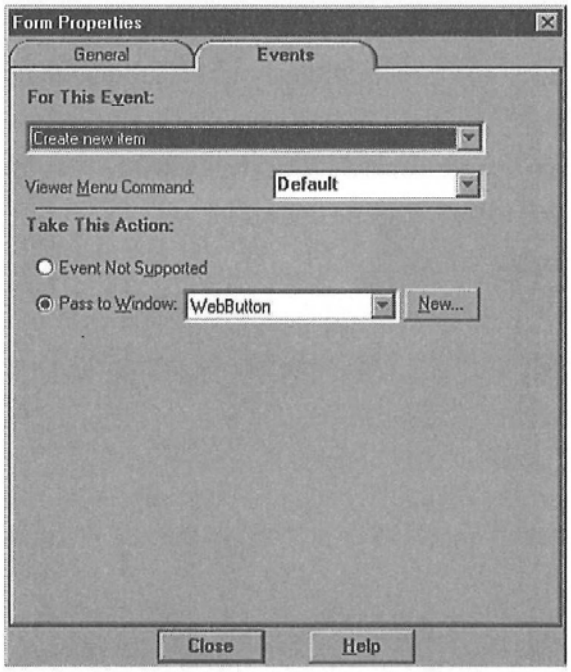


FIG. 33.16
The Events tab is used to control how the form will react when different events are triggered.

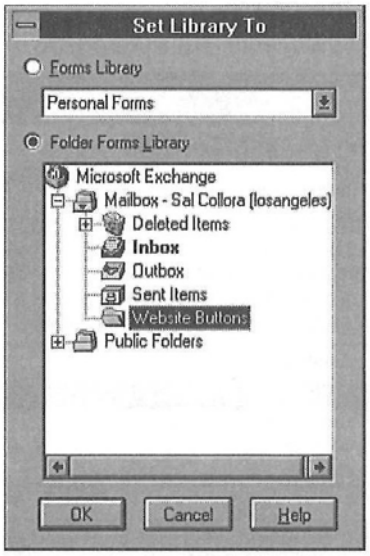


FIG. 33.17
The installation procedure does all the work for you. All you have to do is select where you want the form to reside.

2. Choose Install from the File menu. This initiates the process of calling Visual Basic and compiling the form. After the computer finishes all those steps, a prompt appears asking you where to install the form.
3. Click the Folder Forms Library radio button and select Web site Buttons from the list of folders. If the list doesn't appear, click the plus symbol to expand the tree of folders.
4. Click OK.

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Testing the Form

You now need to run through the form to make sure everything works properly. This is really not a step-by-step process. Look for the following items:

- Required in the Field Properties are actually required to submit the form.
- Button groups let you select only one button.
- Form layout is correct.
- Fonts look appropriate at all resolutions.

To use the form, select New Web site Button Form from the Compose menu in the Viewer.

Designing the Views

The Column Name property of each field becomes very important when designing views. You can group, sort, and display information by any one of the column names you defined in the design phase.

The Web site Button form is used to send structured data to another user (see Figure 33.18). You've created a folder for the form, and will now design a view. When the user receives a Button Form in his or her Inbox, dragging into this folder will make the item conform to the default view. Follow these steps to design the views:

