

# Midnite Software Gazette

The First Independent U.S. Magazine for users of Commodore brand computers.

Includes The PAPER



I N T R O D U C I N G

# SUPER KIT/1541

BY MARTY FRANZ & JOE PETER

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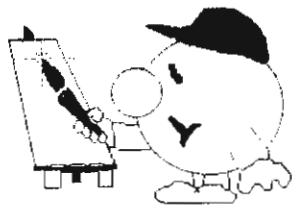
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### GRAPHIC SCREEN CONVERTER.



By Ben Reynolds  
R & M Graphics Plus

## THE KOALA, PRINTSHOP, DOODLE, SUPER SKETCH, MICRO ILLUSTRATOR, SCREEN CONVERTER.



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introduction. The explanation of CP/M's basic commands is clear and the style is well suited to a beginner. But, being for CP/M 2.2, it is not wholly applicable to CP/M 3.0 on the C128. Unless you want a reference for CP/M 2.2, you are better off with other books. Average. Tim

**The ESSENTIAL C128 USER'S GUIDE:** \$12.95 by Jerry Willis with Bill Brewer. From HP books. 200 pp.

I really can't tell what makes this book essential. It does give an overview of just about all the C128's modes and a general idea of the kind of software that is available. But it seems the author knows alot more about MS DOS machines than 65xx ROM based machines and is trying to export his reputation out of his area of expertise.

On page 12, he gives instructions for building a 80 column monochrome cable, on page 19 he shows how to plug the computer in, page 23 states that "most Commodore compatible printers are preset to Device #5, the standard number for printers," and on page 58 he recommends the Commodore 1660, mentions the 1670, and comments on the Volksmodem 6420 and the Mighty Mo. The 1650 modem is not mentioned. He talks alot about Xmodem; he mentions Punter protocol once.

This book is not essential. I can hardly even tell what makes it useful. It does not have enough information to serve as a reference and the information on products available discovers the authors ignorance of the Commodore market. I think that this kind of book might concievably be useful to a first time computer user, but this particular book does not give an accurate view of the machine or the market. HP Publishing and the author are just trying to cash in on a good thing. Not Recommended. Tim

**C64 BASIC for BEGINNERS:** \$12.95 book by Carl Shipman. From HP Books. 335 pp, index.

This is a good, accurate introduction to BASIC 2.0. While it is like so many others, it is easy to read. Particularly commendable are such little comments is found on page 103, where it notes that different versions of the C64 may or may not need a poke to color memory when you poke a character to screen memory. Such thoroughness is a nice touch. Recommended. Tim.

**35 AMAZING GAMES FOR THE C128:** \$9.95 paperback book by John Mihalik. From HP books.

This book contains program listings and instructions for 35 programs written in BASIC 7.0 specifically for the Commodore 128. The games include educational, board, and arcade type games that feature color, sound, music, and graphics. Throughout the book there are suggestions for programming variations so you can customize the games if desired.

The listings vary in size from two to five pages in length, but are clearly printed and easy to enter. Special notations are used for graphics, cursor controls, and other special keys to help make it easier to enter the programs. These are all clearly described at the front of the book. Along with the programming variation hints, there are also comments that help explain anything in the program that may not be clear - like the number of spaces or special keys, etc.

The games are simple, nothing extremely fancy, but still challenging and entertaining. Not quite up to par with commercial programs you would buy on disk, but slightly better than most public domain programs. Especially valuable for anyone wanting simple programming examples to learn and understand BASIC.

Well worth the price if you don't mind typing. If you're not excited about typing in 35 programs, you can order them all on



one disk for \$30. However, this seems a bit high compared to the cost of public domain disks with similar quantity and quality of programs available from user's groups. Recommended. Robert W. Baker.

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## Game

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**NINE PRINCES IN AMBER:** \$29.95 Text/Graphic Adventure for C64 from Telarium.

Amber is "a perfect world of which all others are imperfect shadows." At least that's the way Roger Zelazny describes it in his best-selling SF series about that realm. Unfortunately, the other members of your family are not quite so perfect. They ALL want the throne which, of course, is rightfully yours. Eight brothers and three sisters all want the crown and they will do ANYTHING to keep you from getting it.

You wake up in a hospital room with amnesia and some serious (?) injuries. You will have to regain your memory, figure out which siblings are your enemies and which will cooperate with you. One way to make your task a little easier is to traverse "The Pattern." If you successfully put together the pieces of the puzzle, you'll regain some or all of your memory; if you fail, you're on your own!

Rather than just searching for treasure, this game relies HEAVILY on strategy. It boasts 40,000 different game variations and **40 different endings!** You must decide at each meeting whether you are going to form an alliance with or battle another character. Each decision alters the course of the game and the ultimate outcome. There are several ways in which you can defeat the others and win the throne, but in only ONE scenario will you be able to keep it!

Telarium's parser has undergone vast improvements in the past two years. Unlike earlier games, the text is smooth and intelligent and the parser reacts quickly to commands. After the first few

encounters, you will get the feeling that the characters in the story are carefully watching what you do and having secret meetings inside your computer to decide on their strategy for the next move. This game will REALLY get you involved!

There are battle scenarios which you must get through...but they are not the infamous arcade sequences that peppered Telarium's early efforts. The duals are done completely in text, and you'd BETTER read the manual on how to conduct yourself...the wrong move will be fatal. You'll come out of this game with a small understanding of the fine points of swordsmanship. Quick reflexes on a joystick will not help you here.

"The Pattern" is about as close to an arcade game as you'll find. But this, too, depends on logic, not reflexes. You must arrange pieces of a path to intersect five stars scattered around the screen. Each move will bring back a piece of Corwin's memory, and each star successfully crossed will allow you to recall one of your Powers (which you will need if you are to succeed).

