Setting up a ColdFusion Workstation

Draft Version

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Table of Contents

Setting up a ColdFusion workstation for standalone operation

      The components needed to setup a workstation for ColdFusion development are a browser, editor, webserver and ColdFusion server
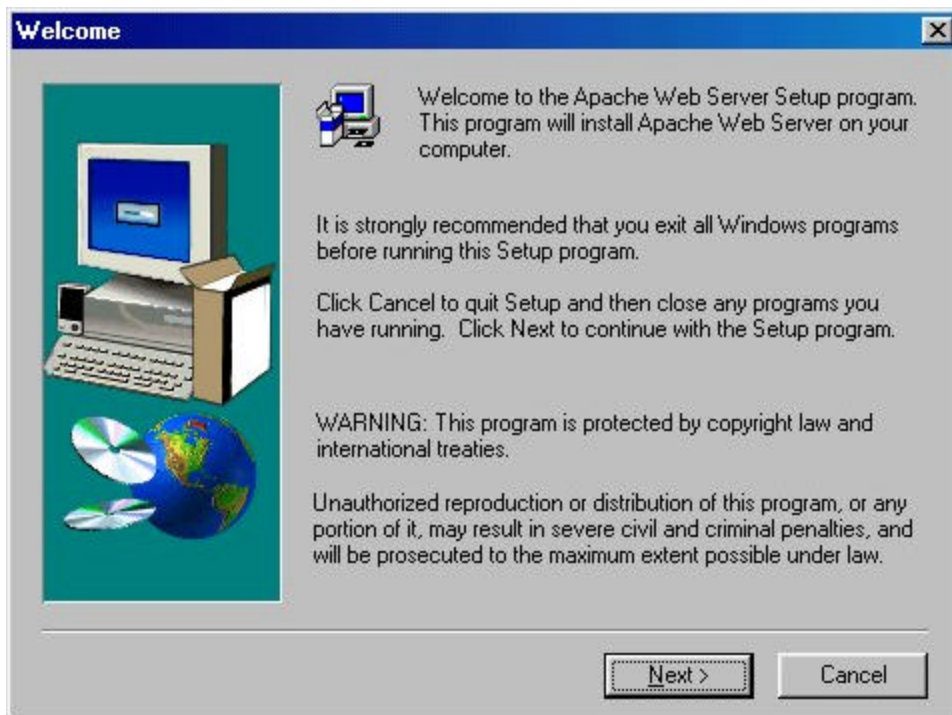
Internet Explorer:

      If your running Windows in any of its flavors, you already have Internet Explorer, but this might be a good time to upgrade to the latest and greatest version
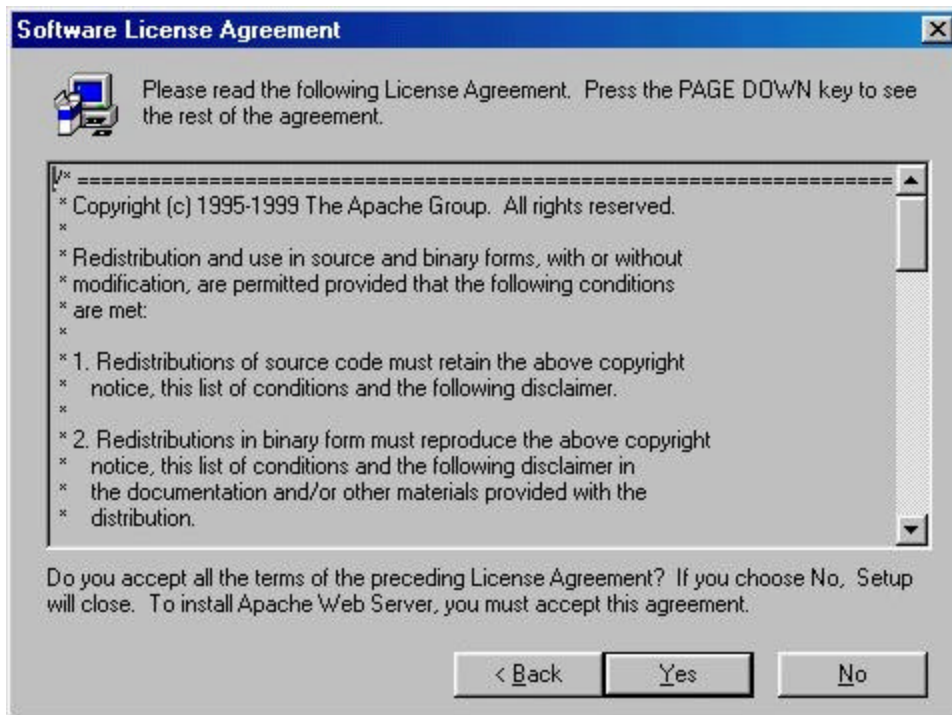
Web Servers:
Apache Web Server: (Part I)

      Run apache_1_3_12_win32.exe, after it expands you will get the welcome screen. Just click next to continue.

The next screen is for you to accept the license agreement, so click yes to move on.

Depending on the copy that you have, you may get an informational screen next, just click next to move on.

