MULTITASKING OPERATING SYSTEMS FOR THE IBM PC
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With the decline in cost of memory and the increased processing power of 36 bit microcomputers, it is now feasible to *use* multitasking operating systems with these machines. By multitasking, I do not mean use by many users, but simply that the machine can execute several programs at the same time. This is a software development that I have eagerly awaited because it has seemed very inefficient to tie up my machine for extended periods performing some routine task, e.g. downloading files from a mainframe or performing some long calculation. I would like to report on my experience with one multitasking operating system Concurrent PC-DOS from Digital Research, the developers of the CP/M operating system.

This operating system started out as Concurrent CP/M-86 about two years ago. I bought the product at that time but soon realized that the CP/M-86 operating system was a loser in the new IBM world and all applications were being written for PC-DOS, or the generic MS-DOS. So, I put Concurrent on the shelf and hoped it might eventually be useful. I kept buying the upgrades and when DRI announced Concurrent PC-DOS (CC PC-DOS) and said that it would run all PC-DOS software, I quickly purchased the upgrade.

CC PC-DOS is an impressive piece of software which will allow you to execute up to four tasks at once and will even allow you to connect two dumb terminals to your PC for multiuser capability. It requires large machine resources and runs best on a 640K machine with a hard disk. The commands are very similar to those of PC-DOS and if you don't want to use commands there are programs included which allow you to perform the various DOS functions, e.g. formatting, copying, etc., entirely from menus. You can generate your own menus for custom work.

CC PC-DOS comes with a data communications program (very similar to PC-Talk), a full screen text editor, and a card file program to store notes,

addresses, etc. One problem is that all tasks must fit into memory at the same time and some programs require large amounts of memory. It is a windowing system and you can define windows of any size anywhere on the screen. If you have two monitors, (I have a graphics board and a monochrome adapter) then you can have one task displayed on each monitor). Switching from task to task is simple and you can have the task either continue to execute or be suspended when you switch to another one. This is useful as some programs write directly to the *screen,* e.g. Lotus 123, and so would show up even when you are looking at another task.

Being able to observe two tasks concurrently, by using two monitors, was very helpful. I could watch a file being sent or received using a data communications program while I was creating a program using a text editor. Another use was executing a program on one minitor while looking at the source code on the other. CC pc-nos is very efficient and takes little overhead in switching from task to task, i.e. performing four calculations at the same time took very close to a factor of four of the time required to do only one task.

The documentation is reasonably good except that it doesn't really tell you what you shouldn't do. r was really enjoying using CC PC-DOS but there were some problems. Occasionally the machine would totally lock up and I would have to turn it off and then back on (a cold boot). It wasn't clear, what was causing this problem but I thought I could live with it. But then DISASTER.

The machine locked up and when I turned it back on my hard disk would not boot up the system. I booted up the system on a floppy and then checked the hard disk with the PC-DOS utility CSKDSK. I got a very strange message for about twenty of my files as follows: "filename" CROSSLINKED ON CLUSTER 67 (or some such number). This esoteric message is not in the DOS manual. The two hidden system files on the hard disk (IBMOOS and IBMBIOS) *were* also cross-linked and this was why it wouldn't boot. I *was* able to erase and then replace the other files but I couldn't replace the two

system files. Finally, my only recourse was to reformat the hard disk and start all over.

I removed the CC PC-DOS from the hard disk and put it in a box well away from my machine, where it remains. I refuse to use an operating system which destroys my files and makes me reformat and reconstrot my hard disk. Since it is impossible to get any support from DRI, unless you are a mega dealer, I don't know what I did wrong, but I'm not taking the chance that it might happen again. Oh well, maybe TOPVIEW will work.