Chapter 4.

Forms and Browses

Its a visual thing…

Forms and browses are all about inputting data and viewing records. Alpha Five has always made it easy to design sophisticated styles for the desktop. Now, you can plan for the future with systems that can be used on both desktop and web. Best of all, the built-in design aides make everyone look like a pro!

Overview

We cover a LOT in this chapter. Since it so lengthy, we've broken it down into sections. Here's a quick review of the topics and where you'll find them when you need a refresher for your own application. Exercises are created in "teaching order," so look in around for what you need. Details in the Table of Contents and Index.

Don't miss out!

This chapter has several features that are detailed in *Alpha Five Made Easy* Check them out on page 191.

Preparation for the Lesson.

Open Alpha Five and navigate to the following file:

- c:\A5_MadeEasyDesktopBook\ABC_DesktopLessons\ABC Seminars.adb*
- 

Click on the Control Panel tab in the Window Bar at the bottom of the screen to bring the Control Panel to the front.

SPECIAL NOTES

Summary Genie: As fields are added to the form, the *Summary Genie* may pop-up. Accept the default settings and click *Finish*. The genie may be deactivated by clicking the "magic lamp" in the upper right corner of the toolbox.

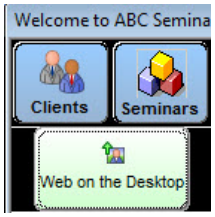
Sections: Because this is a long chapter, it has been broken into a series of related exercises. The parts are noted at the left.

PLEASE TAKE A MOMENT TO READ THIS

Understanding Form Design

Forms are used for entering, changing and viewing data.

Choosing the right style



Web or desktop form – which is the right style for you? There are two buttons on the ABC Seminars menu that will give you an idea of how these forms work.

The first is one of many types of "standard" desktop forms. It has many attractive features and was created on the desktop side of Alpha Five. This chapter will give instructions on how to set it up. (Desktop forms cannot be used on the web.†)

The second is a form that can be used on **both desktop and web**. It, too, can have many styles – they get more sophisticated with every Alpha Five release – but is created on the "web side" of Alpha Five. This is a sample only because it is beyond the scope of this book to teach this type of form.‡

1. At the ABC Seminars main menu, click the *Clients* button to see one of the **standard desktop forms** that we will create in this chapter.
2. Click the *Web on the Desktop* button to see a sample of a **web style form.**

The primary consideration is whether or not you plan to put your database on the web and, if so, when. If you are wondering if your desktop application can have both styles, the answer is a resounding "yes!"

STANDARD DESKTOP FORMS

If a web database is not in your near future, then the standard Alpha Five forms are for you. They are easy to create and will have you on the way to a sophisticated desktop

*. Depending on how Alpha Five is opened, the file extension **.adb** may not appear. (For instructions on opening an existing database, see "Opening an Existing Database" on page 14.)

†. Find out why at "Why can't I use my desktop forms on the web?" on page 172.

‡. To learn about "web components," the signature feature of Alpha Five for the web, see Alpha Five Web Applications Made Easy by Susan Bush. Available at www.libertymanuals.com.

application in no time. Their primary purpose is for data entry. They may be printed, but reports are better for that (see Chapter 5).

There are three types of forms, two of which, Default and Custom are created by the Genie. The third, Blank Form, is ready for your personal design. Of course, any form can be modified to suit your needs; these are just starting points.

- **Blank Forms** begin as a blank sheet of electronic paper.
- **Default Forms** contain every field in the table or set. These are the quickest to make, but often contain more fields than are useful for data entry. Still OK if you need most of the fields because the unwanted ones can be removed.
- **Custom Forms** can be more useful because they can be limited to the specific fields needed for the form.

Objects (fields, labels, buttons, etc.) are placed on the forms, much the same way that a lamp, magazine and remote control are placed on a table.

In this exercise, we will briefly demonstrate the process for creating a Default Form. We will then create a simple, basic Custom Form. At that time we will illustrate how fields are placed on the form and examine the components of Form Design.

Once you know all the basic elements – and there are MANY! – we will create a new form from scratch so we can give the user all the Windows bells and whistles, including tabbed interfaces and embedded browses.