Setting up a ColdFusion workstation
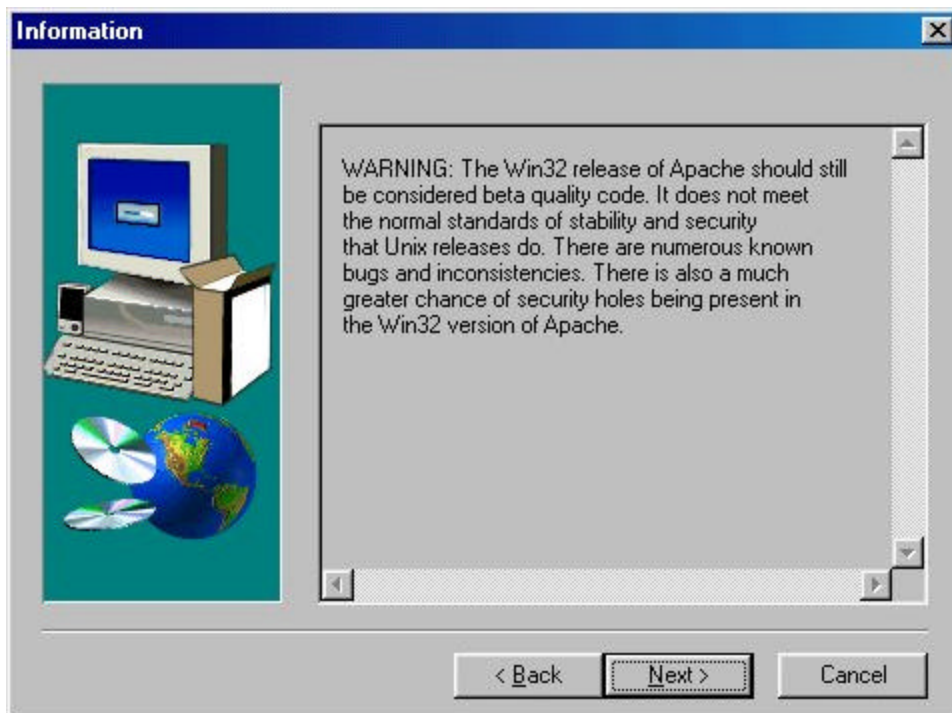
Now you have made it to the important part. This screen is where you can tell the installation program where to install Apache. The default directory is "C:\Program Files\Apache Group\Apache", don't change this unless you really need to.
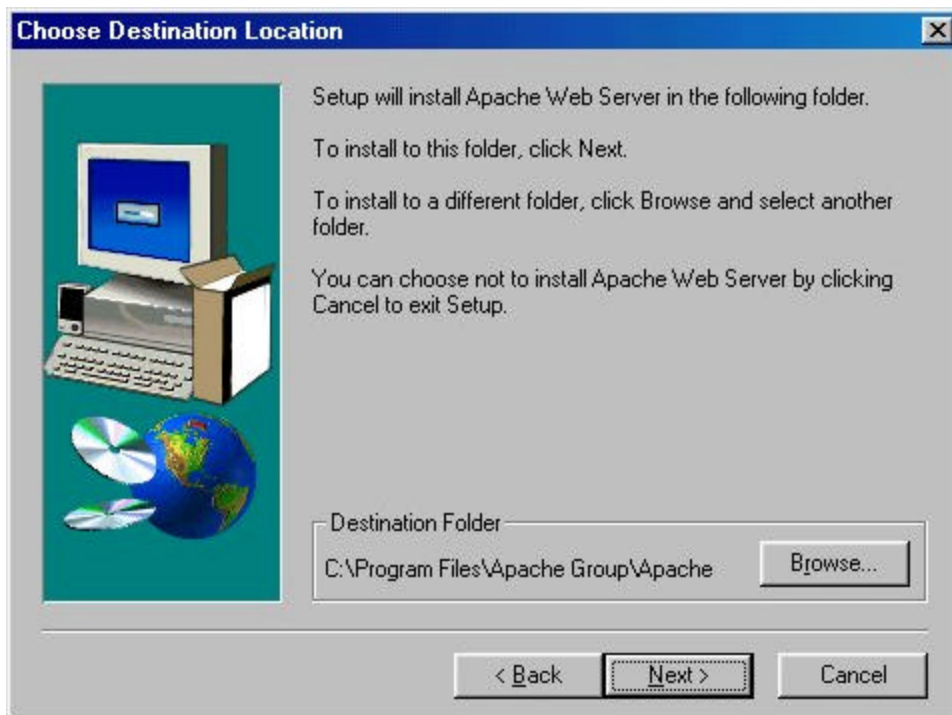
Hit, the next button and move on to the Setup Type screen, and choose "Typical" and hit next.
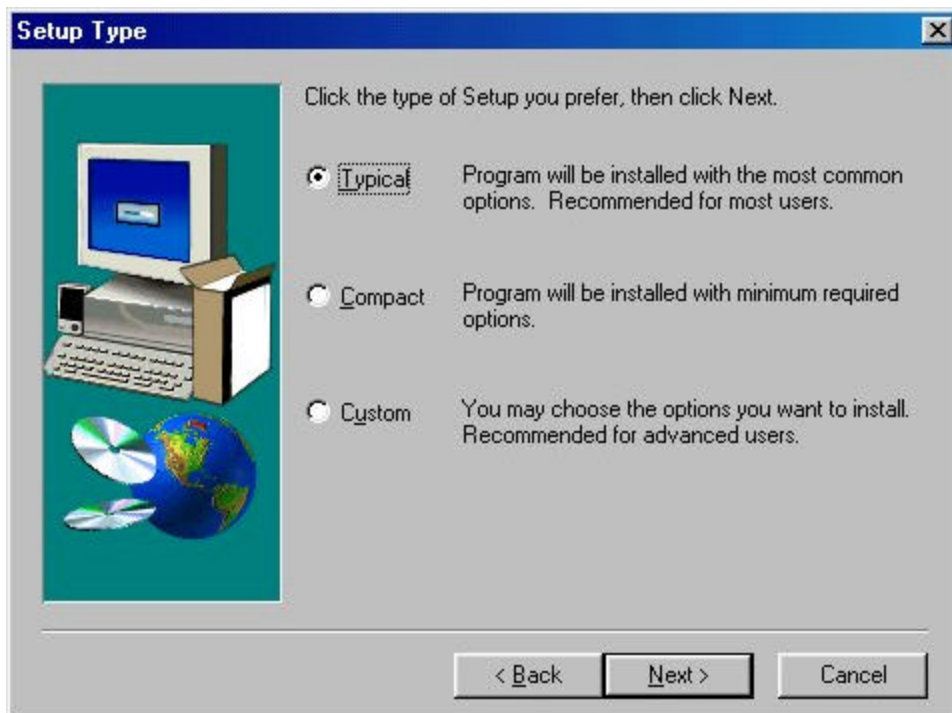
The next screen allows you to change the program folder, accept the default and hit next.
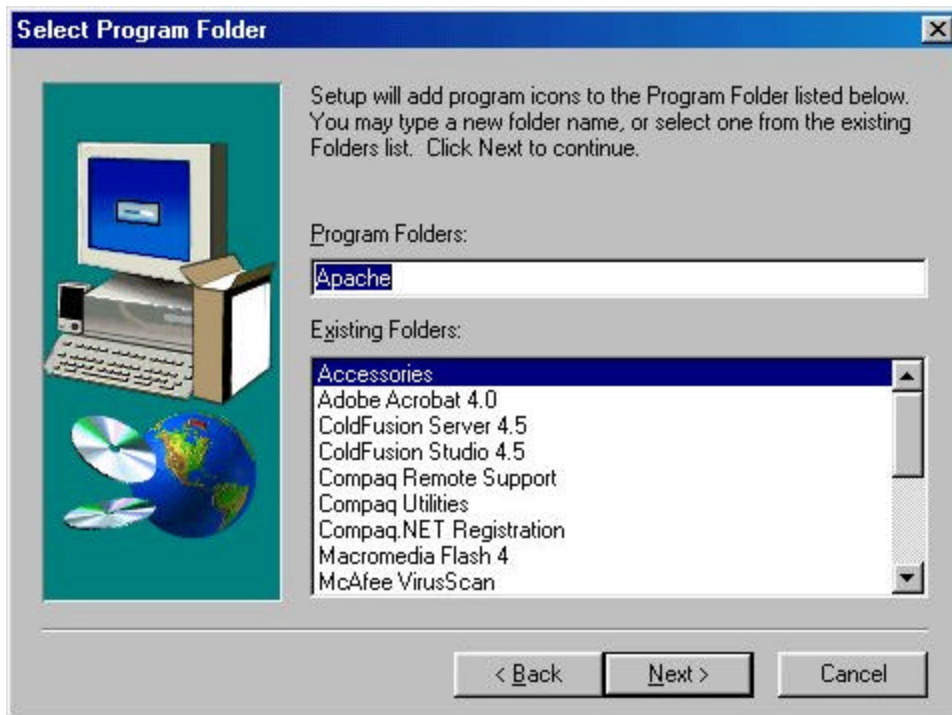
The files have now been copied over, and you are almost done. View the README file, to see if there are any important changes that you need to know about.

