What you need to know about image file formats

Lossy vs. Lossless compression

A lossless algorithm might, for example, look for a recurring pattern in the file, and replace each occurrence with a short abbreviation, thereby cutting the file size. In contrast, a lossy algorithm might store color information at a lower resolution than the image itself, since the eye is not so sensitive to changes in color of a small distance.

The file types

The file types listed below are ordered by the level of acceptability for producing large format images from your work. Understanding the needs of both the client and final image size will help produce excellent results.

PSD

> This is the proprietary output from photoshop. This is the preferred working format of Photoshop and retains all the editing power of the program. This package uses layers, for example, to build complex images, and layer information may be lost in the nonproprietary formats such as TIFF and JPG.
> This format does give you the ability to view a single image with different effects created by utilizing layers. You can offer different versions of your images by creating proofs with different layers turned on and letting the client decide what works best for them.

TIFF

> TIFF is used almost exclusively as a lossless image storage format that uses no compression at all. The details of the image storage algorithm are included as part of the file. In practice, Most graphics programs that use TIFF do not compression. TIFF may also include the layer information from some photo editing tools.

PNG

> PNG is also a lossless storage format. However, in contrast with common TIFF usage, it looks for patterns in the image that it can use to compress file size. The compression is exactly reversible, so the image is recovered exactly.

JPG

JPEG is optimized for photographs and similar continuous tone images that contain many, many colors. It can achieve astounding compression ratios even while maintaining very high image quality. GIF compression is unkind to such images. JPG works by analyzing images and discarding kinds of information that the eye is least likely to notice. It stores information as 24 bit color. Important: the degree of compression of JPG is adjustable. At moderate compression levels of photographic images, it is very difficult for the eye to discern any difference from the original, even at extreme magnification. Compression factors of more than 20 are often quite acceptable. Better graphics programs, such as Paint Shop Pro and Photoshop, allow you to view the image quality and file size as a function of compression level, so that you can conveniently choose the balance between quality and file size.

GIF

GIF is "lossless" only for images with 256 colors or less. For a rich, true color image, GIF may "lose" 99.998% of the colors.

GIF creates a table of up to 256 colors from a pool of 16 million. If the image has fewer than 256 colors, GIF can render the image exactly. When the image contains many colors, software that creates the GIF uses any of several algorithms to approximate the colors in the image with the limited palette of 256 colors available

RAW

RAW IS NOT AN ACCEPTABLE FORMAT!

RAW is an image output option available on some digital cameras. Though lossless, it is a factor of three of four smaller than TIFF files of the same image. The disadvantage is that there is a different RAW format for each manufacturer, and so you may have to use the manufacturer's software to view the images.

Preparing your image for printing

Ready to Print

When you send us an image that is deemed "Ready to Print" we are not responsible for dirt, spots sun flares, color correction or resizing the image. There is also no proof created prior to running the print job. Please understand that you are ultimately responsible for the final product. I will

alert you is the image is not capable of being printed to the size you request. REMEMBER to size the image to exactly the final image size you require.

Prior to submitting an image for this service I recommend view the image in your editing software at 100%. If your image editing tool allows you to turn a grid pattern on for viewing only, I would do so. Review each grid section looking for image impurities that you do not want to appear in the final print and fix them. As an alternative to the grid, when using Photoshop, you may want to turn on the rulers so you can use them as a guide when scrolling right to left or up & down.

Image Prep Required

I will color correct, and scan the image for impurities prior to the final print. An 8x10 full color proof reflecting the corrections will be provided for your approval. For additional corrections, which may include changing color characteristics or image cropping a $25.00 per 8x10 proof, will be charged. An hourly charge of $75.00 per hour, minimum one half hour will be added to the final cost of the print.

Getting the images to us…

We can pickup the image(s) or you can deliver them yourself. Provided the images are in an electronic format you can also transfer the files to our secure servers (account setup is required).

There are many ways to transfer the files to us. I will discuss two of these methods. FTP (file transfer protocol) or Drive Mapping utilizing "My Network Places" available in Microsoft Windows are the preferred and supported methods.