Telarium has come a LONG way since the days of "Dragonriders" and "Rendezvous." Unlike those early efforts at adventure games, I have no difficulty at all in recommending this to any adventurer! -Art Lewis Kimball

**MONTY PLAYS SCRABBLE:** [update #23, p62.] \$24.95 game on disk for the C64. From Epyx. For 1 to 3 players, DOS protected, 90 day media warranty.

This is the computerized version of the board game of Scrabble. The rules are exactly the same; the difference is that you have at least one computer opponent and you are given many extra features.

The game begins with credits given to the trademark and copyright holders. This and the load time consume almost three minutes. The game can be used with a black and white or a color monitor and does not require the actual game board.



gets an A from this professor. [Highly Recommended.] Elizabeth A. Kaspar.

**WORDFILE 128:** \$24.95 wordprocessing program on disk for the C128. By Mark Jordan, from Michaelsoft. Disclaimer of warranty. 10 day replacement, \$8 update. Unprotected.

This one does not promise much - outside of compatibility with dfile 128, by Mike Konshack - and it does not deliver what it promises. Formatting commands do not format correctly. Special printer features must be accessed by imbedding a flag and the CHR\$( ) value for each element of the code for the printer - and that doesn't work right either. Such codes are necessarily printer specific. Heaven forbid you should want to use two different printers or send a formatted file to a friend! The program does offer very good cursor control. Not Recommended. Tim

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## Hardware

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**CBM MPS 1000:** \$299, 80 column, 120 cps dot matrix printer from Commodore. Commodore Serial and standard Centronics ports.

This is an 80 column dot matrix printer that can print four different fonts, including near-letter quality modes. The printer is extremely versatile, compact, relatively quiet, and easy to use. It offers a built-in Commodore serial interface as well as a standard Centronics parallel interface.

The MPS-1000 has two basic modes of operation: Commodore mode and IBM 5152+ mode. Both modes allow normal draft quality printing for speed, and a near letter quality (NLQ) printing for final drafts. The parallel interface can only be used for IBM mode while the serial interface can be used for either mode. This allows Commodore systems like the C128 and C64 to take advantage of both print modes via the

serial peripheral bus interface.

It normally prints at 120 cps using a 9x9 (IBM) or 9x8 (CBM) dot matrix. In NLQ mode it prints at 20 cps and uses a 12x18 dot matrix. Standard graphic characters use a 6x12 (IBM) or 6x8 (CBM) dot matrix. Actual printing speeds in IBM mode vary depending on print size. In all modes, true decenders provide excellent print quality.

Printer options are selected via a dip switch on the rear of the printer. One switch selects whether Commodore or IBM print mode is desired. Other switches select the device number (4 or 5), draft or NLQ printing, cut sheet feeder controls, page length and page end detector. In Commodore mode, the remaining switches control the buzzer, and uni- or bidirectional printing. In IBM mode, the remaining switches control interface and graphic character set selection plus auto line feed control.

The printer handles friction feed of paper stock between 7.25 and 8.5 inches wide. A tractor feed is included with the printer and can handle forms from 4 to 10 inches wide. The ribbon is a standard cartridge that is especially easy to load.

The Commodore MPS-1000 is actually built from the standard Epson Homewriter 10 printer and uses the same ribbon, print head, etc. Service and replacement parts should be easy to obtain. Actually, the Commodore version is handier with the dual interfaces built in, and it usually sells for less than the Epson version. The Epson version requires an optional interface module and the tractor feed is extra.

In Commodore mode, the MPS-1000 provides all the normal features controlled by secondary addresses and control codes found in other Commodore printers. It supports the full CBM PETSCII character and graphics sets plus provides dot graphics capabilities in both single density (480 dots) and double density (960 dots) modes. Fortunately, it's completely program compatible with the MPS-801 printer, so most of the available Commodore C64/128 software can easily handle it.

In IBM mode, the printer provides the



normal 5152 mode plus IBM character and graphics sets 1 and 2. Standard IBM ESCape code printer controls are supported for varying and enhancing your printed output. Extended ESCape codes are used to transfer dot graphics data to the printer, since higher density graphics are available in IBM mode.

Documentation is excellent, clearly written, with helpful examples and sample programs. The manual is over 100 pages in length, with detailed tables, appendices and a full index. There's plenty of technical information for those that want or need it. This is one of the better Commodore manuals I've seen.

In my opinion, this is an ideal printer for any Commodore owner, especially for the C64 and C128. It also can be used with the Commodore Amiga, when used in IBM mode and connected with the special Amiga parallel printer cable. The IBM parallel printer cable SHOULD NOT be used with the Amiga, since there are supply voltages at the connector that could damage your printer and/or computer if connected wrong.

How can you go wrong? This printer can be used with almost any computer system, so there's no need to worry about outgrowing your system. So far it's worked with Printshop, Wordpro-64, and every other program I've tried it with. I was so impressed after getting one for my C64 and C128, that I got another for my Amiga when I needed a printer for that system.

Just one word of caution, you cannot have cables connected to both interfaces at the same time, only one or the other. Highly Recommended. Robert W. Baker.

**MICROGRAPHIX MW 350:** \$130 CBM serial to Centronics interface with 10K buffer for V20 through C128. (4K buffer version available for \$89.) By Kovacs/MicroFantics, from Micro R&D. 90 day limited warranty.

This solid graphics interface provides plenty of standard features and a couple of nice extras. Six DIP switches provide control over linefeed (1), transparent/1525

emulate (1), device number (1), and printer type (3). ESCape codes also allow software setting of device number, form length, margins, secondary address, linefeeds, throughput of ESCape codes to the printer, and conversion of CBM control codes to mnemonics (e.g., a <CLR/HOME> in quotes which shows up as a reversed heart on screen will print as [CLR] on paper). A reset switch empties the buffer and resets the interface to the switch settings. Holding the interface reset switch down for a few moments dumps a status report to the printer, showing the current settings of the interface. A small thing, but very nice to have, is a very wide range of control over linefeeds. This comes in especially helpful in CP/M mode on the C128. With other interfaces, I had trouble getting a good printout without extra linefeeds. I could easily get the MW 350 to strip the extras.

