

THE geos column

Closeup on GEORAM

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With Berkeley Softworks' new RAM expansion unit, you can upgrade your 64 to a 576K behemoth (or your 128 to 640K) and run your GEOS applications like greased lightning.

Until now the good news and the bad news about GEOS for the 64 and the 128 was that GEOS could make very creative use of the RAM expansions for those computers. GEOS treated the 1764 like a 1541 ramdisk for the 64 and the 1750 like a 1571 ramdisk for the 128.

So why good news and bad news? The good news was that a ramdisk sped up GEOS so much that it made using a disk-intensive program like *geoPaint* effortless and fluid. The bad news was that the RAM expansions were very expensive and difficult to find. Also, 64 owners complained, and rightfully so, that they were being left out of the RAM race: The RAM expansion for the 64 was only 256K. Worse, it required a special power supply, adding unnecessarily to the price.

Recognizing the difficulty of the situation, Berkeley Softworks engineer Dave Durran created GEORAM, a RAM expansion unit to be marketed specifically for use with GEOS. GEORAM is inexpensive (\$125), fast, and efficient. By using high-speed CMOS technology, GEORAM's power consumption was kept to an average current drain of only 80 milliamperes.

The unit doesn't look like the 1750 and 1764 units. The box that contains the RAM is roughly half as wide as the Commodore units and about an inch longer. When connected, it rests on the desk behind the computer and plugs into the cartridge port. The connector that plugs into the computer isn't shielded like the one on the Commodore units and it must be plugged in with care, but the overall construction is superior to that of the Commodore units. One of the most striking features of GEORAM is that you can see its chips and resistors on a section of the circuit board that juts out of the end of the unit near where it plugs into the cartridge port. Why? Roughly 2-5 percent of Commodore 64s cannot use GEORAM as shipped. Users will know their computers are incompatible because either their computers will boot up nor-

mally but the cursor won't appear, or the screen will come up completely white and nothing further can be done with the computer.

In order to make the GEORAM compatible with these balky 64s, resistor R2 must be clipped out of the GEORAM circuit. The resistor is visible on the exposed circuit board of the RAM expansion unit. The user can make this alteration very easily, but Berkeley will perform the necessary surgery if the new owner doesn't feel comfortable about doing it.

GEORAM is shipped with a new version of GEOS that makes use of the advanced capabilities of the RAM expansion unit. If you already have GEOS

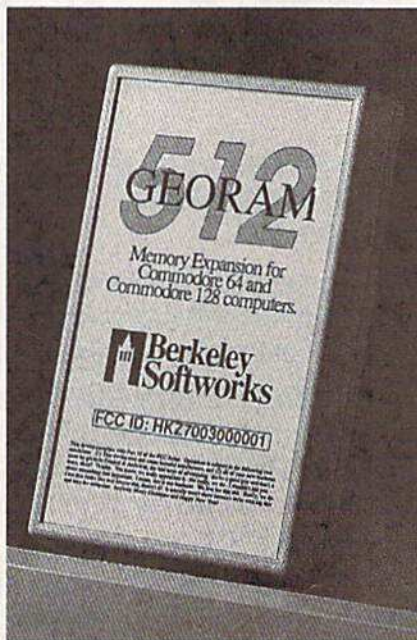
2.0 for either the 64 or the 128, you can simply use the new configuration program provided with the RAM expansion unit. If you haven't purchased the new operating system, the disks provided with GEORAM will provide you with a new deskTop, printer drivers, and the broad array of GEOS 2.0 capabilities described in these pages last year when GEOS 2.0 was released. Unfortunately, the applications are not included. You get only the basic operating system.

Ramdisk to the Rescue

Most users know that GEOS features supercharged disk capabilities that make Commodore disk access 7 times faster. GEORAM access is 35 times as rapid as standard GEOS disk access time. That's only the most obvious benefit of using a ramdisk. Here are some others: A ramdisk allows you to *shadow* your disk drive. This feature is roughly the same as operating a disk-cache system on a PC, saving disk access time by keeping copies of important data in RAM so that, if it has to be loaded in the future, it's instantly available. You can also shadow the directory of the 1581 drive, thus saving the time it normally takes to load the directory when that drive is selected.

Another benefit of a ramdisk is that it offers the ability to keep many GEOS features in memory at one time. Normally, GEOS would be unable to keep the information necessary to work with two different types of disk drives in memory at the same time. GEORAM allows the additional information to be stashed in a hidden area for recall as it's needed. GEORAM can also hold reboot information, allowing you to return to GEOS quickly from a BASIC program simply by loading RBOOT from one of the drives (or, if a copy of the deskTop is on the ramdisk, just press the RESTORE key), which will rapidly call the entire GEOS operating system out of hiding, bringing up GEOS from an apparently cold start in a few seconds.

In short, GEORAM has everything the 1764 and 1750 REUs should have had: high-speed, high-capacity, efficiency, low price, and availability. In order to keep the unit affordable, Berkeley is selling it directly. You can order GEORAM by calling (800) 888-0848, extension 1745.



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