WEB FORMS ON THE DESKTOP

If you have been following Alpha Five news, you have been hearing about how web components can be used on the desktop. For the uninitiated, this is the type of form that is used for Alpha Five web based databases. If you are thinking about putting your database on the web soon, you may want to consider this style for the desktop, too, because "standard" desktop forms cannot be used on the web.*

Teaching all there is to know about web component design is beyond the scope of this book, but if you are at all interested, get started with "Getting Ready for the Web" on page 171. And then run right out and buy our book, *Alpha Five Web Applications Made Easy* to learn how to design more of them!† At this writing, the following web components can be used on the desktop:

- Grid Component:
- Dialog Component: Compares to Xdialog for the desktop.‡
- Tabbed UI (User Interface) Component: Same idea as the Tabbed Form discussed on page 108.
- Page Layout Component: Organizes everything into a main menu.
- Google Maps, Video Player and Chart components.

Creating a Default Form

The default form contains all the fields in the table or set. This is the most basic type of form and is designed completely by the genie, making it very simple to create. We will also look at the Alpha Five **Stylesheets** feature.

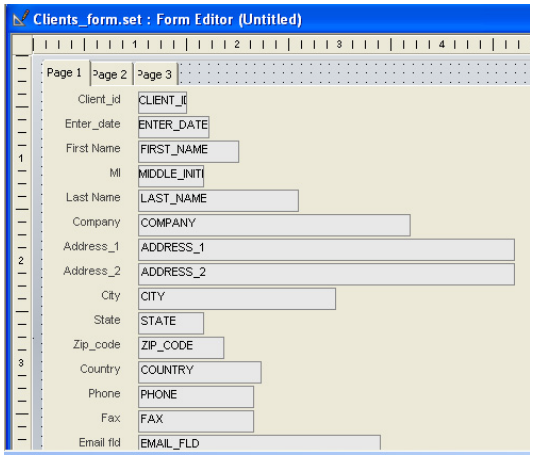
1. At the *Alpha Five Control Panel Tab*, click the **Forms** tab.

*. See "Getting Ready for the Web" on page 171.

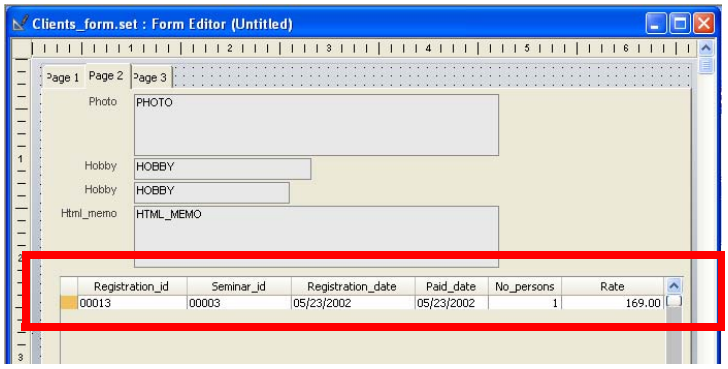
†. Go to www.libertymanuals.com for more information.

‡. Xdialog is the Alpha Five way to create custom dialog boxes. (See also page 191.)

2. Click **New** button.
3. *Data Source*: Choose **Clients_form** (set). (Click Next)
   - Sets are identified by a three-box graphic at the left of the listing.
   - A single box means it is a table.
4. Choose **Default Form (contains all of the fields in the Table/Set.)** (Click Next)
5. *Stylesheet*: Choose **Subtle Glass.**
   - Stylesheets will help your designs maintain a consistent appearance. There are several pre-designed stylesheets. Custom stylesheets can also be created.
6. Click Next and then Finish.



- The Form Editor opens to a three page tabbed interface. The first page contains all of the fields in the one-to-one links in the set.
- The second and third pages contain the one-to-many links in the set. These appear as **Embedded Browses** (red box below).*



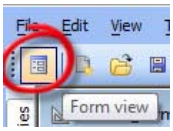
7. Click the Page 2 tab to see the Browse.

Previous to Version 9, you had to press the tab twice in Design Mode. Tabbed forms created in earlier versions may still require the tab to be clicked twice.

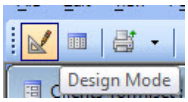
Like all forms, the Default Form may be edited. The positions of the fields can be changed and fields can be removed.

DESIGN TO FORM AND BACK

While designing, you will move back and forth between Design Mode and Form View.



8. Click the button at the left of the top row of buttons (Form View) to see how the form will look to the end user, as well as the results of the Stylesheet selection.



