SUPER SNAPSHOT

V3

OPERATING MANUAL

LMS TECHNOLOGIES

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INTRODUCTION

Congratulations and thank you for your purchase of SUPER SNAPSHOT. Many hours of planning and design have gone into this product trying to ensure that it is as useful as possible to the end user. We have heard from many of our SNAPSHOT64 and SUPER SNAPSHOT customers and have taken into consideration all of the comments and suggestions that we have received. The result is SUPER SNAPSHOT V3.

This cartridge goes far beyond what we accomplished in the past and what is available on the market today. We have strived to make this cartridge not only the best archiver on the market but to also make it an indispensable utility. To this end we have included along with the SNAPSHOT utility, a fast loading utility (TURBO DOS) ,a dos wedge, a screen dump utility, machine language monitor, utility menu, copier system and pre-programmed function keys. With all of these features, there should be no reason for unplugging your cartridge. And this is only the beginning. That's right, future versions of the cartridge will include other valuable utilities. But where does that leave you since you have bought this version? The answer is....in a great spot. SUPER SNAPSHOT's unique design allows it to be open ended. That means that you will be able to update to the latest version very easily and at a very reasonable cost. More on this later.

For those of you who wish to skip the

detailed instructions and whose only wish is to get going with your newest toy, go to page 12 and the section called STARTING THE SNAPSHOT PROCESS. Once you have got the initial urge out of your system please read this manual thoroughly as it contains important information on the operations and capabilities of this cartridge.

SYSTEM REQUIREMENTS

SUPER SNAPSHOT requires a Commodore 64, 64C, SX 64, 128, 128D (in the 64 mode) and will use the following drives; 1541, 1541C, 1571, 1581 or 1541 compatibles such as the FSD, Indus, Commander, MSD, etc.

PACKAGE CONTENTS

The package that your SUPER SNAPSHOT came in should include the following 1) SUPER SNAPSHOT cartridge, 2) instruction manual, 3) a warranty registration form and a SUPER SNAPSHOT parameter disk. PLEASE NOTE!! You MUST fill out your warranty registration form and send it in in order to be made aware of future upgrades.

SET UP PROCEDURE

With your computer turned OFF, carefully insert SUPER SNAPSHOT into the cartridge port (with the computer facing you it is the furthest port to the right) with the label side up.

** NOTE ** Inserting the cartridge into the computer with the power turned on can be very hard on your computer and your pocket book, so make sure that your computer is turned off first. With the cartridge in place turn on your computer.

THE OPENING SCREEN

You will immediately notice a distinct difference in the opening screen (or at least you should). Displayed on the screen at this moment should be an options window with our copyright in the background. You will also notice a status line that tells you that TURBO DOS (our custom fast loader) is on. TURBO DOS is always on upon power up since we believe that you will always want to use it whenever possible.

At this point five options are shown to you. F1 is the beginning of the program backup procedure, F3 takes you to our COPIER SYSTEM system, F5 activates the EXTENDED LIFE module (more on this later), F7 will exit to basic leaving all features enabled and F8 will exit to basic with all features turned off.

THE COPIER SYSTEM

If you selected F3 you will be presented with the option of going to our file copier or disk copier. Both are very simple to use and as such require little explanation.

The file copier supports 1 or 2 drives (devices 8, 9, 10 and 11) and the

drives can be 1541, 1571 or 1581, any combination. This means that you can, for example, copy files from a 1541 to a 1581 or vice versa. All you have to do is select which will be source and which will be destination. The copier detects which drive(s) it is working with and implements the appropriate transfer routine(s) automatically. We have not found any disk copier that is as fast or as flexible as this one. ** NOTE ** If you have a 1571 drive and you wish to make use of its increased storage capacity, you must first send a special command from basic BEFORE going to the copier system. The command is >UO>M1. This sets the 1571 into 1571 mode. Next you must send the format command (>NO:name,id). Now you are ready to go to the copier system. For more information on the 1571, see the section titled USING THE 1571 which appears later in this manual.

The disk copier supports one or two drives. It supports the 1541, 1571 (only in 1541 mode) and the 1581. You CANNOT copy a whole disk from the 1541 (or 1571) to the 1581. Unlike the file copier, the two drive disk copier is meant to work only with similar drives. Simply select the source and destination and the copier will determine the drive type. It will not attempt to copy between two different drive types (ie 1541 to 1581). Simply follow the prompts.

Please keep in mind that if you wish to copy a disk which has only a few files, it will be quicker to use the file copier which will copy only the files as opposed to the disk copier which will

copy the whole disk.

