

MORE WINDOWS 95 FRUSTRATIONS!

A few days ago I began work on a map for my OZARES group using Harvard Graphics version 3, a DOS based program. HG3 is a favorite of mine, useful for all sorts of drawings, charts and graphs, as well as maps. I turned on my Windows 95 machine, which booted directly into DOS 7, as I described in No. 39 of this series. Then I started HG3, loaded a scanned version of the map, and began cleaning it up and editing it.

It was sloooow work! The pictures seemed to refresh much more sluggishly than when using even my 486 DOS 6.22 machine. Furthermore, each time I performed a function such as adding a line or erasing one, I could hear my hard drive thrashing about, reading one file and writing to another. "Wait just a minute", I thought. "HG3 uses extended memory (XMS) for this sort of thing; the hard drive should not be working at all unless I save my work". You see, many of today's programs can temporarily store and manipulate data in extended or expanded memory, which is much faster than using the hard drive. After all, the hard drive is an electromechanical device, which requires considerable time to seek, read and write data. Storing the data in memory chips and manipulating there is much faster, since there is nothing mechanical to be moved. The only time you need use the hard drive is when saving your work (which should be fairly often to avoid data loss in case of a power failure). Only then will the hard drive be called upon to record the new data to its shiny, magnetic platters.

"Why is HG3 not using XMS memory?" I puzzled. I knew it was not because of a shortage of memory chips - my new Pentium MMX computer sports a whopping 64 Mbytes of RAM memory. That's more than the space on some folks' hard drive. So I started some detective work that quickly gave me the answer.

MEM.EXE is a program that tells you about memory allocations. It has come with all DOS versions since 4.0, including of course the DOS 7 upon which Windows 95 sits. From the DOS command line, I gave the command: MEM/C /P, which invoked the program and told it to show me a complete (/C) list of memory allocations, and to pause the output (/P) when screen was full. Feel free to try it on your own machine. It is a read only program so it is safe to run, and it can tell you a lot concerning how your memory is apportioned.

My results with MEM were revealing. Although nearly 63 of the 64 Mbytes of RAM had been converted to XMS (the remainder was used for system resources and device drivers), Windows 95 had claimed all of it for its own use! There was none left free for DOS based programs. Aaargh! I confirmed this by running HG3 from Windows 95. It took only 3 seconds to load, as opposed to 58 seconds from DOS, and although the mouse was jerky in response to movement, I could erase or add lines with practically instantaneous response.

So what is the solution? Use HG3 exclusively in Windows 95? No way. The mouse is jerky, and I am not disposed to use a program designed for DOS (HG3) in a GUI (Graphical User Interface) like Windows 95. One solution, which will take some time and investigation, is to learn how to disable Windows 95 power-hungry "all the memory belongs to me" attitude. A second, perhaps easier although costlier way may be the best answer because it holds potential for additional benefits. That is to purchase a third party program, which will allow me to set up multiple bootable partitions on my hard drive. One partition can be Windows 95, one MS-DOS 6.22 and Windows 3.1, one PC-DOS 7 (from IBM - a very good operating system) and Windows 3.1, and so on. On boot up, one is presented with a menu and simply chooses the operating system to be booted. Some of these will even permit you to adjust the size of the partitions on the fly, a rather amazing feat. Finally, you gain the important added advantage of reducing your partition size, along with the wasted space due to overhang, as outlined in numbers 29 and 41 of this series.

Well, now I have shared my frustrations with you; perhaps some of you have experienced similar problems. I promise to report on my final solution next month. Happy computing?