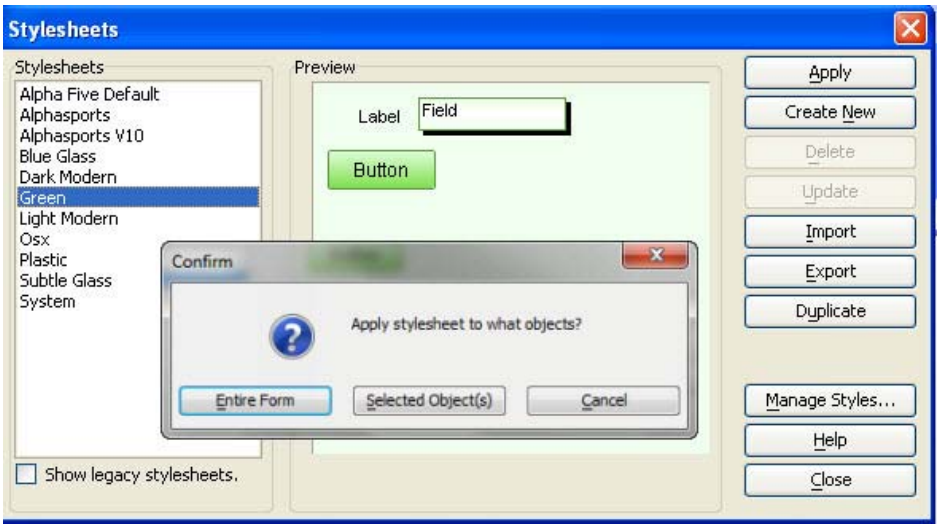
9. Click the top left again. (The graphic has changed and now the bubble help says Design Mode.)

*. Embedded browses will be discussed in this chapter. (See “Creating an Embedded Browse” on page 116.)

STYLESHEET GALLERY

Now that we are back at Design Mode, we will take a quick look at Stylesheets. (See also page 191.)

10. Click on a field to select it.
11. Choose **Stylesheets** > **Apply or Create a Stylesheet** from the top menu.



- The Style Sheet Gallery appears.

12. Click on **Green**.

- The checkbox at the bottom will reveal "Legacy Stylesheets." These were created in earlier versions of Alpha Five. Feel free to choose one if it appeals to you.

13. Click **Apply**.

- Inset. You are asked if you want to apply to the entire form or to the object you selected in step 10.

14. Click **Entire Form**.
15. Click **Close**.*
16. Click the tabs to see the color changes.

17. Click **Form View** to see the new appearance with data.
18. Repeat above to experiment with some other styles, if you like.
19. Click X in the upper right corner at either Form View or Design Mode to close the form. Answer the next dialogs as follows:
    - Form View: Click **Cancel** at the "Save Form As" dialog box.
    - Design Mode: Click **No** at the "Save changes to current form" dialog.

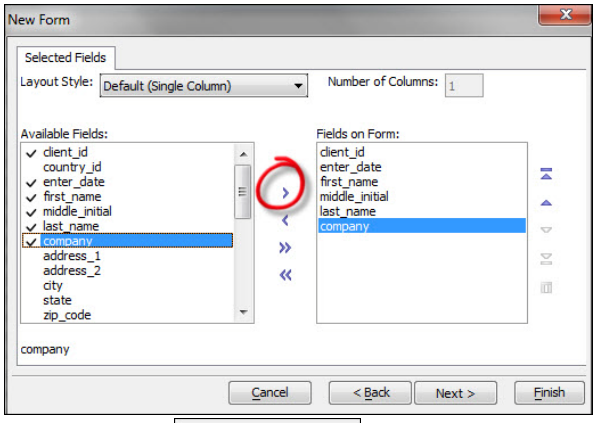
Creating a Custom Form

Next, we will create a form that contains specific fields. We will also examine the form design tools. There are a LOT of tools, so take care of your personal needs, grab a cup of coffee or tea and get comfortable. True, some of this may be boring, but you really don't want to miss all the great features – do you?

Ok - maybe you'll need a box of chocolates to take you to page 108 – and make sure it's not too late – can't have you falling asleep, now.

