

Graphics in the database

1. This example contains the first name field: **Andrew**

2. The image in the **photo** field:

3. An image from a **file**:

| ID | Last Name | First Name | Company |
|-------|-----------|------------|-----------------------|
| 00001 | Anderson | Henry | Anderson & Associates |
| 00002 | Anderson | William | Anderson & Associates |
| 00003 | Anderson | Robert | Anderson & Associates |
| 00004 | Anderson | John | Anderson & Associates |
| 00005 | Anderson | Franklin | Anderson & Associates |
| 00006 | Anderson | Andrew | Anderson & Associates |
| 00007 | Anderson | Franklin | Anderson & Associates |
| 00008 | Anderson | Franklin | Anderson & Associates |
| 00009 | Anderson | Franklin | Anderson & Associates |
| 00010 | Anderson | Franklin | Anderson & Associates |

Picture this!

They say that one is worth a thousand words. Well, you're going to have the chance to both interest and information to your application.

Your tables can have image fields and memos so that your users can insert graphics. Your forms and reports can contain windows with field, images, web page links and more. Your browses can have icons in columns that represent the value in a field.

Think how much more lively your database will be!*

*. The handsome man above is Channing Whitney Barrett, MD, my husband's maternal grandfather. He practiced in Chicago.

Notes:



PLEASE TAKE A MOMENT TO
READ THIS

Tomorrow is here with Alpha Five

As we move to the future, databases are becoming more and more about graphics. In the early days, everything was black and white. Windows designs brought more opportunity for color, but the data was still, for the most part, lots of words and numbers for both screen and print-out.

Today, things are changing. People want to see what their employees and customers look like; symbols are sometimes quicker to grasp than words. And now these additions are easy with Alpha Five. Fields can hold pictures and allow the user to put them in notes. The built-in HTML* editors create static or dynamic windows on forms, Browse columns can have icons that inform with graphics, rather than words. You can link to a web page and get information based on data in the current record.

We have gathered these options together in one chapter so that you can decide which to use in a given circumstance. In some cases, their names are similar, but each is suited to a different purpose. In this chapter, we'll explain their distinctive traits and show you how to use them.

IMAGES



Graphic types

Images are photographs,[†] drawings and other graphics. They have file names, are stored in fields and may be placed on layouts.

- For use in forms, browses, reports and other layouts.

ICONS



An icon gives a graphical representation of the contents of a field. These are created using a *Browse control* that adds a special column. The icons at the left, for example, could be tied to the price of hotel rooms. Custom graphics are first added to the database at the *Control Panel > Code tab*.

- For use in stand alone or embedded browses only.

FILE TYPES

Understanding field and file types

There are three field types that support images.

- Two are designed to display images: JPG[‡] Image and Image File Reference fields.
 - Both support JPEG, JPG, BMP, PNG files.
- The third is the HTML memo field that allows text, tables and images to be added by the user.

All can be included when the table is initially created or added at:

- *Control Panel > Tables/Sets tab*: Right click > Edit Structure.

JPG IMAGE FIELD

The above file types can be imported into **JPG image** fields. All are automatically converted to the JPG format. Files are stored in the table.

- *Advantage*: Files are always a part of the database. If it is moved, they go with it.

*. HTML: HyperText Markup Language: This is the code in which web pages are developed. Most of the editors also have WYSIWYG (What You See is What You Get) pages that everyone can use.

†. In this chapter we've presented you with some of my husband's and my ancestors! This is Aaron Celadon Bush, a Civil War veteran.

‡. There is no longer a bitmap field type. To use BMP files, import into a JPG field and it will automatically be converted to JPG.

- *Disadvantage:* Enlarges the size of the database.

IMAGE FILE REFERENCE FIELD

An **Image File Reference** field links to and displays a JPG or BMP image, without storing it in the table.

- *Advantage:* Database files will be smaller because only the reference is carried, not the image.
- *Disadvantage:* If the database is moved, the image files must also be moved.

HTML MEMO FIELD

- The **HTML Memo** allows the *end user* to create graphic memos that include text, tables and images.

Static and Dynamic control types

Generally speaking, Static means “stay the same” and Dynamic means “change with the situation,” but that is not entirely true with the HTML Editor. Here’s how they work and how they differ.

All except HTML Form are static controls.

STATIC

At form view, field and file content in the HTML window does change with the record. For example, if you put an *image field* in the HTML editor, as we did with Bubble Help, the image changes with the record. Updated and new records become visible in the HTML window as soon as the record is saved.

- For novice and experienced users.