Micro R&D should be commended for other little features. The front label shows the switch settings in meaningful terms, the serial cable has an RF choke, and the Centronics plug is encased in medium gauge metal as opposed to the standard plastic. The interface is designed to draw its power from a joystick port via a detachable cable. While I am not particularly fond of this arrangement, the detachable cable does allow the user to find another source.

Unless you really need the extra fonts or NLQ built into your interface, this one is Recommended. Tim

**XETEC SUPERGRAPHIX:** \$100 CBM serial to Centronics interface with 8K buffer for V20 through C128.

This interface apparently lacks one feature: I always end up with an extra linefeed when printing from CP/M on the C128. [I was finally able to do it by CONFIGing my printer as CBM, setting the interface to emulate, and shutting off the linefeed at the printer. More of a hassle than should be necessary.] Other than that,



disks! Also, to RML Labs/Progressive Peripherals for choosing dongles instead of DOS protection - dongles are not ideal, but at least if you corrupt your disk, the backup will be there!.

A final note: You can find either Jim or myself online more and more. In addition to our own Punter Board (Starship MPC, 300/1200 baud, nearly 24 hours, 217 356-8056), you can find us on Q-Link (Midnite and Midnitel), Compuserve (76703,4033) and Delphi (Midnit).

### LETTERS

Dear Midnite:

Thanks for the offer [to renew my subscription], I've enjoyed your publication very much in the past, however I must decline. Please allow me to tell you why.

First off, I'm going to change systems. I am presently using a CBM 8096 with 8050 drives and an 8300P printer, all in good working order and serving my needs quite well!!!

I am going to change because of Commodore and their callus attitude toward users of business equipment. They have abandoned their dealers and the owners of their equipment. I cannot use word strong enough to villify the Commodore decision to serve the "Toy Computer" field at the expense of serious users.

Your publication is a fine effort, I only wish that Commodore had the same integrity displayed by their users.

Best of luck.

[Illegible signature, lost envelope.]

P.S. No support translates into no local dealers and no local service. Which finally results in real trouble if you have hardware problems!

### QUANTUM LINK HINTS

By: Robert W. Baker

Quantum Link released a new system diskette with updated features in mid-May. I've been using a beta test version of that software for a few weeks now and must say there definitely is quite a difference.

First of all, the message board menus have been changed. The most natural method of using the message boards is to scan them via headings then display only those messages of interest. This is the top selection of the new menu, making it quite fast to use. Also the message tree is now single threaded so you don't have to go searching for every response to a set of messages.

You now have the capability of searching a message board for a given character string. If everyone remembers to use meaningful message headings, it makes it extremely easy to find all the messages about a certain topic of interest. The older search by date is still available but only after displaying a given message.

The E-Mail functions have been updated as well, so now you can save a message onto disk and print it out later. You can now respond to a message received without having to remember the senders name or id, just press the special function key to initiate the return message.

Other features provided by the new software include improved download times, autoboot for C128 owners, and improved change access menus. Watch E-mail for announcements on other new services as Q-Link continues to expand and improve it's services.

The special interest group (SIG) message boards and their related program libraries have been reorganized recently. Most people like the new format since it makes it easier to find information of specific interest. Others dislike the greater number of message boards.

The download program libraries seem to confuse some people, but just think of them as extended message boards. First scan the headings to find the program of interest and



then display the summary or description by pressing F1. You must display this information in order to be able to get to the download menu.

If you want a copy of the program description, press F3 while the description is displayed. To print any saved program description, you can use the UTILITY program available on Q-Link to display or print the data once you've logged off Q-Link.

If a download program appears interesting, press F7 to get the download menu while the description is displayed. This can be after saving a copy on disk using F3 as mentioned. As a reminder, many of the program descriptions include a remark at the end to use F7 for download. Once you get the download menu, follow the simple prompts and everything should be simple. Just be sure to remove your Q-Link disk and use some other disk to download the program onto.

Many program libraries also contain documentation files that are meant to be downloaded and printed on your system. The descriptions for these files usually indicate the file format and how it should be handled. Some of these files are formatted for using the SPRINT utility. This is the normal utility used for printing saved auditorium archives (which you can also download from Q-Link). The Sprint utility is a simple machine language program, available from Q-Link, that can copy or print a sequential file.

By the way, I now have my own area of Q-Link where you can leave questions, comments, and suggestions on any of my articles or published programs, as well as questions on any general Commodore topic. I usually check the questions every day or two and try to get back with a response the next time on.

I also have a program library area where most of my published programs will be available for downloading. My programs from the Midnite Gazette should be available before each issue is published. My programs in either of Commodore's magazines will have to wait about six weeks after publication before I can make them available on Q-Link, as per my current agreement with Commodore.

Most of my older utilities are currently available on Q-Link as well. You can reach me in the Meet the Press section of the Commodore Information Network (CIN). You'll see my name listed there in the menu and can get to the message board and program library from there.

By the way, Quantum-Link just added a New Products Information area within my section of Meet the Press. I'll be posting press releases and product update information from various companies every few days. Sometime after June, Quantum Link is planning to relocate and expand the New Product Information area as more companies begin to participate and interest grows. We plan to categorize the material to make it easier to find items of interest. Be sure to keep an eye on this section for the latest information.

#### COMPUSERVE HINTS

by James A. Oldfield, Jr.