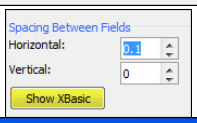
20. *Alpha Five Control Panel* Forms tab: Click the **New** button.
21. *Data Source*: Choose **Clients_form** (set). (Click Next)
22. Choose **Custom Form (contains fields that you select)**. (Click Next)

*. If the Confirm form may not come up, close the Stylesheet editor, select a field on the form and re-open. Re-click Apply.

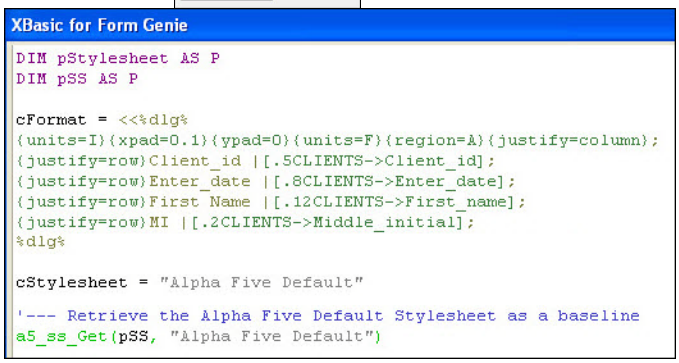


For this type of field selection dialog, highlight the first item and double click. Make the second selection, click the RIGHT ARROW button (red circle) repeatedly to enter choices into the Fields on Form window. (In this case, click the button 5 times.)

23. Select the following fields.
    - Client ID, Enter Date, First Name, Middle Initial, Last Name, Company.
24. Click Next.
25. *Stylesheet*: **Alpha Five Default** (or any other you choose). (Click Next.)



26. Click **Show Xbasic** to open The Xbasic Form Genie.

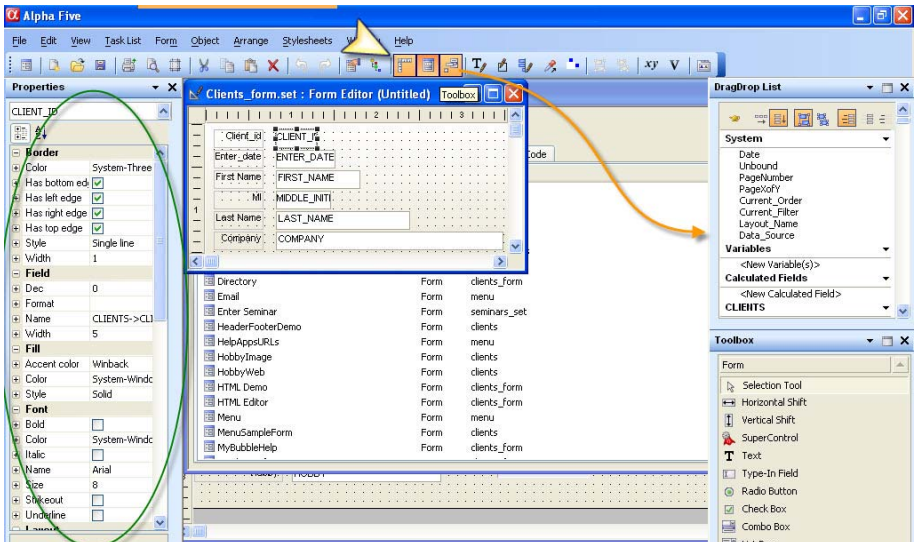


XBASIC CODE

No doubt, some of you are licking your chops, anxious to get your teeth into writing code. Others have faces that pale at the mention of it. To the first, I say "Be Patient," and to the second "Don't panic!" Alpha Five has been designed with both of you in mind. It can be used with or without the more advanced development vehicles. At this time, we will only look at the code.

NOTE
In most cases, Alpha Five will show you the code that it writes behind the screens. It is a good way to learn Xbasic and the code can be cut and pasted from one script to another.

27. Close the Genie by clicking the **X** in the upper right corner.



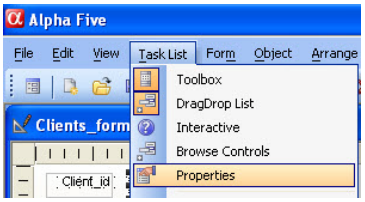
28. Click **Finish**.
    - The form opens with only the fields that we indicated.