DYNAMIC

Dynamic controls are a different ballgame. Not only does field content change with the record, but it can be changed **from within** the HTML window. Additions and updates are immediately posted to the table.

- For experienced HTML users who want to use HTML for form design.

Using the graphic design features

We have grouped these features into two categories: Basic and Advanced. The Basic controls have both WYSIWYG and Source (HTML code) pages and can be used by both novice and advanced developers. The advanced features require a working knowledge of HTML.

BASIC CONTROLS

- **Bubble Help:** Available in design mode for Forms and Browsers. Right click on the field > Properties > Help Entry tab: See “Showing more with bubble help” on page 304.
- **HTML control:** Available in design mode for Forms, Reports and other layouts. This control is located in the Toolbox in the main control section. For example, in form design, press *Form* and scroll through the list to find **HTML**.
- **Web Content:** Displays a web page in a window on a form. URL can be either static or dynamically computed from data in the current record. There are several predefined templates, such as *Google Maps*, and you can create your own template.
- **Image control:** Available in design mode for stand alone and embedded Browsers. This control is located at Top Menu > Task Lists > Browse controls: Image button. Inserts an *icon* based on the contents of another field. See “Icons” on page 351.

ADVANCED CONTROLS

Both of these Supercontrols are designed for use on Forms* by HTML writers. It is beyond the scope of this book to go into details on their use, but here’s an overview.



GO TO ALPHA 5 HELP

- **HTML Content:** Available in design mode for Forms. Located in the Toolbox > Supercontrols. Opens the *Expression Builder* where HTML and Expressions can be added.
- **HTML Form:** This highly sophisticated Supercontrol is for developers who prefer to design their forms using HTML.
 - **Dynamic control.** Data can be entered in HTML window fields and saved to the table.
 - Available in design mode for Forms. Located in the Toolbox > Supercontrols. Opens the HTML Form Editor. Requires knowledge of HTML.
 - This Supercontrol is designed for HTML designers who prefer to use that format for creating Forms. Fields can be entered and updated.

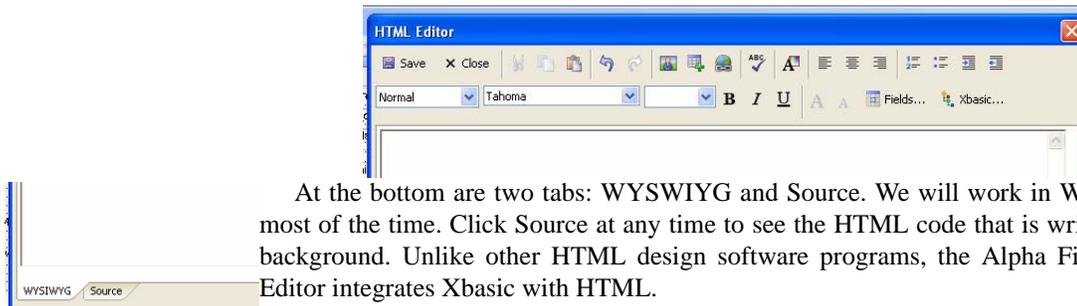
For complete instructions on using the above and a video, go to Help > What's New in Version 9 > Supercontrols > *HTML Content* and *HTML Forms*.

Understanding the HTML Editor

There are several variations, of the HTML Editor, depending on where it is used. Most are designed by the developer and are opened when layout is in Design mode. The full Editor permits fields, text, tables, images, hyperlinks and Xbasic to be entered.

The HTML Memo field is designed for the *end user* and is opened in View mode. It has buttons to quickly enter the date and time, but does not permit the entry of fields or Xbasic.

The buttons for the full version are as follows: Top row: Image, Table, Internet Hyperlink. At the lower right are Fields and Xbasic.



At the bottom are two tabs: WYSIWYG and Source. We will work in WYSIWYG most of the time. Click Source at any time to see the HTML code that is written in the background. Unlike other HTML design software programs, the Alpha Five HTML Editor integrates Xbasic with HTML.

Use of the HTML Editor is quite straightforward. Enter text and/or, click on the various buttons to add fields, images, etc., and format as desired.

Edits and changes can be made in WYSIWYG or at the Source tab. See “Editing the content” on page 358.

For more information, see “Creating an HTML window on a form” on page 357.

Using image fields in forms and browses

Image fields can be placed as objects on forms and as columns in browses.

*. These Supercontrols controls are in the listed in the Reports toolbox, but our limited efforts to use them proved unsuccessful.

