

**A COMPLETE ARCHIVAL
AND
DISK DRIVE
UTILITY PACKAGE**

TRANS-NET 2023!

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P.O. Box 988, London, Ontario, Canada N6A 5K1
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**EXCEPTIONAL
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facsimile™



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CREDITS

Manual Design

Dave Eisan • Brad Dixon

Users Manual

Dave Eisan • Brad Dixon • Kathleen Horne

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INTRODUCTION

In 1977 Commodore introduced a Business/Home computer that people could afford. It was called the 2001 and had 8K ram with a built-in monitor and cassette drive.

Commodore continued to introduce updates of these early computers and a wide range of peripherals, starting with the 4022 printer and their first disk drive (and a dual at that) the 2040. Sure some of this equipment is considered archaic by today's standards, but then Commodore was leading the pack. As it continues to do today.

In 1982, not wanting to be outdone by the now up and coming ATARI Corp. Commodore released the Vic 20, the first realistically affordable home computer, for under \$250. Sales were high for Commodore during those years; they had a winning computer, with a wide range of peripherals available.

Once again Commodore shocked the market with the advent of another superb computer, the Commodore 64. It had 64K of RAM (Random Access Memory), more than any other personal home computer on the market, and it has the best sound for any personal computer. It was compatible with all existing Vic 20 peripherals on the market and was an instant success due to Commodore's excellent marketing techniques.

Commodore had also entered the software market, producing software to fill pretty well everyone's needs. The 64 now had a firm foot to stand on. By 1984 Commodore had once again established itself as a major industry leader with sales of over \$1 billion dollars. It was clear that Commodore was going to be around for a while.

With the introduction of the C-128 Commodore has again met the consumer demand, an improved Commodore 64 computer. With all existing software from the 64 being compatible, (including FACSIMILE), and all CP/M software, it is the first computer to be released with a variety of software already available, over 16,000 pieces.

We all look forward to more innovative computers from Commodore, and Exceptional Software Industries will be continuing to provide high quality software for any computer Commodore introduces in the future.

DISK OPERATING SYSTEM AND PROTECTION SCHEMES

Commodore's 1541 disk drive is a computer in itself. It has its own RAM, ROM, CPU and BIOS, giving it all the characteristics of a full-blown computer.

One of the major means software companies use for protecting their software is by putting information on the diskette where the user cannot get at it, or in a form that the user cannot reproduce, that's where FACSIMILE comes into play. It allows the user, you, to edit, alter and copy almost all forms of protection on the market. One of the most popular forms of protection with software companies (but not with users, due to the fact it ruins disk drives) is the familiar head knocking routines. The software, once loaded or partially loaded, checks for a particular error on the disk. Once people started complaining about this form of protection, companies changed their protection schemes slightly so that they would not knock the read/write head in the disk drive out of alignment. Rather they wrote on the disk in a non-standard way. Regardless of the type of protection used, they are all similar in the way they respond. If the protection is not found, the program either informs you of this and stops working and/or resets, or lets the program run, but with very important things scrambled, to the point where the software is unusable with the resulting mess of data in your computer.

GETTING STARTED

In your FACSIMILE package you will find the following:

FACSIMILE disk • Manual (you are reading it!) • Registration Card, Warrantee and free Newsletter Offer Newsletter Order Form

To load FACSIMILE from your Commodore 1541 disk drive or equivalent compatible drive, place the supplied FACSIMILE disk into your drive and type:

load"boot",8,1 or load""8,1

Once you hit return you will see the following:

searching for fboot or searching for *

The two different loading messages are due to the fact that you may load FACSIMILE in two different ways, as shown above.

The screen will go blank for a few seconds and the disk drive activity light (the red light on the disk drive) will begin to blink in a steady fashion as it loads the remainder of the main program.

Now when the main FACSIMILE menu appears on your screen, choose the option and press the corresponding number key that fits your needs.

The main menu looks like this:

- 1) FACSIMILE Bit Copier
- 2) FACSIMILE File Copier
- 3) FACSIMILE Disk Editor

When you have chosen the option you wish to use, the border colour will change and the disk drive light will again blink happily as it loads the corresponding option.

The following pages describe in great detail how each FACSIMILE option works.

FACSIMILE Bit Copier

This is a bit copier in the true sense of the word. It allows the user (you) to make a back-up copy of virtually any software currently available for the Commodore 64 home computer. It reproduces all DOS errors (a common form of protection used by many software companies) with no user intervention, there is no lengthy examination of the disk, unlike previous and less effective disk copiers.