THE DESIGN TOOLS

The **Toolbox** and **DragDrop List** are at the right (orange arrow). If you do not see them on your screen, click their buttons on the **Forms Toolbar** (gold pointer). See "Using the Toolbox" on page 93 and "Using the DragDrop List" on page 98.

- The **Top Menu** is the row of text options at the top of the window. See "Understanding the Top Menu" on page 76.

- The **Forms Toolbar** is the row of buttons below the **Top Menu**. See "Understanding the Forms Toolbar" on page 80.



- The **Properties Dock Panel** is at the left of the screen (green oval). If you do not see it, choose Top Menu > Task List > Properties. see "Using the Properties Pane" on page 104. We will also use:
- The **Right Click Menu**. See "Using the Right Click Menu" on page 87.

29. Hover your cursor over the **Company** field.
    - Bubble help gives you information on the field.
30. Click the **Company** field to give it focus – black boxes surround the field.
    - The Properties Dock Panel (aka Properties Pane) changes to show the available selections for the field.
31. Right click on the field to see the **Right Click Menu**.*

- Next, we will examine all the design tools in detail.

Understanding the Top Menu

PLEASE TAKE A MOMENT TO READ THIS

As in most Windows programs, many of the sub-menu items are duplicated elsewhere; we will define only those that are unique. Open the menus as you read along to become familiar with the extensive features.

- **File** and **Edit** menus contain typical Windows items and their Keyboard Shortcuts.
- **View**
  - **Trace Window.** Alpha Five reports errors here. (See "Understanding the Trace Window" on page 396.)
  - **Script Recorder Window**. Scripts are custom actions that you can create for your application. This handy tool will allow you to create scripts by recording your selections.
  - **Code Editor**. Allows you to create and edit scripts.
  - **OLE Automation Browser:** Allows you to investigate the properties, methods, events and constants of ActiveX controls on your computer. (Advanced)
  - **HTML Editor.** Allows you to create web pages.
  - **Debugger**. A tool for proofing scripts. I told you Xbasic guys you'd have something to do soon. Watch all the videos below – after you finish here!

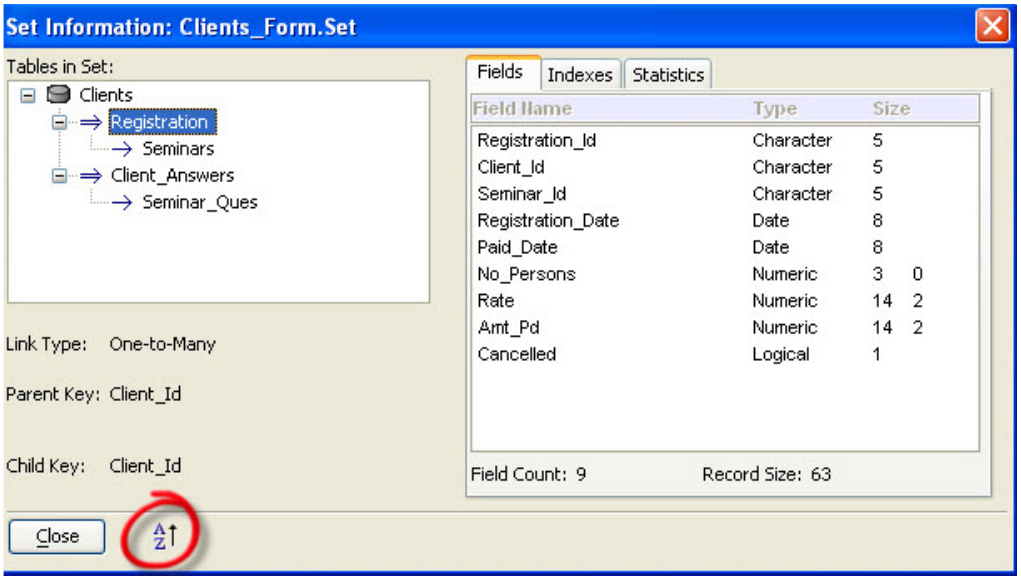
GO TO A5 HELP

To learn about the Debugger, go to:

- Help > What's New > What's New in V10 > Debugger Features.
- Help > Videos > Xbasic Debugger. Four videos.

*. (See also "Using the Right Click Menu" on page 87.)