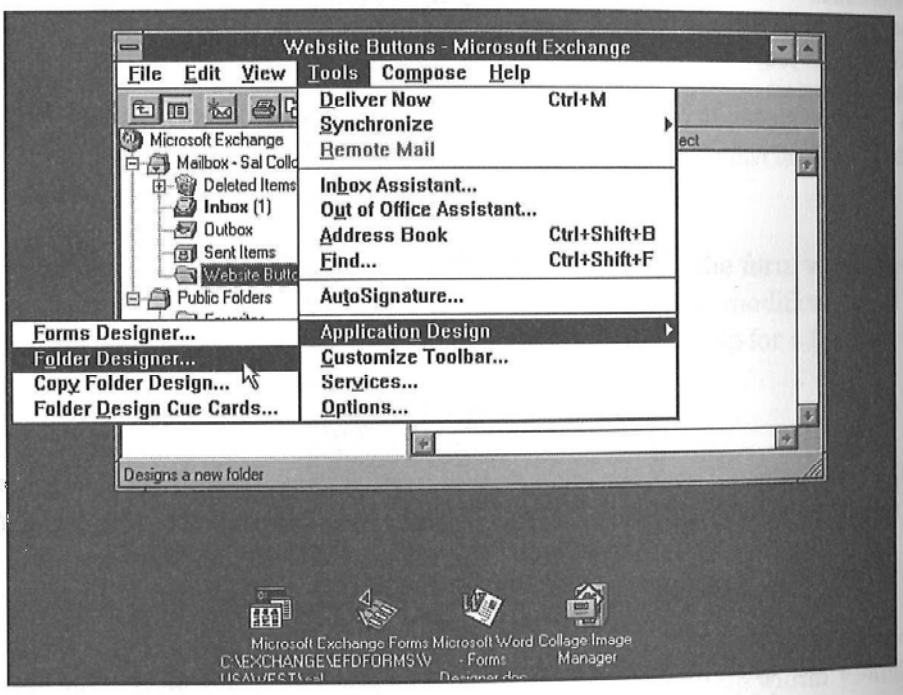


FIG. 33.18
Designing views is made easy by the Folder Designer.

1. From the Tools menu, choose Application Design, then Folder Designer.
2. Click the Views tab (see Figure 33.19).
3. Click the New button.

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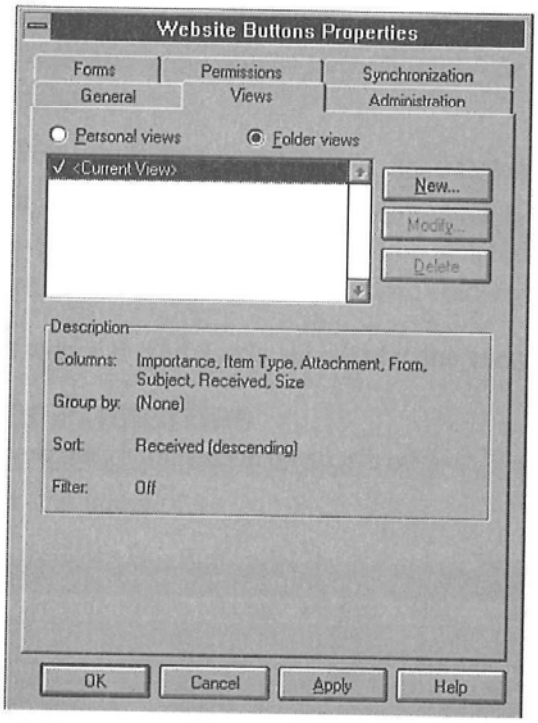


FIG. 33.19
The Views tab displays the views available and provides a textual description of each.

4. Type **by Company** in the View name box.
5. Click the Columns button.
6. Highlight each of the entries in the Show the Following list and click the Remove button so the list is empty.
7. Click Company in the Available Columns list and then click the Add button.
8. Click Transport in the Available Columns list and then click the Add button.
9. Highlight Transport in the Show the Following list and then click the Move Down button.
10. Click Address in the Available Columns list and then click the Add button.
11. Highlight Address in the Show the Following list and then click the Move Down button.
12. Click Sent in the Available Columns list and then click the Add button (see Figure 33.20).

