

Connectix *How To Guide*: Transferring Windows 98 to a New Dynamically-Expanding Drive Image

Virtual PC 4.0 provides a number of new features for drive images, including drive images that dynamically expand. These new features are only present, however, for drive images created with Virtual PC 4.0. Drive images created with earlier versions of Virtual PC, while useable with Virtual PC 4.0, do not have any of these new features.

There are three ways that a Virtual PC user who is upgrading to Virtual PC 4.0 can get these new drive image features:

- Use a drive image that is provided by Connectix with Virtual PC 4.0. These drive images are pre-configured with an operating system (for example, Windows 98). If you do this, you will want to re-install your Windows application and move over your data files from your earlier drive image.
- Create a new blank drive image with Virtual PC 4.0, and install an operating system yourself from a Microsoft CD that you own. In this case also, you will want to re-install any Windows applications and data from your earlier drive image.
- Create a new blank drive image with Virtual PC 4.0, and copy over the entire contents of your previous drive image. If you do this, you will not have to re-install any Windows applications in the previous drive image. The procedure for this option is described in detail in this paper.

While conceptually simple, copying the contents of a bootable Windows drive image to a new drive involves a large number of steps, due to certain complexities of Windows. For this reason, Connectix recommends that all the steps documented in this paper be followed exactly.

The procedure in this paper is designed for a Windows 98 drive image. Other papers describe similar procedures for Windows 95, Windows Me, Windows NT, Windows 2000, DOS, and Red Hat Linux.

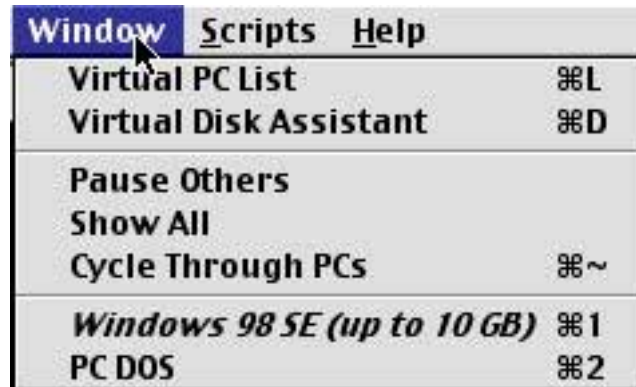
While the procedure in this paper will not alter the contents of your earlier drive image, making a backup copy of your drive image is always recommended before performing any major operation such as this one.

This paper also assumes that you are familiar with Virtual PC 4.0, have read the introductory chapters of the Virtual PC 4.0 manual, and are familiar with the vocabulary of Virtual PC 4.0.

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Step 1. If your Windows 98 virtual machine has a saved state, launch Virtual PC and shut down Windows without saving state. Quit Virtual PC and make a backup copy of your drive image.

Step 2. Launch Virtual PC 4.0. From the Virtual PC Window menu, open the Virtual PC List.



Step 3. From the PC List, click New to create a new virtual machine.

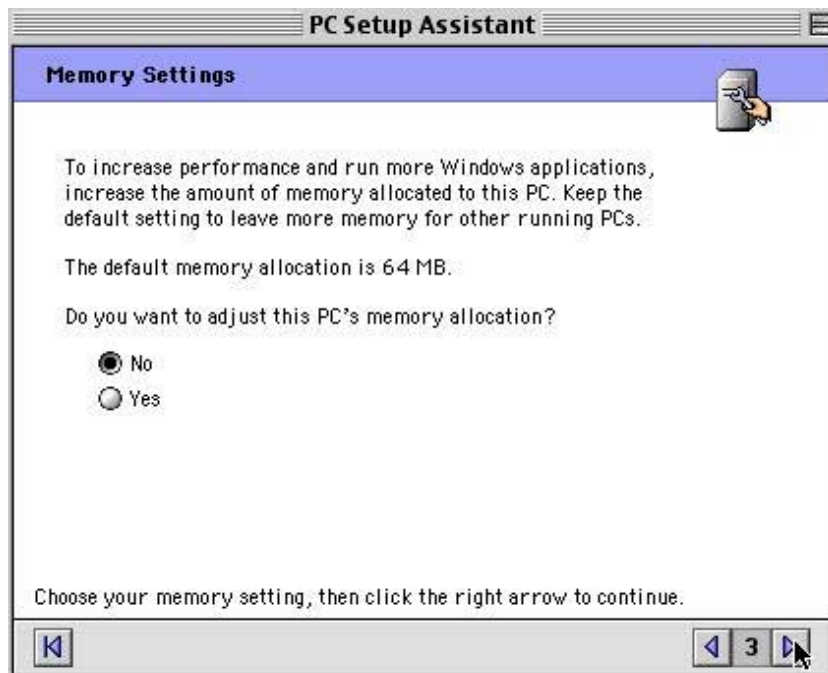


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Step 4. Name your new PC, then click the right arrow to continue. Choose the “Guide Me” option and click the right arrow to continue.

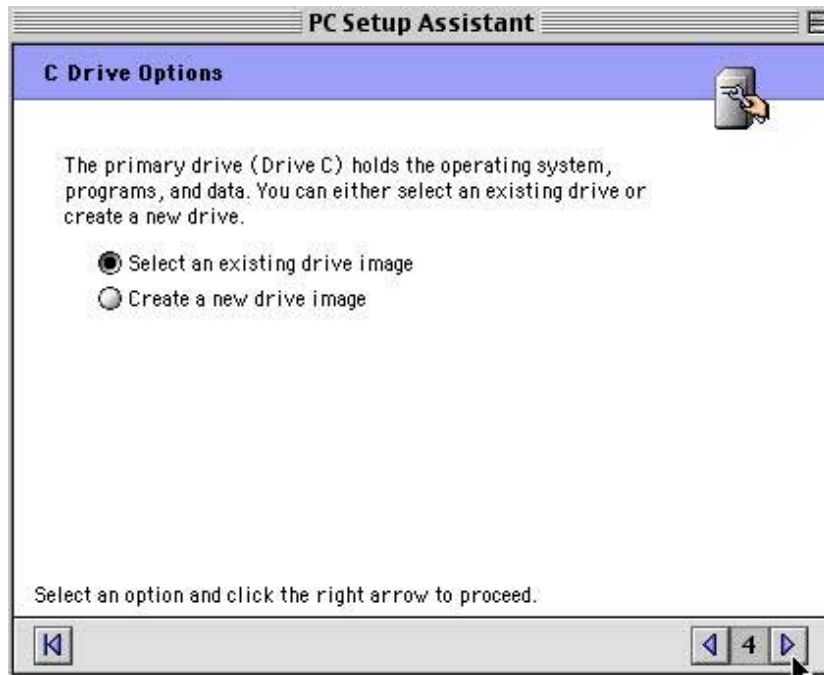


Step 5. Set the desired memory setting for the PC. (64MB is the default and is optimal for Windows 98.)



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Step 6. Choose “Select an existing drive image” and then click the right arrow.

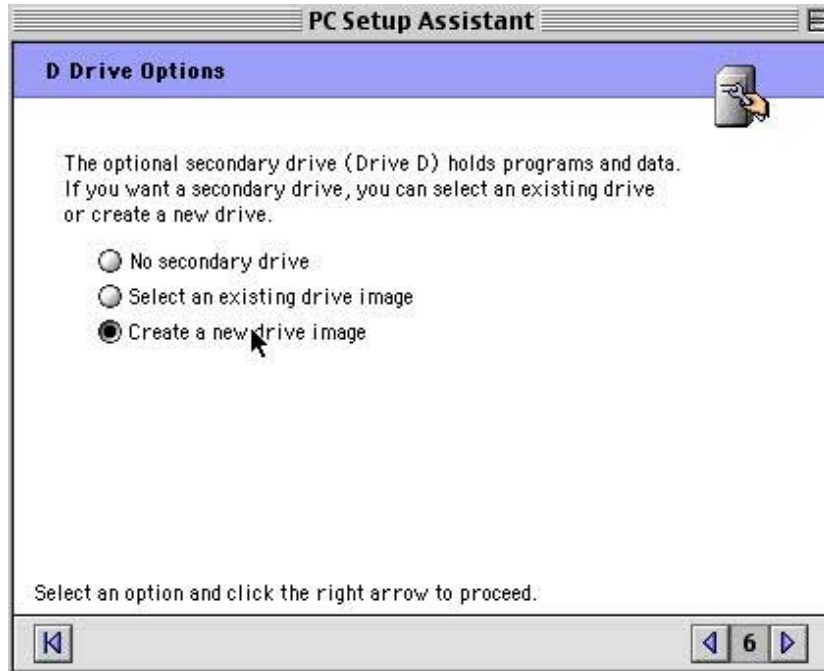


Step 7. Locate the drive image file you want to transfer from your previous version of Virtual PC. Click the right arrow to continue.



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Step 8. For D Drive Options, choose “Create a new drive image” and click the right arrow.



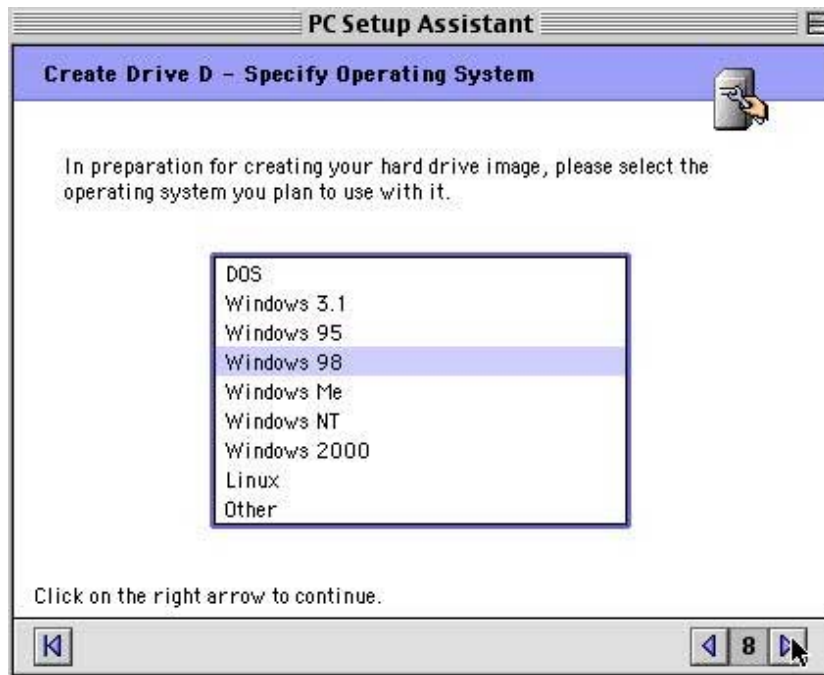
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Step 9. Select the location where you want the new drive to be created and name the drive. Click the right arrow to continue.