THE DOS WEDGE

When you have exited to basic you will find that there is now a dos wedge present. We feel that this wedge is one of the best on the market and certainly the easiest to use.

The following is a list of the wedge commands and their description.

$ - gives you a listing of the directory without disturbing any programs that are in memory. (LOAD"$",8 and LIST)

/ - loads a basic program. (LOAD"filename",8)

% - loads a machine language program. (LOAD"filename",8,1)

> or @ - takes the place of the OPEN15,8,15 and CLOSE15 command. For example, if you wanted to initialize your drive you would simply type >I0. > will also report the status of the error channel (handy for those times when a program load stops and the drive light is blinking).

>#(n) - (where n is 8 to 11) changes the device that the computer will access. This means that if, for example, you have two drives (8 & 9) and you wish to work with drive 9 you simply have to send this command, >#9, and all dos wedge commands will be directed to number 9. You can go back to device 8 by typing >#8.

>FN - this is the command for our TURBO-FORMAT. The syntax is FN0:name,id (using number 0 not the letter O). FOR THE 1541 ONLY!

>K - displays current setting of function keys

>Kn - (where n is 0 to 8) displays setting of particular key

>KD - disable function keys

>KE - enable function keys

>TD - disables TURBO DOS.

>TE - enables TURBO DOS.

>TV - displays the current ROM version.

>Q - disables the dos wedge.

These wedge commands have been simplified to the point where they make our wedge more convenient and easier to use than those of our competitors. These refinements include the ability to list a selective directory (ie: $:P* would list only those programs on the disk that start with P). Another refinement is evident when you load from a directory listing. Our wedge reads only what is between quotes. You don't have to erase excess file size numbers. Pressing the space bar during a directory listing will pause the listing, pressing it again will resume the listing. Pressing the RUN/STOP key will terminate the listing.

FUNCTION KEYS

As a measure of convenience, SUPER SNAPSHOT programs the function keys with a number of useful commands. They are:

- COMMODORE-RUN/STOP - absolute load and run of the first program on the disk. This key can also be used to load a specific program. To do so you would simply obtain a directory listing by using F3, cursor up to beside the desired file and then press COMMODORE-RUN/STOP. The load would be the same as typing LOAD"name",8,1.

- F1 - basic load of the first program on the disk. This key can be used much the same as COMMODORE-RUN/STOP except that it loads as LOAD"name",8.

- F2 - displays the current setting of the function keys.

- F3 - lists the directory of the disk.

- F4 - selective directory. This allows you to obtain a listing of specific files. For example, if you wished to see a listing of only those files that began with P, you would press F4 and then P* and return.

- F5 - RUN the basic program in memory.

- F6 - SAVE to disk drive. To save a program you would press this key and type in the name of the program along with the drive that you wish to save to.

- F7 - LIST the basic program in memory.

- F8 - jump to the monitor (CODE INSPECTOR).

The programmed function keys are meant to serve as a convenience. They represent what we prefer for each key. However, you are not constrained to these settings. You may change them anytime from basic by pressing >K or F2. This will give you a listing of the current settings. To change one (or all) simply cursor up to the desired key and type over the command sequence starting after the colon. The left shift arrow serves as a return symbol. Keep in mind that these keys allow access to the drive only and so cannot be used for sending printer commands.

There are special symbols used when defining the function keys. They are:

```
<-    - carriage return
/ddd  - ascii value of decimal ddd
//    - single / literal (ascii 47 or $2F)
/<-   - ascii "<-" (95 decimal or $5F)
```

SPECIALTY KEYS

Along with the function keys, several other keys have been assigned new commands. These include the COMMODORE key, CONTROL key, F7 and F8 (during power up). The following is a description of their new purposes.

- COMMODORE key - holding down this

key and pressing the button on the cartridge anytime EXCEPT while in the SUPER SNAPSHOT menus or when the computer has crashed, will perform a system reset

- CONTROL key - at any point outside of the SUPER SNAPSHOT menus, you go directly to the monitor by holding down the CONTROL key and pressing the button on the cartridge. This means anytime while in basic or from within a running program.

- F7 - pressing the F7 key during power up will take you directly to basic with all of SUPER SNAPSHOT's features enabled.

- F8 - the same as F7 except all of SUPER SNAPSHOT's features are disabled.

TURBO DOS

TURBO DOS is the name of our program load enhancement. It supports fast load and fast save on the 1541 (and compatibles), 1571 (in 1541 or 1571 mode) and the 1581. Load time on the 1541 and 1581 is speeded up by over 1100%. TURBO DOS is compatible with the vast majority of commercial software on the market today. Extensive testing has shown that it is as fast as any similar utility (and faster than most) on the market . TURBO DOS will work with any drive that is 1541 compatible. It will NOT work with an MSD and actually checks to see if the drive present is an MSD and if so automatically disables itself.