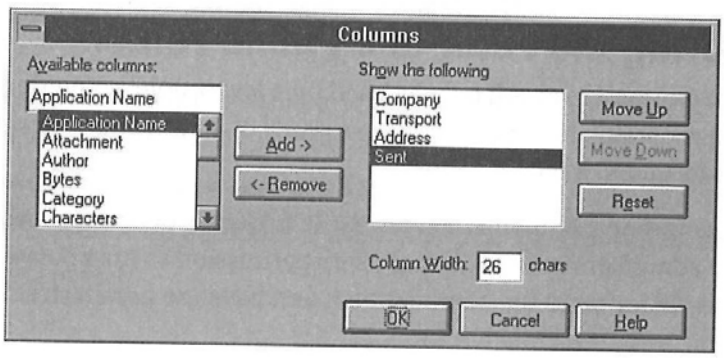


FIG. 33.20
The layout of the columns included in the view should look like this after steps 5-12 are completed.

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13. Highlight Sent in the Show the Following list and then click the Move Down button.
14. Click OK.
15. Click Sort.
16. In the drop-down list, select Sent.
17. Click the Descending radio button.
18. Click OK.
19. Click OK.
20. Double-click the Company entry in the list check box. It is now the default view.
21. Click OK.

All the entries in this folder will now be displayed according to the view you created (see Figure 33.21).

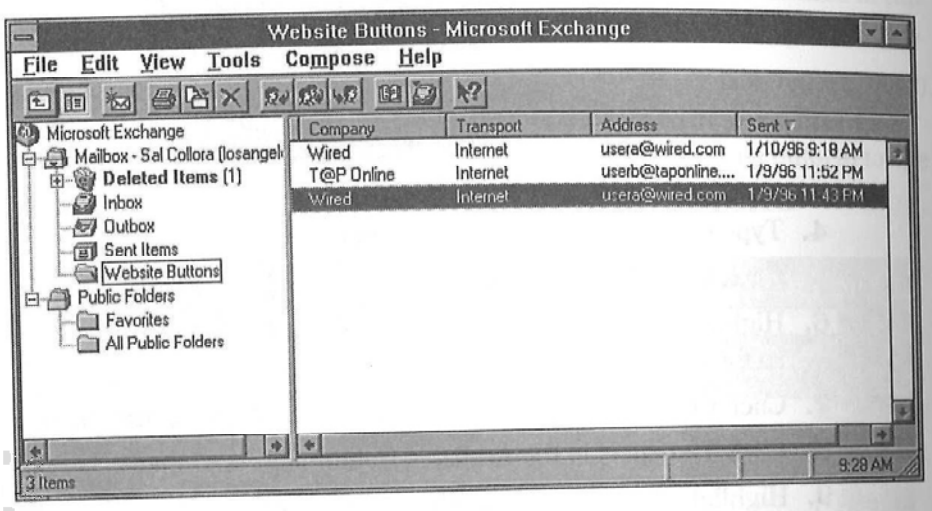


FIG. 33.21
Views determine how the items appear in the folder.

You have now completed all the necessary steps for the web site button form. The next steps are provided for demonstration only because this form is a send form, which is intended to simplify sending structured information to a particular user.

You can, however, make the public folder the recipient of the message. This would enable a centralized repository of all the Web site Button buys.

Copying or Moving the Form to a Public Folder

The Web site Button Form will only be used by a few people, so putting it into a public folder isn't really appropriate; however, for the purposes of illustration, you will go through the steps of copying a form into a public folder.

In some organizations, administration of these folders is centralized, and information policy prevents the administrator from giving users permission to manipulate public folders. The user must pass the folder on to the administrator, and have the administrator perform the following steps.

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In some cases, however, a new public folder will be created, and permission will be granted to the user to manipulate the folder and its forms library. The following tutorial assumes you have all the proper permissions:

1. Select the Web site Button Form folder.
2. Choose Copy from the File menu.
3. In the Copy box, select the public folder into which you would like to copy the Web site Buttons form. In this case, it's the All Public Folders folder.
4. Click OK.

