

GENERAL INFORMATION ABOUT THE DATEL SNAPSHOT

(Version 2.0)

The Datel Snapshot Consists of 2 distinct elements.

(1) A hardware add-on that is capable of taking over Control of the Spectrum from the program that is currently running. The hardware also provides a kempston-compatible Joystick port.

(2) A Special control program that runs in the Snapshot hardware. This program provides the particular functionality of the Snapshot. The control program supplied on the tape with your Snapshot provides the following functions:

- (a) To make backup copies of any program to tape;
- (b) To make backup copies of any program to microdrive;
- (c) To reload such backups, and resume their execution from the point at which they were saved;
- (d) To Examine/modify the memory of a program running in the Spectrum;
- (e) To perform a Spectrum reset

Control Programs planned for future release including the following:

- (i) The ability to make backups to other kinds of Spectrum Disk/Cartridge Systems.
- (ii) The ability to convert a backup made to tape by funtion (a) to a file on other kinds of Spectrum Disk/Cartridge systems.
- (iii) Make a dump to a printer of the screen image at any time during a program.
- (iv) Enable a game/program to run mode slowly than normal.

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IMPORTANT:

(1) The Snapshot hardware must be in place when you are making or re-loading backups.

(2) As with any device that you plug in to Spectrum expansion connector, ALWAYS Switch off the Spectrum before installing or removing the SNAPSHOT hardware.

(3) Data-compression techniques are used to ensure that your valuable Tape or Microdrive space is used as efficiently as possible. You will see this compression take place when a backup is made; when the Screen image and attributes are saved, all the pixels forming the present display will be 'crunched' up to the top of the screen. Don't worry, the picture information is quite safe, and will be correctly rebuilt when re-loaded. The only difference will be the border colour, which will always be WHITE immediately after a reload, but will usually change to its correct colour, however this is not guaranteed.

(4) Use of this product is on the understanding that any backups made are for your personal use only. This device may not be used to infringe copyright.

GETTING STARTED

The Tape supplied with your SNAPSHOT contains two programs; a small basic loader program, and the machine code program that lives in the SNAPSHOT memory. Simply place the tape in the cassette player, and type LOAD "".

Microdrive users may find it convenient to copy both programs to a microdrive cartridge for future use.

Having loaded the programs from whatever source, the following message will appear on the Screen:

S N A P S H O T is now ready

Pressing any key on the Keyboard
will perform a 'NEW' to enable
you to load your program.
At the point where you want
to interrupt it, press the
S N A P S H O T button

Press a key now.....

This message indicates that a successful load of the SNAPSHOT has been performed, and will remain loaded until the Spectrum is switched off (but see Error message description). So the above procedure only has to be performed once, no matter how many times the SNAPSHOT is used, until the Spectrum is switched off.

USING THE SNAPSHOT

The SNAPSHOT can be used for the following purposes:

- (a) Save a copy of the currently running program to Tape or Microdrive.
- (b) Load a previously made back-up from Tape or Microdrive.
- (c) Make Peeks or Pokes from/to the currently running program
- (d) Reset the Spectrum without the need to switch it off and on.

To perform any of these functions, press the SNAPSHOT button. This action will suspend the current program, and display the Main Menu, as follows:

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S to Save Current Program
A to Alter/Inspectd Memory
G to Go To Current Program
L to Load a Program
K to Kill (perform a 'NEW')

Taking each function in turn:

(i) Save Current program.

Selection S will display the following Menu:

Storage Device (1-8) or T)....

Device numbers 1 to 8 refer to Microdrives 1 to 8; Device T means Tape.

If you specify device number 2-8, you will be asked to confirm that such a microdrive exists. Type(Y)es or (N)o, as appropriate. If the reply given is N, control will be returned the Main Menu. The next question will be:

Program Name.....

Enter the name that you wish the program to be saved under.

Note: you must specify a valid filename for a save. Attempting to Omit a file name will result in an error message, and control will be returned to the Main Menu.

The Current program will be backed up to the specified device. On completion, control will be returned to Basic.

You can abandon a Save at any time by pressing Caps Shift & Space. Control will be returned to the Main Menu. The partially-completed backup should not be used.

(ii) A. Alter/Inspect memory.

This is the Peek/Poke function. Any address between 0-65535 can be inspected, and addresses 16384-65535 can be altered.

Option A on the Main Menu leads to the following display:

Address?
Present Contents ..
Change to

Type the address you wish to examine. The default mode is decimal, however, preceding the address with # (Symbol Shift/3) will put you in Hexadecimal mode. Terminate the address with enter. The present contents will be displayed, either in Decimal or Hexadecimal, depending of the mode of the address. If you wish to change the memory contents, type in the new data now. The mode (Hex or Decimal) is predetermined by the address mode. Terminate the entry with Enter. If you do not wish to change the data, just press Enter. The Address display will increment, and the contents of the next byte will be displayed. This sequence will be repeated until a '.'(period) is entered as new data, and the Adress field will clear. You may either enter another address, to examine some more memory, or press Enter, when control will be transferred to the Main Menu.

(iii)G. Go to Current Program.

Option G will return control to the suspended program that was running when the SNAPSHOT button was pressed.

USING THE SNAPSHOT (Cont)

(iv)L. Load a Program.

Option L is used to load a previously made backup. The responses required are identical to the SAVE function, except that, in the case of a load from Tape. A reply of Enter can be given to the Program Name question. If this is done, the next encountered SNAPSHOT backup on this tape will be loaded.

As in the Save, the Load can be abandoned at any time by pressing Caps Shift/Space.

(v)K. Kill (perform a 'NEW')

Option K will reset the Spectrum, and return it to its powered-on state. This can be useful at any time to reset the Spectrum, as an alternative to switching it off & On.

INSTRUCTIONS FOR SAVING 'SNAPSHOT' PROGRAM TO MICRODRIVE

Load in the first part of code using the 'merge' command (this will stop the program from running) as follows:

MERGE " "

After merging the first part of coder, and before you save it to Microdrive, you will have to alter one line of code so that it loads from Microdrive and not tape.

The line to be altered should be line 10, and should be altered as follows:

10 LOAD * "M";1;"SNAPCODE" CODE 60000,4850

After altering this line, save the first part of code using the following command line:

SAVE * "M";1;"RUN" LINE 1 (Enter)

Now load the second part of code from tape:

LOAD " " CODE (Enter - and start tape)

When the second part of code has loaded, save it to Microdrive with the following command line:

SAVE * "M";1;"SNAPCODE" CODE 60000,4850 (Enter)

When the code has been saved to Microdrive clear the memory (NEW) or switch the machine off. You should now be able to load from Microdrive.

N.B. LINE, MERGE, and CODE are direct keyboard commands and are not to be entered by typing 'L I N E' etc.