Many books on using telecommunication systems have been written over the last few years. Some of these can be helpful in learning all the ins and outs of the different areas of the service. It is not my intention to cover the whole service, but rather to give some help in understanding the Commodore brand Special Interest Groups on CompuServe, and to get you around this area quickly and economically.

I've enjoyed using CompuServe off and on for over three years, and I've been quite a bit more involved with CompuServe since January when I became a SYSOP to help Wizard SYSOP Louise Redgers and Betty Knight. CBM does not handle these SIGS, so to talk with Commodore, you will have to 'GO'. So, yes, I'm prejudiced (but I also enjoy the monthly forum on Quantum Link - Thank you to all who stop by and say hello there).

All you need to get started is a computer system, a modem, terminal software, and, of course, a phone line. I normally use a 1670 modem and CompuServe's own VIDTEX software - far and away the best for alot of





SEQUENTIAL DATA FILE SPLITTER

By Robert W. Baker

<u>REM</u>	<u>Print</u>	<u>No Print</u>	<u>Language</u>
a	32	26	Machine language
b	49	37	C Power
c	95	57	COMAL 2.0
d	103	61	COMAL 2.0
e	93	86	KYAN Pascal
f	100	93	Super Pascal
g	136	122	Oxford Pascal
h	165	122	COMAL 0.14
i	195	176	Speedwriter
j	198	178	Super C
k	235	---	Speedwriter
l	246	202	C64 FORTH
m	312	---	HES FORTH
n	328	304	BASIC 7.0 FAST
o	342	330	KYAN PASCAL
p	427	---	Simon's BASIC
q	509	490	BASIC 2.0
r	696	634	BASIC 7.0
s	4503	4467	Commodore LOGO

Wow, another disk utility! Seems like all I've been doing for the past few weeks is writing various disk utilities. Well, this handy program lets you split sequential disk data files into multiple pieces.

When run, the program first takes a few seconds to initialize several arrays that will be used for buffering and decoding data. It then asks for the filename of a desired input file. This file must be a sequential data file (SEQ) and must exist on the disk. If there is any problem opening the file, the error message returned from the disk controller is displayed and the program aborts.

If all is ok, a short menu indicates the available functions: (1) copying and splitting the data, (2) displaying the data, or (3) scanning the file for statistics. Simply enter the number for the desired function. If you enter 'Q' the input file is closed and the program restarts. If no filename is entered when prompted for the input filename, the program terminates.

Starting with the simplest function first, option (3) scans the input file and displays basic statistics about the file. The statistics are updated as the program reads the data from the disk file. The program displays the number of records read, the total size of the file to that point, plus the maximum and average record length in the file. A record is considered any block of data terminated with a RETURN (ASCII 13) character.

You can suspend the data scan at any time by pressing 'S' while the file is being read. A prompt will then indicate you can press 'C' to continue the scan or 'Q' to quit and return to the starting prompt for another input filename. The end of the file will be indicated when it is reached, if allowed to scan to the end. You can then choose to process another input file or terminate the program.

REMARKS:

- a. MOS Technologies.
- b. Proline Software, compiled to ML.
- c. Optimized Using interger counters.
- d. No optimization.
- e. Kyan Advanced, compiled to ML.
- f. Abacus, compiled to p-code.
- g. Precision Software, compiled to p-code.
- h. Integer flag array to conserve memory.
- i. CodeWriter; BASIC compiler used with "speed-up" options.
- j. Abacus, compiled to p-code (?).
- k. BASIC compiled, no special options.
- l. Abacus (interpreted language).
- m. HES (interpreted language).
- n. C128 FAST (2 MHz) BASIC.
- o. KYAN Software, compiled to p-code.
- p. Some Simon's BASIC enhancements, e.g. WHILE - WEND, were used.
- q. Commodore 64 BASIC.
- r. C128 SLOW (1 MHz) BASIC.
- s. Estimated time - LOGO ran out of memory at the 306th prime.

[Note: We do not at present have the source codes for these benchmarks. We will try to collect them from the various sources. If interested, let us know. Ed.]



The next function, (2) can be used to display the contents of a data file. Data records are read into internal buffers that are designed to hold 20 records or about 5K of data at one time. How much data is read depends on the actual record lengths. Each buffer can only hold 254 bytes of information, so long records use multiple buffers.

Before reading data into the internal buffers, you have the option of skipping any number of records in the input file. The default is to skip zero; otherwise enter the number of actual records that should be skipped. The screen will show the records being skipped and you can press 'Q' to quit at any time. After the records are skipped, press 'C' to continue or 'Q' to quit.

The program then proceeds to read the data and fill the internal buffers. Then the data is displayed, along with the size of the file to the start of that screen. A prompt is also displayed at the bottom of the screen that allows you to change the display format, continue with the next screen of data, or terminate the display and restart the program.

The data is first displayed as ASCII text, with the record number, colon, then 32 characters of text. Pressing 'H' will change the display format to hexadecimal, displaying the first 8 bytes of each record in hexadecimal. Pressing 'A' will return to the ASCII display format.

Both of these displays are 'short' formats, only displaying as much of the start of each record as will fit on one screen line. Pressing 'L' will change the current display format to a 'long' form. A long form display will show the entire contents of each record, up to the end of the screen. Pressing 'S' will return the display to the short form.

A long hexadecimal display format will display 8 bytes per line while a long ASCII display format will display 32 bytes per line, both up to the end of the record or the end of the screen. The display format can be changed back and forth however desired. Since the data is buffered, nothing is lost and the same data is

re-displayed when changing formats. Whatever format is selected is kept for subsequent screens.

When continuing to display data, the next screen will start with the record following the last record displayed in the previous screen. If that record was only partially displayed (but smaller than an entire screen), it will be moved to the top of the next screen with the next data following it. There will be a pause between displaying screens as the internal buffers are filled with more data from the input file.