Setting the Folder Properties

Now that the form has been moved to a public folder, you must now follow these steps to set the properties for that folder:

1. Right-click the Web site Button folder and select Properties.
2. Select the Administration tab (see Figure 33.22).

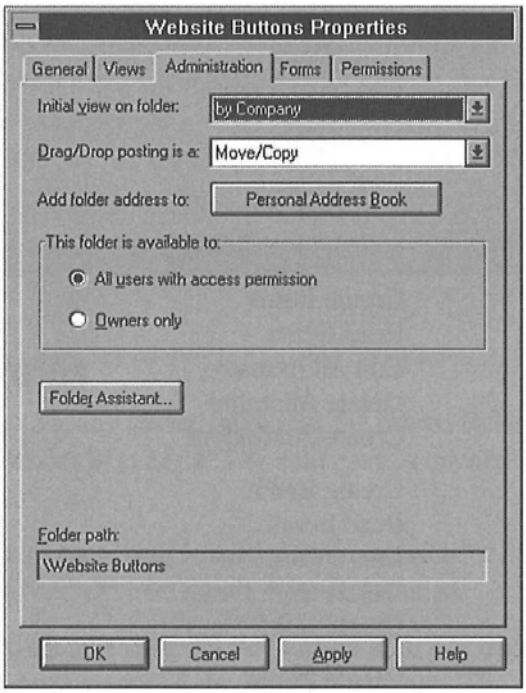


FIG. 33.22
The Administration tab should now be completed.

3. Select Company as the Initial view on folder. This will ensure that all items in that folder conform to the view we defined earlier.
4. Select Move/Copy in the Drag/Drop listbox.
5. Select the All users with permission radio button in the This folder is available to box.
6. Select the Forms tab.

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7. Click the Only forms listed above radio button. This ensures that only the Web site button form will be allowed in this folder. This protects against someone putting in some other type of form, such as a Vacation/Absence form in the Web site Button folder.

Setting Folder Permissions

To set the folder permissions, follow these steps:

1. Click the Permissions tab (see Figure 33.23).
2. Click the Default user and change the Role to None. These are the properties for all users. Changing the Role to None means that users have no privileges in the folder. Table 33.2 lists all the roles and their associated permissions.

Table 33.2 Roles and Permissions

Role	Permission
Owner	All
Editor	Create Items Read Items Edit All Items Delete All Items
Author	Create Items Read Items Edit Own Items Delete Own Items
Publishing Editor	Create Items Read Items Edit All Items Delete All Items Create Subfolders
Publishing Author	Create Items Read Items Edit Own Items Delete Own Items Create Subfolders
Reviewer	Create Items Read Items
Contributor	Create Items
None	No Permissions Granted
Custom	Enables you to set permissions that do not match a predefined role

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3. Click the Add button.
4. Select the users you want to have access to your folder and click the Add button.
5. Change the role of each user you've added to Author. This allows them to Create and Read items in the folder. As you can see, each user can only edit and delete their own items.

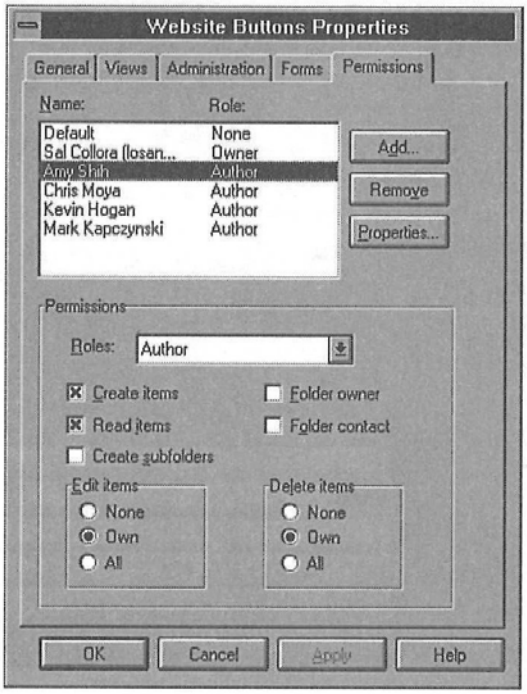


FIG. 33.23
The Permissions tab enables you to control who has access to your form and what operations each user can perform within the folder.

