Microware Review

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The Sider Hard Disk and the Apple IIe

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Guest Columnist

I've had experience with two different Sider hard disks connected to Apple IIes: a ten megabyte unit on my home computer for the past fourteen months and a twenty megabyte unit on learning Resource Center's IIe for the past eight months. I would be reluctant to use or buy another Apple computer Without having some form of mass disk storage greater than the 140K available on the standard 5 1/4" drive.

There are two reasons why you should consider some form of mass storage on your Apple II. First, the "floppy shuffle" might cause trouble: constantly swapping disks to use new programs or access new data. Second, the speed of the Disk II may slow your work, especially on disk intensive programs like AppleWorks.

Solving the first problem is, for me, the primary advantage of a hard disk: the ease of switching programs and data. I use AppleWorks more frequently than any other program. However, there are a number of other programs I want to use frequently. When I want to do serious word processing, I switch to AppleWriter. I do some programming in both Applesoft and Kyan Pascal. Since I'm the cook in our household, I have found Micro Cookbook to be a useful menu planner and shopping list generator. Finally I also frequently use a communications program, spelling checker, and an outlining program. Having all these programs loaded on the hard disk increases my speed and organization. My subjective tests give the hard disk a three to one speed advantage over a floppy drive -- without accounting for the time it takes to find and insert the correct floppies. Quitting Applewriter, loading Sensible Speller, checking (but not correcting) this article by searching a 90,000 word dictionary, returning to Applewriter, and loading the document takes just under two minutes using the hard drive. More important, for me, than speed is the organization. Keeping your floppies organized requires constant vigilance; organizing a hard disk requires only occasional maintenance.

However, this ease of use has three important implications. First, Prodos is the only practical operating system to use on a hard disk. The Sider will work with all four common Apple II operating systems (DOS 3.3, Prodos, Pascal, and CPM). However, Prodos allows you to flexibly partition your data and program files. With Prodos, you can keep your work processor program files in one subdirectory, letters in another, and so on. Since a 10

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megabyte Sider is the equivalent of seventy 5-l/4" disks, Prodos is the most effective way of organizing files. Second, any copy protected program that doesn't specifically allow for uploading onto the hard disk will not work: thankfully, most Prodos based programs are not copy protected. Third, in order to ease organization and switching among your programs, you need some *sort* of *desktop* program. Prodos includes special quit code that can be modified: you can customize Prodos to quit any program to another program. This uniform program can in turn be a program selector. There are several available, including Catalyst and Mousedesk. My personal favorite is PROSEL. It's written by Glen Bredon, the author of the Merlin assembler, and is available directly from the author for $40 US (Glen Bredon, 521 State Road, Princeton, NJ 08540). PROSEL's advantages over other selector programs are speed and reliability. Also included on the PROSEL disk are a dozen utility programs that will do backups, print directories, edit sectors, check blocks, and so on.

What are the disadvantages of a hard disk? Perhaps the greatest burden under which the hard disk user operates is the possibility of a crash or failure. This is fatal if you do not have adequate backups. There is no statisfactory answer to this problem. There are good backup programs. Again, the Bredon PROSEL disk has the best backup utility I've seen (including the ability to use 3.5 drives as the backup medium). However, most backup programs are block by block images of the hard disk. You have no access to your files until the hard disk has returned from the repair shop. What the hard disk market needs is a good file by file backup utility that updates only those files that have changed since the last backup. It should be possible, but I haven't seen one commercially available. From what I gather, hard disk backup is also a problem in the IBM world.

Hard disks are expensive. As I write this, First Class Peripherals, the makers of the Sider, are offering a special on the 10 meg Sider for $499.00 US. However, as you can see by the chart below, our weak Canadian dollar (calculated at 40% over the American) and our valiant Federal Government's efforts at encouraging Free Trade, up the price. Added to this chart is another viable mass storage alternative, Central Point Software's 3.5" disk drive. Again, as I write, an Apple 3.5" drive costs $600.00 in Saskatoon. For comparison's sake, here are the American alternatives:

	Sider 10 Meg	Sider 20 Meg	CPS 3.5"
Drive	$499.00	$799.00	$285.00
Shipping	79.95	79.95	79.95
Exchange	231.58	351.58	145.98
F.S.T.	76.85	123.05	43.89
Duty	34.93	55.93	19.95
Total	$922.3 1	$1,409.51	$574.77

If the money is available, the twenty megabyte unit is the better choice. It's surprising how quickly you can fill 10 megabytes. It took me six months.' We have yet to fill the 20 meg drive at school. If you are especially paranoid about loosing data and wanting to have ready access to a hard drive, I would consider buying a second Sider (it will daisy chain off the same drive controller). A tape backup unit costs about the same price as a second drive.

You could also consider a 3.5" drive and memory expansion card with one megabyte of memory instead of a hard drive. Files are portable with this medium -- you can stuff 800K of data in your shirt pocket. It is possible to set up your memory card as a ram disk, automatically load five or six programs and a program switcher from one 3.5" disk, and then use the 3.5" drive for data. A 3.5" disk can be copied in one pass with the right copy program and a megabyte of memory (again, Prose1 has the only such program I've seen). Finally, this configuration is the perfect AppleWorks machine. We've been using the Applied Engineering Ramworks II card at school and their AppleWorks modification program. Satisfaction is seeing AppleWorks tell you that there is 755K available on your desktop.

From the Media Periodicals

Richard Ellis, Editor

This column is a listing of articles that have appeared recently in the literature of educational communication and technology.

Classroom Computer Learning, 7 (3), November/December 1986.

Salpeter, J. "Interactive video: The truth behind the promises"
Schleifer, N. "Making the leap to desktop publishing"
Papert, S. "Different visions of LOGO"
Eiser, 'L. "I luv to rite! Spelling checkers in the writing classroom"

Classroom Computer Learning, 7 (2), October 1986.

Brady, H. "The Apple IIgs"
Eiser, L. "Regular software for special ed. students"
Kovacs, D. "Turning first drafts into final drafts"
Morrison, D. M., & Walters, J. "The Irish immigrant experience: Origins of the project"
Burch, F., Hamilton, M., & Calhoon, D. "Computer conversations"

Classroom Computer Learning, 7 (1), September 1986.

Grady, D. "You can't ignore the new generation forever!"
Parham, C. "Conquering the dreaded blank page"

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