- **Status Bar**. Information bar at the bottom of the screen. Toggles Show / No Show. We recommend keeping the Status Bar active.
- **Window Bar**. Buttons at the bottom of the screen that access the Control Panel and other open windows. Toggles Show / No Show.
- **Settings**. Global preferences for the database.
- The next seven items are duplicated by buttons. See "Understanding the Forms Toolbar" on page 80.
- **Object bubble help** can be turned on or off. It appears when you hover the cursor over an object (field, label, etc.) on the form or the DragDrop List.



PAY ATTENTION HERE!

- This baby will save you a gazillion trips to the Set Editor.
- **Structure Information** shows the tables in the set and their relationship.The double bar arrow indicates one-to-many. The single bar arrow means the relationship is one-to-one.

a. Click to open**.**

b. Choose a Table from the left pane.

c. Click on the **Fields** tab in the right pane.

- The fields in the table are listed with their type and size.

d. Note the Set Link info at the lower left.

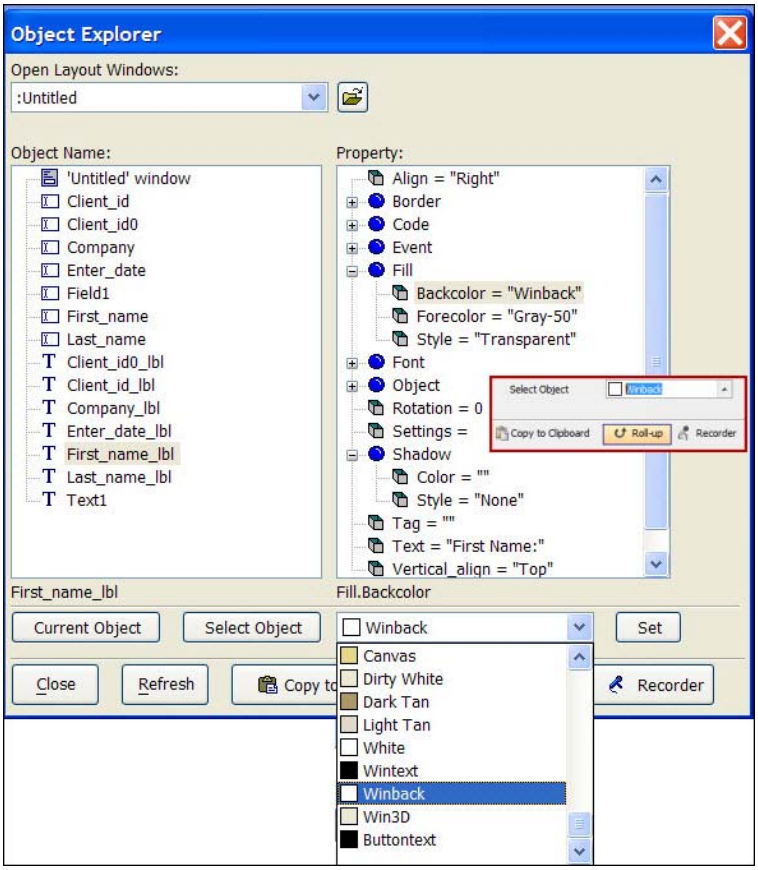
e. Click the A-Z button at the lower left. The fields are shown in alphabetical order, helpful for a large table.

f. Click on the **Indexes** tab to see those created for each table. (See "Understanding Indexes" on page 370.)

g. Click on the **Statistics** tab to see how many records exist and other information about the table.

h. Click CLOSE.

32. Click VIEW on the Top Menu to reopen the list.



- **Object Explorer** gives relative and explicit names for all properties of all objects on the form.

XBASIC AID

A primary use for the Object Explorer is to quickly find the name of objects and properties for use in Xbasic scripts. This is especially useful in a form with many fields.

a. Choose **Object Explorer**.

b. *Object Name:* Click on **first_name_lbl** (label).

c. *Property:* Drill down* a couple of categories to see the properties that can be changed in both Design and Form Views.

d. Changes are made by choosing from the lower window and clicking Set.

- **To find names of objects:** See buttons at the bottom of the dialog (inset):
  - *Copy to Clipboard:* Click to see the relative and explicit names of an object and its selected property.
  - *Recorder:* Opens the Xbasic Recorder where code can be written, copied to the clipboard and pasted into the script.

e. Click **Close.**

33. Go to **Form View**.

ROLL- UPS

Certain windows can be rolled up so they can remain handy, yet are out of the way.

f. Click **Roll-Up** (under drop down menu above - see inset).

g. Click **Expand Object Explorer**.

h. Click CLOSE.

