

Issue 39

Vol 9, ii

Midnite Software Gazette

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

Includes The PAPER

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Midnite Software Gazette

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

Hello and welcome to the Midnite Software Gazette. Believe it or not, we're going into our NINTH year of continuous service to Commodore users. NOBODY in the Commodore publishing world can match our reputation for honesty, integrity, and our commitment to help the Commodore user.

Being in the Commodore business for so long, I have a large advantage over others in this business. I've seen at least four generations of new Commodore users come and go. From the Commodore PET, on to the VIC-20, to the Commodore 64 and later to the interim C-128 and now on to the Amiga, I've watched how each group of new users get excited, buy their systems, read/write/talk and pursue, become involved with user groups, and later lose interest and fade away into other hobbies. Many owners, I would hope, continue on in the learning curve of life and continue on with smaller/bigger, more sophisticated machines that are always coming to market. Each time Commodore has released a significant new machine, this happens. So when people see me less than ecstatic about a new product or new program they tend to wonder why I'm so negative. I'm really not, it's just that I've been there before. I've felt the excitement of owning my own personal computer, of learning to control it, of the comradery that comes from other users. I still enjoy playing a new game on my C-64, and I still play old favorites on my PETs. My VIC went way to using an X-10 controller and the C-128 and Amiga ended up in our offices here.

But what, you may ask, am I driving at? I'm an old man in a new business. I'd like to say thank you to the users of Commodore computers for their monetary and personal interest in the software, hardware, books and magazines that I've had a hand in contributing to. If you're new to Midnite Software Gazette, ask an 'old man'; he'll tell you what we are.

Jim Oldfield, Jr.

All the rumors that have been going around pertaining to the imminent demise of the relatively new Commodore C128 computer indicate that it will be replaced with a larger version of the same machine. After fielding questions regarding this subject on many bulletin boards as well as some online services, I have decided it looks like time to provide our readers some surprising news.

Commodore is going to radically change the whole face of the computer market by making an abrupt about face. They have decided that, in spite of all appearances to the contrary, the computer market really wants simpler, rather than more complex machines. Consider, for example, the old PET machines that had less than 14 Kbytes of ROM code, including both the Kernal and BASIC. Since then, as Commodore has made bigger machines, the size of the operating systems have grown exponentially! The C128 has 192 K of ROM, and by the time that you get to Workbench on the Amiga, the operating system has grabbed almost 700K of RAM!

All this overhead makes the machines relatively slower, more cumbersome to program, and more prone to bugs. To address this issue, and to fill the niche that everybody else has abandoned, Commodore is going to return to producing and supporting smaller, simpler, eight-bit machines. Most of these machines will feature the original 6502 micro-processors, but there are reported to be some factions within CBM that want to return to even more primitive chips.

All of these new machines will have a minimal, stripped down Kernal, a BASIC dubbed V0.5 with no more than 50 commands, monochrome video only, a simplified keyboard, and no RS232 support or expansion/cartridge port. The screen editor will be simple and line-oriented.

Unnamed sources say that this move is being made to meet demands for simpler, more efficient systems, and to encourage programmers to write fast, memory efficient programs.

Tim Sickbert

Books

The Official GEOS PROGRAMMER'S REFERENCE GUIDE: \$19.95 book by Mike Farr and Berkeley Softworks, from Bantam Publishers. 450 pp.

This product excites me more than any of the software supplements that Berkeley Softworks has released. It opens *GEOS* to the machine language programmer, providing a whole new, very sophisticated operating system within the comfortable confines of the Commodore 64. And *GEOS* is an exciting operating system.

In truth, I received this book only yesterday, and have not had the opportunity to really dig into it, but it appears to provide all the information that a machine language programmer will need to get *GEOS* applications up and running.

The *GEOS Programmer's Reference Guide* seems to be very well conceived, laid out, and written. It provides labels and complete, if succinct, explanations of all the *GEOS* Kernal routines.