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Step 10. Under “Specify Operating System” choose Windows 98. Click the right arrow to continue.

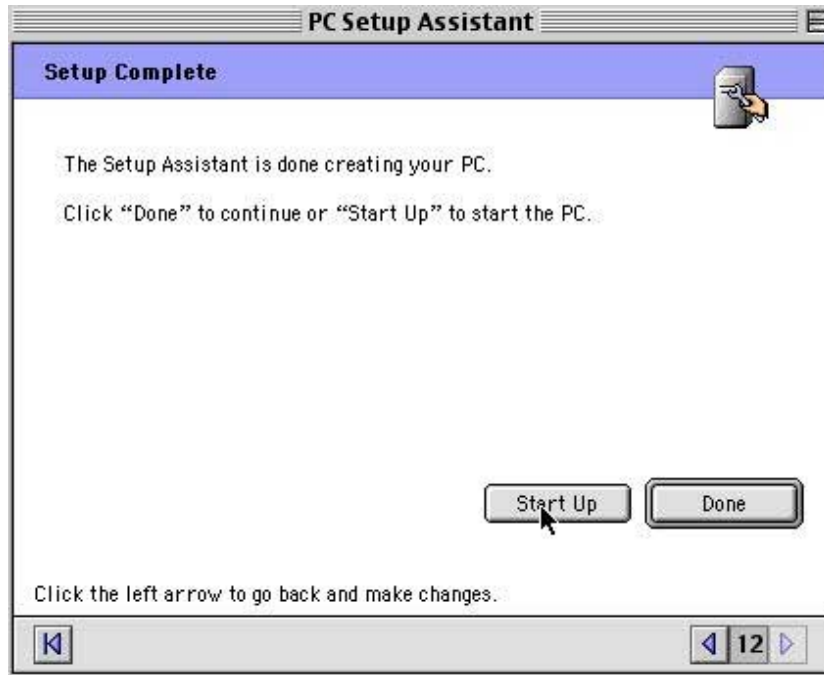


Step 11. To choose the drive capacity, you can proceed with the default option, which will create a dynamically expanding drive, or you can check the Advanced Options button to specify a custom size. Click “Create Drive” after you have selected your drive creation options.



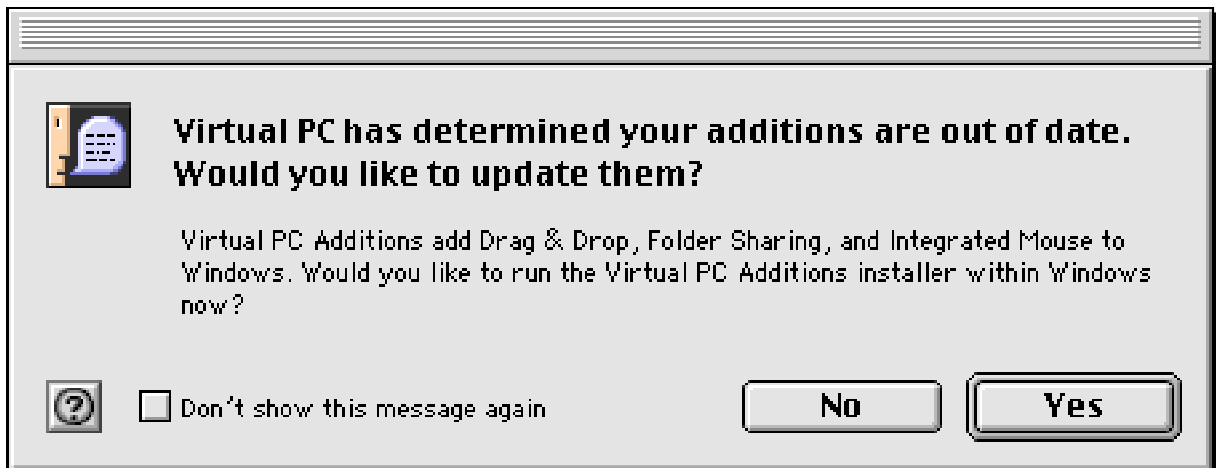
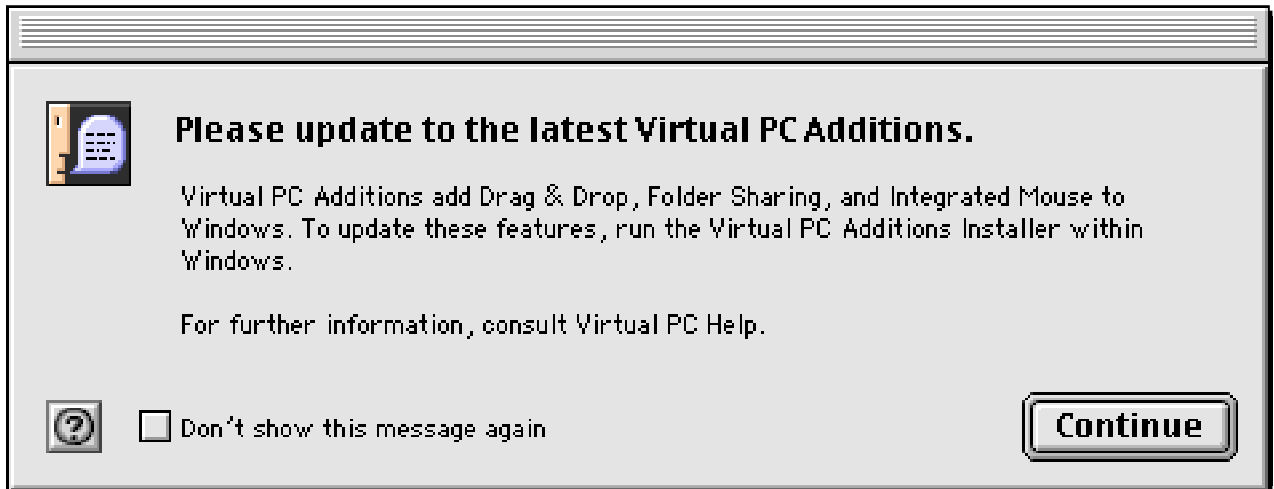
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Step 12. Once the drive has been created and you see the message “The Drive was created successfully”, click the right arrow and select from the remaining options for the PC (modem and PDA). You can then launch the new virtual machine by clicking “Start Up” from the PC List after you have completed the Setup Assistant.



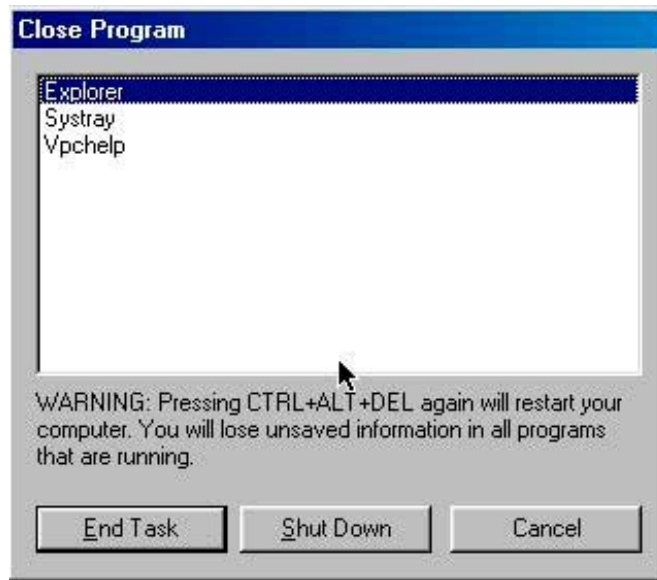
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Step 13. After you Start Up the new PC, Windows will begin loading. When Windows has finished booting, disable any virus scanner you have running (if any), and shut down any programs you have running. If you are prompted to perform a VPC Additions update, do so if you will want to use this previous drive image with Virtual PC 4.0. If you are planning on using only the new expanding drive image with Virtual PC 4.0, then you can update the VPC Additions later in that new drive only.



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Step 14. To make sure there are no programs running inside Windows, press CTRL+Option+Del to bring up the Windows Task Manager. (On Apple keyboards without a forward delete key, this key sequence will be SHIFT+CTRL+Option+Delete.) The only applications left running should be Explorer, Systray and Vpchelp. Other applications can be closed by highlighting the application and choosing “End Task.” You will need to invoke the Task Manager for each application you must close in this manner.

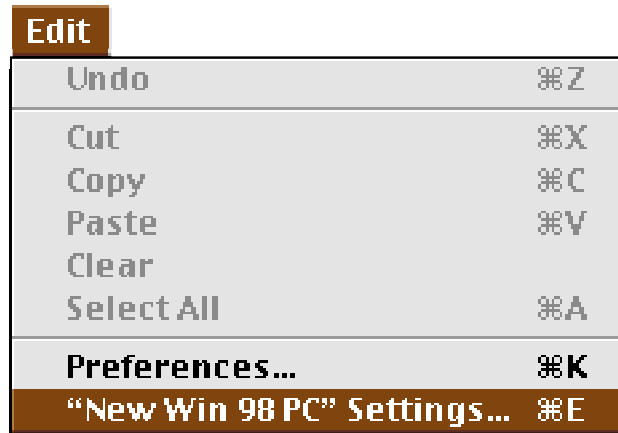


Step 15. Empty the Recycle Bin on your Windows desktop.

