

# Super Snapshot

*Just what is so super about this latest cartridge from the good old US of A?*

*By S Gorton*

When the C64 computer was first launched, everyone thought the fact that it had a cartridge port was a great idea. It meant that you could plug in a wordprocessor, game or whatever and have it instantly available. Unfortunately, no one seemed interested in using the cartridge port, and only a few ever appeared, including a number of poor quality games under the Commodore label. Just as everyone thought that the C64 was starting to run its last race and slowly sink into oblivion, the utility manufacturers included users with a variety of "utility" cartridges.

Now, a couple of years on, we've had the Finals, the Experts, the Prozac Frames and the Action Replays. All have gone through various changes and updates, some simply through software available on disk. Others have taken on a whole new identity, and have had their own custom chips designed. After all of this, Financed Systems Software still think there is room for yet another cartridge - Super Snapshot.

If you've ever read any of the American computer magazines, then the name Snapshot will not be new to you. As with the UK cartridges, it

has been through various design/software changes and has proved very popular. A number of American magazines even credit the cartridge on their contents pages, because they use it to feature pictures for inclusion in the magazine.

So what does the cartridge do? Does it offer any new features? Is it any better than the cartridges on sale at the moment?

## What's on offer

The Super Snapshot cartridge has some software on the cartridge, and some supplied on disk. Super Snapshot is unlike the Expert cartridge from Trilogic, as you aren't required to load in software before you can use it - many functions are available as soon as it is plugged in.

Facilities offered by the cartridge are:

- Disk Copiers (partly disk-based)**
- File Copier**
- Program Freeze**
- Disk Support**
- Programmable Function Keys**
- Turbo Disk**
- Boot Sector Support**
- Screen Copy**
- Extended Life**

- Sprite Enable/Disable**
- Machine Code Monitor**
- Disk Editor**
- Disk Memory Editor**
- Sprite Examiner**

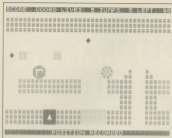
As you can see, the list is extremely exhaustive and has just about everything that you'd require when using your C64. The system disk that comes with the cartridge contains:

- Boot Sector Maker**
- TURBO\*DIS converter**
- TURBO\*DIS utilities**
- Sprite Editor**
- Extended Basic**
- Disk copier/program parameters**

## To Copy or Not to Copy

It seems almost every cartridge that appears on the market at the moment is designed to help you copy programs. Well, Super Snapshot is no exception. It's important to remember that all of these cartridges are designed so that users can make back-up copies of THEIR OWN software.

Equally important, you should be able to make back-up copies of your programs, just in case something goes



wrong with the original. In fact most "professional" software tells you to make a back-up copy of the program before starting to use it.

But, and it's a big but, you shouldn't use tapes or cartridges to make copies of software that you don't own. If you pirate software in this way, then you're only harming the software industry and pushing prices up. If you do copy a friend's software and you're caught, then you deserve everything that's coming your way!

I won't dwell on the freeze/copy side of this cartridge for too long. What I will say is that it does freeze some programs (make a copy), but not all, and the disk nibbler and parameter copier are among the best that I have come across - but again will not copy everything. As yet I've never found a cartridge or copier that would work with everything that I tried.

The file copier facility is a welcome one, as it certainly speeds up transfer of programs from one disk to another. I already own many disk-based file copiers, but having one on cartridge saves a lot of time having to the correct disk and then loading the program.

## Now For The Rest

Most of the other facilities of the Super Snapshot system are command-driven based.

The monitor, as you can see from the table, offers all of the commands

that you would usually expect, plus a few extras. The monitor is not memory resident, which means that you can examine any part of the computer's memory with ease. The hex/decimal conversions and the assemble options are very welcome. Most programmers will tell you that these are essential requirements, and it's surprising just how many monitors don't have them.

Should you ever require a copy of your computer screen, then you'll find the screen copy mode a welcome addition. Many cartridges offer the facility of saving out screens as a Kool's Pad file - Snapshot not only offers this option but also, depending on the mode the screen is in, allows you to save files that can be loaded into Doodle. Once you've loaded your screen into either of these graphics packages, you can alter them, print them out, etc.

Not only does Snapshot allow you to save out screen contents but it also provides you with the facility of dumping the screen to a printer. Both text and graphics dumps are supported. If you produce a graphics dump, this can be in any one of three sizes, plus you have the unusual facility of being able to dump any sprites on the screen.

Should you own a C128, then you have the extra facility of switching the computer into the 2MHz mode and using this to print out a hi loader. But remember the cartridge does NOT work in C128 mode.

One of three printers can be used to produce your dumps: 1325, 1326 and Epson. The 801 and 802 printers are more common in the UK than the 13 series. The dump does work with these printers, as they are compatible with the 1325 and 1326. Owners of non-Commodore printers should note that the printer should be connected to the serial port - not the user port.

So that you can examine the results of the screen dump option, some samples have been included with this article.