Setting Folder Rules

You can use rules for any folder, including the Inbox. Rules process incoming items by running them through a series of criteria. The rule itself is the action to take upon the meeting of those specified criteria.

Some organizations have people with certain contacts or specialties. You can set up rules to copy messages to certain users with those specialties.

You're going to set a rule that will forward all Web site Button requests for ESPNet to Ruben Perez because he processes all the ESPNet dealings. The user you choose obviously depends upon your own site. Follow these steps to set folder rules:

1. Right-click the Web site Button folder and select Properties.
2. Select the Administration tab.
3. Push the Folder Assistant button.
4. Click Add Rule.

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5. Click the Advanced button.
6. Click the Folder: Web site Buttons radio button in the Show properties of group.
7. Select the Company check box.
8. Select the ESPNet listbox (see Figure 33.24).

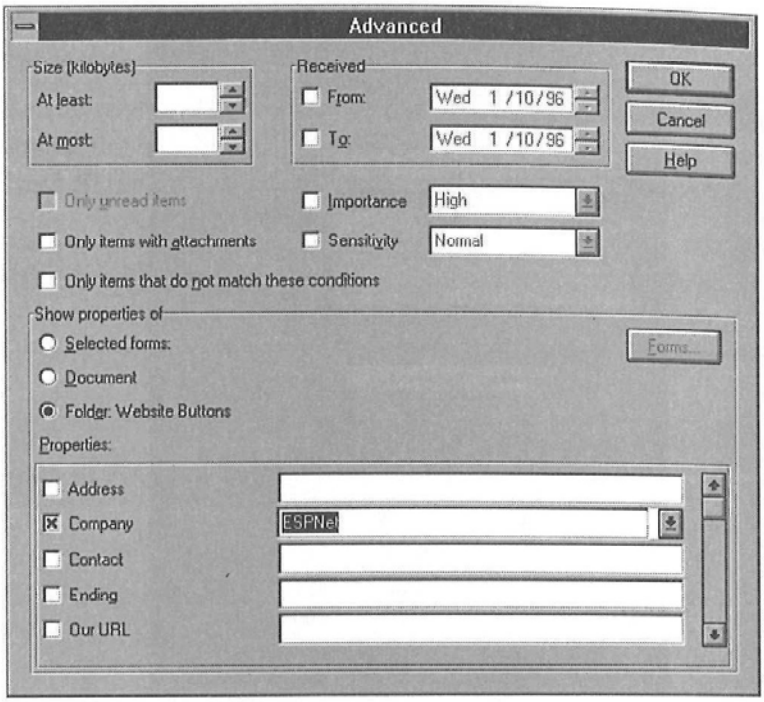


FIG. 33.24
In the Advanced properties, you select fields on the form as search criteria.

9. Click OK.
10. Click the Forward check box (see Figure 33.25).

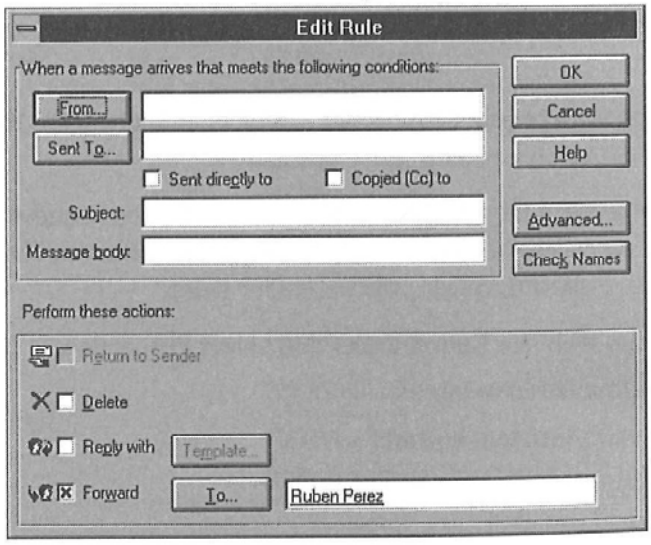


FIG. 33.25
You've now set up a complete rule. All ESPNet requests will be forwarded to the user you chose.

