

FAST HACK'EM V6.00

**FOR THE COMMODORE C-128
COMPUTER SYSTEM**

**Designed & Coded
by**

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Table of Contents

INTRODUCTION	4
BACKUP UTILITIES	4
SYSTEM REQUIREMENTS	4
BEGINNERS GUIDE	5
BOOTING THE DISK	5
THE MODULES	6
MODULES FOR A SINGLE 1571	6
FAST COPY	6
(D)IRECTORY, (C)OPY, (B)OOT, (F7) COPY	6
(F1) WRITE VERIFY	6
FILE COPIER	7
(D)IRECTORY, (B)OOT	7
(C)OPY FILES	7
(S)CRATCH FILES	8
(F)ORMAT	8
(@) DISK COMMAND	9
(R)ENUMBER DRIVE	8
(F1) SOURCE DRIVE	9
(F2) DEVICE #	9
(F3) DESTINATION DRIVE	9
(F4) DEVICE #	9
(F7)/(F8) SECTOR SKEW	9
MODULES FOR TWO 1571'S	9
FAST COPY	9
(D)IRECTORY, (C)OPY, (B)OOT, (F7) COPY	10
(F)IX 2ND DRIVE NUMBER	10
(F1) SOURCE/DESTINATION	10

FILE COPIER	10
NIBBLER	10
(D)IRECTORY, (C)OPY, (B)OOT11
(F)IX 2ND DRIVE NUMBER11
(F1) SOURCE/DESTINATION11
(F3/F4) STARTING TRACK11
(F5/F6) ENDING TRACK11
SHFT H)EADER GAP11
SHFT T)AIL GAP11
MODULES FOR A 1581 DRIVE	12
FILE COPIER	12
DRIVE MONITOR	12

FREQUENTLY USED COMMANDS 14

(D)IRECTORY	14
(C)OPY	14
(B)OOT ORIGINAL	14
(F7) COPY (TOP/BOTTOM/BOTH)	14

SPECIAL TIPS & NOTES 16

OTHER DEVICES ON THE SERIAL BUS	16
QUICK MODULE RESTART	16

FUTURE SOFTWARE UPDATES 17

DESCRIPTION	17
ORDERING A MAJOR UPDATE	17
ORDERING A PARAMETER DISK	17

INTRODUCTION

BACKUP UTILITIES

Congratulations on purchasing the finest disk duplication system available for the Commodore 128 home computer. Many thousands of hours of research have been spent in designing the software used in this package in order to achieve a product that would equal or surpass the speed and ability to duplicate nearly any disk, protected or not, of a \$10,000 hardware disk duplication system.

By utilizing the standard Commodore hardware to it's fullest extent, we have designed Fast Hackem.

SYSTEM REQUIREMENTS

In order to use this software product you must have the following equipment:

A Commodore 128 or 128-D computer, and

A composite\RGB monitor or TV set.

This software product is compatible and has been fully tested with the following serial disk drives:

Commodore 1541, Commodore 1571 (old or new ROM), and the Commodore 1581 3.5" drive.

BEGINNERS GUIDE

BOOTING THE DISK

With the Fast Hack'em disk in the drive, reset the system using the reset button on the side of the computer. Fast Hack'em will automatically load.

You may also boot Fast Hack'em by inserting the disk into the drive and type:

```
BOOT
```

or, type:

```
LOAD "?*", 8, 1
```

The main menu should appear in a few seconds. If not, press the reset button on the side of the computer.



We strongly recommend making a backup copy of this software product and keep the original in a safe place. Use either the single or two drive 1571 fast copier for this.

THE MODULES

Module selections must be made from the main menu with the Fast Hack'em disk in the drive (device 8).

MODULES FOR A SINGLE 1571

FAST COPY

This module copies the entire top or bottom side of a standard diskette in about a minute. Full write verify may also be enabled. Works in both 40 and 80 column modes.

To load, select item "A" from the menu.

(D)IRECTORY, (C)OPY, (B)OOT, (F7) COPY

See under "Frequently Used Commands".

Any read/write errors will be displayed on the screen at the end of each pass. Copying each side of a diskette takes two passes.

(F1) WRITE VERIFY

If verify mode is turned on, after writing the data on the destination disk, the data will be read back into the computer and checked against the data that was written out. This will verify that the backup copy is the same as the original. Using verify mode will add about twenty seconds to the copy time.



You may use this module to copy diskettes that were designed for use only on the C-64 by setting the COPY side status to TOP only. This will allow you to take advantage of the speed and buffer size of the 128 using a single drive to copy these diskettes.