After running apache_1_3_12_win32.exe if you have accepted the default directories the file httpd.conf will be in the directory, c:\program files\apache group\apache\conf\. You will need to edit this file twice. The first time to enable the webserver to be running properly as a webserver, the second time is to enable the ColdFusion support.

Httpd.conf is the file that is read by the http demon on startup of the apache server, it looks complicated but it really is not. Almost all of the settings can be left in their default values and the server wi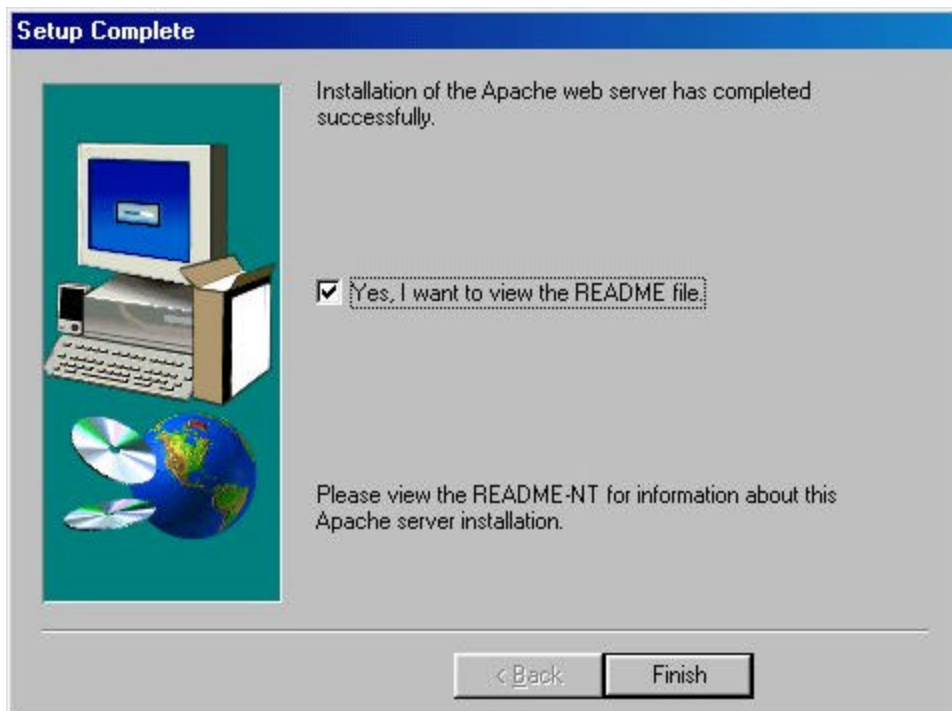ll act just fine. It is important that this file stay as pure ASCII text, so lets use Notepad to do our editing, you could do it with WordPerfect or Word, but you would need to be more careful in how you saved the file.

The first thing to do is to open the file in Notepad, when you get to the right directory it will appear that there are no files in there. This is because you need to change the default operation of Notepad. Look at the bottom of the open file dialog box, and you will see the label for that selection is "Files of Type:" with the default choice of "Text Documents (*.txt)". Use the down arrow on that box to display your choices and select "All Files". About ten files should now appear in the list, don't worry, you only have to deal with one of them. Open "httpd.conf". One little note, any line that starts with a pound sign (#) is a comment and is ignored by the program. So when you change anything, write a note to yourself that will tell you why you changed a parameter when you come back to edit the file three months later.

Ok, the file is open and you are ready to edit the configuration to make it work on your machine. Scroll down until you find "Section 2: 'Main' server configuration", then a line that starts with "ServerAdmin you@your.address" change the e-mail address to your e-mail address. Next section down is ServerName, remove the pound sign at the beginning of the line and if this is a standalone machine put in http://127.0.0.1/, which is the IP address for Localhost. If your machine is on a network and has a "real" ip address use that instead. If your on a network and you don't know the ip address of your machine and your not sure if it even has one, it is easy to check to see what it is. Open a DOS window and type "ipconfig", the IP address line will tell you the ip address of your machine. This may cause you some problems if you are using DHCP which will assign IP addresses to machines on the fly each time they log into the network. If you're not worried about giving other people on your network access to your server the safest thing to do is use the localhost address of 127.0.0.1. Ok, you have set your machine name up in Apache and that is all you need to test Apache, so save the file with the same name that it had originally "httpd.conf" and you are ready to test Apache. Running apache depends on the operating system that you are using, to test your Apache installation choose the following section that applies to your operating system.