- This next exercise demonstrates adding an image field to a form. The process is the same for browses.

Sizing the file: JPG, BMP, etc.

Consider the image size before you begin importing the file. Unless you use an Image File Reference field, you will need to re-add the image to the field in order for the revised file size to appear in your form or browse.

PIXELS



When we measure an item, most of us think in terms of inches or centimeters. In graphics, however, size is properly designated by the number of pixels. Here are some translations:

The file size of the photo at the left is:

- **Pixels:** Width: 52; Height: 72.
- **CM:** Width: 1.76; Height: 2,54.
- **Inches:** Width: .693; Height: 1.

Keep the images small, approximately as shown above. They will appear larger when viewed in browses and on forms. If they are oversized, they will be awkward for the user, especially if Bubble Help has enlarged them on forms or browses.

Also, if you choose to add them to your database, smaller pictures take up less space.

The size you use will depend to a certain extent on your screen resolution. Experimentation is your best ally.

CHANGING SIZE

- **Fields:** The size must be adjusted *before* importing into fields.
 - You can use photo enhancing software, such as *Adobe Photoshop*, to adjust the size before you import the image into Alpha Five.
- **HTML editors:** Image size can be adjusted when it is added to the editor.
 - Does not impact the original file.

Inserting image fields on forms



1. *Control Panel* > *Forms* tab: Open **MyHTML Demo** in Design mode.
2. *DragDropList* > *Field only*: Drag Clients -> Photo on to the upper right of the form.
3. Resize box to about 1/2" x 1/2".

IMAGE VIEW

- We want to see the entire photo in the small window, regardless of its size, so we will adjust the way the image fits in the window.
4. *Photo* field: Right click > Properties > Setup tab. Display mode: Choose **Best Fit**.



5. Save the form.

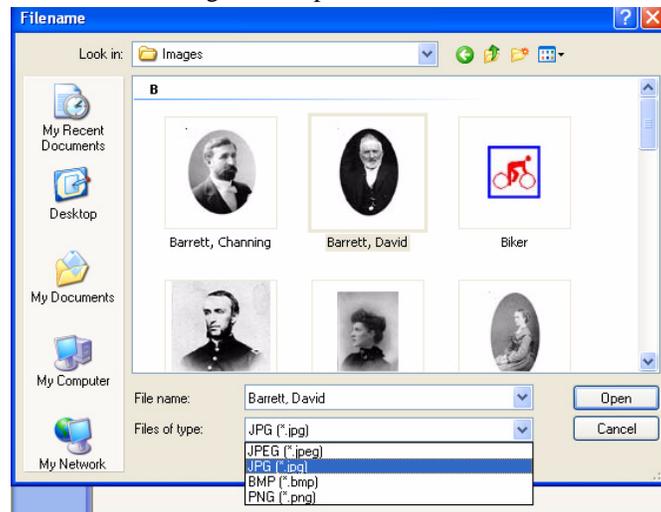
Entering and changing image fields

The process is the same for entering new images or changing existing ones.

6. Go to View mode.
7. Click on the Photo field.
 - A tiny photo icon appears next to the field.



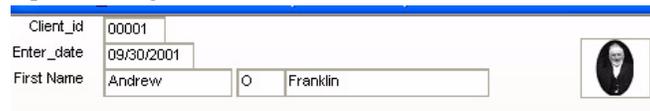
8. Click on the icon.
 - The File Name dialog comes up.



JPEG VS. JPG

These image file type names can be confusing. They are referred to as JPEG, but the extension is **.jpg**. The Alpha Five File Name dialog defaults to JPEG. On my computer, I have to change the *Files of Type* drop down box to JPG in order to see the files.

9. Navigate to:
c:\A5_Ver9Book\ABC_V9_Lessons\Images\Barrett, David*
10. Click **Open**.
 - The photo changes.



11. Press **F9** to save the record.
12. Close the form.

*. My husband's great-grandfather on his mother's side. David Barrett was a farmer in Michigan and had eight sons.

LARGER VIEW

To create a larger view when the cursor is on the image, See “Enlarging a photograph” on page 307.

Using an HTML Memo field

An HTML Memo field allows the user to add images to notes. It functions in the same manner for forms and browses. This time we’ll use a browse for the exercise.

- 13. *Control Panel* > *Browses*: Open **MyHTML Memo** in View mode.
- 14. *Biker* entry: click in the **HTML Memo** field, then click on the small pencil icon.

- The HTML Memo editor opens.