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11. Click the To button.
12. Select the proper user from the list and click the To button.
13. Click OK.
14. Click OK (see Figure 33.26).
15. Click OK.

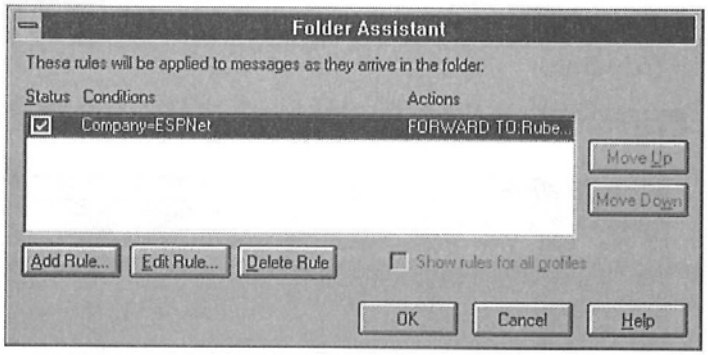


FIG. 33.26
The newly created rule is now added to the rule list in the Folder Assistant.

You've now completed all the steps in the folder design process. Your form now makes it a lot easier to expedite Web site Button requests. The purpose of using this type of application is to show you how you automate any kind of process.

The Exchange CD-ROM ships with many examples of common office forms. Using what you have learned here, you can go about modifying those for your own purposes.

Using Your Form

Now that you've created a new form and placed it in a public folder, accessing it and using it are a snap.

Address to a person by completing the following steps:

1. Select the Web site Buttons Folder.
2. From the Compose menu, choose New Web site Button Form. The forms appear on your screen.
3. Fill out all the required fields.
4. Click the To button.
5. Select a recipient and click the To button.
6. Click OK.
7. Click the Send icon.

Address to the Web site button Public Folder by completing the following steps:

1. Select the Web site Buttons Folder.
2. Right-click and select Properties.

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3. Click the Administration tab.
4. Click the Personal Address Book button. This copies the name of the folder to your Personal Address Book so you can send an item to the folder.
5. Click OK.
6. From the Compose menu, choose New Web site Button Form. The form appears on your screen.
7. Fill out all the required fields.
8. Click the To button.
9. Select Personal Address Book from the Show Names from listbox (see Figure 33.27).