You must obtain an account which will create an account for you in our database, creates a user name & password enabling allowing you to connect to our servers. Please for the safety of your work and that of our servers; do not share the password with others. Each account is unique and images uploaded to a specific account will be processed under the account the image(s) were uploaded to. ***Your account may be terminated at any time if your uploaded images contain viruses, or it is determined that you have created a security breach within our system. Please scan your files for viruses prior to uploading them to our servers. Illegal images will not be processed.***

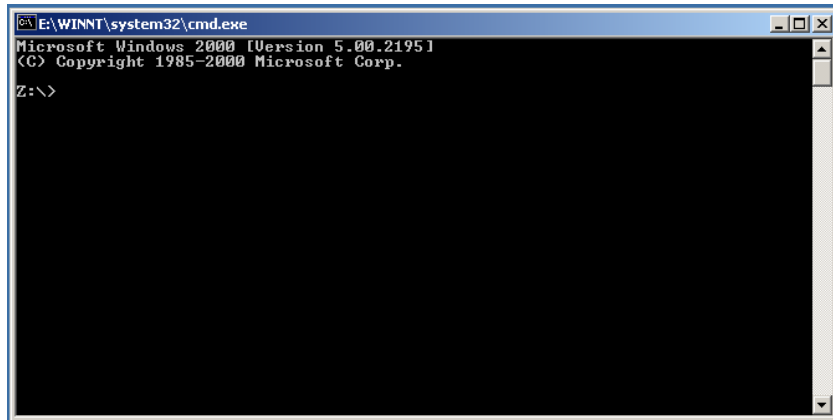**Using FTP to transfer files**

FTP is an acronym for File Transfer Protocol. There are tools available for using FTP in a drag & drop environment both for the MAC & Windows computing

arenas. These programs make it very easy to transfer files to and from FTP servers. Off the shelf applications may include, CUTE-FTP and WS-FTP Professional. There is also a command line tool included with Windows 2000, XP and the new Vista operating system. On the Mac's running Panther and Tiger you can also open a command line (terminal) window and use the same syntax.

Before you start, know where the file(s) you are going to transfer are located. If you are transferring more than one file you may consider placing the multiple files in one directory. By placing multiple files in a single location you can pass the entire content of that directory to the server with one simple command.

To get to a command prompt in windows click on the **START** button and select **RUN**. This opens a popup requester waiting for you to type in **cmd** followed by pressing the **ENTER** key. A new black command window opens.
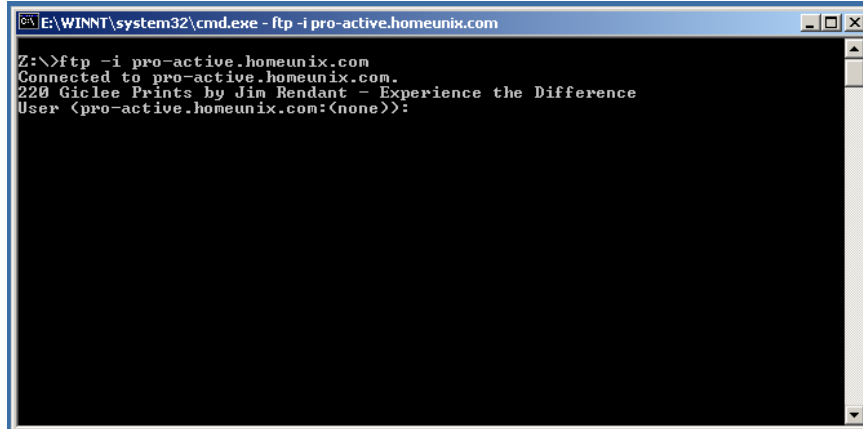
```
E:\WINNT\system32\cmd.exe                              _ □ X
Microsoft Windows 2000 [Version 5.00.2195]
(C) Copyright 1985-2000 Microsoft Corp.

Z:\>
```

The window may vary slightly and the prompt may not be the same. It is important however that you see a single character followed by the **:\>.** When you click in the window the flashing cursor will be placed right after the greater than symbol. Now we want to change to the directory where your files to be transferred are stored. Type **cd** *c:\mydir* where **c:** is the actually drive letter of the drive followed by the actual name of the directory in which they are stored.