As the introduction states, "[The] reference guide assume a knowledge of assembly language programming...." If you do not know, or do not wish to learn, some heavy duty machine language, this book is not for you. If you want to program *GEOS* applications, there is NO substitute and this book is HIGHLY RECOMMENDED. Tim

HOW TO GET THE MOST OUT OF GEOS: \$14.95 book by Jim Oldfield and Tim Sickbert. From Midnite Press/Midnite Software Gazette. Optional disk, \$9.95.

Throw away your *GEOS* manual and get this book, it is much more detailed than what BSW supplies you. The book walks you patiently through the many features of this popular software package for the 64.

One of the nicest things about the book

is that it addresses every main feature of *GEOS* in a tutorial fashion. DeskTop, geoWrite, geoPaint and the desk accessories are discussed in great detail, pointing out many of the strengths and weaknesses of each.

Many times I thought the book was more of a impartial review, but this gets the book points with me. Far too often, the national magazines print articles about *GEOS* that only publicize *GEOS*'s assets and not its liabilities. Oldfield and Sickbert live up to their reputation of printing the truth and not something to satisfy advertisers. Anyone that believes that geoWrite is a true word processor is naive and the authors should be commended for being candid.

One of the biggest assets of the book is the utility programs that come with it. The import text and graphics programs are worth the price of the book and disk combined. I will be using these two files many times in the future and any serious *GEOS* user will do the same.

I did get confused a few times reading the book when geoWrite was printed in the text when the authors were referring to geoPaint. These few typos did little to sway my attention from the book's interesting reading.

I myself am not interested in the technical aspect of *GEOS* and skipped the later section on file structure, memory maps and other subjects. The more advanced programmer and/or hacker should find those areas very useful. My lack of technical background doesn't allow me to give you an educated opinion on this portion of the book.

In closing, *How to get the Most Out of GEOS* is one of many books I will use regularly in the future. Many of the hints and tips included in it have made me a more effective *GEOS* user. This is one book that I would RECOMMEND to all *GEOS* users.
Mike Stout

The Epson Connection: Commodore 64: \$5.00
book by Leigh Edward Zeitz. From Meridyne Publishers. 182pp.

This is part of an extensive series of books devoted to the Epson printers. Some are general in nature - like *Epson Printers for Writers*, *Epson Printers for Accountants* - and some are devoted to specific computers, like this one.

The book provides an overview of the Epson line and dot matrix printing, and covers printer setup, interfacing, control codes, and accessing special features.

The second part covers "Your Computer System at Home", including some simple program listings like a label maker, recipe database, checkwriter, etc. The use of *Print Shop* is discussed in a section on "Getting Better Grades With Your Printer," although the suggestions for spicing up term papers seem a little corny to me. But then I haven't been in high school for a long time! "Your Computer System at Work" covers business writing, spreadsheets and telecomputing.

Three appendixes list ASCII codes, control codes, and Epson printer specifications, but there is no index.

Initially, I thought the book suffered from a bit of padding, but at \$5.00, it is a good value. There may be no established "list" price, because I have seen the same book at another dealer for \$10.00. RECOMMENDED, especially for beginners, even though the Epson documentation that comes with your printer is extremely well done. Jeff Lowenthal

Epson Printers: Tips and Secrets: \$5.00
book by W.H. Darnall & D.B. Corner. From Meridyne Publishers, Inc. 205pp

Another in the massive Epson series, this book is more advanced than the Commodore 64 book, and not computer specific. It covers the customization and use of major applications like *WordStar* and *Multiplan*, and troubleshooting. Some of the appendixes are similar, to but more complete than, the Commodore book, and the

approach is more technical. Like the above book, there is no index, but the table of contents is more detailed.

The cover blurb says "No Epson user should be without this important reference." Well, they would say that, wouldn't they? If you are really into printers, this book may be useful, but for the average C64 or C128 user, the Commodore specific book will be more valuable.

The Epson series of books comprises 26 titles which can be helpful for specific needs, although some, such as the *Epson Guide to Software Law* have little to do with using a printer. If you need more technical information about your Epson printer, this one is RECOMMENDED. Jeff Lowenthal

dBase II for the First-Time User: \$19.95
book by Alan Freedman. From Ashton-Tate.

So, you have somehow obtained a copy of *dBase II*, booted it, and are confronted by a dot. Nothing more. This must be one of the most discouraging moments possible for a new CP/M user anxious to try his hand at this legendary database.