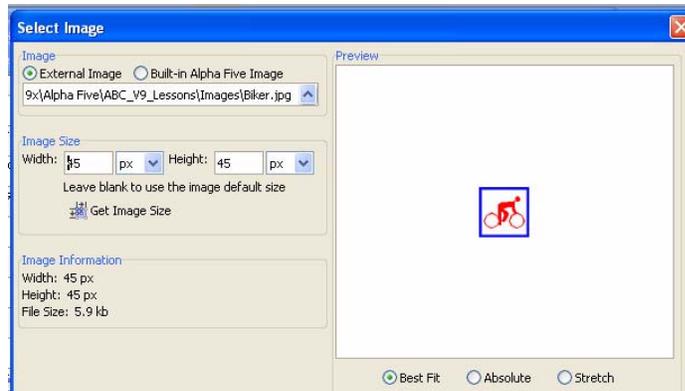
- 15. Make the following entries (red box above)
 - a. Date: Click the Calendar button to insert the current date.
 - b. Time: Click the Clock button to insert the current time.

16. Press Enter.

17. Type: **The symbol for this hobby is:**

18. Click the **Insert Image** button on the top row.

- The Select Image dialog opens.



19. *Image*: choose **External Image**.

20. Click the down arrow and navigate to:

c:\A5_Ver9Book\ABC_V9_Lessons\Images\Biker

21. Click Open.

22. *Image size*: Click the **Get Image Size** button.
- We are going to make the image a bit smaller.
23. Overtyping the defaults with the following: *Width: 40; Height: 40*.
24. *Below the preview box*: Choose **Best Fit**.
25. Click OK.

TABLE & URL



HINT!

You can also add tables and URL hyperlinks in the memo editor.

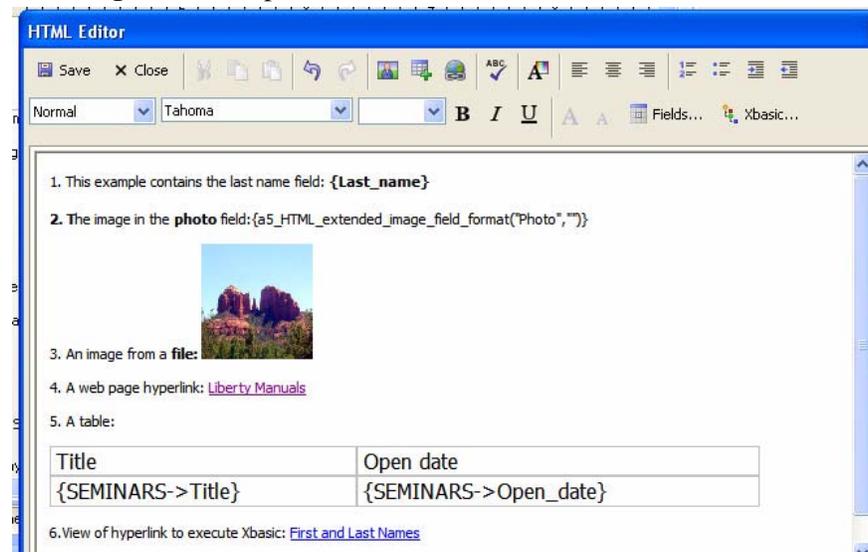
26. Click Save.
- Don't forget to save the record, too!
27. Press **F9** or click **Save** again to save the record.
 28. Close the browse.

Creating an HTML window on a form

The **HTML** control uses the full HTML Editor to put windows on forms, reports, etc. It is used by the developer at Design mode.



1. Control Panel > Forms tab: Open **MyHTML Editor** in Design mode.
- An HTML control is already on the form. It was placed as follows:
 - Toolbox > Form > **HTML**: A box was drawn on the form to open the Editor.
2. Click on the HTML object and put your cursor on the little pencil at the top right to  **highlight the button**.
3. **Single click** to open the *HTML Editor*.*



- Since we've already used several of these tools, we'll just give a quick review of how the above was created.

LINE 1: LAST NAME FIELD

LINE 2: PHOTO FIELD

LINE 3: LINK TO
WEB PAGE OR FILE

- Typed text, clicked Fields and dragged the **last_name** field into the Editor.
- Typed text, clicked Fields and dragged the **photo** field into the Editor.
- Typed text, clicked *Insert Hyperlink* button.



- Text to display: Liberty Manuals.
- Target: www.LibertyManuals.com

You can also navigate to a file, such as a Word document and open it from here.

- Typed text, clicked *Insert Image* button and navigated to file.
c:\A5_Ver9Book\ABC_V9_Lessons\Images\Sedona

- Clicked *Insert Table*, defined rows, columns. Added text and fields.