34. Reopen the **View** menu listing to continue.

- **Code Explorer** lists the Events (see below) that have been designed for the form. Code may be edited.

The discussion of the View menu is now complete and we will continue with the other Top Menu items.

- **Task List**

These are the tools used in form design. We have already seen the Toolbox, Drag-Drop List and Properties panes in the illustration on page 75.

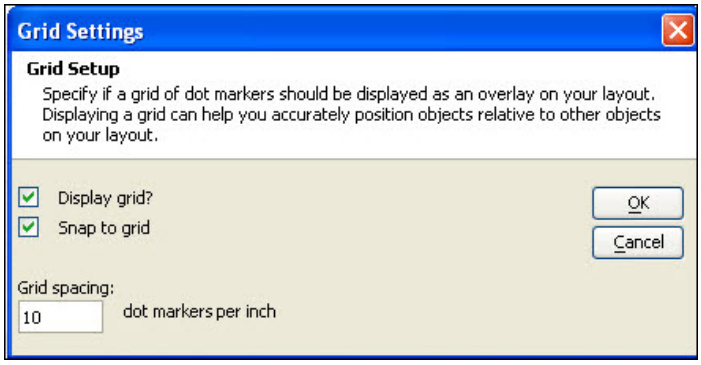
- **Toolbox** and **DragDrop List** are duplicated on the Forms Toolbar (see “Using the Task Panes” on page 91 and “Using the DragDrop List” on page 98.).

*. **Drill down** means to click on the + sign next to the menu item to open the next set of selections.

- **Interactive** (Xbasic Aid) opens a window at the lower right where a line of code may be tested. See “Using the Interactive Window” on page 102.
- **Browse Controls:** Allow you to insert buttons and images in both Embedded and Stand Alone Browses. (See “Using Browse Controls” on page 101.)
- **Properties:** Opens the Properties Pane aka Properties Dock Panel.
- **Restore Default Layout** opens the **DragDrop List** and **Toolbox** at the right side of the screen, one above the other and places a tab for the **Properties Pane** at the top left of the screen.

• **Form**

- **Form View** is the same as the left button on the *Toolbar.*
- **Form Properties** contains settings for the form.
- **Events** are actions that can be set for the form using Action Scripting or Xbasic. Also has a button on the toolbar.
- **Grid:** The Grid appears on the background of the form in *Design Mode*. It’s purpose is to aid alignment of the objects (fields, labels, etc.) as they are placed on the form.



a. Click **Grid** to open.

b. *Grid Spacing*: The default is 10 dot markers per inch.

- *Grid Spacing* affects the distance between fields as they are dragged onto the form. To have the fields touching, accept the default of 10. To space them further apart, increase the dot markers a larger grid.*

c. *Snap to Grid* means that objects move to the grid when they are near it, facilitating alignment. Snap may be turned off.

d. *Show Grid:* You may elect to show or not show the grid.

e. Change the *Grid Spacing* to 15.

f. Click OK to see the change in the grid, then reopen the Form menu.

g. Reset the spacing so that objects are touching (10 dot markers per inch) because we will use that setting for our exercises. (Click OK)

- **Dynamic Guidelines:** Aids for lining up objects on the form. Toggles on/off. We recommend you keep them ***on***. (See “Using Dynamic Guidelines” on page 86.)
- **Calculated fields** and **Variables**: (See *Toolbar* below.)

• **Object**

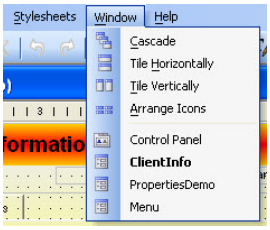
- **New** covers the same tasks as the *Toolbox*.
- **Properties**: (see *Toolbar, Right Click Menu* and *Hot Keys below.*)
- **Events** (see *Toolbar, Right Click Menu* and *Hot Keys below.*)
- **Pop-up Event Editor** (see *Toolbar* below).
- **Size-to-Fit** (see *Right Click Menu below* and *Arrange Toolbar.)*

*. See step 3 on page 126.

- **Arrange**
  - Most of these items are on the *Arrange Toolbar.*
  - **Set Tab Order** sets the order of movement from field to field by the TAB key.