Occasionally you might find a program

that will not load with TURBO DOS present. We have found that in most cases where there is a compatibility conflict, the problem generally lies with the function keys. Disabling them (>KD) will usually solve the problem. If the problem persists, try turning off all of the wedge and function key features by typing >Q. If this does not cure the problem then pressing F8 at the opening screen will disable all of TURBO DOS and thus alleviate the problem. You can also disable specifically the fast loader from the wedge by typing >TD (disable TURBO DOS). This way you can leave the wedge and function keys active if it turns out that the loader is the culprit.

CAPABILITIES OF THE SNAPSHOT PROCESS

The archiver portion of SUPER SNAPSHOT is the most effective memory capture utility on the market (domestic or foreign). It will produce a working copy of any program that is entirely memory resident. Even many programs that load in files after the program has begun can be successfully backed up. However there are some programs that cannot be copied 100%. These programs include ones that are dongle (key) protected; do a protection check after the program has loaded and started and programs that use the drive's memory for protection or for alternate communication routines.

The programs that cannot be successfully backed up can be easily identified. Key protection is self evident. Programs that use the disk drive's memory are easily identified as

well. To do so, load in the original program and when it has started turn your drive off and then on again. If the program crashes or locks up when it tries to access the disk (the drive will not come on at ALL) you can safely assume that it uses special routines that were placed in the drive's ram.

To determine whether the program is using a late protection check, make an unprotected copy of the original disk (using the fast copier included on the parameter disk). Load in the program using the original disk. When the load is completed and the drive has stopped spinning, replace the original with the copy. If the program crashes or refuses to accept the copy when it next accesses the drive, it indicates that there is a late protection check routine.

Until now, these types of programs could not be handled by a cartridge based copier. Our tests show that SUPER SNAPSHOT can still make backup copies of most of the software on the market today, however for those that it can't we have made provisions for through the SUPER SNAPSHOT parameter disk. The SUPER SNAPSHOT parameter disk is designed to keep you current by providing parameters for those "problem" programs. The disk will be released on a quarterly basis, or as need requires, and will contain parameters for those titles requiring it. The disk is produced by the KRACKER JAX team and is available from SOFTWARE SUPPORT INTERNATIONAL. Their address is given elsewhere in this manual.

STARTING THE SNAPSHOT PROCESS

The F1 option on the opening screen is the first step in the SNAPSHOT process. Selecting this option will enable another window where you will be asked to confirm your selection. Pressing "Y" will preconfigure the computer's memory with a pattern that SUPER SNAPSHOT will recognize. This is done so that SUPER SNAPSHOT will only save that memory which is actually part of the program being backed up and therefore minimize the size of the files that will be saved. This pre-configuration will be used by you 99% of the time. However, it is not necessary to preconfigure memory. If you don't it only means that your files will be larger. We offer the option because we have found software that actually looks for a pattern in memory as part of a protection scheme designed to defeat cartridge based copiers.

After you have made your selection you will be returned to the main menu where you will choose option F7 or F8 (F7 most of the time) and be exited to basic. Choosing F8 will take you to the standard COMMODORE start up screen with all of SUPER SNAPSHOT's features disabled. In this state the cartridge is COMPLETELY invisible. Even the computer can't see it. There are some programs that check the cartridge port as part of their protection scheme so the invisibility option is very important. Having now chosen F7 or F8 you would now load in the original program.

SUB-SYSTEM MENU

When the program is finished loading, press the button on the cartridge. The SUB-SYSTEM MENU will now appear and the status of TURBO DOS is given along with the number of the drive being used (upper right hand corner of the menu). If you have two drives and you wish to save the backup to drive 9 simply press SHIFT/3 (which is the # sign). The device number shown will change to 9 and all disk activity will be directed to 9. You can go back to 8 by pressing "#" again. If you are using one drive only, turn the drive off and then on again. If the program is using alternate communication routines and you wish to save to device 9, you MUST first turn drive 8 off and on.

Press 1 and you will be taken to the snapshot screen and asked if you wish to save as one file. If you choose Y then the program in memory will be saved into one file including the boot. The only exception is if the program cannot be compacted to 202 blocks or less. In this case the program will be saved as two files, the first being relatively short and the second considerably longer. The reason for the two file save is that the only loader that could load a file larger than 202 blocks would be the one on SUPER SNAPSHOT. In other words, the program would not load without SUPER SNAPSHOT installed.