Here we type in the following **ftp –i pro-active.homeunix.com** followed by pressing the **ENTER** key. You will then be prompted to type in your user name which was provided to you when the account was created.
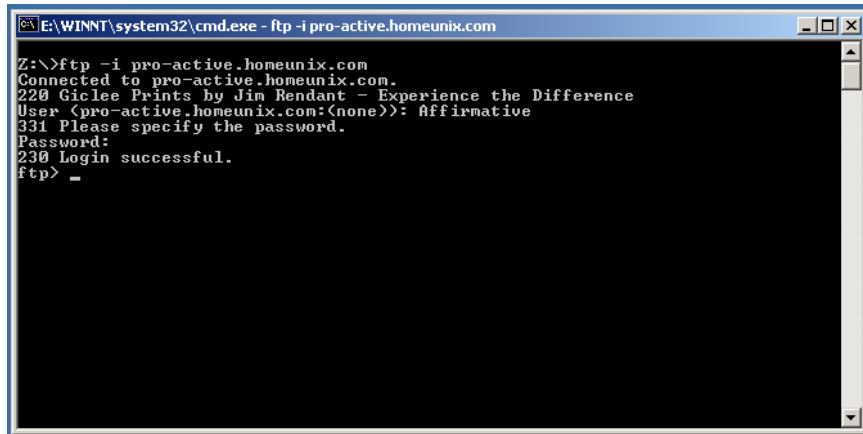
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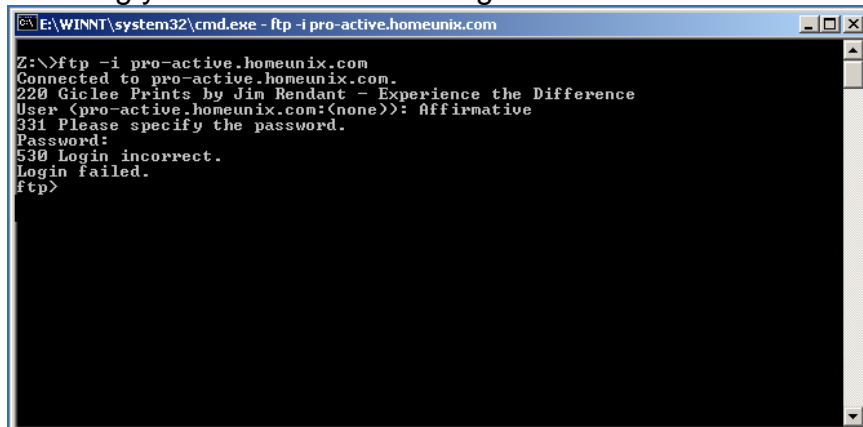

Once you type in your name and press **ENTER** you will be asked to type in your password. The password is CaSe sensitive. Please type the password as it was given to you.

If you have typed it correctly you should see **Login Successful** as seen in the following screen shot:

If you type it wrong you will see the following:

If your login attempt failed you will need to type the following at the **ftp>** prompt.

Type **user** followed by pressing the **ENTER** key. You will then, like before be prompted to enter your login name and password. If you are still unable to login please call me and I can work with you to get logged onto the server.

We will want some feedback during the transfer process so that we know something is happening and the computer is not frozen. We will turn on hash marks which will be displayed across the screen. We accomplish this by typing **hash** followed by the **ENTER** key. As a block of data is transferred a white square will be printed to the screen.

Now that you are connected and have logged in successfully we now need to upload the files to my servers. This is accomplished with the following commands, *put* for single files or *mput* for multiple files. The syntax is simple for single files just type **put** *filename.ext* where the filename is the name of the file you wish to upload and the extension is the name of the file. If the file fails to start, uploading make sure you accurately type the name of the file and the correct extension for that file. For multiple files that were all put in a single directory the uploading process is simple. Type **mput *** followed by the **ENTER** key. Once started hash marks will fill the screen and stop when the transfer process is complete. When completed, type **quit** followed by the **ENTER** key to disconnect you from the server. Now that I have the files I will be alerted to the fact and the printing process will begin. You will receive a confirmation email stating that we have received your work and we are ready to get started on it.

When using Windows XP the concept is the same but the interface is a bit different. **Left** click on **START** button the select the **My Network Places.**
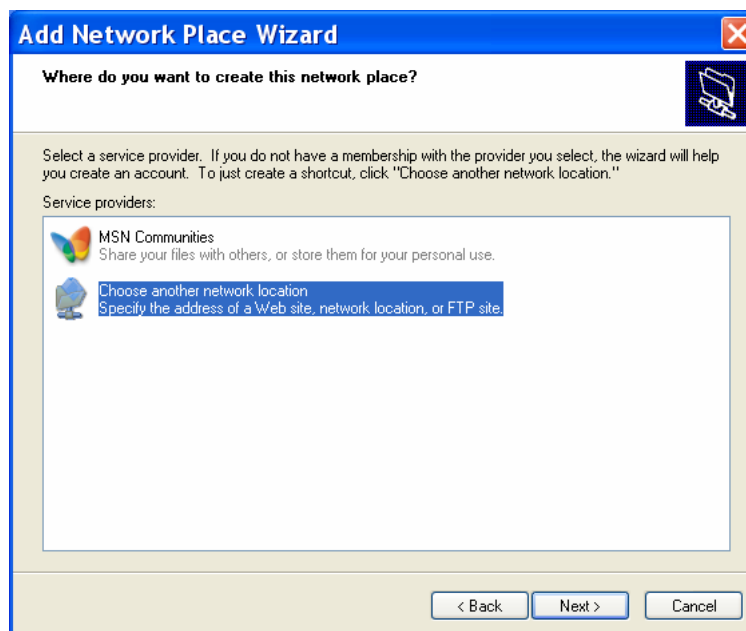
With the window open look in the left window pane. You will see the **Add a network place** icon. Double left click will start the wizard.