Described by one competitor as "user-vicious," *dBase* still has many adherents. The CP/M version, *dBase II*, is difficult or impossible to find at retail, so chances are you have an old Osborne copy with no official documentation.

Although A-T is not ready to assist you, lots of authors are. *dBase* books seem to be a major publishing industry, and I have looked at most of them. *dBase II for the First-Time User* is the beginner's book that I would first recommend. It covers everything from installation to simple programming, and gives a good foundation from which you can advance to more technical books.

If you wish to use *dBase* only in the "interactive" mode, you may not need another book at all. Every concept is clearly illustrated, often in two colors for clarity. And believe me, you will want all the clarity you can get! Commodore

users accustomed to full screen editing and free form databases will need to readjust to the more restrictive CP/M environment. Nevertheless, I think *dBase* is worth learning, and your efforts will be repaid by feelings of accomplishment and amazement at what *dBase* can do.

I am by no means a seasoned *dBase* user, but I am learning to use the program thanks to books like this one. Compared to the average C64 or C128 program, its power puts it into another league. (Only now are we seeing applications like the Pocket series which use the 17xx RAM expansion. *dBase* users need only specify drive "M" in CP/M to see just how fast a sort can be.) I like *Superbase*, but match searches take a long time as everything on the disk must be read. If *Superbase* supported the 17xx, there might be no point in learning *dBase*. But it doesn't, and *dBase* is a mature, proven product. If you can find it at a bargain price, with the addition of a book or two you will have great power available to you.

If you have been able to cope with CP/M in general, you will be able to learn *dBase* with this book, although you will not soon master it. When you are ready to advance, there are literally dozens of other works available, many of them excellent.

The structure of this book is logical, beginning with an introduction to the concept of the database, continuing through installation and on to creating a database, which is later manipulated to display the power of the program.

The appendixes which explain all the commands and error messages (and you will see error messages!) you will encounter are particularly valuable. No book on *dBase* is cheap, but this one is worth its price and HIGHLY RECOMMENDED. Jeff Lowenthal

EVERYMAN'S DATABASE PRIMER featuring *dBase II*: \$19.95 book by Robert A. Byers. From Ashton-Tate

Current editions of this book say "featuring *dBase II* and *III*." The earlier edition is fine for CP/M users since version *III* is an MS/DOS program, with features not present in the program you can run on your 128.

Everyman's Database makes an excellent tutorial for *dBase* but lacks some of the information contained in *dBase for the First Time User*. This work contains illustrations, but they are not as easy to understand as the two-color screens in the latter book.

While the title suggests this is a book about databases, you won't find anything but *dBase* mentioned - not unusual since it is published by Ashton-Tate, and *dBase* is their product.

Like nearly every other *dBase* book I have seen, it begins with the ubiquitous mailing list program, but this one soon gets into a liquor store inventory and a number of other applications like a video tape rental store system. If these examples cannot be modified to suit your own needs, at least you will have a head start in creating a new program.

The text is low key, and it is easy to see why this book has remained popular since 1982. Also very popular is Adam B. Greene's *dBase II User's Guide* which I find to be worthwhile, but overpriced at \$29.00, especially since it is not typeset. I realize that this does not dilute the information, but a \$30.00 paperback produced on a letter-quality printer with no illustrations is a little pricey. For that matter, all the books on *dBase* are expensive, but some contain a good deal more information.

Returning to this book, it provides a good tutorial, but is less useful for ready reference than the *First Time dBase Users Guide* which is filled with appendixes of the many *dBase* commands and error messages. (A short reference card is included though). You really might do well to buy both books if you plan to get

serious about dBase. As your knowledge and experience increase, there are dozens of other more advanced books to explore. Some don't even make you wade through a mailing list! RECOMMENDED. Jeff Lowenthal

Educational

At last Sunburst has translated one of its most excellent educational programs for the Commodore, the problem solving program, *Puzzle Tanks!* A facet of education that is sorely neglected at all grade levels, and one that computers are terrific at teaching, is critical thinking/problem solving, and Sunburst's programs are the best of the best. Until this one came out, *The Factory* was my favorite, but no longer.