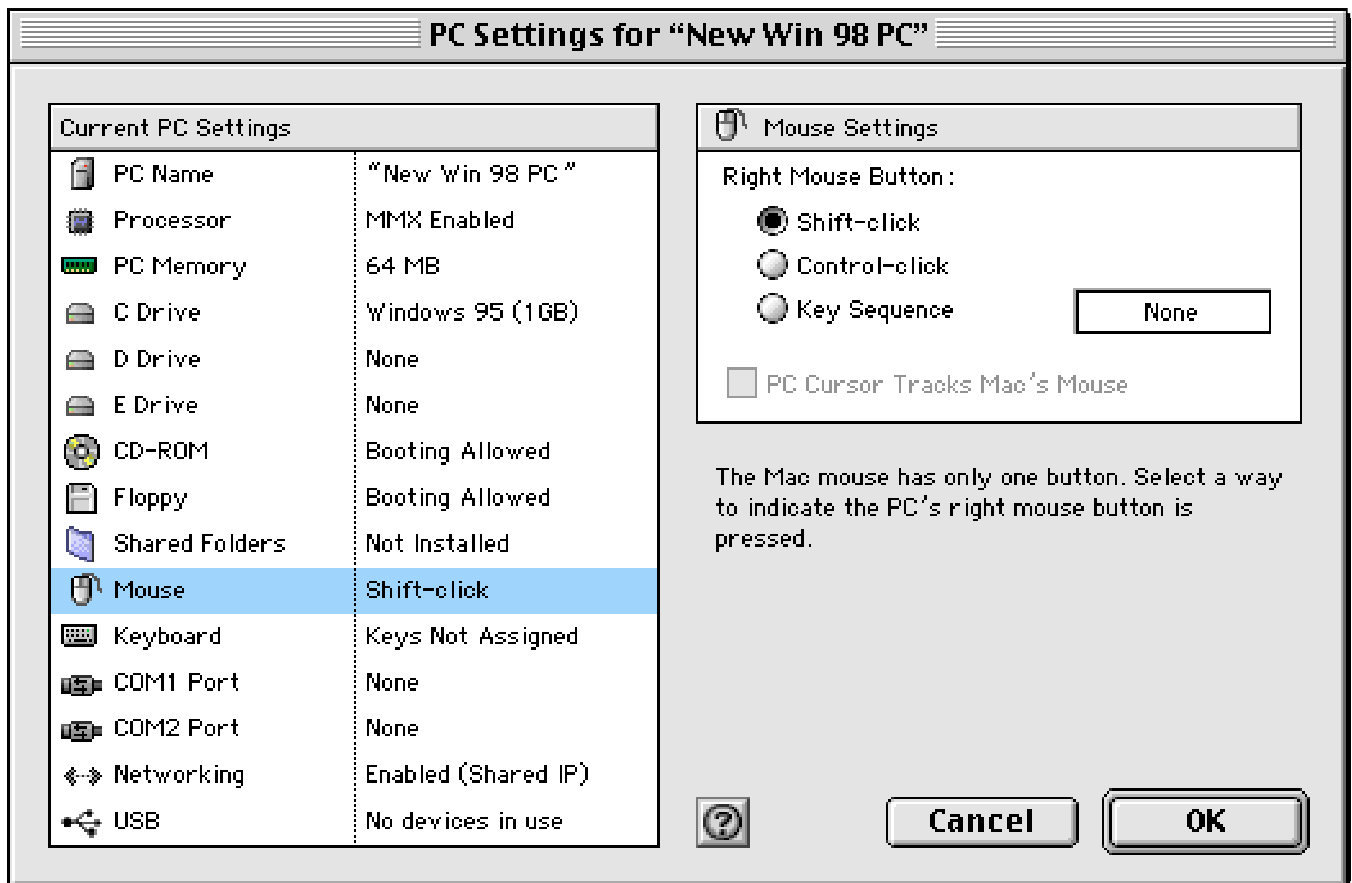


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Step 16. Open the settings window for your virtual machine by choosing the last menu item on the Edit menu.

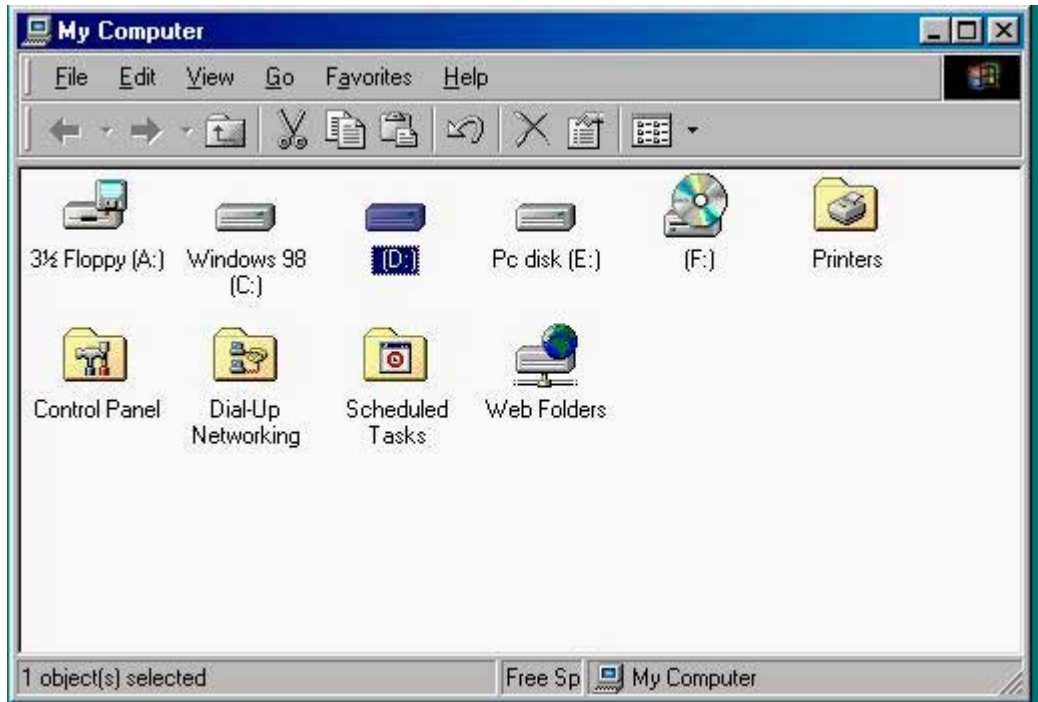


Step 17. Select the Mouse settings, and click on the Shift-click setting for the Right Mouse Button. Click OK to close this window.



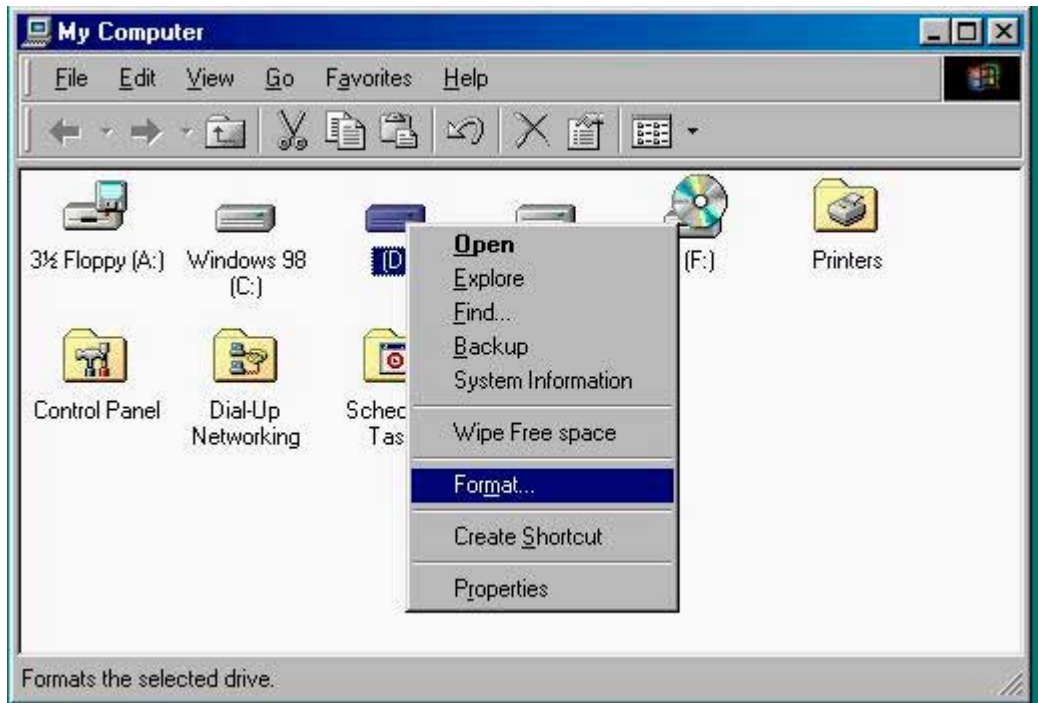
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Step 18. In Windows, open My Computer and select the D: Drive.

