

Grappling the Great Gooney!

Or -- How to Install GEOS

What's a "gooney?"

It's a dumb but useful pronunciation of GUI, an acronym for Graphic User Interface and currently a popular buzzword in personal computing. The most talked about GUI nowadays is Windows by Microsoft. Oddly enough, it is also the most recent arrival. Today you see PC ads including Windows free. You could have seen similar ads linking the Commodore 64C and GEOS back in 1986!

Last November's *dieHard* contained an interview with CMD which stated the computing industry was moving toward graphical interfaces, evidenced by the popularity of the Macintosh and Windows on the IBM platform. They added, "in the Commodore market... a lot of people that are wanting to dabble with GEOS for the first time."

Mission Impossible?

I had fallen asleep watching late night reruns on TV, when I was awakened as in a dream. A deep editorial voice exclaimed, "From dieHards across America, there has been a resurgence of interest in GEOS! Unfortunately, the installation instructions in the manual seem confusing. Users trying to use this "user-friendly" product sometimes feel like they have grappled with an opponent!"

"Your mission, Dale, should you choose to accept it, is to illustrate the easiest method of installing GEOS 2.0 and creating work disks and thereby rescue anyone *wrestling* with this "GUI" problem. As always, if you fail, this magazine will disavow any knowledge of your actions. This dream will self-destruct in five seconds...."

The Background Check

I awoke in a cold sweat! What should I do? The first important step of any investigation is the background check, so I decided to find out where GUI came from.

I discovered GUI was born in 1978 at Xerox PARC. The midwives were an elite group of computer scientists who conceived of a more user-friendly way to operate a computer. The first method, you will recall, was to use "BASIC" English. Users typed in lines of BASIC commands to accomplish any computer task. To move to the next stage, the folks at Palo Alto Research Center created an office desktop on a computer screen. Most tasks could be done quite easily by moving a mouse around the screen [desktop] and clicking a button. Computers could be operated simply by

manipulating graphics rather than typing.

Steven Jobs, co-founder of Apple Computer, Inc., saw their work and went nuts. He demanded that this graphic environment become the standard interface for the Macintosh. Consequently, when the Macintosh was introduced in 1984, it became an immediate commercial success! (Steven Jobs, *The Journey is the Reward*, by Jeffrey S. Young; Scott, Foresman and Company, 1988.)

My investigation also uncovered a "dark" side of GUI's personality. GUI's *love to eat!* They will gobble bytes faster than Wimpy with a plate of burgars! For instance, Windows (for PC's) needs 4 megabytes of memory to work smoothly. In fact, these memory constraints are one reason why the Apple Company, after marketing their GUI on the 16-bit Macintosh, did

New users trying to use this "user-friendly" product



sometimes feel like they have grappled with an opponent!

not immediately make one for the 8-bit Apple!

A certain brilliant programmer named Brian Dougherty believed in GUI's and our 8-bit machines! Fortunately for you and I, he chose to start with the Commodore. He founded a company called Berkeley Softworks and soon produced a program called GEOS, which stands for *Graphic Environment Operating System*.

Although our GUI is more efficient than most, there are limits. For instance, it normally takes 1000 bytes of memory to store the screen; but in hi-res graphic mode, that figure jumps to 8000 bytes! GEOS, which uses the hi-res mode, may require a backup screen as well. So, GEOS sometimes reserves nearly one-fourth of the C64's available memory just to manipulate the screen!

Another of GUI's character flaws is a reputation for being temperamental. After all, a graphic environment necessitates a greater complexity of programming. Not surprisingly, GUI's have been prone to unexplained crashes. (Ask PC users about Windows.) Of course, our GUI has been around seven years now; and the latest version, GEOS 2.0, seems bug-free (almost!), but the temperamental reputation persists.

Reality Check

Can we speak frankly? New GEOS users may feel frustration when expectations conflict with reality. I have a good friend who constantly uses GEOS on his C64 with a single 1541 drive, and just as constantly, he complains it's *too slow*. NO WONDER!!! Running GEOS with a single 1541 drive is like racing a car with a 30 mph governor on your engine. You can't go any faster than your equipment allows!

In 1986, I owned a C64 and a 1541 drive, and I was content. Then I purchased GEOS. Today I use a C128 with a CMD Hard Drive [20 Mb] as drive A, a CMD RamLink [4 Mb] as drive B, and alternate between a 1581 and 1571 for drive C. Every stick of this additional equipment was purchased for only one reason.... I was trying to access all the terrific options GEOS offered. None of this, you see, was *my* fault! GEOS *made me do it!*

You may be asking how much equipment is enough to run GEOS effectively? That answer comes in two parts. First, I do not believe GEOS was ever intended to enhance a one drive system. GEOS begs for two drives (*or more!*) Truthfully, after you have made your work disks, you can operate most applications in GEOS fairly well from a single drive. But if there is a choice, why walk when you can run!

Secondly, do not judge GEOS until you have seen it run on an REU or RAMLink. Why? Because GEOS puts so much into your computer that it feels like a crowded room where people have to take turns breathing.

For example, to operate the photo manager, GEOS must first take a block of data out of memory and store it to disk in a *temporary* file. Next, the photo manager is loaded to that area and goes to work. After you finish with it and click on quit, GEOS stores the new data to disk; and before you can begin the next job, it must reload the data from the temporary file.

This cycle of SAVE, LOAD, RESAVE, RELOAD is the "heart and soul" of GEOS processing. This is why you hear GEOS often described as very disk-intensive. However, all this disk activity is *nearly invisible* when GEOS is run on a ram expansion. No one should make a judgement on the value of GEOS 2.0 until they have used it successfully with a memory expansion cartridge. Why run when you can fly!