PUZZLE TANKS: \$55 educational package on disk for the C64. From Sunburst Communications. Backup included.

Puzzle Tanks, according to the manual, is for grades 3 through 8, but I find that not only children, but also college student and adult puzzle lovers enjoy it. Its four levels of difficulty span a wide range - the fourth level would challenge Einstein. The task is to fill, empty, or move the contents of tanks in order to get a specific amount of liquid. Suppose, for example, that you had two tanks, one that holds 3 kilos and one that holds 7, and you want 5 kilos. What would you do? (This example is from the highest level of difficulty, so don't feel badly if it takes you a while to solve.) Hint: this one requires 11 moves to complete. [Ed.'s note: I do not have the software, so I may be missing a required move, but I think that I have got this one done in 9 actions.] There is the choice, "Impossible," but it seldom is the right answer. The first two levels include a tank truck in which liquids may be held temporarily, but the top two levels omit

the truck, thus increasing the difficulty. The lower levels also use quarts rather than kilos to make it less confusing for youngsters.

Both the color graphics and the sound are outstanding: the green liquid gurgles through the pipes from tank to tank. Younger children especially are delighted at watching the process.

It is interesting to note that one of the two major individual intelligence tests for children includes a problem of this kind. If you want your child to learn HOW to think, get this program. The added bonus is that *Puzzle Tanks* makes learning delightful fun. Parents will enjoy playing with their children...and even without! HIGHLY RECOMMENDED. Elizabeth A. Kaspar.

[Now, I just wish that we could convince Sunburst to translate their great 3 in 1 "all family" word processor, *Magic Slate*, for Commodore machines. It is the only processor on the market that includes a simple 20 column program for young children; a more sophisticated 40 column one for older children; and a powerful, but user friendly one, for high schoolers and adults. Why not write and tell them you are interested in having it for Commodore. If they thought there was a market, they most likely would decide to produce it. EAK]

CHEMISTRY, Collective Volume: \$49.95 educational program on disk for the C64. Includes *Ions*, *Equations*, and *Molarity*. From Academic Tools.

This fairly standard drill package for chemistry students covers quite a bit of ground. As such, it does what it is supposed to do, but little more. The documentation is scanty, but the program is simple to use. *Chemistry* will not teach chemistry, nor is it an adequate substitute for a good text and good instructor, but it is a big help in rote memorization of ions and ionic compounds, and working with chemical equations. AVERAGE. Tim

Wordprocessors

POCKET WRITER 2 [update 38:9]: \$59.95 word processor on disk for the C64 and C128. From Digital Solutions. Supports one or two disk drives, 17xx RAM expansion units, and joystick or CBM 1351 mouse. Update available to registered users for \$19.95 + \$3 postage.

I have just been using my newly arrived *Pocket Writer 2* to write a few reviews for the Midnite, and I can't resist commenting about a great program made even greater.

Most exciting to an old user is the support for the 17xx RAM expansions. I just saved a file to my 1750 (as drive 2) and it took under one second! *Pocket Writer* also allows the transfer of an entire disk to the RAM expansion with a simple command. This allows you to do all your work while your files are in the ram-disk, and then transfer everything back to your data disk at the end of your session. Other enhancements include the ability to display 50 (80 column) lines at once!

This latter is quite amazing, but not perfect. It is accompanied with an often severe flickering. This can be reduced by selective use of text color, but I have not been able to eliminate it on my Thomson RGB monitor. Purple text on a black background seems ok, but I wouldn't want to view it for a long time. Digital Solutions suggests a choice of low contrast colors, but I haven't tried that yet. I seem to recall reading somewhere that a monochrome monitor with a long persistence phosphor might solve the problem, but have been unable to test that idea. (Well, gee, I just took it out of the box an hour ago!)

There is now a configure file which holds your own choice of default settings, including printer file, margins, and other items which you had to enter every session unless you liked the (permanent) defaults

picked by Digital Solutions. This is a major improvement over the previous version. These defaults can be overridden once you are in the file.