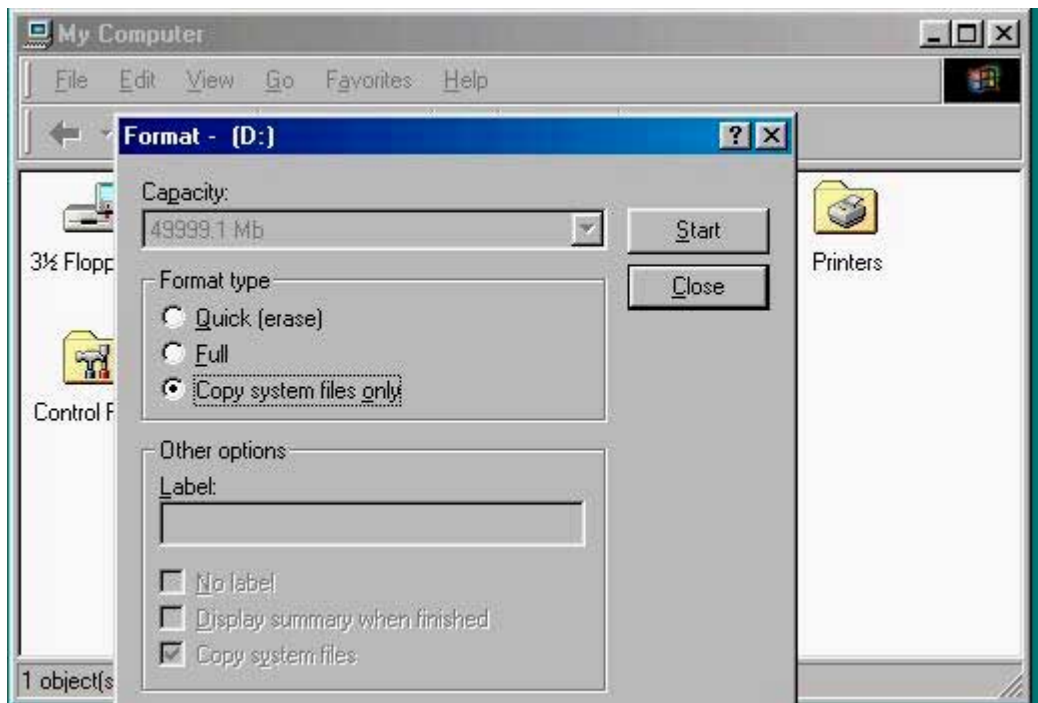


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Step 19. Press the Shift key and Enter together or perform a right-click on the D: Drive to bring up the Properties menu for the volume. Choose Format from the Properties menu.

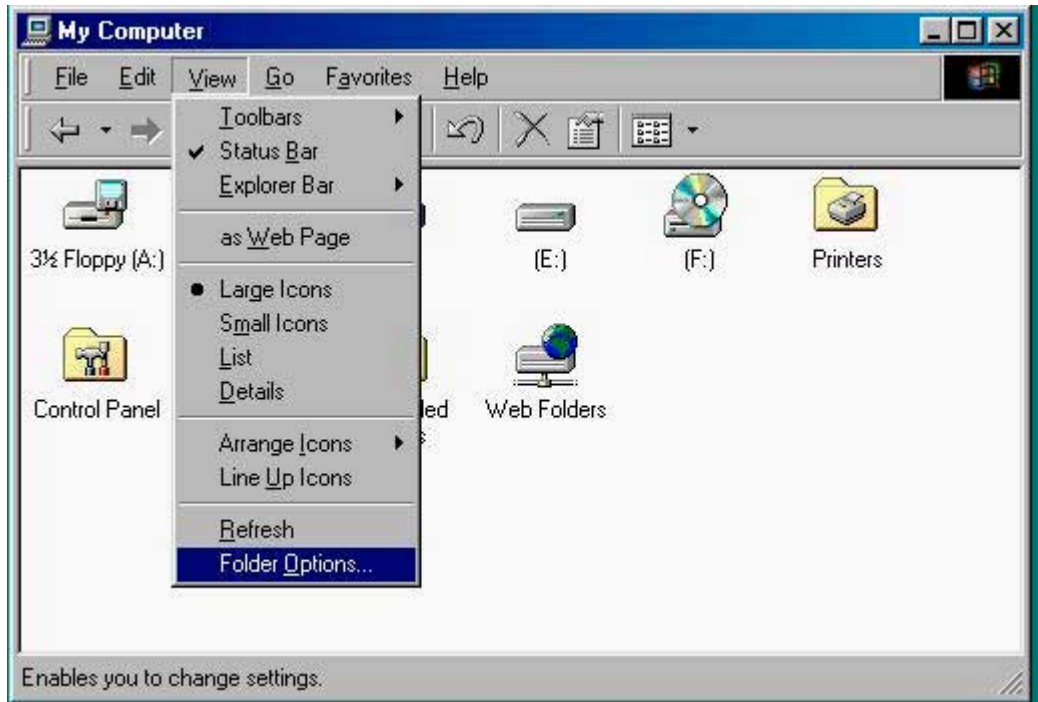


Step 20. Select "Copy System Files Only." Press the Start button to proceed with the format and close the Format window when complete.



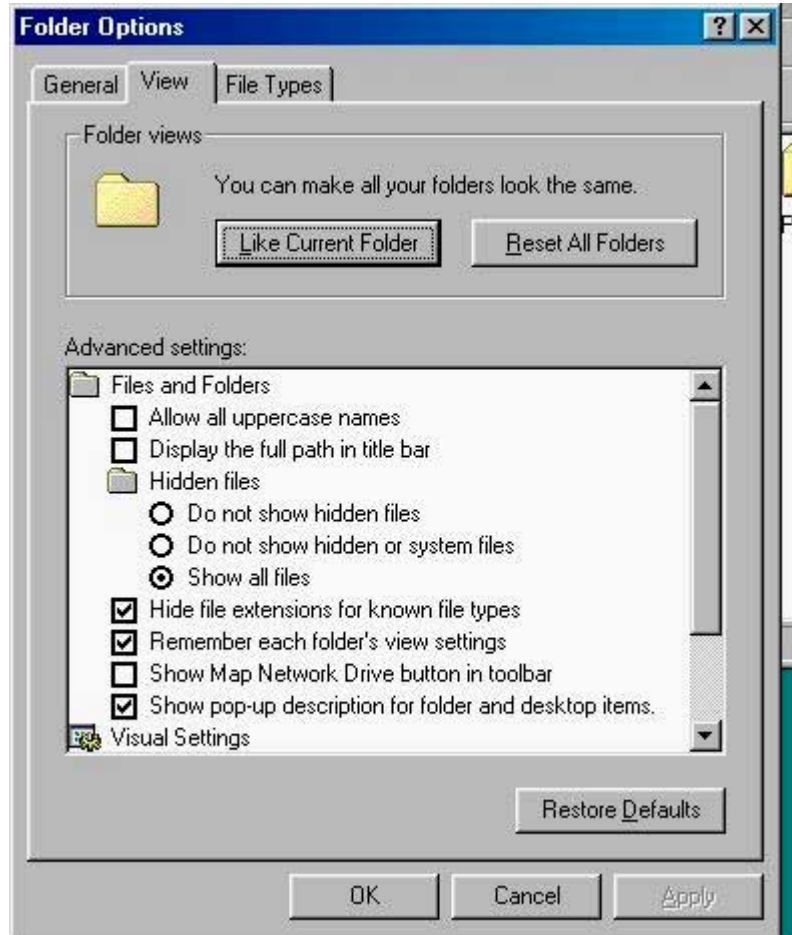
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Step 21. Go to the View menu and choose Folder Options.



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Step 22. Select the View tab and select the “Show all files” button and click OK.

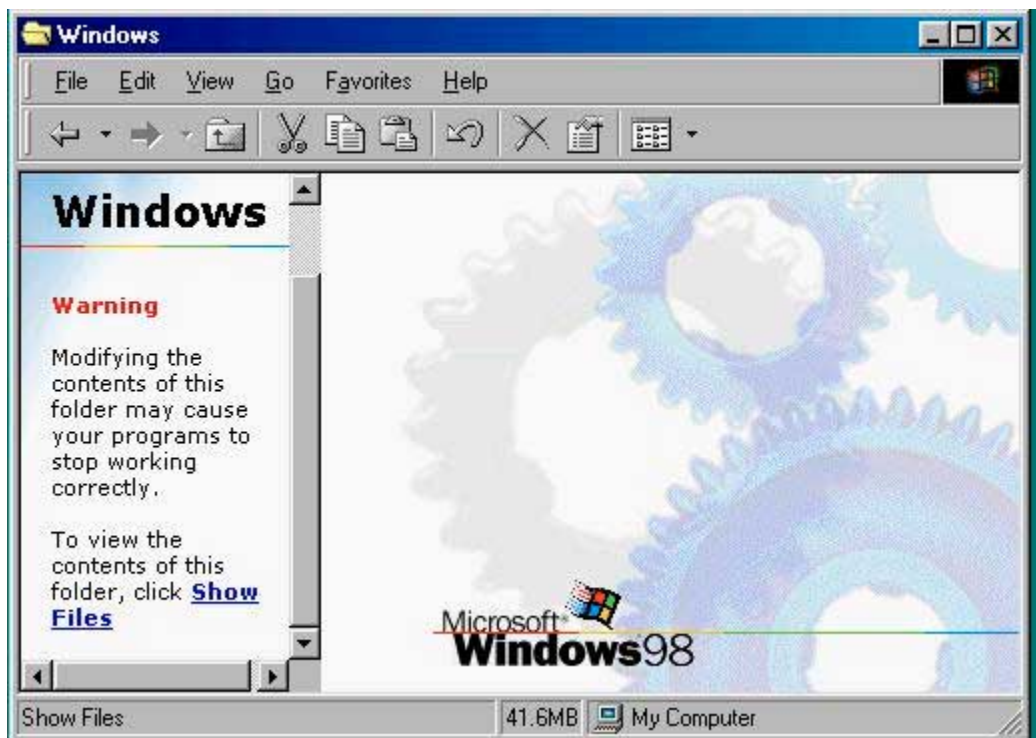


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Step 23. Open the C: Drive and open the Windows folder.