If you choose N to the one file save question, then the program will be saved as 4 files plus a boot. At first this option may seem redundant since

practically everyone would prefer one file. The reason for the option is that we have found that a few programs cannot be saved as 1 or 2 files (they cannot be compacted enough) and so rather than not be able to save the program at all, you can save it as five files. In both cases you will then be asked for the name of the program that you wish to copy. The title can be up to 32 characters in length. Next (if you chose the five file option) you are asked to input 1 to 5 characters that will act as file names. The letters shown are only suggested and can be changed by typing in whatever you want. If you are satisfied with the suggestion just press RETURN. Next you are asked for the name you wish to call the boot. Again the characters shown are suggestions only and can be changed by typing what you want (up to 16 characters in length) or accepted by hitting RETURN. At this point you are reminded to make sure the DESTINATION disk is in the target drive (the drive you are saving to). If you have chosen the multiple file option there is an extra step you must include before the copied program will run. On the SUPER SNAPSHOT PARAMETER DISK is a file called XXXA. Using our file copier, copy it to your destination disk. This is a program boot and is needed for the five file save. It is NOT needed for the one or two file save option.

You can return to any previous requester (clear back to the SUB-SYSTEM MENU) by erasing the suggested characters and pressing return.

Pressing any key will start the

saving process. This process takes approximately 30 to 90 seconds and a message will appear to inform you when it is finished. Pressing any key will take you back to the SUB-SYSTEM MENU where you can resume the program or access any other of the cartridge features.

Choosing option 2 will take you to the SCREEN-COPY MENU while choosing option 3 will take you to the monitor, both of which are discussed elsewhere in this manual.

If it is necessary to check or work with your target disk, pressing 4 will send you to the UTILITY MENU where this can be accomplished. Selecting 5 will resume the program from its frozen state.

** NOTE ** There is an extra feature in the SUB-SYSTEM MENU that is not displayed on the screen. Pressing the letter 'T' will toggle TURBO DOS (loader only) on or off. The result of pressing the key is shown at the top of the window. This is merely a convenience feature in that it makes it unnecessary to go to the UTILITY MENU if all you wish to do is turn the fast loader back on.

UTILITY MENU

In the UTILITY MENU option 1 allows you to set up for a new snapshot (fills memory with the snapshot pattern).

Option 2 of the utility menu allows you to determine the status of TURBO DOS (both load and save), the function keys and the wedge. At this point you can

turn each one off or on individually by simply scrolling the cursor to the desired function and pressing the space bar.

Option 3 allows you to check the directory of the disk in the specified drive. You need a maximum of 271 free blocks to save a snapshotted program. Although we have never seen a program take up that much room, if you allow that much you will never run into a disk full error.

Choosing option 4 will allow you to send commands to the disk drive. You can do several things such as format the target disk, scratch files from the target disk, etc. The commands are similar to that of the wedge. You are presented with the ">" and only have to type "NO:name,id" to format a disk, for example.

Selecting option 5 in the UTILITY MENU will return you to the SUB-SYSTEM MENU.

CODE INSPECTOR V3

Your new SUPER SNAPSHOT cartridge contains a very powerful machine language monitor which is accessed through the SUB-SYSTEM MENU. Its capabilities are a hacker's dream come true. Did you ever wish that you could find out what was going on inside a program as it was running? Well now you can! By pressing the button on the cartridge and going to the SUB-SYSTEM MENU (or alternatively holding down the CONTROL key and pressing

the cartridge button when outside the SUPER SNAPSHOT system), you can enter into the monitor. There you will find the status of all the registers at the point when you pressed the cartridge button. You can tell what exactly was going on when you interrupted. And all this can be done without corrupting memory! That's right, you can take a look at what is going on, make a few changes and then resume the program with the only changes being the ones that you made. Now you can begin to see the potential of this utility!

We cannot attempt here to teach machine language and such is not our intent. Although the monitor is easy to use, a certain amount of machine language knowledge on the part of the user is necessary.

The following is a list of the commands supported by the monitor and their conventions.

A - assemble
A 1111 mmm 000000

BR - set break vector
BR

C - compare
C 1111 2222 3333

D - disassemble
D [1111 [2222]]
D alone will display 20 bytes past the last line disassembled.

F - fill memory
F 1111 2222 33 44 55 .....

G - go
G [1111]

H - hunt
H 1111 2222 33 44 55 .....

I - interpret
I 1111 [2222]

IO - display IO registers
IO

L - load a file
L[S] "name" 11 2222
The optional S signifies a slow load. This is used for loading directly into the snapshot image under any ROM configuration.