Windows NT and Windows 2000:

Under NT style systems, you must install Apache as a service. To do this you go through the menu system chain; START ✍ PROGRAMS ✍ APACHE WEB SERVER and choose the selection "Install Apache as a service". You can then go through the chain; START ✍ SETTINGS ✍ CONTROL PANEL ✍ SERVICES to set when

Apache will start, Automatic will start the server every time the machine is turned on, Manual will only start the server when you go in and hit the start button for that service.

Windows 95 and Windows 98:

Under Windows 95 & 98, you cannot setup the server as a service and must run it as a regular task. To do this follow the chain; START ✍ PROGRAMS ✍ APACHE WEB SERVER and choose start Apache. This will bring up a DOS window that will run Apache. The window should stay up and say running……. If all is going well. If it just flashes up and then disappears that means that something is wrong in the configuration. You can minimize the DOS window but you must leave it running in order for the server to respond.

One more quick note, when you want to shut your computer down in windows 95 and 98, you must stop the Apache program by the menu system;
START ✍ PROGRAMS ✍ APACHE WEB SERVER and then choose "Stop Apache"

Check your work by starting the Apache server and opening your browser to http://127.0.0.1/ if you get the Apache screen, things are working just fine. You will come back and re-edit the httpd.conf file after you have installed ColdFusion server but that is all for now here. Skip ahead to the section on installing ColdFusion Server.

Apache Web Server: (Part II)

Now that you have ColdFusion installed you need to let Apache know it is there and how to get to it. The first thing to do, is to copy the dll that Apache needs from the c:\cfusion\bin directory to the c:\program files\apache group\apache\modules directory. The file to copy is ApacheModuleColdFusion.dll. The last thing to do is to modify the httpd.conf file one last time so that Apache knows about ColdFusion. The first thing to do is to open the file in Notepad, don't forget that you need to change the "Files of Type" selection to show all files. Look at the bottom of the open file dialog box, and you will see the label for that selection is "Files of Type:" with the default choice of "Text Documents (*.txt)". Use the down arrow on that box to display your choices and select "All Files". Once you can see it, open httpd.conf.
As you look down the file you will see a section of the file, just before where "Section 2: 'Main' server configuration" starts where all the lines start with "#LoadModule" remember than any line that starts with a # is a comment and is ignored, so none of these modules are in use yet. At the bottom of that list you want to add a new line for ColdFusion that will look very similar to the lines above it, your line will look like:

LoadModule coldfusion_module modules/ApacheModuleColdFusion.dll

Please note that your line does NOT start with a # character.

Just one more modification and you're all done and ready to roll. In section 2, just a little below where you put in the IP address for your computer or the localhost address of 127.0.0.1 there is a line that starts with "DirectoryIndex index.html" . This line controls what file will be displayed when a browser selects a location without specifying a file name. For use in a windows / DOS environment you want to add two more entries so that your line looks like:

DirectoryIndex index.html index.htm index.cfm

Note that the file names are separated by spaces without commas.   Index.cfm is added for ColdFusion use. Any file that has the extension cfm will be passed off by apache to the ColdFusion server for processing.

Save the file and you are done. Your computer should now be able to process ColdFusion pages and display them from your Apache web server.   To test your setup, stop and restart your Apache server so that it will read the new configuration file.

Then in notepad create a file that looks like this:

<html>
<head>
<title>
Testing ColdFusion and Apache
</title>
</head>
<body>
<cfset myname = "Mark Mathis">
<cfoutput>
<center>
Hello World, My name is #myname#.
</center>
</cfoutput>
</body>
</html>

Save the file with the name testme.cfm, remember to change the "files of type" to all files so that notepad does not add the txt extension on the file name. Save the file to c:\program files\apache group\apache\htdocs\testme.cfm.

Open your browser and use the address http://127.0.0.1/testme.cfm. If your browser comes back with a page that says "Hello World, My name is Mark Mathis" then you are in business and have written your first ColdFusion program. If it dose not, you probably did something rotten like changing the name in the cfset statement to your own name.

ColdFusion Server:

For the ColdFusion Server you will need to install one of the variations below. ColdFusion Express has the advantage that it is free, but some of the tags are disabled such as CFFILE and CFMAIL along with others. Refer to Appendix B for a full list of the tags and which environment that they work in. ColdFusion Professional is the standard workhorse flavor that does just about everything except clustering. Finally there is ColdFusion Enterprise Server, which has all the whistles and bells. The one that is right for you depends on a number of variables, but if your just getting your first taste of ColdFusion, Express will let you test the waters and get up to speed. If you know you are going to implement a site then you may want to start off with Professional.

ColdFusion Express Server:

This is the installation instructions for ColdFusion Express Server. If you downloaded Express from Allaire's website then to start just double-click on the file you downloaded. If you have the CD use windows explorer and switch to the ColdFusion Express directory. Then run the file setup.exe. However you got there the first screen is the welcome screen from Allaire, the top of it has good advice in general for anytime that you are installing software, which is to not have any other programs running while your doing the install. If other programs are running, even if you don't think they will have any effect on the program you are installing, you are asking for trouble. My best advice to you is anytime you are about to install new software reboot your machine just before you start, then kill any programs that start automatically on boot up. In the long run, the headaches you will avoid by doing this will well overshadow the lost time.. The second part of the screen is the usual silly warning about how Allaire will come down and take your first born male child away if you have an illegal copy of the software. This is sort of interesting for a program that is distributed for free, but what the heck, their lawyers must have felt a need to do something that day and had not heard about shareware style licensing. Anyway, click on next and lets move on. The next screen is the usual license type page, just hit yes, and get to the next screen. The next screen is for the marketing department all fields are required so whether you plan on registering the product or not you need to put at least one character in each field, and then hit next.

Finally, we have reached the first part of the real install. This screen is for where to install the software. Unless you have compelling reasons to do otherwise I suggest you leave the default answers in place. The program will work just fine if you install it elsewhere but then it will be up to you to make the adjustments needed to translate instructions that you find in books and elsewhere that assume a standard installation. So if you want to change the location, hit the browse button and pick the spot to install the software or accept the default of "c:\cfusion" and hit next.