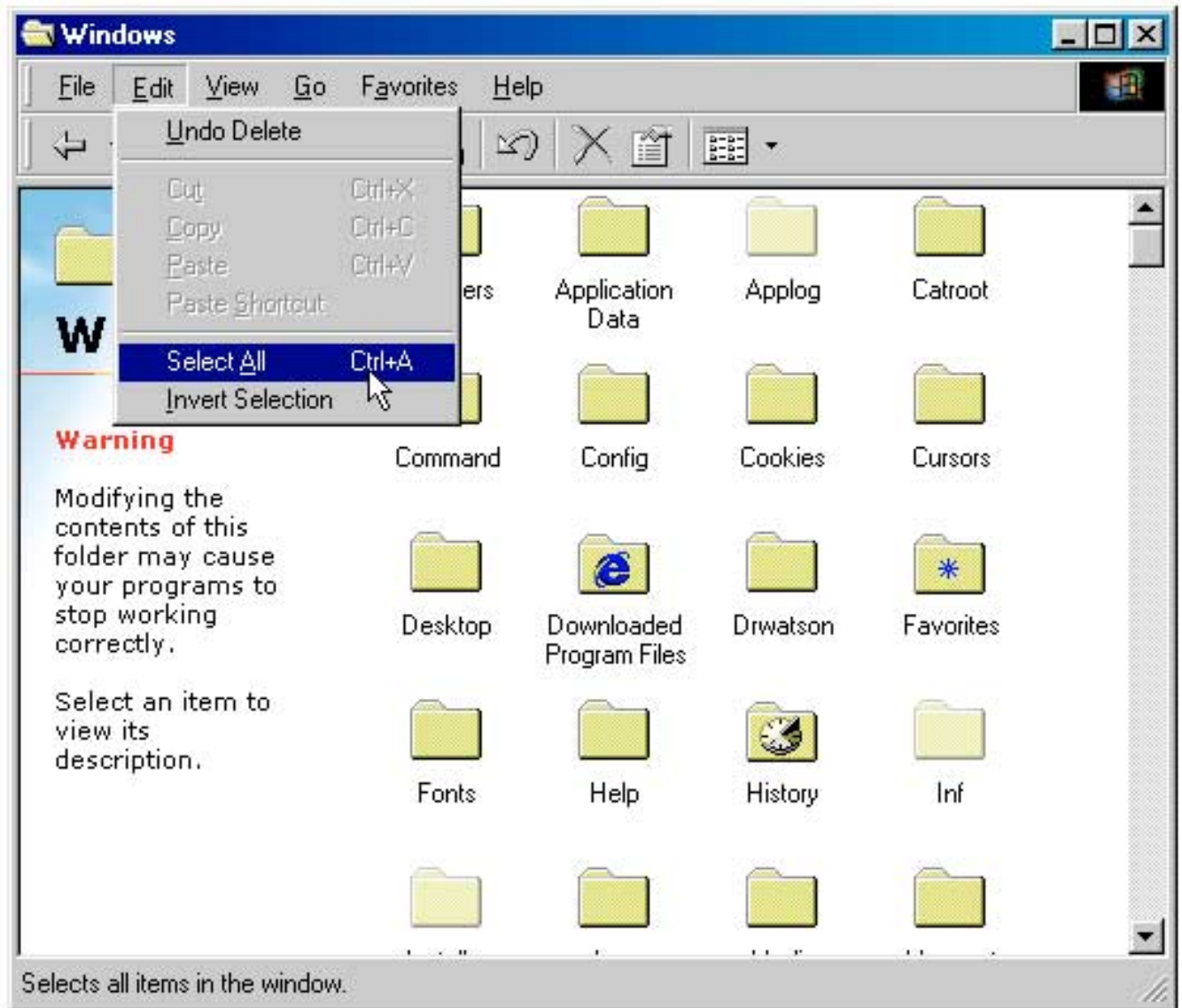


Step 24. If necessary, click the "Show Files" option in the left pane to view the files in the folder.



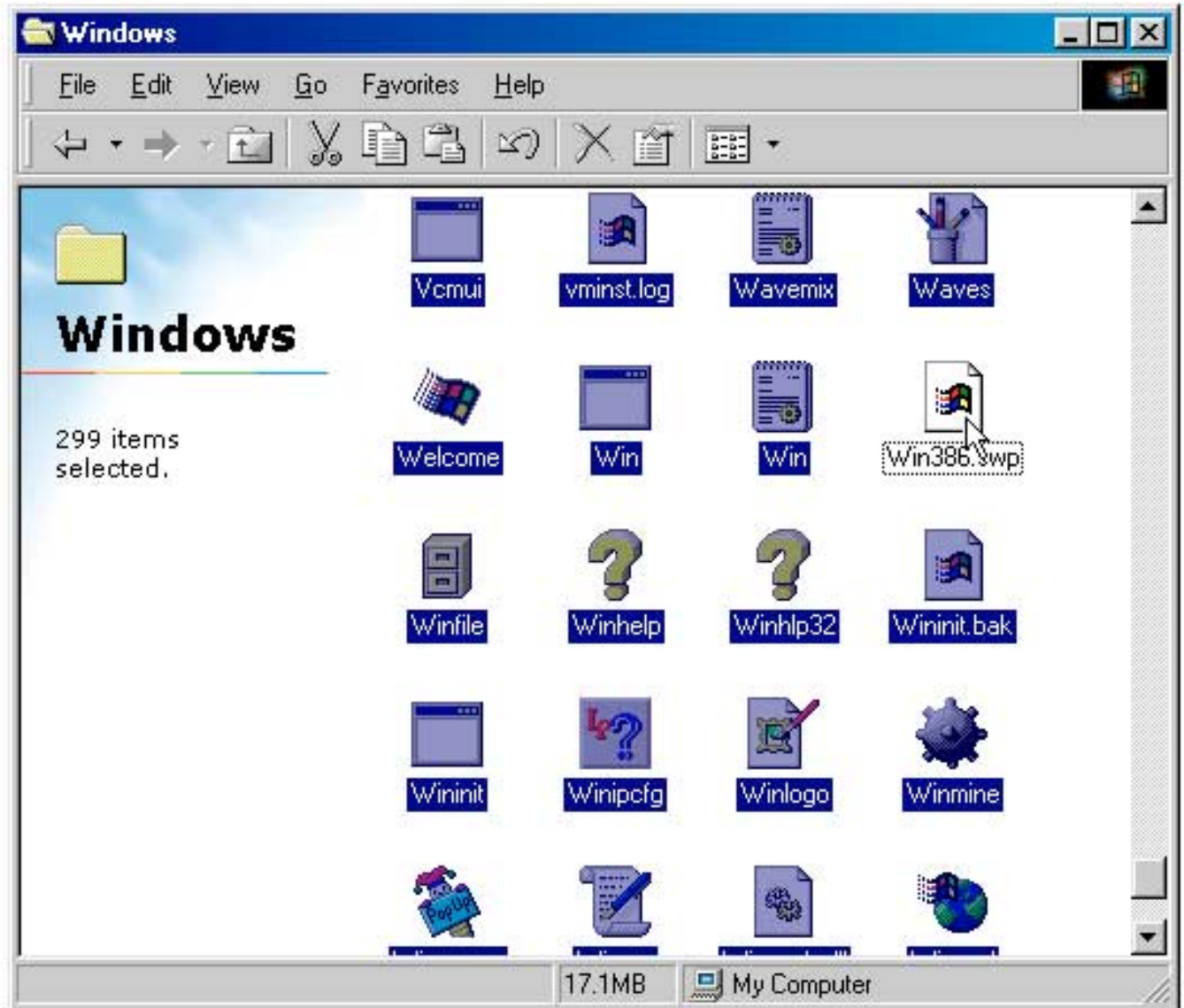
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Step 25. You will now select ALL files in this folder **except** the Win386.swp file. Do this by choosing the Select All menu item from the Edit menu. (*Continued on next page.*)



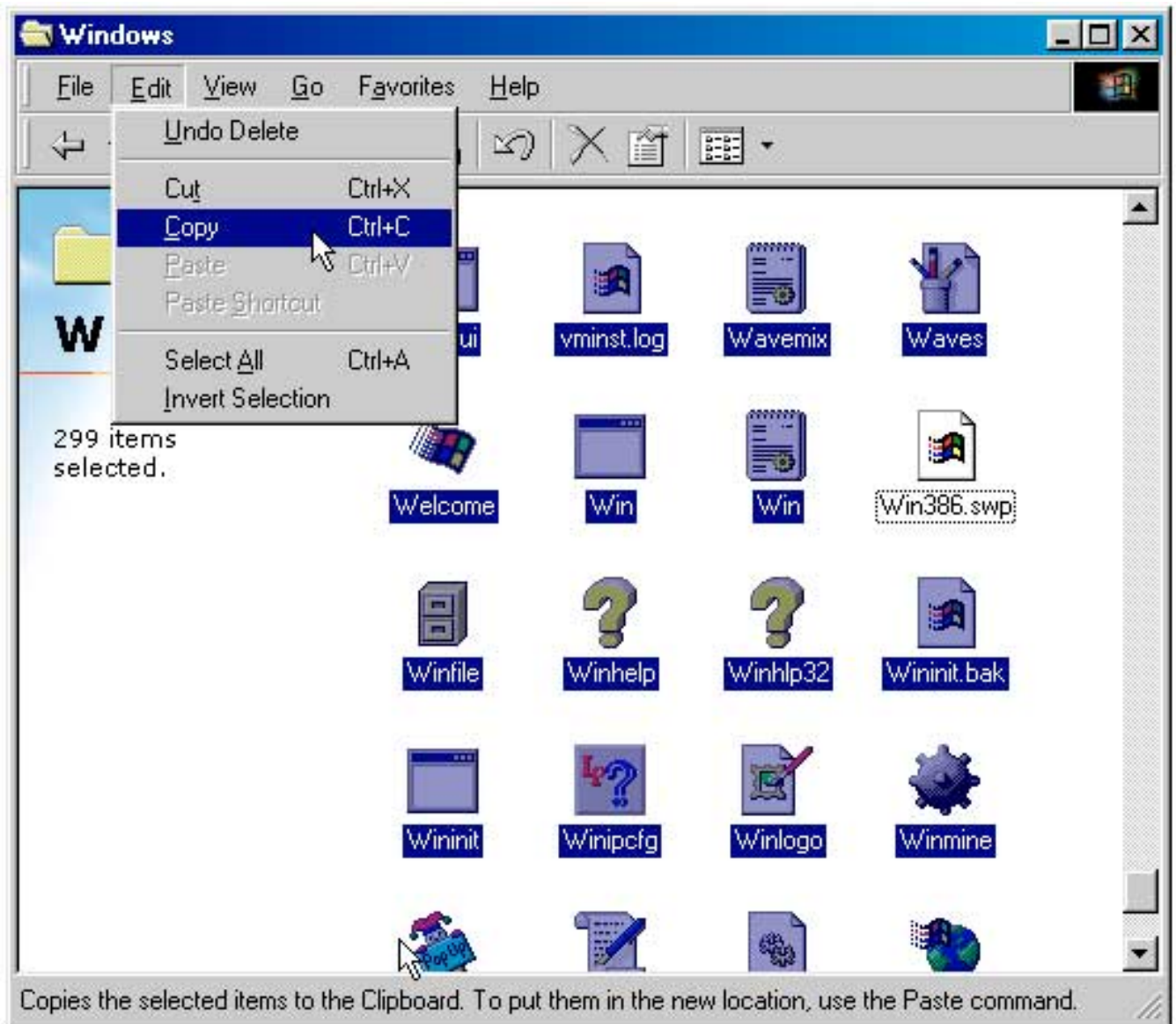
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Step 25 (continued). Then scroll down until you see the WIN386.SWP file. Hold the control key down while you click on the WIN386.SWP file to de-select it.