M - memory display
M 1111 [2222]

O - output to device
O[11 [22]]
Output can be to screen, printer or disk. The default is 3,7 (screen). To output to a printer the command would be 04.

R - register display
R

S - save a file
S "name" 11 2222 3333

SP - disable SPrite collisions
SP
Disables both sprite to sprite and sprite to background collisions.

SPB - disables only SPrite to

Background collisions
SPB

SPS - disable only SPrite to Sprite collisions
SPS

T - transfer memory
T 1111 2222 3333

X - exit the way you entered
X

XB - exit to basic
XB

XM - exit to SUB-SYSTEM MENU
XM

: - memory modify
: 1111 22 33 99

; - register modify
; 1111 22 33 44 55 66

, - disassembly modify
, 1111 22 33

- convert hexadecimal to decimal

#+ - convert decimal to hexadecimal

+ - used when entering locations in decimal. e.g. D +49152 is the same as D C000.

$ - display disk directory. Same syntax as in the wedge.
$

* - IO modify. Gives you the ability to change the values displayed by

the IO command. Simply type IO and then cursor up to the desired byte, make the appropriate change and press return.

*** NOTE *** The square brackets used in the monitor conventions denotes optional parameters.

Several of the function keys have been assigned commands for use within the monitor. They are:

F1 - moves cursor to bottom left of screen.

F3 - gives directory of device 8.

F5 - acts as delete key. It will delete the character beneath the cursor and move all succeeding characters on the current line one space to the left.

Along with the function keys, the monitor now enjoys full support of our dos wedge.

There have been several special features, not seen in other monitors, built into CODE INSPECTOR V3. One that you will appreciate is the ability to omit leading zeroes. This means that if, for example, you wanted to display memory at 005F you need only type M 5F instead of M005F.

Another is the ability to enter POKES into memory through the monitor. For example if you wanted to POKE 53281,0 the equivalent monitor command would be :+53281 0. The colon is the memory modify command and the + converts the following decimal figures into hex.

The F (fill memory) and H (hunt for specified value) commands will default to BB (our memory pattern) if you do not specify a value.

The monitor can also be accessed through your machine language program by first entering the monitor via the SUB-SYSTEM MENU (or F8). Once in the monitor enter the set break vector command (BR). The message -DONE- will appear. Now you can exit back to BASIC by typing XB. From now on you can enter the monitor from within your machine language program through the BRK instruction.

There are many potential and varied uses for this utility. For example, in England it is very popular to make custom changes in programs to give indefinite lives, unlimited fire power, etc.

TRACK AND SECTOR EDITOR

Also included within the monitor is the ability to read and write sectors directly to and from a disk. This is accomplished using the following two commands:

U1 - read a disk sector into memory. Syntax is U1 TT SS [3333].

U2 - write a disk sector from memory. Syntax is U2 TT SS [333].

U1 and U2 together form a simple track and sector editor, but with the

advantage that all monitor commands can be used to edit the sector (e.g. M, I, D, A, H...etc). The two numbers following U1 and U2 are the track and sector respectively. Remember that unless you prefix these numbers with a '+', they will be interpreted as being hexadecimal. For example the following are equivalent commands to read the first sector in the directory of a 1541 disk:

U1 +18 +01 - read track 18, sector 1.

U1 12 1 - read track 18 (=$12), sector 1.

If no optional address is specified, both U1 and U2 will default to address $C000 (ending at $C0FF). Any address may be specified as a third parameter.

A final note of caution! This is a powerful tool and as such it should be used carefully. We would suggest that if you wish to experiment with sector manipulation you do so on a backup disk.

EXTENDED LIFE AND SPRITE DISABLE

As mentioned earlier, F5 on the option screen executes the EXTENDED LIFE routines. This option can be best explained by the following example: You are playing the toughest shoot-em up to ever hit the market. After what seems to be hours (and probably is) you make it to level 99 only to find that you are down to your last man. As soon as you lose this one its back to the beginning again. What you do now is to press the cartridge

button which will interrupt the game (giving you a breather) and sends you to the SUB-SYSTEM MENU. Now press option 5 (RESUME EXECUTION) and continue to play. Eventually its curtains and the game is over. The difference now is you don't have to start over! Simply reset your computer (do NOT turn it off and on) and when the opening screen appears press F5 (EXTENDED LIFE) and you are right back to level 99 where you were just before you pressed the cartridge button.

This may sound quite tricky but it actually is just part of the SNAPSHOT process. When you pressed the button, all of the IO's and registers were copied onto our cartridge ram. EXTENDED LIFE simply reset all the registers to match the image on the ram, similar to the resume feature after the SNAPSHOT process.