Also new is burst loading with the 1571 drive, and an apparently improved speller program which is called from within the 80 column mode, a welcome change from the previous version which worked only in 40 columns. There is now a word-count function, and many more printers are supported with their own printer files. The C=/d command now gives you complete directories of all drives including the ramdisk, if attached, or you can have a directory of just a specified drive. Another change is automatic word wrap. In the older version, when you inserted text, it would just scroll out to the right until you hit return to format the paragraph. Now it reformats as you type, although this can be defeated if desired.

In short, if you liked Paperback/Pocket Writer before, you will love it now, especially if you have the ram expansion. HIGHLY RECOMMENDED Jeff Lowenthal

BRAINTRUST 128: \$21.95 thought processor and word processor on disk for the C128. By Mark Jordan, from Country Road Software.

This excellent and inexpensive combination idea processor and word processor is one of the best bargains available. The idea processor, *Brainstorm 128*, which loads first, instructs you to brainstorm a list of ideas ignoring any kind of order. In the second phase, you are asked to decide whether pairs of statements from this list are related or not. On the basis of these two simple tasks, a preliminary outline, complete with roman numerals, indentations and alphabetical listings, appears on the screen (or can be printed) in preparation for step three. At this point, you may add subtitles to the sections and then delete, add, and rearrange statements. At any time you choose, you may add a thesis statement at the beginning. Rather complex outlines with

multiple branches can be constructed. The maximum number of ideas is 100. But the user is limited to only nine subheadings, the only drawback I find with *Brainstorm*. but this should not be a major problem for most people. It is much outweighed by the fact that in an amazingly short time, you can have a complete outline, and the process was a painless one!

The word processor, *Brainpower 128*, is user friendly and fairly powerful, enough so to write a term paper or report since it offers many options: headers, footers, linked files, justification, tabs, block moves, search and replace, imbedded formatting commands, etc. You are not limited, of course, to using this processor with an outline prepared with *Brainstorm*, but since the two programs are integrated it can be an advantage.

Both processors have good Help Screens that can be called at any time, but you will need to read the manual before using the programs, *Brainstorm* especially. The manual is clearly written by Jordan, and is perhaps too detailed for anyone who is knowledgeable about word processors. My only recommendations, therefore, would be that he make two additions to the manual: add a diagram - kind of a flow chart - that describes each step in the outlining process; and provide a one page reference chart summarizing the control functions and corresponding keys for both programs. I am going to urge my college students to buy this program for use with all of their papers since it would most likely result in improving the organization of their ideas. [Note: Mark Jordan has just notified me that he is working on an update that will offer more power and more options. I shall be looking forward to seeing it.] HIGHLY RECOMMENDED. Elizabeth A. Kaspar.

Applications

CHECKS AND BALANCES: \$79.95 home finance program on disk for CP/M systems, including the C128 w/ 1571 drive. MBASIC (CP/M disk from MicroSoft) required. Also available for MS-DOS.

This is the best home finance program I have used. While it lacks some of the bells and whistles available on Commodore specific programs, it has more basic, usable functions than any I have tried. Designed for CP/M computers, the Kaypro version seems to run just fine on my 128 and two 1571s. If you have the 17xx ram expansion, you will be able to use it as a ramdisk (drive "M") and benefit by greater speed when producing reports or searching for items.

Like most other CP/M programs, it does not support fancy graphics or color. It does allow you to search for and print out an almost unlimited number of reports concerning your financial dealings ... checks, credit cards, etc. It will print checks as you enter them into the database. Unlike systems which require one specific check format, this program supports check printing on many different standard forms. If none of these meet your needs, you can design your own.

Checks and Balances differs from others I have seen in another way - while you can enter budgets which can then be compared with actual expenditures, you are not forced to. This reduces setup time substantially, and you can be up and running quickly.

Should you want them, more than 50 categories of expense/income may be defined, and any deposit or check can be broken down into subamounts debited to different categories indicated by 4 letter (or number) codes of your choice.

When searching for items, you can search by just about any parameter you

want, including payee, check number or the sub-categories, and combinations, as "show (checks) for November for groceries." Comprehensive reports can be printed from this information, including a generous-sized memo line.