Function (1) is the meat of the program. This is the function that allows you to split a given file into several pieces. You have the option of selecting whether or not you want space compression when copying data to the new file. If selected, multiple spaces are eliminated, leaving only a single space between data. Leading and trailing spaces within the record are deleted. If selected, space compression is used for ALL output files created from that input file.

The program asks for the filename of the desired new output file. The filename entered should not exist on the disk. If it does exist, the program asks if it's ok to scratch the old data file and create a new file with the same name. If it's not ok, the program asks for another name for the output file. If the file does exist and you've instructed the program to scratch it, the file is deleted and the program continues.

Once the desired output file is opened properly, you have the option of skipping any number of records in the input file. The default is to skip zero; otherwise enter the number of actual records that should be skipped. The screen will show the records being skipped and you can press 'Q' to quit at any time. After the records are skipped, press 'C' to continue or 'Q' to quit.

Whether or not records are skipped, the program then checks if you know how many records you want copied to the output file. Entering an asterisk (\*) will copy the rest of the input file. If a specific



number is entered, that number of records will be copied and the screen will indicate the records being copied. You can press 'S' to stop the copy at the end of any record. Once stopped, you can press 'C' to continue the copy or 'Q' to quit. After copying a specific number of records the output file is closed and you can open another output file if desired and not at the end of the input file.

If you don't know how many records of the input file you want to copy, simply enter zero for the number of records to copy. This causes data from the input file to be read into the internal buffers and displayed before it's copied to the output file. This is exactly like the display function (2) except the data is written to the output file as each screen is displayed while stepped through the file.

You can still change display formats between ASCII (A), Hex (H), Short (S) and Long (L). The continue (C) option, in this case, copies all the displayed records and displays the next batch. The input prompt now includes a Split (X) option that allows copying up to a specified record number.

After selecting the split option, enter the record number of the LAST record to be copied to the output file. It must be one of the currently displayed records or one currently in the internal buffers. If an invalid record number or any other invalid input is entered, it's ignored and the prompt is re-displayed. If 'C' is entered, the split function is canceled and the normal input prompt is displayed under the data.

After splitting a file at a specific record, the output file is properly closed and you can continue with the current input file or quit. If you continue, you can enter another output file and the process continues from that point in the input file. If space compression was selected at the start, it's used for all output files. If data is displayed again while copying, the previously selected display format remains in effect.

One final note, any opened output file that does not have data copied to it will contain four bytes of data by default of

the system. Thus, if the program is terminated after specifying an output file, that file will exist and will contain garbage data. Therefore, the file should be deleted before it is misused.

Also, it should go without saying that this program should not be stopped with the RUN/STOP key. This would leave various files open and not all data may be written to the output file. Any disk with improperly closed files should not be used until it is validated, since it may cause corruption of other disk files. Validation of the disk, however, will eliminate any and all open files.

This program can be rather slow, especially if long record lengths are being handled. It can be speeded up considerably by compiling the program for your particular system. Since generic BASIC commands were used throughout, the program should run (as is or compiled) on the C128 and C64 as well as on older PET and CBM systems.

I've tried to test this program as thoroughly as possible but there is always that possibility that something slipped by. I would strongly recommend keeping a copy of any original input files, just in case something happens when creating a new output file.

If entering this program from the printed listings, use care when first trying the program. For convenience, a copy of this program should be available in my program library area of Quantum Link's Meet the Press section of the Commodore Information Network (CIN). If you have any problems or questions with this, or any of my other programs, you can reach me via my question and answer message board on Q-Link.

#### SIMPLE COPY

By Robert W. Baker

Here's a very quick and simple, but extremely handy, program for owners of Commodore systems with single disk drives. How often do you need to copy a short



machine language program, or a short sequential data file from one disk to another? This little program can do it reasonably quickly and painlessly. Now you can easily copy the DOS WEDGE, or any other short ML program, from one disk to another without knowing anything more than the filename of the program.

The Simple Copy program first asks if you want to copy a program file (P=PRG) or sequential data file (S = SEQ). This sets the proper parameter in the open command that is used to actually open the file. The program then asks for the exact filename of the desired file to be copied and opens the file for input (reading). All disk operations assume a single drive disk that is addressed as device 8 and all commands are sent to drive zero.

After successfully opening the specified file, the program proceeds to read the file byte by byte using a GET# command. A GET# command is used to allow reading any kind of data. An INPUT# command would require input strings limited to 80 characters terminated with a carriage return and not containing any special characters like colons, quotes, etc. This allows any kind of file data to be copied.

The data that is read from the input file is saved in successive elements of a large string array (B\$), with up to 254 bytes stored in each string. The program is currently set up to allow copying up to about 32K of data without getting into trouble. This seems like a reasonable limit for C64 systems. C128 owners may want to try enlarging the size of the B\$ array in line 190 and expanding the read loop by changing the 128 limit for X in line 250.

Each disk block of the input file takes about 10 seconds to read and store in memory. Once the entire input file is read, you're instructed to insert the desired output file. After entering a filename for the new output file, the new file is written onto the disk. Writing the new file only takes about a second per disk block, so it goes pretty quick.

After the first copy is written onto disk, you can make as many additional copies as desired. Each copy can be on

whatever disk you like, and each copy can be named independently. There is no limit on the number of copies you can make once the program is in memory.