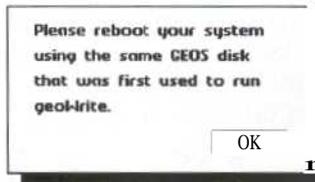
Planning for Installation

The main area in the manual where the installation instructions seem unclear revolves around the question of keying your new system

boot disk to a previously installed GEOS system disk.

First, let me clarify how GEOS copy protection works. At installation, every commodore GEOS SYSTEM DISK is implanted with a secret key number. Afterward, whenever you open a new application such as geoWrite or geoFile, this key number, which is unique to your system disk, is installed on that application as well. So the first time you open a new application, you get a dialog box with a message such as "geoWrite 2.1 installed."

Later on, should you lend a work disk to a friend who forgets to replace your geoWrite application with a copy of his own, a dialog box pops up to remind you both that the key number on his desktop does not match your geoWrite. Your GEOS applications are not supposed to run on his GEOS system!



How can this affect you? If you have ever used GEOS, you probably have applications that could become useless to you if the new GEOS upgrade does not have the same key number as the old. ALWAYS key your new GEOS system to your old one, even if you had GEOS (64) and now are installing GEOS 128!

If you have purchased GEOS 2.0 (or GEOS 128 2.0) and find you have no reason to key it to any other GEOS system currently in use, relax. Installation will be a breeze!

If you fit into the category of wanting your new GEOS system disk to be compatible with an old one, then you must do the following:

Locate just one original disk which has on it an application that was installed with the old GEOS boot disk. The important word here is "original." You might copy an installed application onto a thousand work disks, but the only disk that can key a new system disk to your old one is the disk on which it was first installed. If you have any confusion on this point, DO NOT INSTALL! Call a geofriend or CMD, but be clear on this before you proceed!

Preparation before Installation:

1. Equipment needed... a commodore 64 or 128 (in 64 mode), a monitor, a 1541 or 1571

disk drive, and a joystick. Hook them up and turn them on. [Installing GEOS 128 2.0 will require a commodore 128 in 128 mode.]

2. Remember, if you do not have two disk drives, borrow one. Creating GEOS work disks with a single drive is akin to straining sap through a sieve in dead winter. With two drives (1541s or 1571s in any combination), it becomes a piece of cake! (Plug the second drive into the first, but do not turn it on.)

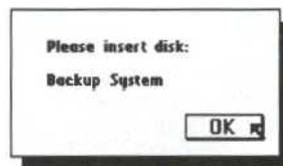
3. If you want to key your system to one previously installed, you must have an original disk containing any application such as geoWrite, geoFile, or geoCalc, previously installed on the old boot disk. (Never select geoPaint, since it has no copy protection.) [ANY application installed on your old 64 boots system disk will enable you to key your GEOS 128 system disk.]

4. Check out your GEOS 2.0 disks. You must have three of them. Disk 1 has the SYSTEM DISK on side A. Disk 2 has the BACKUP SYSTEM DISK on side A and the APPLICATIONS DISK on Side B. Disk 3 has WRITE UTILITIES on side A and GEOSPELL on side B.

Also, have at least six blank disks ready for making copies.

Installation Procedure:

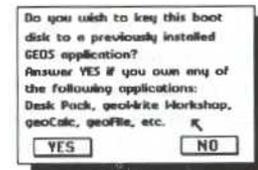
1. Put your SYSTEM DISK, (Disk 1, side A) in your disk drive. Type LOAD "GEOS",8,1 and hit RETURN. [GEOS 128 will autoboot from Drive A.] In a few seconds you will see the screen clear and the words "BOOTING GEOS..." on a blue background. Soon a dialog box will appear that says....



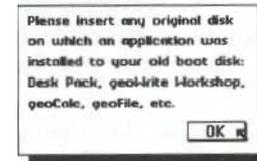
2. Remove the SYSTEM DISK and insert the BACKUP SYSTEM DISK (Disk 2, side A). You must click the fire button on your joystick while the arrow-pointer is positioned over the "OK" box. If your joystick quits, you can always use the cursor keys and hit RETURN instead.

3. You now have the dialog box that asks for your decision. [GEOS 128 dialog box looks different but asks the same thing.] If you want to key your boot disk to an old GEOS boot disk, use your joystick to position the arrow over the "YES" box. If not, then position it

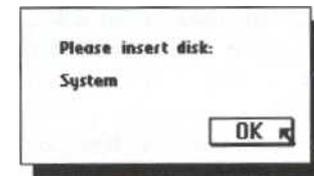
over the box that reads "NO."



Remember, once you click to confirm your decision, you cannot reverse it. When you are ready to proceed, click the firebutton. (If your choice was "NO", skip step #4 and go down to step #5.)



4. You must now insert that original disk we discussed earlier, the one with the previously installed application which contains the key number of the old GEOS boot disk. Then click "OK."



5. You should now be looking at a dialog box like the one above. So remove whatever disk is in the drive and insert your SYSTEM DISK (Disk 1 Side A) again as you did in step #1. Click on "OK."

6. This step is a repeat of step #2. Return your BACKUP SYSTEM DISK (DISK 2 Side A) to the drive; click "OK."

7. This is a repeat of step #5. Return your SYSTEM DISK (Disk 1 Side A) to the drive and click "OK". In a minute or so, your new SYSTEM DISK will boot up GEOS for the first time. CONGRATULATIONS!

Put write-protect tabs on your SYSTEM DISK and BACKUP SYSTEM DISK. Then return the SYSTEM DISK to drive A.

You are now ready to "Install your Applications" as described on page 7 of your manual. If you are not in a hurry, I will cover this in Part 2. We will also familiarize ourselves with the GEOS desktop and learn the absolute easiest way to make work disks. All this and more in the next installment of *Grappling the Great Googy!*

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