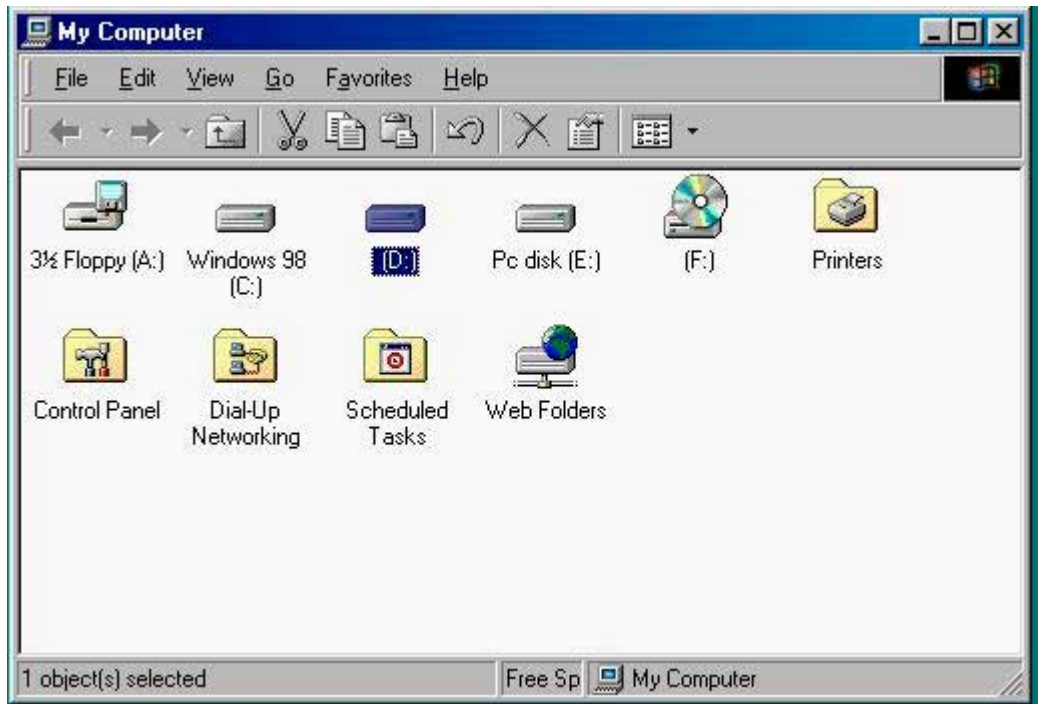
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Step 26. Choose “Copy” from the Edit menu.

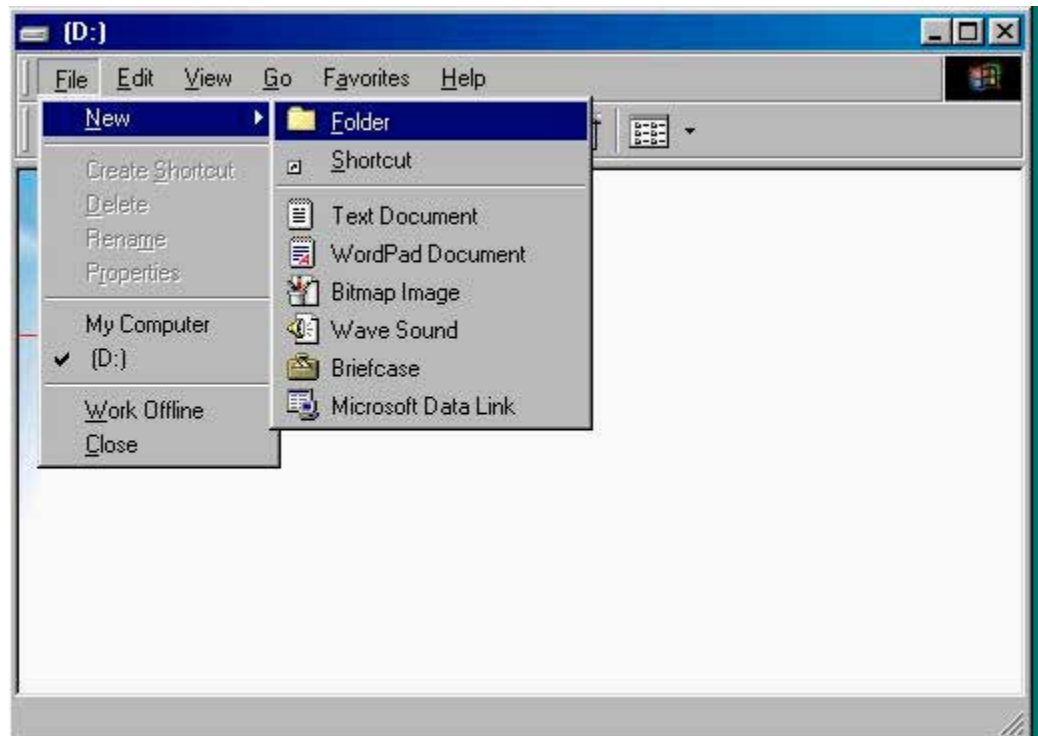


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Step 27. Go back to My Computer and open the D: drive by double-clicking on it.

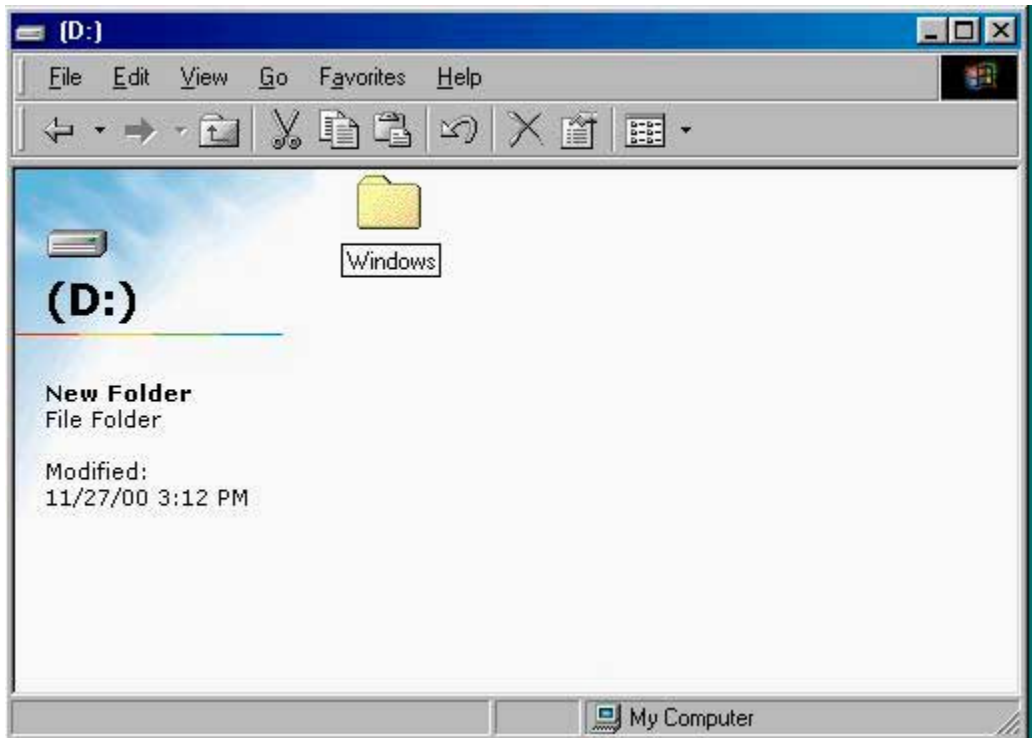


Step 28. Create a new folder by choosing "New" from the File menu and selecting "Folder."

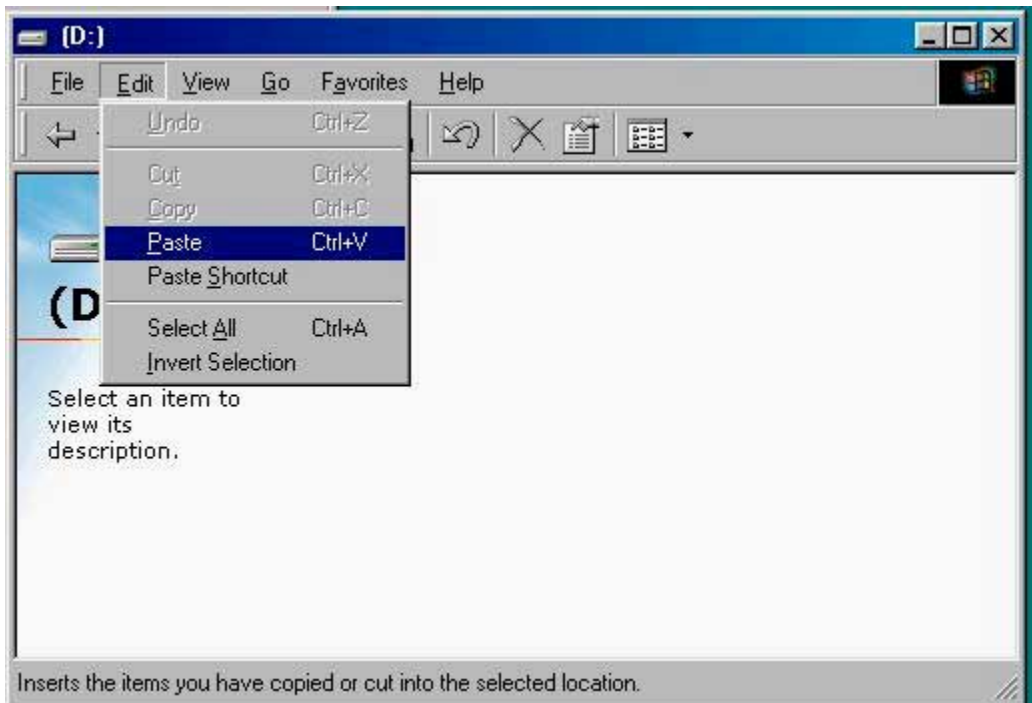


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Step 29. Type “Windows” for the folder name.