## Monitor Commands

A	Assemble
BR	Set break vector
C	Compare
D	Disassemble
F	Fill memory
G	Go
H	Halt
I	Inspect memory
IO	Display IO registers
L	Load a file
M	Memory display
O	Output to a device
R	Display registers
S	Save file
SP	Disable sprite collisions
SPB	Disable sprite/background collisions
SPS	Disable sprite/sprite collisions
SFR	Re-initialise all sprites
T	Transfer memory
X	Exit to the way monitor entered
XB	Exit to Basic
XCM	Exit to sub-system menu
-	Modify memory
-	Modify register
-	Disassemble modify
#	Convert hex to Decimal
#d	Convert decimal to Hex
+	Used to enter decimal
E	Display disk directory
*	Modify MD registers
@	Reset disk drive channel
@#n	Set disk device number to n

It's important to note that not all game program screens can be dumped to a printer, especially if the program has a split screen. Many games use split screens to give the impression of moving backgrounds, or to change screen modes at different positions of the screen. Should you enter the screen dump section of the cartridge while using a program that does this you'll only see a small part of the program. There is no way to successfully dump a program of this type.

## Disk Editing

The disk and drive memory editors mentioned earlier are really just extensions of the cartridge's powerful monitor. Commands exist that allow you to read an area of the disk into a specified area of the computer's memory where you can then examine it, alter it, and then save it back out again. This is not the most elegant form of disk editor that I have come across, but it does work and is good for making quick alterations.

The drive monitor allows you to access the memory in the disk rather than the one in the computer. A "E" command in the monitor tells the computer that you are now working on drive memory rather than in the computer. All display/modify commands that can be used in the monitor can now be used to examine/modify the drive memory.

## Playing with sprites

If, like me, you're completely hopeless at art, then no doubt your sprites always look like something that crashed out of a coffee cup after it has been left on the windowsill for one month too many. The sprite monitor will allow you to examine your favourite games for sprites and save them out to disk, where you can modify them and then include them in your own program - don't forget that you can't patch sprites from other people and use them commercially!

Once you've saved your sprites to disk you can use the sprite editor to alter them to your heart's content - you could even use it to design new sprites for games and then use the monitor section of the cartridge to place the new sprites into your game.

## Also on Disk

The so-called Basic extension provided on the disk is really quite laughable. The commands all work and are extremely handy to have around, but the list of commands available can hardly be called extensive. To be fair though, the commands that are available are the ones that you would probably use 85% of the time in any Basic extension, and the extras would only be used occasionally. If you are only interested in "cookit"-type commands, then everything that you'll need is there.

## Putting the boot in

If you've ever used a C128, then you'll probably know that it has an autoboot facility. This simply means that when the machine/disk drive are turned on then the computer looks to see if a boot track has been written. If a boot track is found, then the appropriate program is loaded and run.

With Snapshot, C64 owners can use this facility. A separate program supplied on the system disk is used to set up the program that you wish to autoboot, and the boot sector. The cartridge will check any disk in the drive at power up to see if the boot sector has been set-up and if it has, load in the relevant program.

My attempts at making a program autoboot showed that only a Basic program can be specified as the auto start program, there is no provision for entering a start address for a machine code file. This is no problem though, as the program that autoboots could be a simple two line Basic loader for the machine code program such as:

```
10 IF A=0 THEN A=1 : LOAD "M)
S",8,1
20 SYS start-address
```

When you power up the computer plugged in, you are offered a menu offering some of the cartridges facilities, some of these allowing you to exit to Basic with or without an autoboot occurring. Should you not choose anything, the computer will drop into Basic and perform an autoboot.

Another nice touch is the addition of the keyword BOOT to the Basic vocabulary. Now if you change disks in the drive you can type BOOT, and as long as you have the boot sector set-up, then the program will autoboot, you could set up a boot sector on all your disks to give you a menu of the programs available.

## Warp Factor 25!!

Even though the cartridge offers turbo-loading and saving facilities (loading up to 13 times faster, saving up to seven times faster), the Snapshot Systems disk has a couple of programs that allow you to speed up loading by up to 25 times faster. TURBO \* 25 converter allows you to change any Snapshot saved file into a special new format.

Unlike the TURBO load facilities of the cartridge TURBO\*25 files can only be loaded on a 1541 compatible drive, the turbo D08 of the cartridge works with all Commodore drives.

The second file gives you the facility of setting up a fast loader on to your disk that can be used with WARP\*25 files. Once installed on your disk, this loader will list all files on the screen, and you simply have to move the cursor to the file you require and press return to load it. The loader will work with normal files but the performance is nowhere near as good.

Since TURBO\*25 files are in a special format, normal D08 commands won't work on them. The same program that allows you to produce a loader therefore gives you the facility to delete and rename WARP\*25 files.

Once you've converted a couple of files to WARP\*25, you'll wonder how you ever managed without it - the increase in speed is amazing. Some programs even load faster than with my Dolphin D08!

## Is it worth having?

To be honest, I wasn't looking forward to looking at yet another cartridge. I've seen them all and I thought that there could be nothing new. Well I was right and I was wrong.

Super Snapshot does not offer anything that is not available on other cartridges - what it does do is offer a slightly different collection of routines from the others. I personally liked the facilities Super Snapshot gave me, and will no doubt use it regularly.

If you're thinking of purchasing a cartridge I suggest that you look carefully at what each one offers and choose the one with facilities that best suits your needs.

I really only have one gripe about Super Snapshot, and that is that there isn't a switch to turn it off. I use a C128 and when the cartridge is in the cartridge port it automatically goes into C64 mode on power-up. If there was a switch that turned the cartridge off, then I may never need to remove Super Snapshot from my machine.

### Touchline:

Product: Super Snapshot Supplies  
Financial Systems Software, 2nd Floor, Avonlea House, St Mary's Street, Worcester, WY1 1WA. Tel: (0805) 661465 Price: £29.95