



★ ★ ★ ½

Prometheus 5 Hard Disk System
 Computex, division of
 World Wide Data Systems Inc.
 17321 El Camino Real
 Houston, TX 77058
 Model III
 \$1,495

DOSPLUS 4.0 Hard Disk Operating System
 Micro-Systems Software Inc.
 4301-18 Oak Circle
 Boca Raton, FL 33431
 Models I and III
 \$299.95 (included with Prometheus at no extra charge)

by John Ratzlaff

The Prometheus 5 Hard Disk System is a relatively low-cost, mass-storage Model III system based on Winchester technology. Its manufacturer, World Wide Data Systems Inc., is the parent company of Computex, which has been selling disk drive kits and other Model III add-ons for several years.

I purchased a Prometheus 5, a 5-megabyte drive, for my Model III. The drive included DOSPLUS 4.0, the hard-drive operating system by Micro-Systems Software. Fortunately, DOSPLUS is my top choice among all available TRS-80 operating systems.

Preparing the System

Installing the Prometheus drive is simple. Plug a ribbon cable into the back of the drive and into the input/output (I/O) connector on the bottom of the Model III. Then plug the power cord into the wall.

The manual accompanying the hard disk (mine was a preliminary version) did not indicate which way to plug the cable into the drive (exiting to the left or right). I was wrong the first time, but when the computer didn't work, I reversed the cable and it worked properly.

The cable should exit to the right when viewed from the back. The manual indicates no harm is done if you plug it in backward.

Installing the operating system is not so simple. First, use the CONFIG command to set the various parameters for the hard drive, then format the drive using the HFORMAT utility. Transfer the system files using SYSGEN, then the rest of the files using Transfer. Finally, use CONFIG again to signal DOSPLUS that the system now resides on the hard disk.

Once you format the hard drive, it is ready to store files, even before you transfer the system files. Since I was so excited to use my new hard drive, I saved a Basic program onto the newly formatted drive to see if it worked. And it *did* work!

Unfortunately, when I proceeded with SYSGEN, it aborted with an error message. Figuring that I should use SYSGEN without any files on the drive, I killed the file I had saved and tried it again.

This time it seemed to work, but when everything was finished I couldn't boot up from the hard drive. An "unknown error code" message appeared and the program booted from the floppy disk.

Neither the Prometheus nor the DOSPLUS manual provided pertinent suggestions, so I called Micro-Systems for advice. They suggested I reformat the disk and try again, because even a

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killed file can cause problems with SYSGEN.

It makes sense to me now: The system expects system files to occupy certain places in the directory. Since a killed file still occupies a directory slot, one of the system files is forced to an improper slot. Anyway, everything worked fine after that.

The Prometheus manual describes all the settings you use in configuring and formatting the hard drive. However, DOSPLUS 4.0 has tremendous flexibility: You can configure the hard drive any way you want, within some limitations.

The Prometheus 5 hard drive has one platter with 32 sectors per track, and 320 cylinders on that platter. Other models in the Prometheus series have the same specifications, but they have more platters. The Prometheus 10 has two platters, for instance.

The manual directs you to specify 32 sectors per granule, or two granules per cylinder. Since the platter has two sides, each cylinder has two tracks, or 64 sectors.

If you recall that a granule is the smallest unit of disk space you can allocate to a file, you will realize that it's a very large minimum file size. If you store a small Basic program on the disk,

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REVIEWS

FIG. Tell it the number of platters, number of cylinders, sectors per track, track access time, and write pre-comp track each time you use it.

That latter parameter is not adequately explained in either manual, so I use the default setting. It would be nice to change the defaults so you would not have to specify the settings each time, but no provision is made for that.

A more serious problem with HZAP is that it does not go higher than cylinder 255, so you can't use it on the top 64 cylinders of the Prometheus drive. Other drive brands that don't have more than 255 cylinders present no problem.

DOSPLUS 4.0 provides a new directory command, ACAT, for alphabetical file catalog. DOSPLUS 3.4 and 4.0 are otherwise identical except for the hard disk support. ACAT has an alphabetically sorted catalog that makes it easier to find a specific file among the hundreds that could be in the directory.

ACAT also accepts wildcard specifications, displaying only the files that meet specified criteria. "ACAT A?/DAT" alphabetically displays all the files on the default drive that have file names beginning with A and ending with the extension DAT.

- The sort is extremely quick, with practically no delay while sorting. This is an extremely useful function, although you cannot reliably call it from Basic because of the room required to do the sort.

When the hard drive is turned on, the LED on the front panel flashes until the drive is up to speed and ready. Wait until the hard drive is ready before attempting to boot from it. This usually takes less than 15 seconds.

The hard drive case has a small cooling fan which, along with the constantly

rotating disk, produces a low whir. You can easily adjust to the noise and to the barely audible click as the head steps from track to track. The hard drive's overall sound is preferable to the intermittent whirring and clicking of a floppy drive.

Round-up

The Prometheus 5 hard drive and DOSPLUS 4.0 make an excellent team, with only a few minor drawbacks. DOSPLUS is slightly harder to install than other hard-disk operating systems, precisely because it is more flexible.

The Prometheus hard drive might be better off with two platters and fewer cylinders, but it is a terrific value considering that it includes an excellent operating system at no extra cost, and it is priced much lower than most hard disk systems.

Several competing hard-disk systems cost as much as \$1,000 more and have no significant additional features. The Prometheus 10, with twice the capacity, costs only \$200 more—an even better value!

The only serious deficiency of DOSPLUS 4.0 is the need for a true back-up utility to copy all the files on the hard drive onto as many floppy disks as necessary.

Micro-Systems has recently announced their latest operating system, DOSPLUS 3.5, which should be available by the time you read this. They will no longer have a separate version for hard drives, but will provide add-on drivers to DOSPLUS 3.5 for hard-drive support.

One important change is Micro-Systems' merging HZAP into DISK-ZAP, so the same program operates on both floppies and hard disks. ■

★ ★ ★ ★ 1/2

Color Caterpillar
Soft Sector Marketing Inc.
P.O. Box 340
Garden City, MI 48135
Color Computer
\$21.95 cassette

by Carlos Calle

Color Caterpillar is an entertaining and fairly complicated game written in machine language for a Color

Computer with at least 16K.

The program begins with a short introductory display of the title characters, accompanied by sound effects that add to the overall pleasant presentation of the game. Armed with a gun controlled by the right joystick, you become the sole defendant of a valley under attack from menacing insects with uncanny reproductive abilities.

You must shoot and destroy an advancing caterpillar through the surrounding mushrooms. If you succeed,