

MEGAUTILITY DISK V4.0

1. FORMATTER (LOAD "SERIAL FORMATTER", 8)

The serial formatter offers a convenient method of formatting your blank disks at high speed, and also allows you to add our ALPHALOAD disk fast loader to each of your disks (see below). The program has three options, a) Format only. b) Add Fast Loader only, c) Format and add Fast Loader. You will be asked to enter a disk name and identification number. The name may be up to 16 characters in length and the ID may be any two alphabetic or numerical characters (eg 01, AA, A1). After each operation the ID will be incremented by one ready for the next disk.

2. ALPHALOAD DISK FAST LOADER

This is added to each disk which contains programs which you require to be fast loaded, using the serial formatter (see above). To fast load a program use the following syntax: **LOAD "↑*NAME", 8.1**
This will automatically boot the fast loader and load the program entitled "NAME" at high speed (approximately 5 times the normal rate). Subsequent loads will also be at high speed, therefore the loader is suitable for multipart programs. ALPHALOAD is particularly suitable for fast loading games transferred to disk using our MEGATRANSFER DISK.

3. FAST COPY (LOAD "FAST COPY", 8)

This is a high speed whole disk copier (single drive) which will backup a full disk in a little over 3 minutes. It will handle quite a few commercial disks but should not be regarded as a full copier for heavily protected disks. The program requires three passes to copy the disk. Insert your source disk or destination disk when prompted, and press any key to continue the process. The drive will spin continuously during use.

4. TURBO FILE COPY (LOAD "TURBO FILE COPY", 8)

This program allows you to copy selected program files from disk to disk at high speed. The program displays each file on the disk in turn. Press Y or N to select or not select a file to be copied.

5. NIBBLE COPY

For use with protected disks. Two programs are provided. NIBBLER (1541) and NIBBLER (1570). Nibbler (1541) will not work with the 1570 drive and a small number of 1541s. Nibbler (1570), though a little less powerful, works with either. Both programs read and write all disk errors automatically. Follow the on screen prompts. **IMPORTANT: The above programs should be used with one drive (device 8) only connected to the serial bus. You should also switch off your printer during use.**

6. FAST DISK WEDGE

This utility wedges a fast disk operating system into Basic. It loads to the top of Basic memory and is compatible with Simons Basic, Mikro Assembler, Arrow and most other expansion cartridges and Basic extensions. This is a programmers utility — it is not suitable for loading games, LOAD "WEDGE", 8 and run the program. The title screen displays the program's resident addresses and a SYS number which is useful to note as this will re-enable the wedge after a cold start or reset. Once the program is initialised, all program loads, saves and verifies (and format) from or to disk will be at turbo speed. Some additional parameters are also available: Examples:

LOAD "NAME", 8	Load to start of Basic
LOAD "NAME", 8,1	Load to address from which program was saved.
LOAD "NAME", 8,D49152	Block load starting at Decimal 49152
LOAD "NAME", 8,\$C000	Block load starting at Hex \$C000
LOAD "NAME", 8,D	Block load to address from which saved.

Block loads differ from normal loads in that the Basic end pointers are not set after the load, and if used in program mode, the command will return to the next Basic statement instead of going to the start of the program. VERIFY parameters are the same as described for LOAD. Load and Verify display program start/end addresses in Hex (in direct mode), therefore VERIFY "NAME", 8,1 may be used to log the addresses of the program.

SAVE "NAME", 8	Save a Basic program.
SAVE "NAME", 8,\$C000, \$D000	Block save from \$C000 to \$D000
SAVE "NAME", 8,\$C000, \$D000, \$B000	As above but will load back to \$B000

The save end address should be one byte higher than the highest byte to be saved. Note that all address parameters may be entered in HEX (prefixed with \$) or decimal (prefixed with D).

MERGE and LIST	LOAD "NAME", 8,M
	LOAD "NAME", 8,M1000, 10

Will merge a Basic program into one already in memory, and as in the second example, will number merged lines starting at 1000 in increments of 10. Any existing line with the same number will be replaced by the merged one.

LOAD "NAME", 8,L

Will list a Basic program from disk to the screen, leaving memory unaffected. Press a key to freeze. Release to continue.

DOS COMMANDS	"	(quote mark)	Read error channel of device 8
	"9		Error channel of device 9
	"\$		Display directory (device 8)
	"\$: T*		Display files with first letter T (or other pattern)
	"9\$		Directory, device 9
	" (string)		
	"9 (String)		Send Dos command string. Examples:
	"N : test, 01		Format disk on device 8 (default)
	"9N : test, 01		Format disk on device 9

See your drive manual for details of other DOS strings (I, V, R, S). If used in program mode, the DOS strings should be enclosed in quotes, or concatenated with a null string if sent as string variables. Example:

10 A\$="9N : TEST, 01" : ""+A\$: REM format command to device 9 as variable.

Use a dummy statement if a DOS string follows a THEN statement: Example:

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10 X = 1 : IF X = 1 THEN X = X : "N : TEST, 01 " : END
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The statement X = X has no function other than to separate the THEN statement from the DOS string. It is recommended that you read the error channel "manually" in program mode, rather than use the special command.

DEVICE NUMBER CHANGE

An additional DOS command is provided which changes the device number until the drive is reset.