Any disk errors encountered during reading the input file or writing any of the output files will terminate the program. However, a brief disk error message will be displayed to indicate the error reported by the disk controller.

```
100 rem sequential data file splitter
110 rem by: robert w. baker
120 rem 15 windsor dr, atco, nj 08004
130 :
140 print"[CLR][DOWN] sequential data file splitter[DOWN]"
150 print"this utility allows easily splitting"
160 print"large sequential data files into two or"
170 print"more smaller pieces.[DOWN]"
180 print"it also allows just displaying file"
190 print"data or scanning for file statistics": gosub 2100
200 if cr$<>" " then 240
210 print"setting up...[UP]": dim d$(21),d(21),h$(255): cr$=chr$(13)
220 c$="0123456789abcdef": for x=0 to 15: d$(x)=mid$(c$,x+1,1): next x
230 for x=0 to 15: w=x*16: for y=0 to 15: h$(w+y)=d$(x)+d$(y): next y,x
240 c$="in": gosub 2120: f1$=f$: if f$="." then end
250 close 15: open 15,8,15,"i0": gosub 2300
260 close 5: open 5,8,5,f1$+"s,r": gosub 2300: rn=1:i=0:j=0:k=0:fs=0
270 print"[DOWN]ok, available functions are:[DOWN]"
280 print" 1) copy data and split file"
290 print" 2) display data without copying"
300 print" 3) scan file for statistics[DOWN]"
310 print"which function (q=quit): ";
320 get c$: if c$="" then 320
330 f=val(c$): if c$="q" then print c$: goto 2320
340 on f goto 350,480,1810: goto 320
350 print"[CLR]data is normally copied unchanged but"
360 print"multiple, leading and trailing spaces"
370 print"can be eliminated if desired.": gosub 2100
380 print"space compression wanted";: gosub 2190: sc=0: sc$="without"
390 if c$="y" then sc=1: sc$="with"
400 print"[CLR]data will be copied from": gosub 2040: gosub 2030: gosub 2050
410 gosub 2100: c$="out": gosub 2120: f2$=f$: if f$="." then 1980
420 close 6: open 6,8,6,f2$+"s,w": input#15,en,em$,et,es
```



```
430 if en=0 then 480
440 if en<>63 then 2310
450 print"[DOWN]file all ready exists![DOWN
l": print"ok to delete old file";
460 gosub 2190: if c$="n" then 400
470 print"[DOWN]ok, deleting file...": prin
t#15,"s"+f2$: goto 420
480 sz=0: sp=0: m$="copy": if f=2 then m$="
display"
490 print"[CLR]enter number of records to s
kip in": gosub 2040
500 print"before starting to ";m$;" data":
gosub 2050: gosub 2080
510 input"#records to skip:[RGHT][RGHT][RGH
T][LEFT][LEFT][LEFT]";c$: if c$="0" then 7
30
520 if c$="q" then 1980
530 r=val(c$): if r=0 then 490
540 nr=0: print"[CLR]skipping data in": gos
ub 2040
550 print"[DOWN]      [RVON]press 'q' to qui
t at any time": gosub 2100: print
560 x=1: if j<2 then 630
570 print"[UP]skipping buffered records"
580 sz=sz+len(d$(x)): x=x+1: if x=j or d(x)
=0 then 620
590 if d(x)=d(x-1) then 580
600 nr=nr+1: if nr<r then 580
610 for y=x to j: d(y-x+1)=d(y): d$(y-x+1)=
d$(y): next y: j=j-x+1: goto 630
620 j=1: if k=900 then nr=nr+1
630 print"[UP]number of records skipped..."
;nr: if nr=r then 700
640 if fs>0 then 1950
650 get c$: if c$="q" then 1980
660 gosub 2240
670 if ss=0 then sz=sz+len(b$)
680 if c$<>cr$ then 640
690 nr=nr+1: rn=rn+1: goto 630
700 if j<2 then if fs>0 then 1950
710 gosub 2100: print"specified #records ha
ve been skipped"
720 gosub 2160: if c$="q" then 1980
730 if f=2 then 1110
740 sz=0: print"[CLR]enter number of record
s to copy": gosub 2020
750 print" without displaying data.": gosub
2050: gosub 2100
760 print"if zero (0) is entered, the recor
d data"
770 print"will be displayed before being co
pied,"
780 print"to help find the desired split po
int."
790 print"if an asterics (*) is entered,"
800 print"all remaining records will be cop
ied.": gosub 2080
810 input"#records to copy:[RGHT][RGHT][RGH
T][LEFT][LEFT][LEFT]";c$: if c$="0" then 1
110
820 if c$="*" then r=1e8: goto 850
830 if c$="q" then 1980
840 r=val(c$): if r=0 then 740
850 nr=0: q=1
860 print"[CLR]copying data...": gosub 2020
: gosub 2090: print"[DOWN][DOWN][DOWN]";
870 x=1: if j<2 then b=-1: goto 940
880 print"[UP][UP][UP]copying": print"[DOWN
] buffered records"
```

```
890 gosub 2220: x=x+1: if x=j or d(x)=0 the
n 930
900 if d(x)=d(x-1) then 890
910 nr=nr+1: if nr<r then 890
920 for y=x to j: d(y-x+1)=d(y): d$(y-x+1)=
d$(y): next y: j=j-x+1: goto 940
930 j=1: if k=900 then nr=nr+1
940 print"[UP][UP][UP]#records copied...";n
r
950 print"[DOWN]new file size.....";sz: if
nr=r then 1050
960 if fs>0 then 1950
970 if q=1 then 1000
980 gosub 2100: print"copy suspended,": gos
ub 2160: if c$="q" then 1980
990 q=1: goto 860
1000 if q=1 then get c$: if c$="s" then gos
ub 1090
1010 if fs>0 then 940
1020 gosub 2240: if ss=0 then print#6,b$;:
gosub 2300: sz=sz+len(b$): b=0
1030 if c$<>cr$ then 1000
1040 b=-1: nr=nr+1: rn=rn+1: on q goto 940,
860
1050 if j<2 then if fs>0 then 1950
1060 close 6: gosub 2100: print"specified #
records have been copied,"
1070 print"output file completed.": gosub 2
160: if c$="c" then 400
1080 goto 1980
1090 gosub 2100: print"copy will be stopped
at the end of the"
1100 print"current data record.": q=2: retu
rn
1110 if j=0 then a=1: s=1: j=1
1120 if fs>0 then 1220
1130 print"[CLR][DOWN][DOWN][DOWN]reading d
ata into internal buffers...": b=-1: i=j
1140 d(i)=rn: s$(i)=""
1150 gosub 2240: if ss=0 then d$(i)=d$(i)+b
$: b=0
1160 if fs=0 then 1190
1170 d(i+1)=0: d$(i+1)="" : if d$(i)="" then
d(i)=0
1180 goto 1220
1190 if c$=cr$ then rn=rn+1: b=-1: goto 121
0
1200 if len(d$(i))<253 then 1150
1210 i=i+1: if i<21 then 1140
1220 gosub 2000: if d(1)=0 then 1950
1230 gosub 2110: x=1: l2=0: l1=32: if a=0 t
hen l1=8
1240 z=1: l1=l1: if d(x)=0 then print"*****
* (end of file)": goto 1400
1250 if x=1 then 1290
1260 if d(x)<>d(x-1) then 1290
1270 if s=1 then 1390
1280 print"[7 spc]";: goto 1300