EXTENDED LIFE does work the majority of the time but not all the time. For example, it will not work if the program loaded in a new file after you pressed the cartridge button. If the background of the screen changes, this also could cause problems. The best thing to do is to press the cartridge button each time you progress a little further into the game. Experimenting will soon teach you when and where to use this handy option.

Also built into SUPER SNAPSHOT is the ability to disable sprite collisions. To disable the sprites press the cartridge button and select option 3 (monitor) from the SUB-SYSTEM MENU. Using the sprite disable commands you can kill sprite to sprite collisions, sprite to background

collisions or both. After a sprite command has been executed the message - DONE will appear. Typing XM will exit back to the SUB-SYSTEM MENU where option 5 (RESUME EXECUTION) will return you to the game where you left from. If the disabling was successful then the sprites will pass through one another allowing you to continue through the whole game without losing a life. Often, however, there will appear to be no effect from the sprite disabling. This is because what appeared to be sprites are actually user defined characters or the programmer may be using some other method besides the VIC chip for detecting collisions.

The sprite commands are discussed more fully in the section titled CODE INSPECTOR V3.

SCREEN-COPY

SCREEN-COPY is the name given to our screen dump utility because what you get with this option is just that! You can get a screen dump of virtually anything (graphic or text). This dump will work with the Commodore 1525, 1525 compatibles, Epson, Epson compatibles, Commodore 801, Commodore 802 or Commodore 1526.

SCREEN-COPY is accessed through the SUB-SYSTEM MENU. To use it, load in your program and when the screen that you wish to SCREEN-COPY appears press the button on the cartridge. When the SUB-SYSTEM MENU appears press option 2 and you enter the SCREEN-COPY system.

Although you can interrupt at virtually any point it is best to do so when there is no drive activity. If the drive is busy when you interrupt, you will get a SCREEN-COPY but the program will likely crash when you resume. Also, if the program happens to be using alternate communication routines, you will have to turn the drive off and on in order to free up the serial bus.

Upon entering SCREEN-COPY you will see that the type of screen being displayed has been identified as being one of five different types. They are 1) standard bit mapped, 2) standard character, 3) multi-color bit mapped, 4) multi-color character or 5) text. You will also be told how many sprites have been enabled. Version 3 cannot print sprites but we intend to include this feature on a future ROM release.

Next you are presented with four different save options along with the option to return to the SUB-SYSTEM MENU. ** NOTE ** Options that are shaded are not available because of the screen type being utilized. That means that if the screen that you wish to copy is standard bit-mapped or standard character (hi-res), you cannot save it to the disk drive as a KOALA PAINT file because KOALA PAINT uses multi-color screens.

Options 3 and 4 are disk drive dumps in KOALA PAINT and DOODLE format. The files that are saved can be loaded in using the appropriate drawing program. SUPER SNAPSHOT will automatically save the files in the proper format so that these drawing programs can load them in

for you to play with.

Should you wish to dump the current screen to a printer by selecting option 2, you should first set the defaults which appear at the bottom of the SCREEN-COPY menu. The following is a brief description of the defaults:

- F1 - allows you to choose the appropriate printer type. The choices include 1525, 1526 and Epson. If you have a 1525 or compatible (such as the Gemini II) you should choose the 1525 setting. If, on the other hand, you are using an Epson or Epson compatible (such as a Panasonic 1092) you would choose the Epson setting. Commodore 1526 or 802 users would select the 1526 setting.

- F3 - will print the screen with the colors being opposite to what they appear. Sometimes this option will produce a more desirable screen dump.

- F5 - toggles between the three screen sizes available. Small is approximately 4.5 x 3.25; medium is 6.75 x 6.75 and large is 8.75 x 7.5 (which is the exact screen size). Dimensions given are those produced when using an Epson or Epson compatible printer.

- F7 - is an option for 128 users only. If you have a 128 you can kick it into 2 megahertz mode (for printing) and significantly decrease the print time. Using this option will blank the screen during printing.

There are several other features built into SCREEN-COPY. Pressing any key

during printing will cause the printer to stop at the end of the next line. You will be asked if you wish to abort and you will answer (Y)es or (N)o. If you are a 1526 or 802 user, SUPER SNAPSHOT will calculate the length of the print time and ask you if you wish to proceed. Some screen dumps can take up to 35 minutes because of the speed (or lack thereof) of this printer. We thought it only fair to warn you what you are in for. Finally, with some interfaces, there occasionally is a problem accessing the printer. If this happens SUPER SNAPSHOT will inform you of the problem and ask you if you wish to (A)bort or (R)etry.