This next page is where you start to tell ColdFusion where the root of your webserver is. If you are using IIS it will detect it and set the location for you, if as in this case you are using Apache, the only chose is "other server" so go ahead and click next. Something sort of odd happens here, the only choice you have is other server and when you click next, a nastygram box comes up and tells you that you will have to configure the webserver manually with the default answer set to abort the installation. Be sure to

click on yes, do not hit enter. The next screen is where you give the actual location. The location that you are giving is not the location of the program files for your webserver, but the location of where the documents that it displays are. In this case with Apache as the web server the location is c:\program files\apache group\apache\htdocs if you used the defaults when you installed Apache.
You can either type in the string in directly or use the browse button to select the path. After you have selected the path choose next to continue.

   This page is where you tell ColdFusion what to install, the default is for both the program files and the documentation. For a learning environment you definitely want to install both, if this was a production server you would want to avoid the documentation part. So click on next and go to the next screen.

   The next screen is where you set your password for access to control the server. It has the usual second box to confirm the password because whatever you type will come up as asterisks as you type it.

   The next screen is where you select the program folder that the server will be in. Things will go easier if you accept the default and let it create it's own folder, but you can place program icons in any folder that you wish.

   The next screen is kind of a nice touch that has shown up in installation programs lately. This screen reviews all the choices that you have made and it gives you one last chance to be sure everything is right before the installation begins. Check just to be sure that everything is where you expect it to be, and then click next and in a short bit of time, ColdFusion Express will be installed.

   Now go back to the Apache install section and do part II

Editors:

Ok, now your server is all set up and you are ready to start writing the world's best CF application. But you need one more piece to make your development environment, the editor. In theory, you could write all your code in notepad or any text editor and it will work just fine when you put it up on your server, but that is doing things the hard way. Allaire has their own editor called Studio and there are others like 1st page 2000.

ColdFusion Studio:

If you are using a version that you downloaded from http://www.allaire.com click on the executable. If you are using a CD, just put it in your computer and it will autorun, and then just choose "Install Studio" from the menu. In either case the first screen to come up will be the welcome screen. Just click on next to move on.

Setting up a ColdFusion workstation

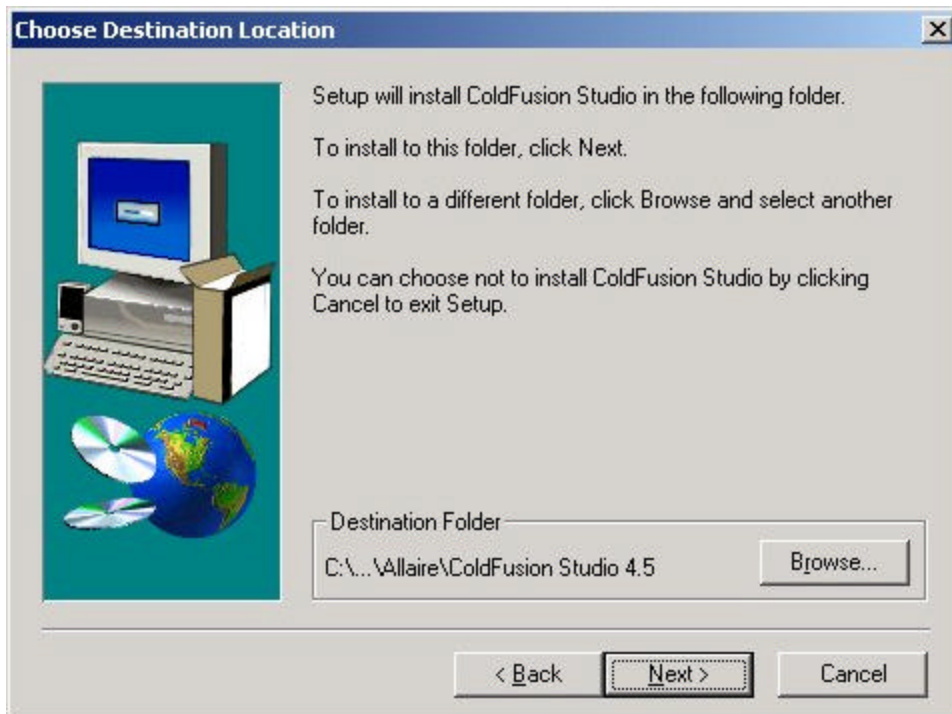The next screen is the license screen and you click on "Yes" to get by that one.
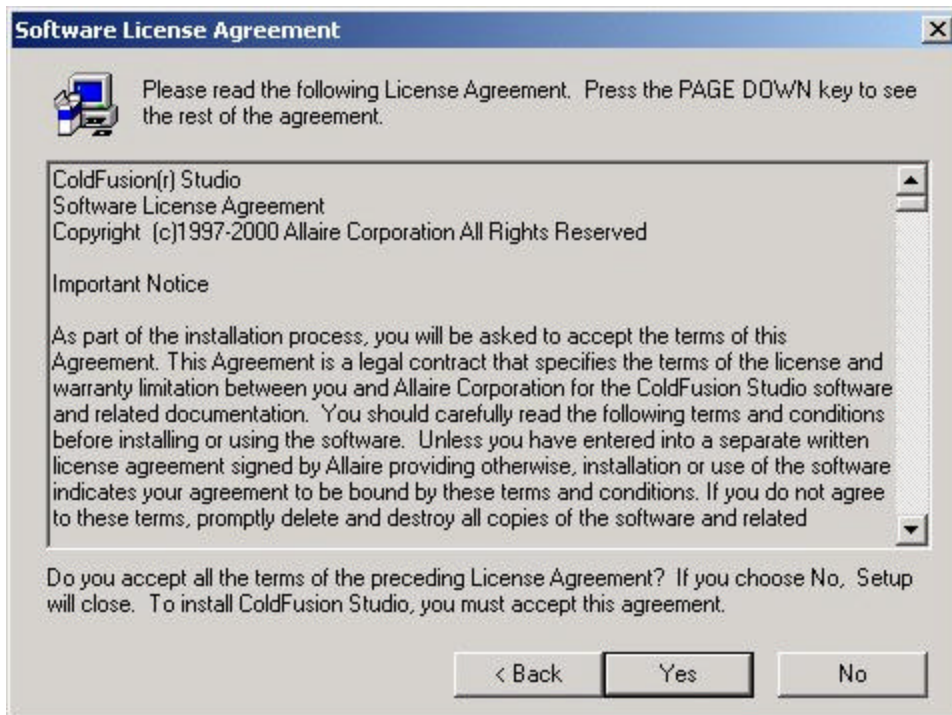
The next screen is for user information, enter your name and company and the serial number from the bottom of the box your CD came in. If you are using an evaluation version that you downloaded from Allaire put "evaluation" in the serial number box. When all the boxes are filled in the next button will go active and you can click on it to continue.
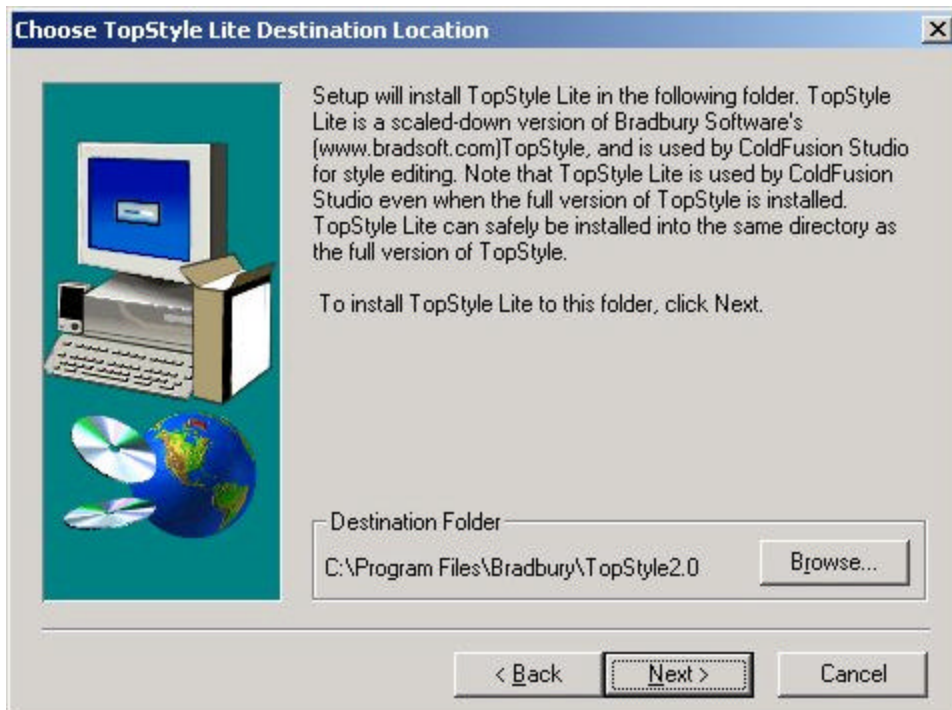
The next screen is where you tell the computer where to install the software. Leave the default value, unless you have a real need to change it.