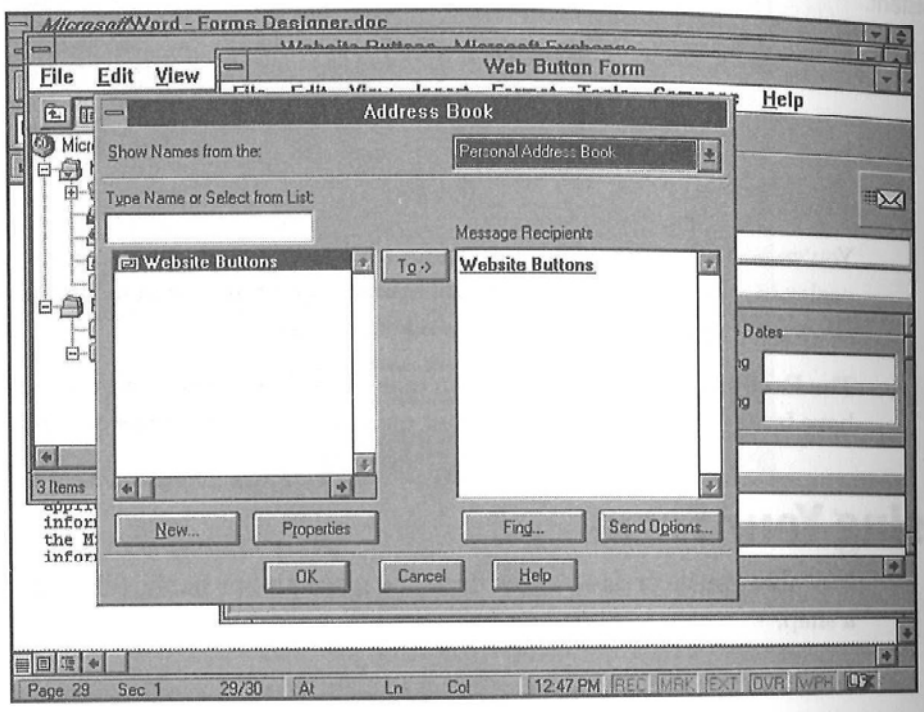


FIG. 33.27
The Web site Buttons folder is now in your Personal Address Book.

10. Select the Web site Buttons entry.
11. Click the To button.
12. Click OK.
13. Click the Send icon.

Extending Forms with Visual Basic

Since forms are Visual Basic applications, you can actually use Visual Basic to extend the functionality of forms beyond what the Forms Designer offers. The Forms Designer simply gives you a "No Programming" environment where you design very powerful applications without typing one line of code.

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This section covers only a brief overview of what you need, what goes into using Visual Basic to modify applications, and why you would want to use Visual Basic to modify applications. You can refer to the Microsoft documentation and Visual Basic documentation for specifics on using Visual Basic for MAPI and OLE applications.

Anyone who wants to use VB to extend an application created with the Forms Designer should be very experienced with Visual Basic, as well as MAPI and OLE. Forms are 16-bit applications; therefore, you can only use the Visual Basic for Exchange that is installed when installing the Exchange Client and Forms Designer or 16-Bit Visual Basic 4.0.

Potential Uses of Visual Basic with Exchange Forms

You might be asking yourself, why would I want to use VB to extend forms? Here are just a few examples of how VB can improve your forms:

- You can use a form to enter data into external databases. If you have a form for ordering office supplies, for example, you can extend the form. Once the purchasing supervisor reviews the requisition and approves it, the data gets entered into a Microsoft SQL Server database automatically, and the purchase order is generated with the daily run.

  By using public folders, you can distribute the application throughout the Exchange network without actually copying the .EXE file on all the servers in your network for all your users to access. In addition, when the form is modified, all the users on the network get the most up-to-date version of the form automatically without the need to redistribute. All that is controlled by the synchronization within Exchange.

- You can include OLE controls in a form that can take data from OLE-compliant applications such as Excel. If you want your form to grab the latest data from a spreadsheet and paste it into the form, for example, you can write code that reads the contents of the OLE control into a file, and then reads the file into the form using OLE Messaging functions.

  You can use this function to send hourly time sheets to a user in native Excel format. The form can contain a blank Excel worksheet that has the header cells filled in with the days of the month, and you just fill data right into the worksheet. The recipient can then either cut, copy, and paste the data, or save it directly as an Excel file.

Modifying Applications

When you install a form using the Forms Designer, several files get created in a directory called <FORMNAME>.VB. These files are used when extending forms with Visual Basic (see Figure 33.28).

When using VB, only the <WINDOW NAME>.FRM files and the <FORM FILE>.CFG files are modified. Once you finish using Visual Basic to modify your form, you need to register all the new fields and properties in your form with Exchange. You will need to modify the .CFG file directly in Notepad or Wordpad to add all the objects and properties so they are recognized by Exchange.