FILE COPIER

Copy or scratch individual or multiple files on diskettes, copy files fast to and from different types of drives, fast format diskettes, or send disk commands to a drive. Only works in 80 column mode.

To load, select item "E" from the menu.

(D)IRECTORY, (B)OOT

Shift-D displays the directory of the disk in the destination drive. See under "Frequently Used Commands".

(C)OPY FILES

Copy files from the source drive to the destination drive. Make sure the source diskette is ready before using this command. Upon execution of this command, the directory will be read into the computer and then displayed in a scrolling window on the screen.

Use the following commands to select the files you would like to copy:

Cursor Controls- The cursor **UP, DOWN, LEFT, RIGHT, HOME,** and **shift-HOME** keys are all supported.

[SPACE]- Toggle the filename under the cursor. A left arrow will appear next to the filename showing that the file has been selected. Hit **[SPACE]** again to de-select the file.

(T)oggle- Toggle all the filenames in memory.

[RETURN]- Begin copying the files.

(R)eturn- Exit to the File Copier's main menu.

(S)CRATCH FILES

Scratch files from the disk in the source drive. Select the files you want to scratch using the same commands as for copying files. After you are done selecting the files you would like scratched, hit [RETURN] to begin removing them.

Shift-S performs the scratch function on the disk in the destination drive.

(F)ORMAT

Fast formats the diskette in the destination drive. At the screen prompts, enter the filename, up to sixteen characters, and then the 2 character ID code. Insert the disk you would like formatted into the destination drive and hit [RETURN]. The disk will be completely erased, formatted, the BAM written, and the directory initialized. Fast format routines for the 1541, 1571, and 1581 drives have been incorporated into the copier. Drive 0 and 1 SLOW type drives will be issued a normal format command (ie. N0:DISK NAME,ID).

(@) DISK COMMAND

Send any valid disk command to the source drive (ie. R0:NEWNAME=0:OLDNAME, V0, etc.).

Shift-@ will send the disk command to the destination drive.

(R)ENUMBER DRIVE

Allows software renumbering of a drive. At the prompts, enter the device number of the drive you would like renumbered and then enter the number you would like to change it to. Device numbers must be between eight and fifteen.

(F1) SOURCE DRIVE

Select the type of disk drive you are using as the source drive. Fast read routines have been incorporated into the copier for the 1541, 1571, and 1581 drives. Drive 0 and 1 SLOW are for drives other than the ones listed above. By selecting SLOW, the copier will revert to using the 128's normal serial read routines.

(F2) DEVICE #

Select the device number of the source drive (8 to 15).

(F3) DESTINATION DRIVE

Select the type of disk drive you are using as the destination drive. Fast write routines have been incorporated into the copier for the 1541, 1571, and 1581 drives. Drive 0 and 1 SLOW are for drives other than the ones listed above. By selecting SLOW, the copier will revert to using the 128's normal serial write routines.

(F4) DEVICE #

Select the device number of the destination drive (8 to 15).

(F7)/(F8) SECTOR SKEW

This is the number of sectors spaced between each file block when the file is written out. The default setting is ten for a 1541, five for a 1571, one for a 1581, and drive 0 and 1 SLOW are not adjustable.

MODULES FOR TWO 1571'S

FAST COPY

Copy the entire top or bottom side of a standard diskette in about 30 seconds. Works in both 40 and 80 column

modes.

To load, select item "B" from the menu.

Before you can copy any diskettes, you must first define the source and destination drive numbers (use the Fix 2nd Drive command).

(D)IRECTORY, (C)OPY, (B)OOT, (F7) COPY

Shift-D displays the directory of the disk in the destination drive. See under "Frequently Used Commands".

(F)IX 2ND DRIVE NUMBER

This command allows you to software re-number a drive to device 9 for use as a destination drive. Just follow the screen prompts.

(F1) SOURCE/DESTINATION

This command toggles the source and destination drives.

FILE COPIER

Copy or scratch individual or multiple files on diskettes, copy files fast to and from different types of drives, fast format diskettes, or send disk commands to a drive. Only works in 80 column mode.

To load, select item "C" from the menu.

The default source and destination drives are setup for two 1571's. Refer to the single drive version for an explanation of the commands.

NIBBLER

Backup each side of a protected diskette with standard read errors (20,21,22,23,27,29), renumbered tracks, extra or duplicate half tracks, or non-standard data blocks in under one minute. This module currently only

works in 40 column mode.

To load, select item "F" from the menu.

Before you can copy any diskettes, you must first define the source and destination drive numbers (use the Fix 2nd Drive command).

(D)IRECTORY, (C)OPY, (B)OOT

See under "Frequently Used Commands".