You can even proceed without specifying categories, but you will then be only able to search by date or payee. If you mis-enter a category code, you will receive a warning telling you that the code has not been defined. But you can still enter the item and define the 4 letter code later. This is handy if you come up with a new category. Just enter your items using it, and explain it to the program later.

Because the printing features are pretty much generic, the program should work with just about any printer. Printing brings up one point which may be a little foreign to Commodore users. *Checks and Balances* comes on two Kaypro II format disks and it must be installed for your machine. This means that information about your system must be entered so the correct codes are sent for certain screen and printing features like half intensity letters, reverse, etc. If you fail to include the screen codes, the program will still run, but you must include the printer codes for compressed font so the reports will be properly formatted. (Or indicate that your printer has only 80 cols.) The codes for screen formatting will be found in your large 128 manual at the end of the CP/M section, and the printer codes in its manual.

Checks and Balances will print payee names, addresses and even account numbers on your checks, just the way Visa wants! It will store this information in its Rolodex file, ready when you need it. Additionally, names, addresses, and phone numbers can be entered and will be printed on small continuous Rolodex style cards, 3x5 cards, or labels. (Phone numbers and memos don't appear on the checks.) This list can also be searched with two cross references .

Two balances are shown all the time without a special request. One is your "bank" balance, based on all cleared

items, and the other is your "true" balance, based on all items entered, whether cleared or not.

A double sided disk can hold upwards of 4,000 entries, and you can have as many different checkbooks as you like, subject to space on the disk. CDE suggests you use only one to a disk. They reason that if a disk should fail, you will only have lost that one rather than several sets of accounts. And you should certainly back up your data. (As an aside, I was making my backups one night, and we had a momentary power outage, lasting perhaps a second. Thanking whoever might be responsible for my having completed one before the glitch, I assumed the ramdisk was dumped and held no data. Imagine my surprise to find that it had retained everything! I have been told by another user that the 1750 may even retain its memory for up to several minutes, although I don't want to experiment with data.)

There are even more options - you can keep track of business or charitable auto mileage, entering it just like a check, but with a special code allowing it to coexist with the money data but not be included in financial reports.

While it is advertised as easy to learn, *Checks and Balances* will take some time to explore if you want to use all its features. But once you feel comfortable with it, you will wonder why you tried all those other programs.

I recently called to inquire about updates, and found there is a version 4, which now supports up to 100 categories, provides a simpler way of formatting data disks for a new year, and a C128 version which supports function keys is available on request. A few other niceties, like automatic "tax flags" have been added which should make entry a little faster. I really don't think there's much left to improve! Highly Recommended. Jeff Lowenthal

Telecommunications

BOB'S TERM PRO 128 [update 34:15]: \$79.95 telecommunications program on disk for the C128. From Progressive Peripherals. Dongle protected.

This program is almost everything you said it was. I don't doubt that it is the most sophisticated and powerful terminal for the 128, but it does not support Compuserve "B" protocol for downloads. It does do just about everything else.

What's more, the support from author Bob Lentini is excellent. I received a disk from Progressive Peripherals which refused to boot. Suspecting a faulty dongle, I called Progressive, and they gave me Bob's number. I called him, and he said a lot of disks had gone out with bad boot sectors. But he had a simple solution - call his "Computer Addicts Anonymous" BBS (702-731-3178) and download a short program which would write the correct boot sector to my disk. I did, and it worked perfectly.

Even updates are available on the BBS. This is possible because the program is dongle protected and runs only if you have the key. Version 2.2 which I downloaded, and has faster disk saves than version 2. There is a complete SIG on the BBS devoted to this program, giving you feedback direct from Lentini on problems.

The ability to edit the buffer before saving or transmitting its contents is great, and will save you a lot of paper. Also, as noted in Tim's review, the download to a CP/M disk is very handy, and eliminates all those transfer programs that were previously used when you downloaded using other than a CP/M terminal program. Bell prompts at the end of buffer transfers and the redial feature are nice, too. I have experienced some minor problems getting auto-log on to work with the professional photographer's

Photonet system, but that is probably operator error. Setting up the macros is a bit complicated, so I'll keep at it.