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Once this part of FACSIMILE has been chosen you may wish to alter the preset settings. They are as follows: copy tracks 1 to 35, full tracking, only one facsimile to be made. Alteration of the settings is achieved by pressing the corresponding function key that represents that option. Here are a list of the function keys and what is achieved by pressing them:

- f1 - Increment start track**
- f2 - Decrement start track**
- f3 - Increment end track**
- f4 - Decrement end track**
- f5 - Verify (on/off)**
- f6 - Half Track (on/off)**
- f7 - Increment number of facsimiles**
- f8 - Decrement number of facsimiles**

Explanation of each function key

'f1' increments the track at which FACSIMILE will start to copy. This is useful when the beginning tracks are blank.

'f2' decrements the start track. If you have accidentally gone by the starting track you desired, you may wish to use this function key to decrement the starting track.

NOTE: You cannot decrement past 1, for obvious reasons.

'f3' increments the end track. FACSIMILE has the capacity to copy to track 44!, normal disk operations go only to track 35. Some forms of protection have information tracks, past 35, so at some point you may wish to copy beyond track 35.

'f4' decrement end track, much the same as decrement start track.

'f5' verify. When copying a disk you may at times wish to ensure that what you are writing to disk is EXACT. When you deem this necessary, use this function, but in most circumstances you need not use this function because of the reliability of the 1541 (or lack thereof!). If you feel that your 1541 is not as reliable as it should or could be, make a point of using this option. It operates as a toggle, hit once and it is on, hit it again and it is off.

'f6' half tracking. Half tracking has been one of the most misused terms known to Commodore 1541 owners. Half tracking refers to using the space between tracks to store information thus called 'halftracks' because they are halfway between the normal tracks. If you were to use half-tracking throughout the disk your final copy would be garbage because the 1541's read write head is too large. Writing to track 1 would work, but would erase track .5 and track 1.5, writing to track 1.5 would erase track 1 and 2, and writing to track 2 would erase track 1.5 and track 2.5 etc. By now you should be able to see the pattern. So you must be very specific when specifying that you wish half tracking to be used, use it on a preselected track, use f1 to increment the track and f4 to decrement the end track so that you are only using one track. This method will successfully copy the half tracks. Very few software companies use more than one half track on the same disk. Once again, this is a toggle.

NOTE: For more information, see the newsletter (details in box).

'f7' this option allows you to make more than one facsimile at a time. By incrementing this, you are able to write out the same information more than once on as many disks as you wish (up to 99).

'f8' decrements the number of facsimiles you wish to make this session.

NOTE: to get the even numbered function keys hold down "SHIFT" while pressing the function key you desire.

Using FACSIMILES Bit Copier:

Now that you have all your options set you about to make some facsimiles. When ready, simply press the return key and respond accordingly to the "are you sure" prompt.

It will now say, "Insert Scratch Disk". This is a blank test disk. FACSIMILE wants to ensure you get the best possible copy, even if your drive is slightly out of alignment. This disk is used to test your disk drive and in the test it will write and read data on the test, or scratch disk. For the next few seconds the disk drive will read and write to the four sections of the disk as defined by the different sectors densities. You can use the same disk each time, but do not use a disk with information you wish to keep because it will render useless the information on the disk.

NOTE: DO NOT insert your destination disk or your original disk in the drive as the 'scratch disk' or the information on the disk will be destroyed.

NOTE: Place a write protect tab on your original disk (a piece of tape over the little notch), better safe than sorry.

The next prompt to appear on the screen will be to insert the original disk into your disk drive. The original disk or master, is the one from which you wish to make the facsimile. Following the insertion of the original disk and your hitting of the return key, the screen will go blank and begin to scroll through various colors as it reads in the information stored on the original disk. Once it has finished reading in all the information the computer can hold at one time, it will return to the now familiar original screen, with the exception the "insert original disk" prompt has been replaced with "insert destination disk". The destination disk is the disk on which the facsimile will be written. This is a blank disk that, when the Bit Copier is through, will contain an exact copy of your original disk. Again, it will scroll pleasantly through the screen colors as it writes information on the destination disk. This process of inserting 'Original' and 'Destination' disks may be required to be repeated a few times due to the fact that the disk drive stores more information than the computer can hold at one time.

NOTE: DO NOT use a separate disk each time the above process must be repeated on the same original disk. The destination disk does not need to be formatted.

FACSIMILE File Copier

FACSIMILE's file copier is a quick way of making a copy of a few disk files from one disk to another.

Once this option has been initiated insert the original (not the FACSIMILE master disk) in your disk drive and hit return. FACSIMILE will then prompt you for a pattern.

When it asks for "pattern", you may hit return to view all files that fall into the default pattern (all). To alter the pattern you may enter any pattern you wish.