1290 w=d(x): print right$("[6spc]" +str$(w),
6);:;
1300 y=len(d$(x)): if l1>y then l1=y
1310 for k=z to l1: c$=mid$(d$(x),k,1): q=a
sc(c$)
1320 if a=0 then print h$(q);" ";: goto 135
0
1330 if (q and 127)>31 then print c$;: goto
1360
1340 print ".";
1350 if c$=cr$ then k=899
```



```
1360 next k: print: l2=l2+1: if l2=20 then
1400
1370 if (s=1) or (k>=254) then 1390
1380 z=z+11: l1=l1+11: if l1<256 then 1280
1390 x=x+1: if x<21 then 1240
1400 gosub 2110: print"switch to ";: if a=1
then print"hex(h)";
1410 if a=0 then print"ascii(a)";
1420 print" or ";: if s=1 then print"long(l
)";
1430 if s=0 then print"short(s)";
1440 print" display": sp=0
1450 if f=1 then print"quit(q), copy(c) or
split(x) this data";
1460 if f=2 then print"quit(q) or continue(
c) to display data";
1470 get c$: if c$="" then 1470
1480 if c$="q" then 1980
1490 if c$="a" then a=1: goto 1220
1500 if c$="h" then a=0: goto 1220
1510 if c$="s" then s=1: goto 1220
1520 if c$="l" then s=0: goto 1220
1530 if c$<>"c" then 1570
1540 if (s=1) or (k=900) then 1640
1550 if d(1)<>w then w=w-1
1560 goto 1640
1570 if (c$<>"x") or (f=2) then 1470
1580 print"[UP][UP]": print"[39 spc]"
1590 print"[38 spc][UP][UP]"
1600 print"enter record# of last record to
copy":
1610 input"or 'c' to cancel split:[RGHT][RG
HT][RGHT].[LEFT][LEFT][LEFT]";c$: if c$="c"
then 1220
1620 x=val(c$): if x=0 or x<d(1) or x>w the
n 1580
1630 w=x: sp=1
1640 x=1: b=-1: if f=1 then print"[CLR][DOW
N][DOWN][DOWN]copying data from internal bu
ffers..."
1650 gosub 2220: x=x+1: if x>20 then 1710
1660 if d(x)=0 then 1940
1670 if d(x)<=w then 1650
1680 for y=x to 20: d(y-x+1)=d(y): d$(y-x+1
)=d$(y)
1690 w=y: if d(y)=0 then y=90
1700 next y: j=w-x+2: goto 1770
1710 j=1: x=1: d$(1)="" : if k=900 then 1770
1720 if len(d$(1))>252 then gosub 2220: d$(
1)=""
1730 if fs>0 then 1940
1740 gosub 2240: if ss=1 then 1730
1750 d$(x)=d$(x)+b$: b=0: if c$<>cr$ then 1
720
1760 gosub 2220: rn=rn+1
1770 d(j)=-1: if fs>0 then d(j)=0: d$(j)=""
: j=j+1
1780 if sp=0 then 1120
1790 if d(1)=0 then 1940
1800 gosub 2000: goto 1050
1810 rl=0:sz=0:ml=0:al=0:sc=0:rn=0
1820 print"[CLR] scanning file: ";f1$: go
sub 2090: print"[DOWN][DOWN][DOWN][DOWN][DO
WN]"
1830 print"[UP][UP][UP][UP][UP][UP]#records
.....";rn
1840 print"[DOWN]total file size.....";
sz
```

```
1850 print"[DOWN]maximum record length...";
ml
1860 print"average record length...";al;"
"
1870 if fs>0 then 1950
1880 get c$: if c$="s" then 1920
1890 gosub 2240: rl=rl+1: if b$<>cr$ then 1
870
1900 rn=rn+1: sz=sz+rl: al=int(sz/rn): if r
l>ml then ml=rl
1910 rl=0: goto 1830
1920 gosub 2100: print"scanning suspended,"
: gosub 2160: if c$="c" then 1820
1930 goto 1980
1940 gosub 2000
1950 close 5: close 6: gosub 2100
1960 print"end of file!": print"[DOWN]want
to process another file";
1970 gosub 2190: if c$="n" then 2320
1980 close 5: close 6: close 15: goto 140
1990 rem ***** subroutines *****
2000 print"[CLR]";: if f=1 then print"outpu
t ";
2010 print"file size: "sz: return
2020 print" from file: ";f1$: print" to
file: ";f2$
2030 print" ";sc$;" space suppression": re
turn
2040 print" input file: ";f1$: return
2050 print" now at input record#:";
2060 if j<2 then print rn: return
2070 print d(1): return
2080 print"[DOWN]otherwise, enter 'q' to qu
it": goto 2100
2090 print"[DOWN] [RVON]press 's' to st
op at any time"
2100 print: gosub 2110: print: return
2110 print"[38 dashes]": return
2120 print"enter name of desired ";c$;"put
file"
2130 input"[RGHT][RGHT][RGHT].[LEFT][LEFT][
LEFT]";f$: if f$="." then return
2140 c$=left$(f$,2): if c$<>"0:" and c$<>"1
:" then f$="0:"+f$
2150 return
2160 print"[DOWN]press 'c' to continue, 'q'
to quit"
2170 get c$: if c$<>"c" and c$<>"q" then 217
0
2180 return
2190 print" (y/n): ";
2200 get c$: if c$<>"y" and c$<>"n" then 220
0
2210 print c$: return
2220 sz=sz+len(d$(x)): if f=2 then return
2230 print#6,d$(x);: goto 2300
2240 get#5,b$: fs=st: gosub 2300: if b$=""
then b$=chr$(0)
2250 c$=b$: ss=0: if sc=0 then return
2260 if b<0 then if b$=" " then ss=1: retur
n
2270 if b$=" " then b=1: ss=1: return
2280 if b>0 then b=-1: if b$<>cr$ then b$="
"+c$
2290 return
2300 input#15,en,em$,et,es: if en=0 then re
turn
2310 print: print"[RVON]disk error:[RVOF]";
en;" trk/sec:";et;"/";es: print em$
2320 close 5: close 6: close 15
```



```
120 rem          simple copy
140 rem          by: robert w. baker
170 :
180 print"[CLR][DOWN][DOWN]          s i m p
   l e   c o p y[DOWN][DOWN][DOWN]"
190 dim b$(130): close 15: open 15,8,15
200 print"[DOWN][DOWN]copy prg (p) or seq (
s) files: ";
210 get t$: if t$<>"p" and t$<>"s" then 210
220 print t$
230 print spc(11);"[DOWN][DOWN][RVON]insert
   input disk[DOWN][DOWN]": print"input";: go
sub 370
240 open 5,8,5,"0:"+f$+",""+t$+","r": gosub 3
90: print"[DOWN][DOWN]"
250 for x=1 to 128: b$(x)="" : z=x: print"[U
P]block:";x
260 for y=0 to 253: get#5,c$: ss=st
270 if c$="" then c$=chr$(0)
280 b$(x)=b$(x)+c$: if ss=64 then x=200: y=
300
290 next y,x: close 5: if x<200 then print"
[DOWN][DOWN]file too big": end
300 print spc(11);"[DOWN][DOWN][RVON]insert
   output disk[DOWN][DOWN]": print"output";:
gosub 370
310 open 5,8,5,"0:"+f$+",""+t$+","w": gosub 3
90: print"[DOWN][DOWN]"
320 for x=1 to z: print#5,b$(x);: gosub 390
: print"[UP]block:";x: next x
330 close 5: print"[DOWN][DOWN]want to outp
ut another copy (y/n):";
340 get c$: if c$<>"y" and c$<>"n" then 340
350 print c$: if c$="y" then 300
360 goto 410
370 input" filename:[RGHT][RGHT][RGHT].[LEF
T][LEFT][LEFT]";f$: if f$="." then 410
380 close 5: return
390 input#15,en,em$,et,es: if en=0 then ret
urn
400 print"disk error": print en;em$;et;es
410 close 5: close 15
```