Choose Destination Location ✕

Setup will install ColdFusion Studio in the following folder.

To install to this folder, click Next.

To install to a different folder, click Browse and select another folder.

You can choose not to install ColdFusion Studio by clicking Cancel to exit Setup.

Destination Folder
C:\...\Allaire\ColdFusion Studio 4.5   [Browse...]

[< Back] [Next >] [Cancel]

The next screen is where you tell the computer to install TopStyle which is used by Studio. Again leave the default and click next.

Choose TopStyle Lite Destination Location ✕

Setup will install TopStyle Lite in the following folder. TopStyle Lite is a scaled-down version of Bradbury Software's (www.bradsoft.com)TopStyle, and is used by ColdFusion Studio for style editing. Note that TopStyle Lite is used by ColdFusion Studio even when the full version of TopStyle is installed. TopStyle Lite can safely be installed into the same directory as the full version of TopStyle.

To install TopStyle Lite to this folder, click Next.

Destination Folder
C:\Program Files\Bradbury\TopStyle2.0   [Browse...]
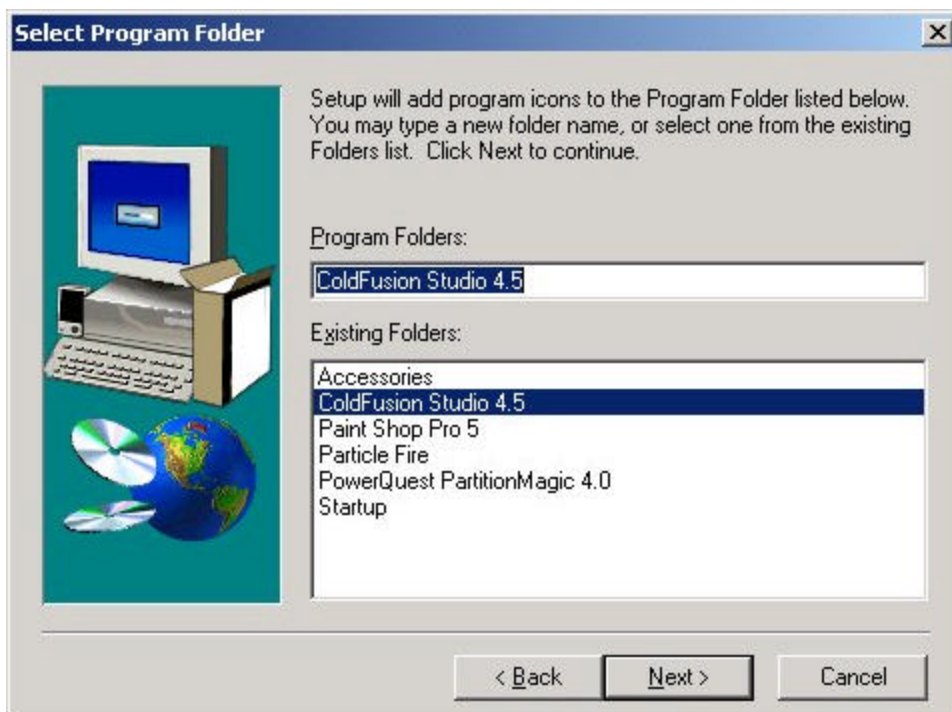
[< Back] [Next >] [Cancel]

The next screen is where you tell the computer what to install. You must install the program files for Studio to run, and you really want the documentation, so unless you are almost out of disk space, leave both items checked and click on next.