SUPER SNAPSHOT PARAMETER DISK

There is no copier of any type that is 100% effective (despite some claims to the contrary). We have recognized that there are always going to be some programs that cannot be completely copied by the snapshot method. It is to this end that we have included a parameter disk along with the SUPER SNAPSHOT cartridge. On the disk you will find 80 parameters that will bring you up to date in the archival process.

"What is a parameter?" you may ask. A parameter is a short routine that will make a minor adjustment to a disk so as to remove any protection routines. We have examined the market and in our opinion the KRACKER JAX parameter disks are the best of their type. For this reason we have made an arrangement with the KRACKER JAX people whereby they will

offer a special parameter disk on a quarterly basis, or as needed, that will include parameters for only those programs that SUPER SNAPSHOT cannot completely copy.

To use the parameter disk, first ensure that all peripherals are disconnected. This includes modems and printers (but not SUPER SNAPSHOT). Next using the SUPER SNAPSHOT disk copier found in our copier system, make a backup of the disk you wish to copy. Then take the SUPER SNAPSHOT parameter disk, insert it in the drive and press COMMODORE-RUN/STOP (%:* and RETURN when using the wedge). When the menu appears, use the RETURN key to flip through the list until you find the desired parameter. Press the appropriate function key to load the parameter. After the parameter is loaded, remove the SUPER SNAPSHOT parameter disk, insert the copy that you just made and press RETURN. When the FINISHED message appears, remove your copy from the drive and turn your computer off and then on. You may now test your backup. That's it, you're done!!

Some programs require that the original be "nibble copied". If the parameter states this then use the nibble copier found on the parameter disk.

Also included on the parameter disk is a slideshow demo and two TURBO*25 modules. The slideshow demo is just that. It is a slideshow that was produced using the SUPER SNAPSHOT SLIDESHOW CREATOR. It is available only from SOFTWARE SUPPORT INTERNATIONAL (US)

and MARSHVIEW SOFTWARE (Canada). The cost is $19.95 plus shipping and handling. Twenty bucks never bought so much fun!!! For a unbiased opinion, check with Paul Hughes who is the GRAPHICS SYSOP on QUANTUM LINK. Address your questions to SYSOP PH.

The TURBO*25 modules are utilities that are designed to convert your SNAPSHOT single file saves into a format that will allow them to load at an incredible speed. The first module (TURBO*25 CONVERTER) will do the converting. Simply choose your source and destination drives, press continue and follow the prompts. The whole process takes about one minute. Only programs that have been saved as 1 or 2 files can be converted. ** NOTE ** This module works with 1541 and compatible drives.

The second module (TURBO*25 FILE UTILITIES) allows you to manipulate these special files. Since our TURBO*25 incorporates a non-standard format, regular dos commands will not work on them. For example, the regular scratch command will not erase this new type of file so in order to remove a TURBO*25 file from a disk (without re-formatting) you must use the TURBO*25 SCRATCH option.

Also included on the utilities module is an option to install a disk based turbo loader. Simply select the INSTALL TURBOLOADER option and follow the prompts. This loader works best with files that have been converted to the TURBO*25 format. It will work with regular files but not as effectively as

the cartridge based loader.

USING THE 1571

The 1571 is a great drive but, in our opinion, very rarely used to its full potential. Everyone knows that, when working with a C128, it has double the storage capacity of the 1541 since it utilizes both sides of the disk. What many 1571 owners don't know is that this drive can be used in the 1571 mode while working with a C64. Since SUPER SNAPSHOT has a set of fast communication routines installed to work specifically with the 1571 mode we felt it wise to list the various modes of the 1571, how to access them and what the results are. All the commands will be given as if issued from BASIC using the wedge.

>U0>M1 - sets the 1571 to 1571 mode. Both sides of the disk are utilized with storage being 1328 blocks. SUPER SNAPSHOT uses 1571 routines in this mode.

>U0>M0 - sets the 1571 to 1541 mode (defaults to this mode when working with a C64). Only one side of the diskette is used with storage being 664 blocks. SUPER SNAPSHOT uses 1541 routines in this mode.

>U0>H0 - same as U0>M0

>U0>H1 - same as U0>M0 except that the OPPOSITE side of the disk is being accessed. SUPER SNAPSHOT uses 1541 routines in this mode.

In ALL of these modes SUPER SNAPSHOT

utilizes fast load and fast save routines.

** NOTE ** If you wish to use the 1571 mode in the file copier you must first set the drive in 1571 mode by using the >U0>M1 command.

