

A Tweak for Windows 95

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I found the answer! Remember back in Number 42, MORE WINDOWS FRUSTRATIONS, when I complained about the sluggish operation of Harvard Graphics when used with Windows 95? The sluggishness seemed to be associated with my hard drive thrashing around whenever I performed a simple operation such as adding a line, or even erasing one. Well, the answer is here, in the form of a "tweak" that you can apply to your machine, as well. Credit must go to one of my favorite web sites: <http://www.creativelement.com/win95ann/>, the home site of Windows 95 Annoyances. This site is jam packed with general complaints about Windows 95, along with wonderful work-arounds, fixes and tweaks. Indeed, much of what can be found at the site has been published in a book by David A. Karp, **Windows Annoyances**, O'Reilly & Associates, 101 Morris Street, Sebastopol, CA 95472 (707) 829-0515. The book, which I purchased, is \$29.95 plus about \$4 for shipping. Highly recommended.

It turns out that the default settings for Windows 95 are poor with regard to caching the hard drive and managing virtual memory. By the way, virtual memory is a misnomer for a process in which Windows uses your hard drive to store information while it is working. Here is what happens.

Windows loads software drivers and programs into memory until your memory is chock full. At that point, it starts to use your hard drive, loading programs or whatever is necessary into a "swap" file on the drive. As you work, it messes around constantly, moving stuff into the swap file and freeing up real memory for what it considers the most important tasks. It also resizes the swap file constantly, depending upon what it decides it needs at the moment. This constant swapping and resizing can slow down your machine considerably as Windows repeatedly adjusts the swap file. Just a little tweaking can improve this considerably, but you have to tell Windows to let **you** decide what to do. Here is how. As always, click or select means click with the left mouse button unless otherwise noted.

1. Click the START button; select SETTINGS, CONTROL PANEL, and then SYSTEM.
2. Select the PERFORMANCE tab and click on VIRTUAL MEMORY.
3. Select the LET ME SPECIFY MY OWN VIRTUAL MEMORY SETTINGS.
4. The location and size of your swap file are now displayed. You now need to change the size to a fixed value, to prevent Windows from constantly adjusting the size.
5. Use the same number for both the Minimum and Maximum size. This number should be 2½ times the amount of RAM you have installed in your machine. Thus, for a machine with 16 MB of RAM, use the number 40 in both spots. If you have 32 MB of RAM, use 80, and so on.
6. Click OK. Windows will now present you with an ominous warning message, asking if you really want to do this, and predicting dire consequences. Ignore Windows; it is only a computer program. You are human and in charge. Click yes.
7. Windows will comply and ask to restart the computer. Let it do so, so that it can invoke your new settings. The constant disk access will be gone, and you should see an improvement in performance.

Next, you want to prevent Windows from filling up all the available RAM, then spilling any applications you wish to use to the hard drive. To do this, you need to edit SYSTEM.INI, a file

located in your WINDOWS subdirectory. Use NOTEPAD for this job, not a word processor! Here is how:

1. Right click the START button and select EXPLORE. Select the Windows subdirectory and scroll down in the Contents panel until you find NOTEPAD.EXE.
2. Double click NOTEPAD.EXE to start the program. Click on FILE, then OPEN. Make sure the ALL FILES (*.*) option bar is selected, not TEXT DOCUMENTS (*.txt). Then scroll through the many files in the Windows subdirectory until you find SYSTEM.INI.
3. Select SYSTEM.INI. Once Notepad has opened it, scroll down until you find the heading labeled [vcache]. You should find this section with no entries. If you cannot find it at all, add it just as shown, including the brackets: [vcache]
4. Assuming you have 16MB of RAM in your machine, add the following two lines below the [vcache] heading:
MinFileCache=4096
MaxFileCache=4096
5. If you have more than 16 MB of RAM installed, make both numbers equal to 25% of the amount of RAM. Thus, for 32MB, both numbers should be 8192. For 64MB, 16384, and so on.
6. Click FILE, and then SAVE. Exit NOTEPAD. You are all done.

Work with these changes for several days. Chances are that you will find performance considerably improved by these steps. Should any problems arise or if your system performance degrades, you can easily remove these two lines with NOTEPAD and tell Windows to go back to managing your virtual memory, by just following the thread outlined in this article. I bet that won't happen, though, and that you will see significant improvement. Try it. Remember, you are human and in charge.

By the way, this might be a good time to construct a shortcut on your desktop to NOTEPAD.EXE, so that it will be there when you need it. You say you don't know how to do that? Find NOTEPAD.EXE as outlined above, and left click on its icon, but hold the button down. Then drag the pointer to any blank spot on your desktop and let go of the button. Close the Explorer. You now have a shortcut to NOTEPAD on your desktop that will launch the program whenever you double click it. Happy computing!