Click on **Next.** A new window will open up and **Left click** on **Choose another network location** then click on **Next.**


Windows 2000 requires a little different work to setup a "My Network Places" connection. Begin by **Right Clicking** on the **Start** button and choosing explorer from the context sensitive menu. Locate the **My network Place** icon in the left window pane and click on it to view it's contents in the right side of the window. **Click** on the **Add Network Place** icon to start the wizard. Once the wizard starts, the steps outlined below, are identical for XP or Windows 2000.

Now lets type in the box **ftp://pro-active.homeunix.com** then click on **Next.**

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In the next screen, click on the checkbox in front of **log on anonymously** to uncheck this box. You will notice the area for you to enter your name is now active. Enter the login ID that was given to you into this box.
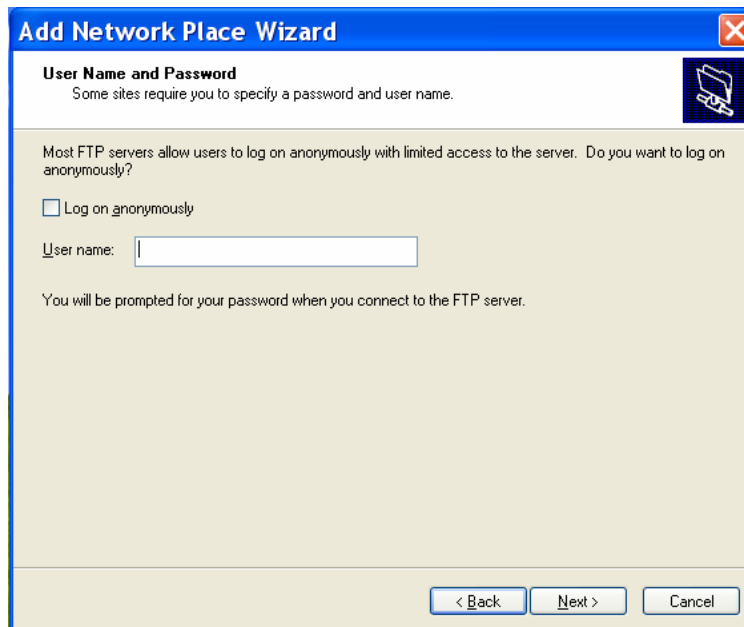
Click on **Next** and enter a name for this connection **printing by Jim Rendant** in the box provided. **Click** on **Next.** In the next window leave the **connect** option checked and **Click Finish.**

The computer will now try to establish a connection with the site we just created. You will be presented with the **LOGON AS** window, this is normal since we did not provide a password for this connection. Type in your logon ID and password in the boxes provided. *Make sure to type the information in accurately.* **Click** on the **Save Password** checkbox before clicking on **Log On**.
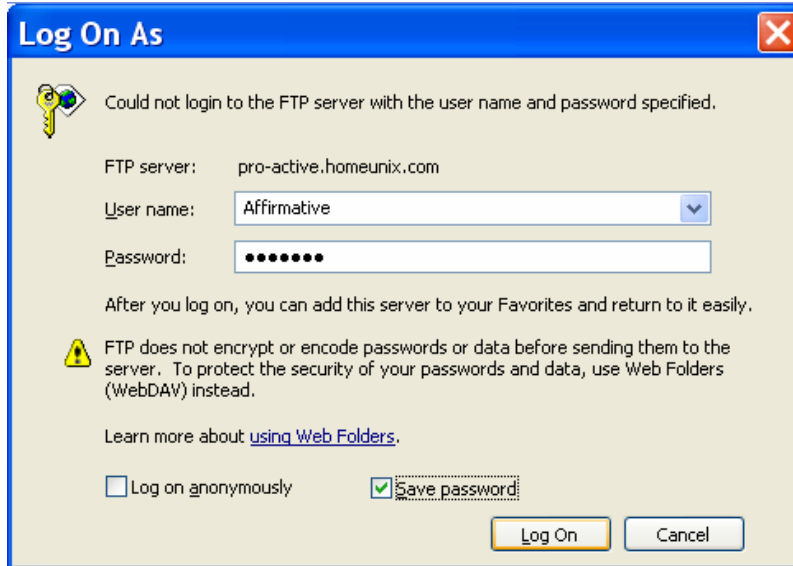
Provided that the login ID and password was typed in correctly, an Explorer window should open. You can go ahead and close that window.