Examples of patterns:

*	- all files
com*	- all files with the first three letters "com"
a*	- all files beginning with "a"

Once you have established the pattern hit return. This will then display the first file name that falls in the pattern. You then have the option of copying the file (hit 'Y'), not copying the file (hit 'N'), copying as much as the computer can store at one time (hit 'A'). When you have completed the choosing of the files to be copied hit 'D'. Once you have hit 'D' or if you have reached the maximum amount of files the computer can store at once the program will proceed to read the files into the computer.

NOTE: You can go back and copy more files later.

When all files have been read into the computer, "insert destination disk" will appear. The program will then begin to write the files on the disk that it loaded. You will then have the option of writing them on another disk. Hit 'Y' for yes, if you wish to do so.

NOTE: The destination disk must be pre-formatted.

If you wish to copy more files from the same disk or another disk hit 'N' and the whole process will begin again, starting with the insert disk prompt.

FACSIMILE Disk Editor

Once this option has been loaded and is ready for use, a screen with more further options will be displayed. Use the cursor keys to move the 'cursor' up and down, highlighting the option to be chosen. When the option you wish to use has been highlighted (in reverse video) hit the return key.

Disk Editor

A prompt will be displayed as to which track and sector you wish to edit; respond accordingly. Both an ASCII and HEX view of that sector will now be displayed. You may scroll up or down by using the cursor keys, or left to right, again with the cursor keys. Hitting HOME will bring you back to the top left corner of the sector display, CLR will put you at the bottom right corner of the sector display.

'L'ink - Will jump to the linking track and sector as indicated at the top of the display.

'G'oto sector - Will prompt you for another track and sector to edit.

'Q'uit - Return you to the previous menu.

'+' - takes you to the next sector.

'-' - takes you to the previous sector.

'H'ex edit - allows you to edit the sector currently being displayed in hexadecimal.

'T'ext edit - allows you to edit the sector currently being displayed in ASCII.

'R'ewrite - rewrites the sector after it has been edited to your liking.

NOTE: you could destroy information on your diskette if you are not careful.

If you are editing a sector on the disk and a read error is encountered, you have the option of trying to reread the sector (Y), read data under error (E) or (Q) to quit and return to main menu. To be prompted for another track and sector hit no (N).

Hunt for Match

This option allows you to find a particular string of characters or hexadecimal numbers with ease. When asked for a starting track, enter the track you wish to have the search started with (1-35), followed by a return.

The ending track is much the same. Enter a number more than the starting track by again equal to or less than 35, followed by a return. You can search for either an ASCII or Hexadecimal string. When required to input which you will use, respond with (A)SCII or (H)exadecimal. The next prompt is the actual search string. Enter what you wish to search for.

The program will begin at the starting track and proceed to the ending track, checking every sector in between, looking for the search string. When found, it will print "Match Found!". The track and sector number on which the match was found will also be shown.

NOTE: You may hit RUN/STOP and abort the search if you wish.

Drive Specifications

This allows you to change the device and drive numbers of the disk drive you are using. Cursor up and down highlights the drive to be altered. Once you have selected a drive to alter, plus or minus alters the device number, 0 and 1 changes the drive number to either 0 or 1. 'S' swaps them, so that drive (A) now has all drives (B)'s attributes, and vice versa. Hitting return takes you to the main menu.

2 Drive Copier

The file copier option allows you to copy files from one disk drive to another (i.e. MSD to 8050). It copies from drive (A) to drive (B). You may alter drive (A) and (B) by changing them with the drive spec's option. Select the files you wish to copy by moving the cursor up and down to highlight the file. Once it is highlighted, press the space bar. If you wish to copy all of them, hit 'A'. To initiate the copying hit return. Both disk drives will begin to "whir" as the files are copied from drive (A) to drive (B).

Display BAM

This option displays the Block Availability Map. Reverse spaces represent blank space on the diskette. The checked pattern indicates where no information may be stored. The first file on disk will be represented by "A's". The second file will be represented by "B's" and the third file by "C's", etc.

Catalog

This gives you a directory of the disk. You may get a list of all the files by cursoring up and down.

Format a Disk

This option allows you to wipe a disk clean (format). You may do it two ways. If the disk has not been previously formatted, you must use an I.D. If it has been previously formatted, use just the diskette name. The name may be up to 16 characters in length, with a two-character I.D. for the I.D. name.

e.g. Diskette with I.D.: Disk Name,DE

Without I.D. : Disk Name

Speed Check

Choosing this option will give you the exact speed of your disk drive. Caution: this option will erase all the data on your disk, so use a test or scratch disk. To initiate the speed check, press the 'F1' key. To abort this option and return to the main menu, press 'RUN/STOP'. To stop it at any time after it starts to display the speed, hold down any key.

Error Messages

Should you encounter a disk error during any part of this program, you may want to look at this option for a brief explanation of each error.

Exit to Basic

This returns you to BASIC, and gives you control over the computer once again.

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