“(current number) = (new number)

Example "8 = 9" will change device 8 to device 9. Note that you must not have two drives on line with the same device number. Switch one drive off before changing the number of the second.

RUN COMMAND

RUN "NAME", 8 will load and run the named Basic program. This command may be incorporated into the wedge program, in order to automatically load and run an often used program as soon as the wedge is initialised. If you load and list the Wedge program, you will see a REM statement in line 20. Change this to RUN and enter the filename of the program you wish to run between the Quote marks. Pad it out with splat (*) characters. Do NOT change the length of the line or the program will not work. Then save the wedge with the filename of your choice.

One additional Basic command is added when you initialise the wedge. @ OLD will recover a basic program which has been accidentally NEWed or reset.

The wedge normally resides at the top of Basic ram. However, if you prefer to operate it at \$C000 to \$CF00 (starting at location 49152, the following POKE, entered before running the wedge, will achieve this:

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POKE 56,207
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Run the wedge, then POKE 56,160:CLR. The program may then be saved with SAVE "NAME",8,\$C000,\$CF00. Note that some expansion cartridges make use of this area, and the program will not work if this is the case.

7. ***** DOSOFT — DISK TO TAPE *****

The Disk to tape Plus routines will output a wide variety of Disk programs to tape, with visible screen, stripe border turboload. The programs handle Basic and Machine code programs, single and multipart. Loading speed is a little under 6x normal — the best compromise between speed and reliability.

PROGRAM 1 — LOAD "DISK TO TAPE PLUS",8. On running the program, you will receive the following prompts:

a) SELECT OPTION. The program has three options:

Option 1 — for most programs transferred using Megadisk routines eg Superpav, Supernova, Firecracker, etc. and most individual options.

Option 2 — for most programs transferred using DISKUS 1, and DISCO tape to disk utilities. Also for programs transferred using the RBS/FASTBACK routine on Megatransfer disk. Disco programs are identified by the file structure "NAME", "NAME A", "NAME B", etc. and Diskus 1 programs have the structure "NAME", "1 NAME" etc. If you are unsure whether to use option 1 or 2, try option 2 first.

Option 3 — automatic disk to tape for single and multipart programs. As each program section loads from disk, it will output to tape before continuing the program. Note that this program will not handle protected disk programs, nor those which disturb the computers load link or cassette buffer.

b) ENTER FILENAME. Enter the filename which you would use if loading the program normally, EXCEPT when using option 1, where you must enter the SECOND filename (1 NAME, or A NAME).

c) ENTER NUMBER OF SECTIONS. Only important if you want to load data into the transferred program (eg Adventure games), Otherwise just press return.

d) FORCE LOAD. (option 3 only) A few programs will not load from disk if the secondary address (,1) is used. If this is the case enter 'N'. Otherwise just press return.

For reliable loading, wind off the nonmagnetic leader at the start of the tape, and keep your tape heads clean. A misload will result in a system reset, or corrupted screen (option 2, though this could mean a failed transfer in the case of some unusual programs).

NOTE: For options one and two, transfer will not work if the first file has been renamed. If this is the case, rename the file to correspond to the name of its companion files.

PROGRAM 2 — LOAD "PRO DISK TO TAPE", 8. This program will input program sections from tape or disk and output to turbotape according to a schedule entered as Basic lines by the user. The following commands are available:

BOOT. Syntax BOOT"NAME", (input device), [lead time in seconds]. E.G. BOOT"PROGRAM",8,5 will load the file named "PROGRAM" from device 8 and output to tape with a boot loader and lead time (length of blank tape) of 5 seconds. The first program section should always be transferred with the BOOT command. Subsequent sections should use the FILE command.

FILE: As above but does not add a boot loader.

ADDRESS: Optional. Will load the program to the specified address (in hex). Otherwise the program will load to the address from which it was originally saved.

JUMP: Optional. After the load program execution will jump to the specified address. Otherwise a Basic RUN will execute (after the first file) or a return from subroutine will occur (subsequent files).

UNLINK: Optional, Will restore the default load link after the file has loaded. After this command, no other files may be fast loaded unless they are transferred with the BOOT command.

PROMPT: Will display a message and halt execution of the schedule until the F1 key is pressed.

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Example schedule: 10 PROMPT"INSERT DISK INTO DRIVE" :REM Display prompt and wait for F1 key
                  20 BOOT"FIRSTFILE", 8,3 :REM Load file from device 8 and write with lead time of 3
                                                seconds and a Boot loader.
                  30 JUMP C000 :REM After the load jump to location $C000 Hex
                  40 FILE "SECTION 1",8,1:ADDRESS 8000 :REM load next file, write to tape without boot. File reloads
                                                to location $8000 hex
                  50 FILE "SECTION2",8,1 :REM load and write next file.
                  60 UNLINK:END :REM restore default load link after the load. End of schedule.
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If a FILE or BOOT command is not followed by a JUMP and/or an ADDRESS command, the section will reload to its default load address and return from subroutine (or execute RUN if it is a BOOTed file. A load error is returned in the Status word (Hex \$30, checksum error, unrecoverable read), Otherwise status returns zero.

Boot residence: \$02A7 — \$0304. Loader residence: \$0351 — \$03FB. Loader may be called with JSR \$0370 or SYS 880

After writing your schedule, save it for future use and enter SYS 49152 to commence transfer. Programs to be transferred should not disturb either the load link or cassette buffer.