ROM UPDATES

As was mentioned at the beginning of this manual, SUPER SNAPSHOT is designed to be an open ended system. What this means is that as changes and additions are made to the program, previous buyers will be able to update to the latest version at a very reasonable cost. These updates will be in the form of a new ROM. The price will be in the $20 range. Information on price and availability are available from both SOFTWARE SUPPORT INTERNATIONAL and MARSHVIEW SOFTWARE. Call or write to:

In the US..

SOFTWARE SUPPORT INTERNATIONAL
2700 NE Andresen Road, Suite D13
Vancouver, WA 98661
1-206-695-9648 (SUPPORT)
1-800-356-1179 (ORDERS)

In Canada..

MARSHVIEW SOFTWARE
P.O. Box 1212
Sackville, New Brunswick
CANADA EOH 1NO
1-506-536-1809 (ORDERS and SUPPORT)

When returning your SUPER SNAPSHOT for an update, we would suggest that you use a PADDED envelope. It provides adequate protection at a reasonable cost.

** PLEASE REMEMBER TO SEND IN YOUR WARRANTY REGISTRATION CARD **

WHAT'S NEXT?

Although we think that you will agree when we say that there has been a lot put into this cartridge, there is more to come. We have a number of modules under development and in the future you can expect to see updates that will include more useful utilities. Those of you who have updated with us before know that when we update, it is a worthwhile enhancement.

If you have any suggestions for additions or improvements to our product please contact us, it would be greatly appreciated. Send your comments to:

LMS TECHNOLOGIES
P.O. Box 3022; Sta. "B"
Fredericton, New Brunswick
CANADA E3A 5G8

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SUPER SNAPSHOT designed and written by Marcel LeBlanc and Ron Smith

SUPER SNAPSHOT board layout by Cadmi Microelectronics Ltd.
Software, hardware and manual (c) 1987,88

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Thanks to the following people for their contributions to this product:

Richard Bond for the TURBO*25 system, single file save option and enhanced TURBO DOS for the 1541.

David Fillmore (author of the original 1541 disk copier...CANADA AM) for the disk copy modules.

John Finaly for the help in adapting our TURBO DOS to European systems.

Mike Miller (author of the BIG BLUE READER for the C128...a great program!) for his suggestions on TURBO DOS improvements. Although time did not permit them to be implemented on version 3, they will appear on version 4.

...and last but not least, the people who have helped LMS keep rolling on; Andrew, Virginia, Carmen, Mark, Marylynn, Nick and Calvin.

A special thanks to the folks at Kracker Jax for the development of the SUPER SNAPSHOT parameter disk and for their continued input and support.

LIMITED WARRANTY

Neither the authors nor the distributors of this product shall be liable for any damages which may be caused by any errors or omissions in this product. Should the product be

defective, the distributor shall replace it upon return of the defective product, postage paid within ninety days of the date of delivery. There are no other warranties implied or expressed, including but not limited to, any implied warranties of merchantability or fitness for a particular use.

The warranty registration card must be on file for repair or replacement under warranty. It is assumed that any SUPER SNAPSHOT package that is returned without proof of purchase is void of warranty. This warranty shall be void if, in the opinion of the authors or their representatives, this product has been misused, improperly installed, modified or otherwise tampered with.

Your SUPER SNAPSHOT package should be sent to either SOFTWARE SUPPORT INTERNATIONAL (formerly COMPUTER MART) in the US or to MARSHVIEW SOFTWARE in Canada.

Please make sure that your SUPER SNAPSHOT package is protectively wrapped as damage due to to shipping is not covered by warranty. We would suggest that you insure your SUPER SNAPSHOT package.

DISCLAIMER

The copier portion of this product is meant expressly for the archival backup of your legitimate software.

Neither the authors nor the distributors of SUPER SNAPSHOT condone

the use of this product to assist in software piracy.

Under the Federal Copyright Act, the owner of a computer program is allowed to make an archival backup.

State laws may differ in this regard. You may or may not be entitled to make and/or modify a backup.

If in doubt, check your local copyright laws.

SUPER SNAPSHOT

SLIDESHOW CREATOR

THE DYNAMIC NEW COMPANION UTILITY FOR

SUPER SNAPSHOT 64

THIS IS HOT !!

Our ***new*** **SLIDESHOW CREATOR lets you display a series of Koala™ or Doodle™ files, created with SUPER SNAPSHOT 64, as "slides" with dynamic options such as fade in/fade out display, pop on/pop off display, shutter in/shutter out and your choice of ten different fonts for creating your own custom scrolling captions! We've even included programming to allow you to easily integrate hi-res or multicolor screens into your own M/L or BASIC programs with full control ! You can even create stand alone, self-running screens!**

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