If you are willing to pay for the best, Bob's Term Pro is HIGHLY RECOMMENDED. Jeff Lowenthal

SIXTH SENSE 128: \$49.95 telecommunications packages on disk for the C128. From MicroTechnic Solutions, via Prism Software. DOS protected. 17xx RAM expansion unit optional.

This one DOES support Compuserve's B protocol, and Xmodem. It does not, however, support the Punter protocol which is popular among dedicated CBM bulletin board systems. Its strong points are pre-defined and programmable command keys and VERY extensive macros. The support of the 17xx RAM expansion unit sounds nice, but the buffer is line oriented (rather than character oriented) which cuts down on its effective size. With a line buffer, a single carriage return effectively takes as much space in the buffer as a line with 80 characters. This makes it fill up rather quickly. To make matters worse, the buffer can, and often will, wrap around on itself and erase the first lines after it passes the last line. It does, however, provide a very nice editor for entering and massaging text.

Sixth Sense offers incredibly complete control over most of the computer system, including disk drives, printers, and even the keyboard.

The manual is fairly well written and quite comprehensive, even if some pages in my copy are poorly printed.

Sixth Sense is a program that I would like to recommend, but the standard buffer is limited to 800 lines, almost requiring a 17xx RAM expansion to be very useful for capturing text; and the lack of Punter protocol inhibits its usefulness with many BBSs, I do not know who I could recommend it to. UNLESS you have a 17xx AND Compuserve B protocol is more valuable to you than Punter protocol, Sixth Sense is AVERAGE. Tim

Hardware

Epson FX-85 Printer: \$... dot matrix printer with (standard) Centronics port. From Epson America.

The **FX-85** is a truly well-made product. The documentation is excellent, and you can't get a printer more Epson compatible than the real thing.

The near letter quality is excellent, and service and ribbons are widely available. (Those for some of the newer Star models, in contrast, are available from only one source, and costly.)

The front panel SelectType option is ok, but since most applications support the Epson control codes I don't use it often. Also, it is not possible to select a type style for just a few words at a time. Sometimes, too, if you don't press two buttons exactly simultaneously, you will waste a sheet of paper since one of the buttons is form feed. Although I have only seen it once, the Star models with a more complete set of touch panel controls look more straightforward to use. Their single sheet feed feature is nice too.

When using a program like *Pocket Writer* 2, there seems no simple way to go to draft printing after having selected NLQ through the program (via "llcpi") short of turning the printer off and on again, or major surgery to the printer driver. Also, proportional mode is not available in NLQ.

While there are a number of lower priced printers with similar (or in the case of some Star models, more) features, I looked at many of them, and believe the Epson is better built than most, and worth the additional cost, especially for heavy use. One Star dealer I consulted (who did not carry Epson) also believed this was true.

For those needing a solid, well supported printer, the Epson is HIGHLY RECOMMENDED. Jeff Lowenthal

Thomson CM 36512 IV Monitor: \$279 RGBI, Composite, and separated video color monitor for use primarily with the C128.

When my monochrome monitor gave up the ghost, I looked at a lot of color monitors for the C128. My 1702 had been dedicated to the VCR for a long time, and my kids didn't enjoy games in monochrome, so this seemed a good choice.

In fact, it is one of the few choices left if you want both RGBI and separated luma and chroma inputs for use with the 40 column output of your 128.

The 80 column display is fine, and there is a green screen mode if you prefer that. I find the characters a little sharper that way, but color is useful in some application programs that make use of it, like *Pocket Writer*. Careful adjustment of the brightness and contrast controls is important for the best text display, since too high a brightness level will cause characters to "bloom" and appear less sharp.

You will probably have to readjust brightness and contrast when you switch to 40 columns from 80. In fact, although it's larger, the composite screen looks poor when compared to the RGBI display. Like all the dual mode monitors I have seen, there seems to be a compromise in the composite section. Considering the price, it's not a bad tradeoff.

The screen is not anti-reflection treated, and you may want to use a glare filter under some conditions.

My unit came with a D connector cable, while some units do not. Some dealers sell the unit for less without a cable, but then charge you \$20.00 for this necessary accessory. You will need a regular 8-pin DIN to RCA plug monitor cable to use the 40 column output of your 128, but this is not included.