Select Components

Select the components you wish to install. If the component is not checked, it will not be installed. Click Next to continue with the installation.

☑ ColdFusion Studio Program Files
☑ Documentation

[< Back] [Next >] [Cancel]

This next screen is where you tell the computer the name of the folder you want to use for getting to the programs. Again leave the defaults unless you really feel a need to be different and click on next.

Select Program Folder

Setup will add program icons to the Program Folder listed below. You may type a new folder name, or select one from the existing Folders list. Click Next to continue.

Program Folders:
ColdFusion Studio 4.5

Existing Folders:
Accessories
ColdFusion Studio 4.5
Paint Shop Pro 5
Particle Fire
PowerQuest PartitionMagic 4.0
Startup

[< Back] [Next >] [Cancel]

Setting up a ColdFusion workstation   17

This last screen is your final review of the choices you have made, if everything is where you expect it to be, go ahead and click next, and the software will be installed.
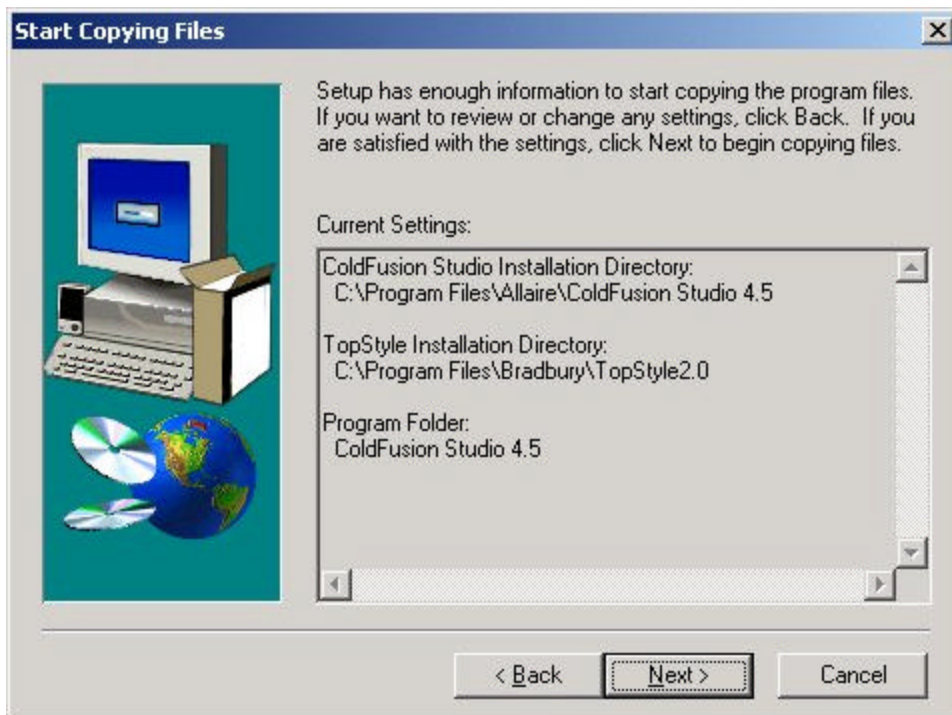
This screen lets you know that all went well and studio is installed.
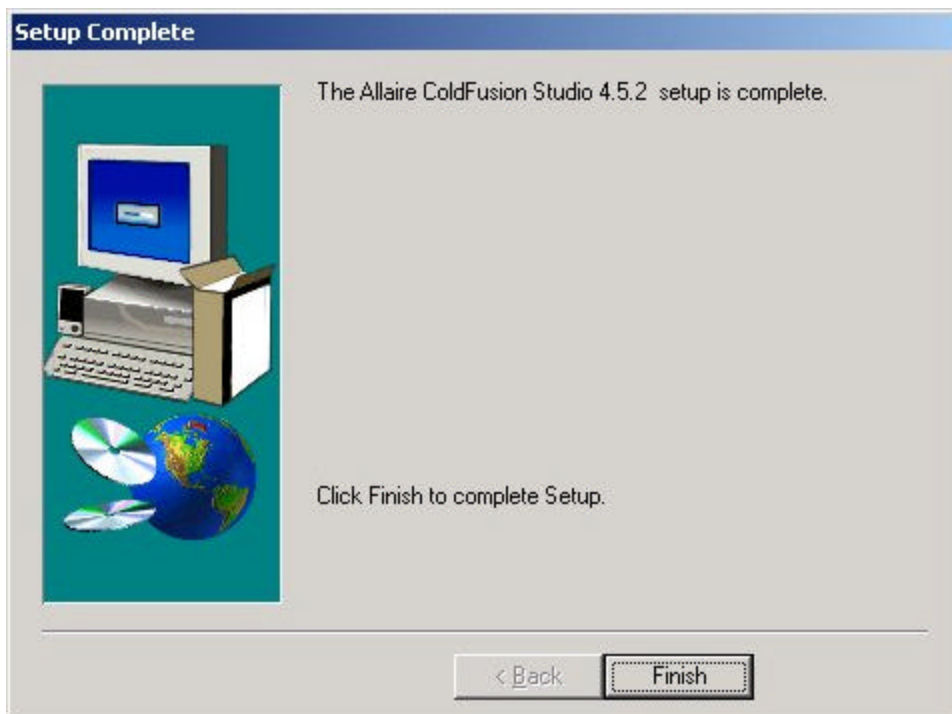
1st Page 2000:

1st Page 2000 is a shareware editor by Evrsoft that works well with ColdFusion and comes with a lot of whistles and bells to make your programming easier. The file you need to start the installation is 1stpage2.zip. In order to install this program you will need another program that knows how to deal with zip files. Zip files are a collection of files that have been compressed and combined into one file. With a program like winzip you can uncompress and separate the files for installation. If you do not have winzip or a similar program that deals with zip files, look in the utilities section of this book on where to get the program and how to install it. When I am installing a program that comes in zipped form, I like to expand it in a temporary directory that has nothing else in it, so that I can clearly see what files came with the installation. The directory that you use to expand the files is not the final directory that the program will be in after it is installed so don't use the program's name or the location that you want it to end up in for the expansion of the files. After expanding the zip file you should have two files in your temporary directory, readme.txt and setup.exe.