LINE 5: TABLE
LINE 5: XBASIC EXPRESSION

- Xbasic is entered by clicking the *Xbasic* button. Requires knowledge of Xbasic. The Expression Builder is not available.

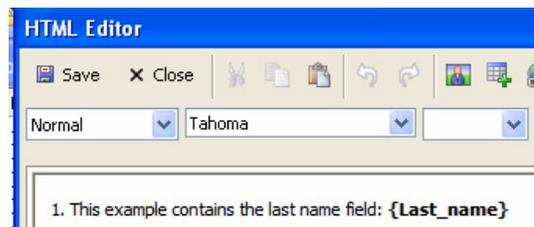


HINT!

Editing the content

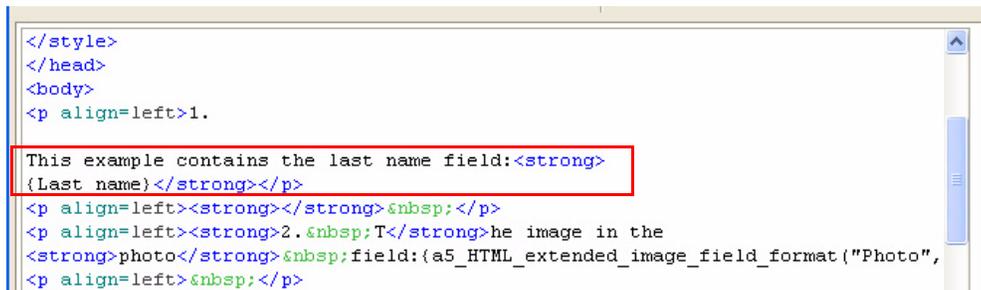
You can edit the text and add or remove other features. For example, you can delete one field and then replace it with another.

- Next, we will change text, a field name and a photo directly at the HTML code. Not to worry, you don't have to know anything about HTML in order to make some simple changes.
 - First we'll review the first line in WYSIWYG mode and then make some changes at the Source tab.
 - After that, we'll see the changes in WYSIWYG, Design and View modes.
4. *HTML Editor*: WYSIWYG tab: Note the first line of text/field combination.



*. The HTML Editor can be compared to a program within a program, therefore it may take a couple of moments to open.

5. *HTML Editor*: Click the **Source** tab at the bottom of the window.



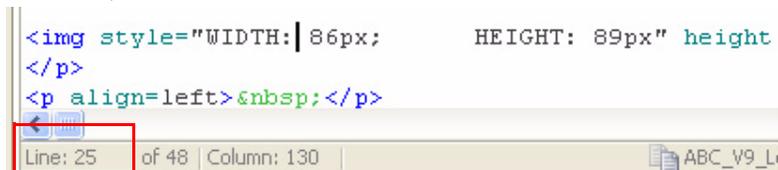
```
</style>
</head>
<body>
<p align=left>1.
This example contains the last name field:<strong>
{Last name}</strong></p>
<p align=left><strong></strong>&nbsp;</p>
<p align=left><strong>2.&nbsp;</strong>T</strong>he image in the
<strong>photo</strong>&nbsp;</strong>field:{a5_HTML_extended_image_field_format("Photo",
<p align=left>&nbsp;</p>
```

- Find the following (red box above):
 1. This example contains the last name field {Last_name}</p>
 - It's pretty easy to figure out that this is the line of text, followed by the field name in curly brackets. on either side of the field indicates bold text and the end of the line is indicated by </p>.
6. Overtyping **last_name** with *first_name* in both the text and the field:

This example contains the **first name** field {**First_name**}</p>

7. Move to line 25.

- The line number is in the status bar at the bottom of the window (red box below).



```
<img style="WIDTH: 86px; HEIGHT: 89px" height
</p>
<p align=left>&nbsp;</p>
```

Line: 25 of 48 | Column: 130 | ABC_V9_L

8. Press END to go to the far right of the line and overtype **Sedona** with **Athens** to change the name of the file picture.

...ABC_V9_Lessons/Images/Athens.jpg" width=130 >

9. Click the **WYSIWYG** tab to see the changes.

WYSIWYG OR SOURCE

10. The text and field changes could also have been made at the WYSIWYG tab. In order to change the photo at WYSIWYG, you would have had to delete the Sedona photo and then insert the Athens photo. In this case we had made the photo a bit smaller, so the revised version would also have had to be resized.

LINE 1 The text and field have changed to first name.