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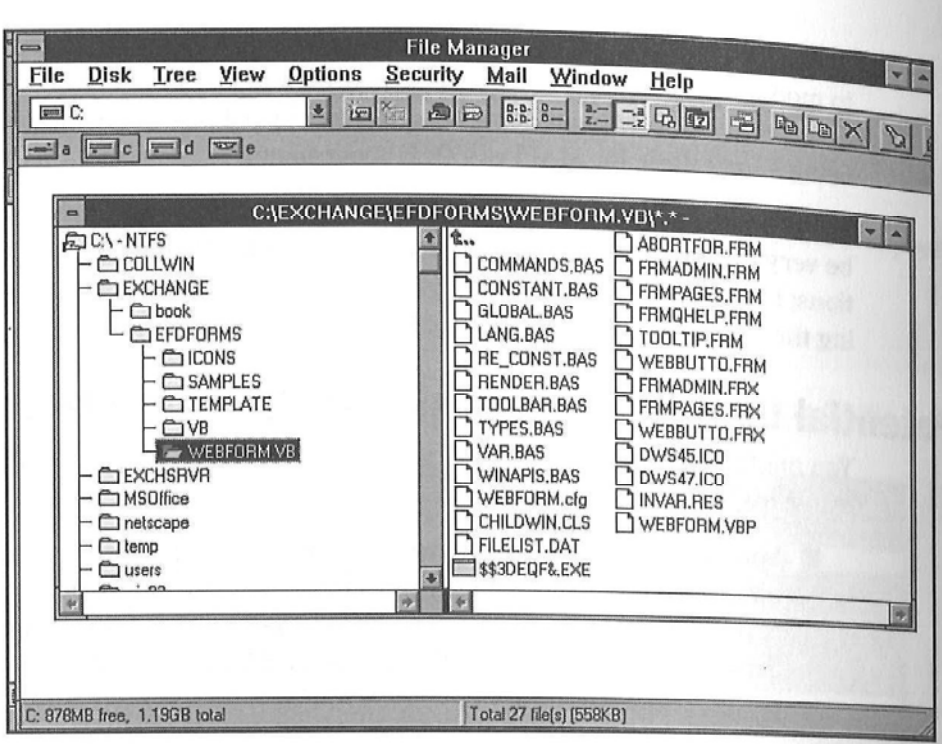


FIG. 33.28
The WEBFORM.VB directory contains all the files used by Visual Basic.

NOTE Before you can install the Forms Designer, the Exchange Microsoft client must be installed. In order to get the sample applications along with your installation, you can choose either Typical or Custom/Complete. Typical installs with most files. Custom/Complete enables you to choose whether to install the sample applications or not. When you choose either of these installations, you must reboot because system files will be changed during the installation system. ■

NOTE When using forms with an NTFS partition, you are not able to use the custom forms in Microsoft Exchange if you are running Windows NT 3.51 Server or a Workstation computer. To change this, you must alter a specific registry key that reads as follows:

HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\FileSystem\NtfsDisable8dot3NameCreation = 0x1

To use custom forms, you must delete this key or set its value to 0. In a Windows NT 4.0 Workstation and Server environment, this particular registry key value is set to 0 by default. ■

When you are planning to design forms, decide on a home directory for your work to give you a sense of structure from the beginning. If you don't establish structure from the beginning, you won't know where the Forms Generator is keeping your files, which may lead to duplicate files in other directories all over your hard drive. When you pick a directory (such as c:\exchange\efdforms), the Electronic Forms Designer (EFD) starts to store all your information in that folder. This is especially helpful when you extend your forms with Visual Basic's 16-bit version. The 32-bit version of Visual Basic 4.0 is not currently compatible with EFD. When you install the form, you are finished. The EFD creates a folder with the same name as your efp file and a Visual Basic extension. Inside this folder is the Visual Basic Project file (VFP).

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