    By Example (see *Toolbar* below)

    By Table: Fields are listed and may be moved up or down.
- **Stylesheets**
  - Consistent colors and fonts make an application more pleasing to the end user.
  - See "Stylesheet Gallery" on page 73.
  - See also *"Using the Right Click Menu" on page 87* for additional Stylesheet aids.
- **Window:**



  - **Cascade, Tile Horizontally, Tile Vertically, Arrange Icons** are typical Windows choices.
  - **Open Windows:** Items after the thin gray line are open Alpha Five windows. The form with focus* (**ClientInfo** in example at left) is bolded. Tabs at the bottom of the screen also show open windows.

Understanding the Forms Toolbar

In addition to some common Windows buttons, the Toolbar contains the most commonly used form design buttons.

35. Hover your mouse over the top row of buttons to become familiar with their descriptions (some abbreviated below) and shortcut keys.

Reading left to right, the first set of buttons activate:

a. *Button 1*: **Form View.**

HINT!

As we indicated earlier, you will switch back and forth between Design and Form modes while testing the design. While you are not required to save design edits when testing in Form Mode, we recommend that you become a **Frequent Saver**.

b. *Buttons 2, 3, 4*: **New Layout** (CTRL+N), **Open layout** (CTRL+O), **Save Layout** (CTRL+S).

c. *Buttons 5, 6, 7*: **Print, Print Preview, Print Setup**.

d. *Buttons 8, 9, 10, 11*: **Cut, Copy, Paste, Delete**.

e. *Button 12:* **Undo.** Keyboard shortcut is ALT + BACKSPACE.†

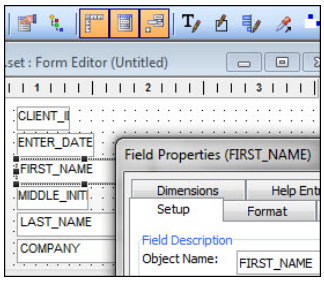
f. *Button 13:* **Redo**.

*. The active window is said to have "focus."

†. Windows Undo keyboard shortcut, CTRL + Z is not enabled.

Several layers of Undo and Redo are available. As in other Windows applications, once the record is saved, previous Undo's and Redo's are lost. (The button will be greyed out when the option is not available.)

g. *Button 14:* **Properties**. All objects on the form have properties. This button opens the Object Properties dialog. In most cases, we will use the Properties Pane rather than this dialog, because it is more convenient. This button also has **Right Click Menu** and **Hot Key** options [F12].



h. *Button 15*: **Events** that have been designed for the form or object can be viewed here. Window launches the Script Editor for Action Scripting* or Xbasic. (Also has **Right Click Menu** and **Hot Key** options [F11].)

- You can also DOUBLE CLICK on an object to open its Events.

The Properties and Events buttons are **Context Sensitive**. When the Form has focus, Form Properties are displayed. When a different object has focus, its properties come up. The same is true for Events.

- The following buttons toggle between **Show** and **No Show. (**Orange color means they are showing.)

i. *Button 16*: **Rulers.**

j. *Button 17*: **Toolbox.** Contains form design tools.

k. *Button 18*: **DragDrop List.** Contains available fields for easy placement on form.

- Rulers, Toolbox and DragDrop List have several display options (see "Using the Task Panes" on page 91).

The following can also be turned on and off depending on the task at hand. We will illustrate their use in the exercises that follow.

l. *Button 19*: **Text Toolbar.**

m. *Button 20*: **Border Toolbar.**

n. *Button 21:* **Arrange Toolbar.**

o. *Button 22*: **Copy Format Toolbar.**

p. *Button 23:* **Anchor Toolbar** (aka Stretch Toolbar).

q. *Buttons 24, 25:* **Group** and **Ungroup**. Become active when two or more fields are selected. Also available on the *Arrange Toolbar*.

- These buttons open lists for editing purposes.

r. *Buttons 26, 27*: Display the **Calculated Fields** and **Variables** that have been designed for this form. See "Creating Calculated Fields" on page 155 and "Understanding Variables" on page 326.

- These buttons work only after Calculated Fields and/or Variables have been designed for the form.

s. *Button 28:* **Alpha Five Control Panel:** This button functions the same as the Control Panel tab at the bottom left of the screen. It is

*. We will use Action Scripting in Chapter 7.