## Index of Resources

**Abacus** P.O. Box 7219, Grand Rapids MI 49150  
**Access** #A 2561 S. 1560 West, Woods Cross UT 84087  
**Baker Enterprises** 15 Windsor Dr., Atco NJ 08004  
**Bobco** 2000 Seventh Ave., Suite 111, Santa Cruz, CA 95062  
**Cardco** 300 S Topeka, Wichita KS 67202  
**CBS Software** 1 Fawcett Pl, Greenwich CT 06836  
**Commodore** 1200 Wilson Drive, West Chester PA 19380  
**Compuserve** 5000 Arlington Center Blvd, Columbus OH 43220  
**Digital Solutions** P.O. Box 345, Stn 'A', Willowdale ONT, Canada, M2N 5S9  
**Epyx** 1043 Keil Ct., Sunnyvale CA 94089  
**Firebird** PO Box 49, Ramsey NJ 07446  
**Hayden Books** 10 Mulholland Dr., Hasbrouck Heights NJ 07604  
**HP Books** P.O. Box 5367, Tucson AZ 85703  
**Inca** 1249 Downing St., Imperial Beach CA 92032-0837  
**John Wiley & Sons** 605 Third Ave, New York, NY 10158  
**Magnavox**  
**Michaelsoft** 4821 Harvest Ct., Colorado Springs CO 80917  
**Micro R&D** (MicroWorld) 3333 S. Wadsworth Blvd. #A104, Lakewood CO 80227  
**Microcomscribe** 8982 Stimson Ct., San Diego CA 92129  
**Prism Software** 401 Lake Air Dr. Suite D., Waco TX 76710  
**ProLine** 755 The Queensway East Unit 10, Mississauga, ONT, Canada L4Y 4C5  
**Quantum Link** 8620 Westwood Center Dr., Vienna VA 22180  
**Solid State Software** 1125 Hillside Blvd, Suite 104, Foster City, CA 94404  
**Strategic Simulations** 883 Stierlin Rd., Mountainview CA 94043  
**Sunburst Software** 39 Washington Ave., Pleasantville NY 10570  
**Telarium** 215 First Ave., Cambridge MA 02142  
**Xetec** 3010 Arnold, Salina KS 67401  
**Zenith** 1000 Milwaukee Ave, Glenview IL 60025