Take a moment and read the readme file, you can open it up in notepad or any text editor. The readme file that comes with any installation setup for a program contains information about the program and anything that the authors learned about at the last minute, it is always a good idea to read the readme file anytime you are installing a package for the first time. It can save you a lot of headaches when things don't work right.

Alright, you have read the readme and are now ready to install the program. Double click on the setup.exe file and start the install. The first two screens you get are welcome screens as in figure 1 and 2. Just click next to get by them.

Figure 1

Figure 2

Setting up a ColdFusion workstation

The next screen (Figure 3) is the license screen, as licenses go this one is not to bad. They say that you can make as many copies as you want and even distribute the software, all they ask is that you leave their name on the software. Seems reasonable to me. Just hit next and move on to the following screen.
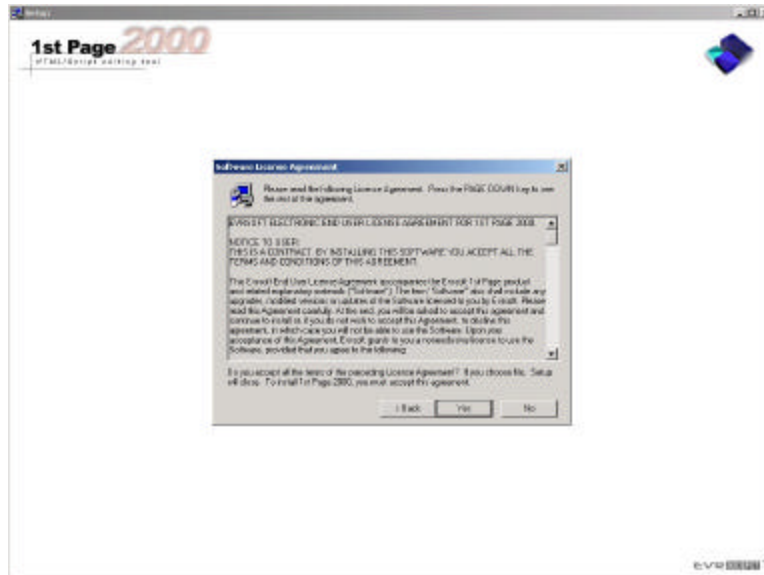

Figure 3

The next screen (Figure 4) is an informational screen. Read all of this screen, scroll the text box so that you can see it all. It will tell you where you can get help if you need it. When you are done click next to move on to the following screen.
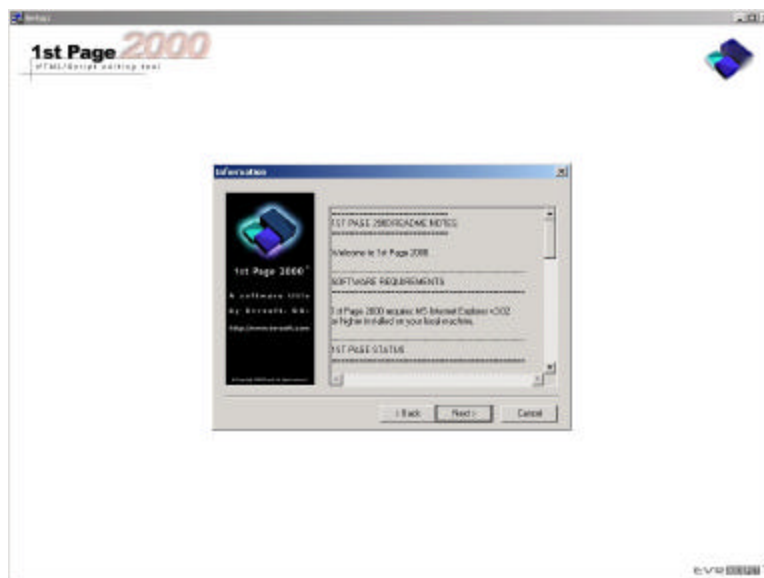

Figure 4

The next screen (Figure 5) is the user information screen that will by default pick up your user name and company from the operating system. Correct the information, if you want to, and click next to move on.
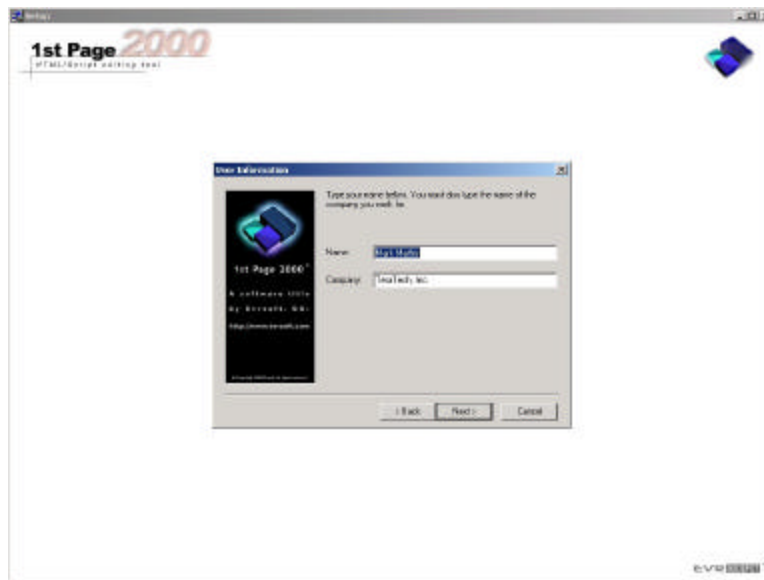

Figure 5

The next screen (Figure 6) is where you tell the program where on your hard disk to install. The default is c:\program files\ evrsoft\1st page 2000, unless you are running out of room on your c drive, just keep the default and move on. If you need to change the location or drive, make your changes, and then click next.

Setting up a ColdFusion workstation

Appendix A: Where to get the software

A. Netscape
   The current version is 6
   Download From: http://www.netscape.com/download
B. Apache
   The current version is 1.3.12
   Download From: http://www.apache.org/dist/
C. ColdFusion Server
   The current version is 4.5.1
   Download From: http://www.allaire.com/products/coldfusion/
D. ColdFusion Studio
   The current version is 4.5.1
   Download From: http://www.allaire.com/products/coldfusion/