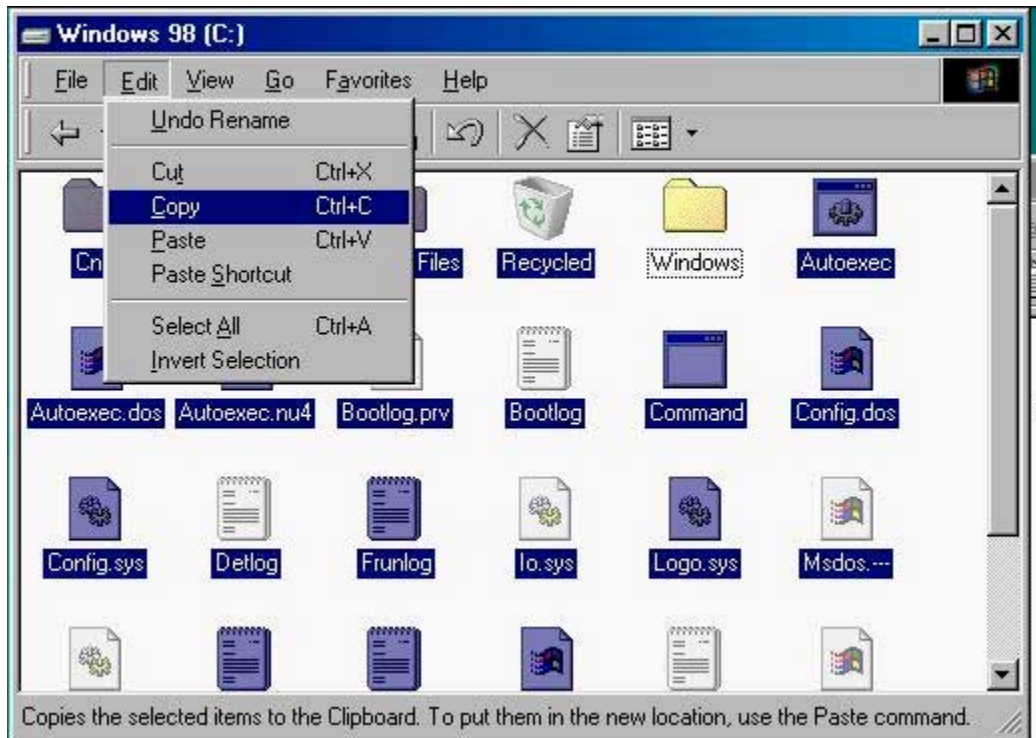


Step 30. Open the newly-named Windows folder and choose Paste from the Edit menu. Wait for the copy to complete. This may take several minutes.



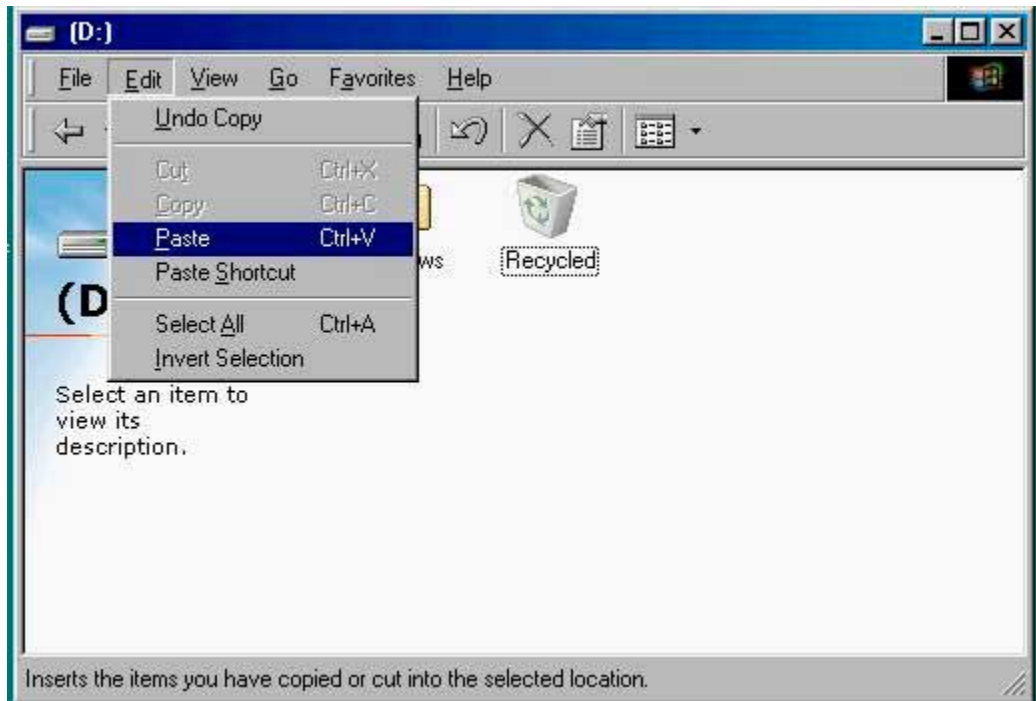
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Step 31. Once the file copy has completed, go to the C: Drive and select all files and folders **except** the Windows folder. (You will need to use the same Select All / Control-click operation as when selecting from the Windows folder in step 25.) Choose “Copy” from the Edit menu.



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Step 32. Go to the D: Drive and Paste the files and folders to the D: Drive root. Click “Yes to All” when asked if you want to overwrite any existing files.

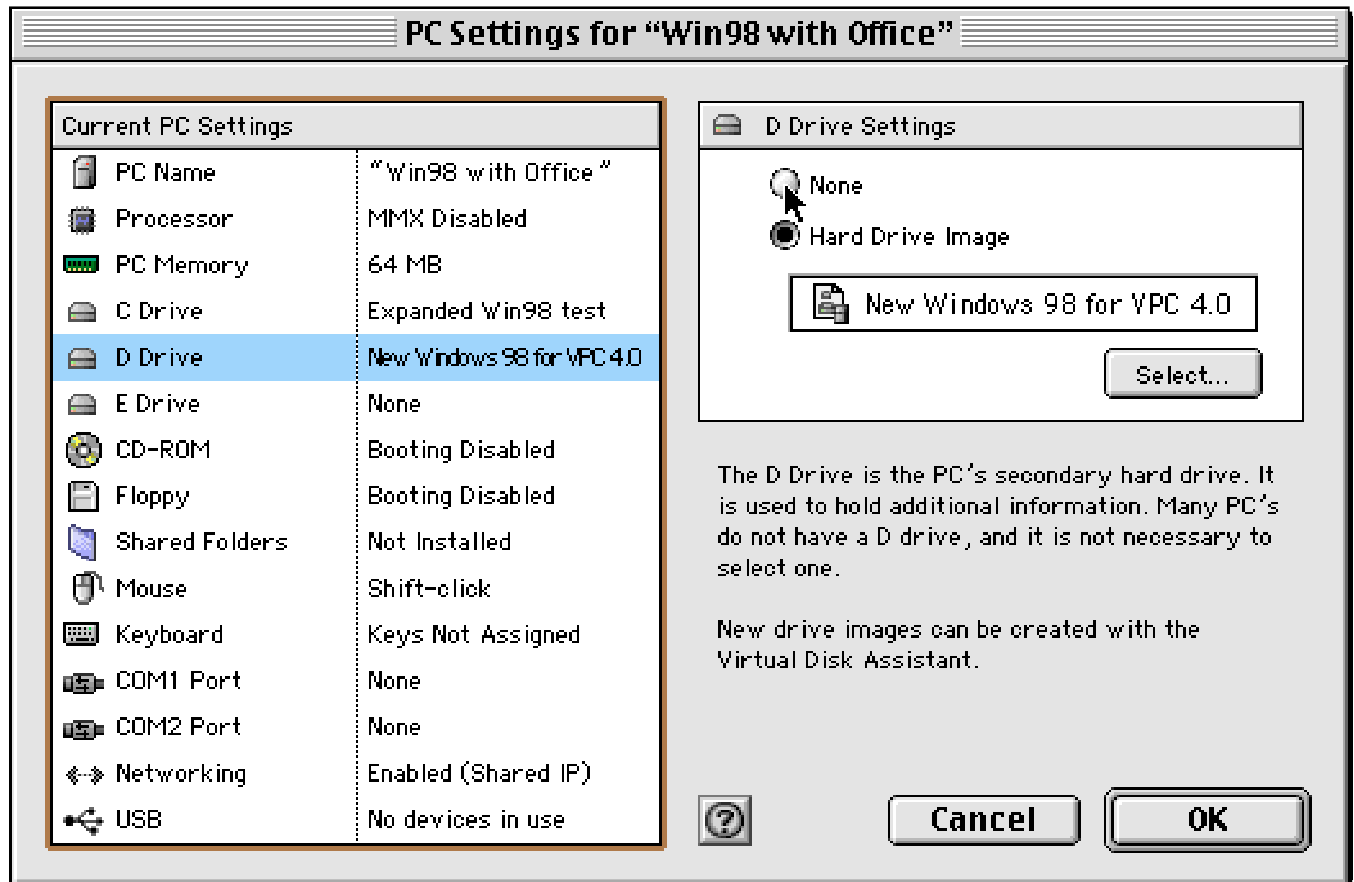


Step 33. When the copying is complete (it may take several minutes), close all windows and shut down the Windows 98.



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Step 34. Disconnect the D: drive you made in steps 8-11 by opening the settings window, choosing D Drive in the left pane, and choosing "None" in the D Drive Settings.