Now that the connection is successful we can now easily transfer files to the server. This is done by **Right** clicking on the **Start** button and Left click on the **Explorer** option from the context sensitive menu, Windows Explorer should now launch will start. What you see on your screen will vary. You need to locate the **My Network Places,** icon the left window pane. If there is a + sign in a box, click on it to expand that directory.
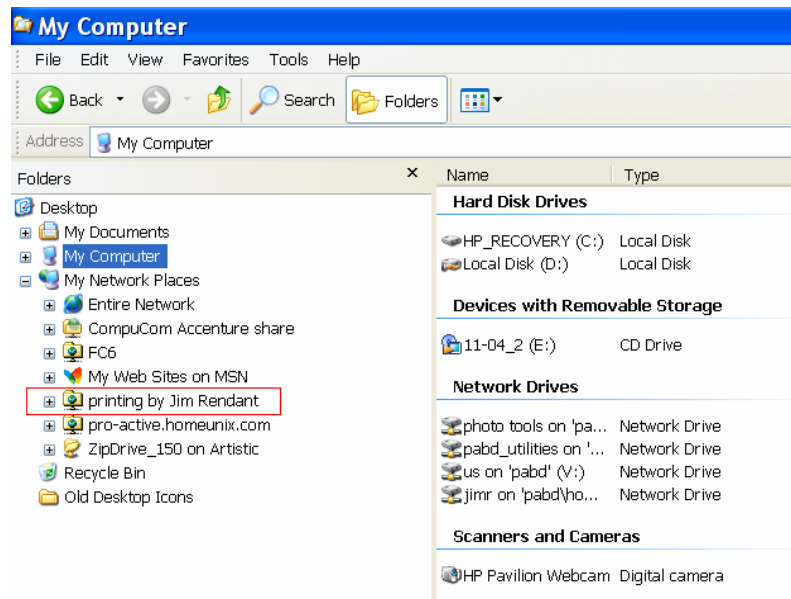
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You will notice the new connect we made is listed under My Network Places. If you **Left** click on the connection, it will go out to the internet and connect the drive as if it were local to your system.

Now all you need to do is find the file(s) you wish to transfer. Select the file or files you wish to transfer and drag the on top of directory you created.
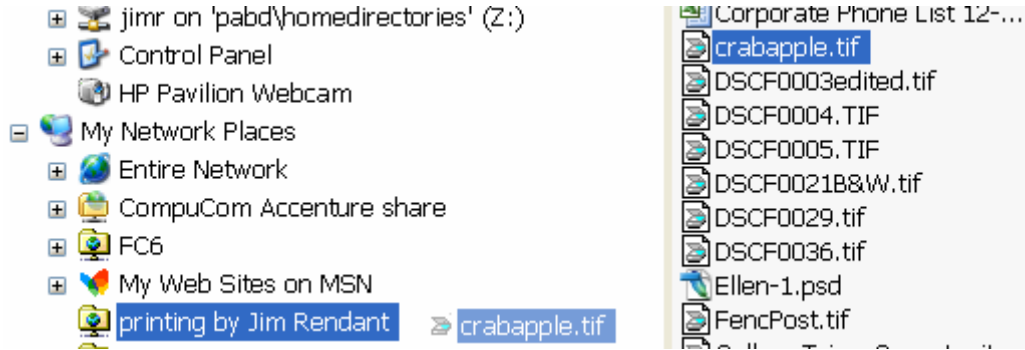
A window will pop up saying it is calculating the transfer time. That window will then change to **Copying …** with a status bar. You will also notice that the time remaining in the bottom of the window.
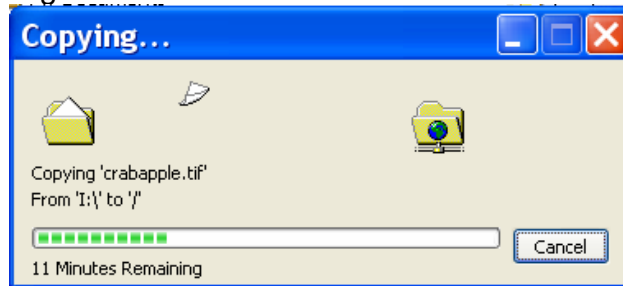
That's all there is to it. Next time you transfer file there is not setup required. Just open explorer and then drag the file(s) on top of the folder to transfer them.