(F)IX 2ND DRIVE NUMBER

This command allows you to software renumber a disk drive for use as a destination drive. Just follow the screen prompts.

(F1) SOURCE/DESTINATION

Toggle the source and destination drives.

(F3/F4) STARTING TRACK

Select the starting track from 1 to 70.

(F5/F6) ENDING TRACK

Select the ending track from 1 to 70.

SHFT H)EADER GAP

This gap sets the number of bytes written between the end of a sectors' header and the start of the data block.

SHFT T)AIL GAP

This gap sets the number of bytes written between the end of a sectors' data block and the following sectors' header.

MODULES FOR A 1581 DRIVE

FILE COPIER

Copy or scratch individual or multiple files on diskettes, copy files fast to and from different types of drives, fast format diskettes, or send disk commands to a drive. Only works in 80 column mode.

To load, select item "D" from the menu.

The default source and destination drives are setup for a 1581 drive. Refer to the 1571 single drive version for an explanation of the commands.

DRIVE MONITOR

This is a machine language monitor that works in the 128 mode and can modify code in the computer or a disk drive (device 8 or 9). It resides in memory at \$6000-\$7300 and works best in 80 column 2 mhz mode. It works fine in 40 column mode, just not as fast.

A brief summary of the commands available is outlined below:

O- operation mode. O8 or O9 = drive, O = computer.

R- display computer's registers.

M- display memory (ie. M 0000 FFFF)

D- disassemble memory (ie. D 6000)

A- assemble code (ie. A 1C00 LDA #\$41)

L- load file (ie. L "FILENAME",08)

S- save file (ie. S "FILENAME",08,1C00,2000)

T- transfer memory (ie. T 1C00 2000 4000)

TC- transfer to drive (ie. TC 1C00 2000 0300)

TD- transfer to computer (ie. TD 0300 07FF 1C00)

H- hunt bytes in memory (ie. H 1C00 2000 41 42 43)

G- begin execution (ie. G 1C00)

;- modify registers

:- modify memory

,- modify disassembled memory

X- Exit to BASIC.

The prompt character "." denotes that the monitor is currently operating in the computer while the prompt character "]" denotes current operation in the disk drive. All numerical data must be entered in hex. Upon each entry into Drivemon (via cold start or BRK), zero page is saved. Displaying or modifying zero page with the "M" and ":" commands operates in the zero page buffer and any zero page values that have been modified will be set when a "G" or "X" command is invoked.

FREQUENTLY USED COMMANDS

These are commands that are used in most of the modules. To see exactly which modules these commands are used in, look in the sections of this manual under each specific module.

(D)IRECTORY

Displays directory of the diskette in a drive. While the directory is being displayed, you may hit the [SPACE] bar to pause the listing and then hit it again to continue it, or hit RUN/STOP to stop the listing.

(C)OPY

Copy a diskette. When prompted to insert the source or destination diskette, put it in the drive and press [RETURN]. The program automatically formats the destination diskette as it copies, so you don't need to use a preformatted diskette.

(B)OOT ORIGINAL

Allows you to return to the Fast Hack'em main menu so you may select and load another module. You will be prompted with "Are You Sure?". Put the Fast Hack'em disk in the drive (device 8) and hit "Y".

(F7) COPY (TOP/BOTTOM/BOTH)

Selects which side(s) of the disk to copy. If you select to copy the bottom side or both sides of the disk and the disk you will be backing up is only top sided, a read error will occur if a directory or copy command is attempted

because the backside of the diskette will not contain valid data.

SPECIAL TIPS & NOTES

OTHER DEVICES ON THE SERIAL BUS

You may have other devices connected to the serial bus (ie. printer, other drives, etc.) but only up to three if you will be using an MSD drive.

QUICK MODULE RESTART

While using any module, you may hit [RUN/STOP]-[RESTORE] to restart it. However, if you do this while a disk is being copied, you must reset the drives or wait for the copy to complete before continuing.



When using the single drive modules, you must reset the disk drive in order to continue.

FUTURE SOFTWARE UPDATES

DESCRIPTION

Major updates of the C128 and C64 versions will be released periodically. These updates include all the parameters to date, speed and performance improvements in existing software, additional software utilities, documentation improvements, and public request. Parameter updates contain all the latest parameters created since the last major update.

ORDERING A MAJOR UPDATE

Major disk updates of the C128 version are \$15.00. The C64 version is also available to you for \$12.00. You may order both versions at once for \$20.00 (versions are on separate diskettes).

ORDERING A PARAMETER DISK

The latest parameters are available on a diskette for \$6.00. This diskette contains all the latest parameters created to date since the last major update.

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