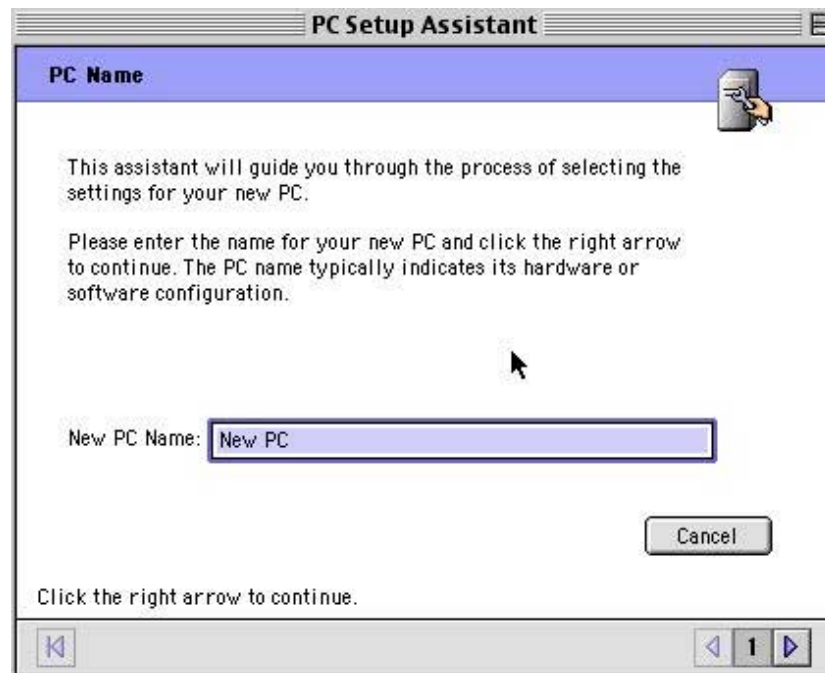


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Step 35. You'll now need to create a new PC. This new PC will use the new drive you just created. From the Virtual PC Window menu, choose the PC List.

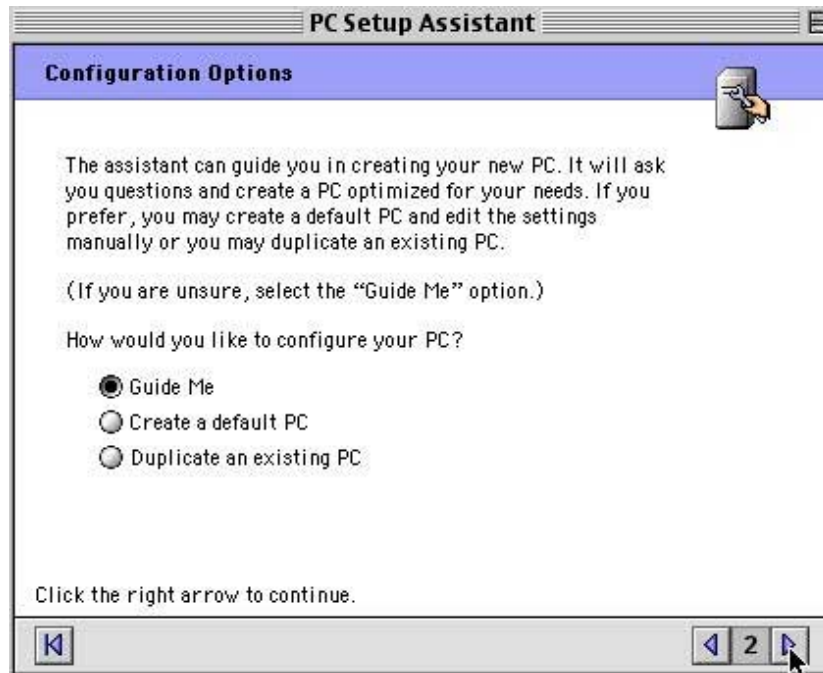


Step 36. From the PC List, click New to create a new virtual machine and name the PC.

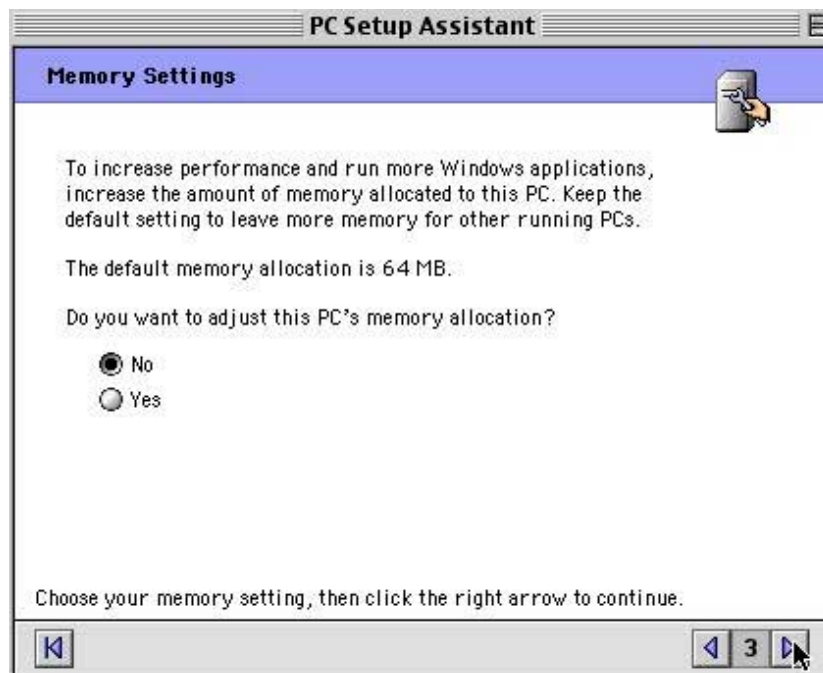


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Step 37. Choose the “Guide Me” option and click the right arrow to continue.

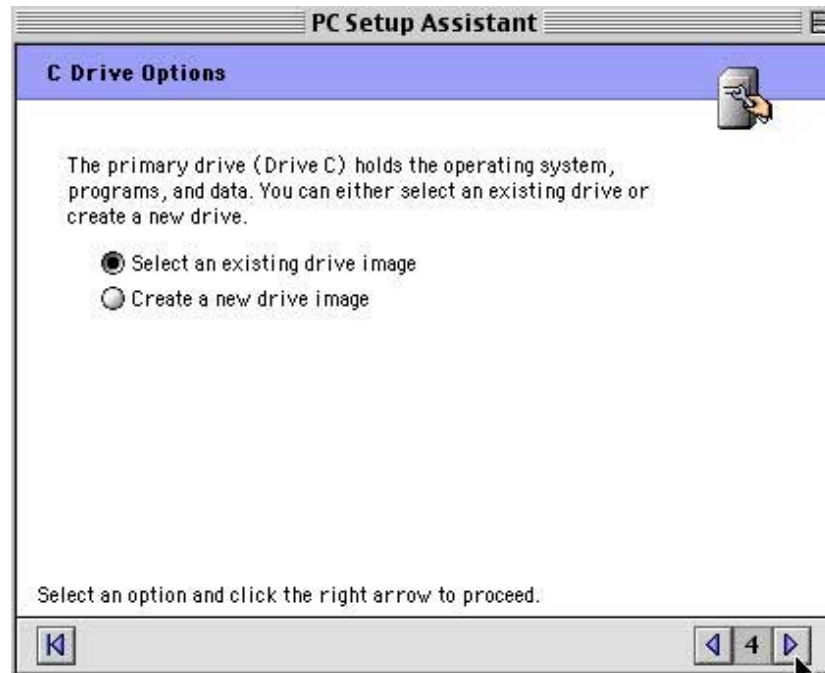


Step 38. Set the desired memory setting for the PC. (64MB is the default and is optimal for Windows 98.)



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Step 39. For C: Drive Options, choose “Select an existing drive image.”

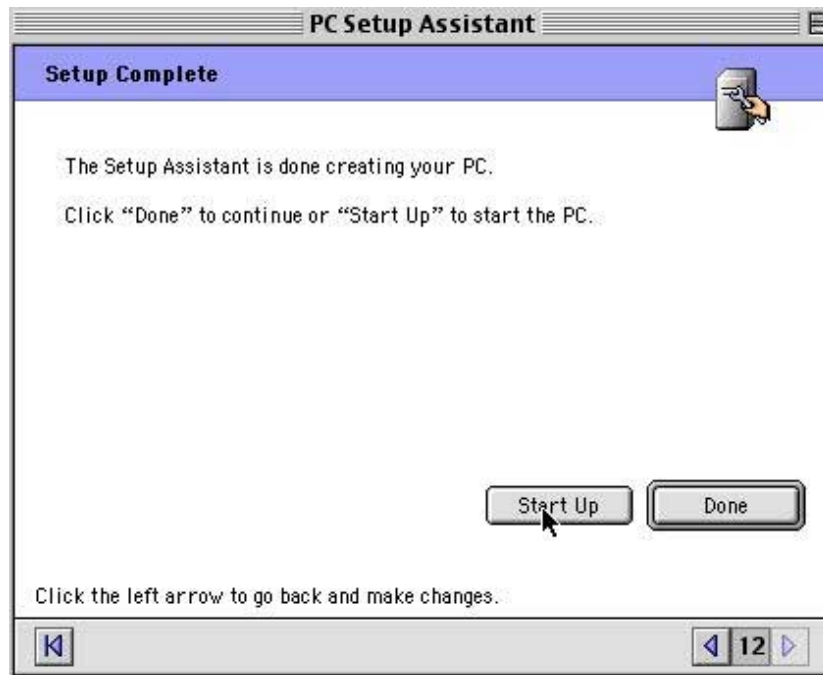


Step 40. Click “Select Disk” and locate the new drive image you created in steps 8-11.



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Step 41. Complete the PC Setup Assistant by choosing from the remaining options for modem and PDA. Click “Start Up” at the last panel of the Setup Assistant.



Your system should now be transferred and running on a new dynamically expanding drive image. Once the system has fully booted, it is recommended that you run ScanDisk and Disk Defragmenter from the Start/Programs/Accessories/System Tools menu in Windows.

Your system should now be fully functional and running on the new drive. It is strongly recommended that you save your previous drive as a backup.