As with anything as personal as a monitor, you should see it in operation before buying since the text might be fine to my eyes, but not yours. For someone doing only word processing, a monochrome monitor would be sharper and less expensive. If the majority of your work

will be in 80 column mode, RECOMMENDED.
Jeff Lowenthal

Suncom Glaredown 14: \$18.95 antireflection screen for video monitors. From Suncom.

Many monitors have highly reflective CRT faces, and this product is designed to reduce the reflections and glare from windows and lights in your computer area.

Depending upon your environment, this may or may not be a problem for you. I have no doubt that it contributes to eyestrain, and this view is supported by eye care professionals.

Glare screens come in several flavors: polarizers, circular polarizers and mesh screens. The first two are generally quite expensive, while the latter style is more modestly priced. (You can spend \$125.00 for a polarizer.)

With low price comes a compromise. Because these screens are composed of tiny fibers running at 90 degrees to one another, you may see an interference (moire) pattern with some displays. This screen is better than some I have seen, but does degrade the apparent sharpness of text a bit. The result is that I use it when reflections are a serious problem, and remove it when they are not. This is easy, since it is attached with Velcro strips and can be swung out of the way or detached in seconds.

I'd suggest trying it out first to see if the patterns or reduced sharpness bother you. If you need it, RECOMMENDED.
Jeff Lowenthal

Graphics

NEW TECHNOLOGY COLORING BOOK: \$19.95 educational graphics program on disk for the Amiga. From Electronic Arts

This is a very interesting educational tool. The disk comprises of several prepared images representing various objects such as the body, lasers, computers, the universe, and the space shuttle.

Similar to a paint-by-number set, the images are sectioned with numbers representing various colors keyed to functions of the object. The user can either use the default colors or choose his own. The program also provides explanations of the sections of the objects.

Images can be created in *DPAIN'T* and transported to the *COLORING BOOK*. This could be an extremely useful visual aid for primary school teachers. This also seems like an ideal way to introduce very young people to the wonders of the computer. A very interesting and useful program for the younger set. -Art Lewis Kimball

DELUXE PAINT II: \$130 graphics program on disk for the Amiga. By Dan Silva, from Electronic Arts.

The long-awaited sequel to the award-winning *Deluxe Paint* has finally hit the market, and it was well worth waiting for!

Dan Silva, the creator of *Deluxe Paint*, is obviously in love with his work. Not content to rest on his laurels after the tremendous success of *Deluxe Paint*, Dan immediately started working on enhancements and new features.

Among the most impressive new features are Stencil and Fixed Background. With these, the artist can add new paint to an existing picture without disturbing the original, even BEHIND the original! If the results aren't satisfactory, they can be

erased without disturbing the original work.

Three new types of fill tools have been added including Gradient, which allows the filling of shape with multi-colored or solid patterns; and Pattern Fill which allows ANY brush to become a fill tool.

Another very impressive mode is Perspective Mapping and Perspective Fill. With these powerful features one can create a finished product that is truly three-dimensional in effect. Anti-Aliasing, another new feature, cleans up the jagged edges and distortion that result when you rotate or bend a brush in the Perspective Mode.

You can now change screen formats between Hi, Lo, and Medium resolution from WITHIN the program. And the new Interlace Mode provides 32 colors in 320x400 resolution. This gives the artist as many pixels as a medium resolution screen with the performance of a low resolution screen. There is now also the ability to scroll around a 'page' that is actually bigger than the screen. The maximum page size is now 1008x1024 pixels. This allows the artist to switch to lo-resolution mode and edit the 640x400 canvas without the flicker associated with hi-resolution.

A new 150-page, spiral bound manual is included, with tutorials on virtually every aspect of the program. The protected disk (called the 'Key Disk') can be copied, but must be used when the program is first booted.

Owners of *Deluxe Paint* can upgrade to *Deluxe Paint II* for \$37 by sending the cover from their original manual. Owners of unprotected backup disks can receive an unprotected disk by for \$37 by sending in their unprotected disk. Those who have a protected version and want to upgrade and get an unprotected backup can send \$57 and their manual cover.

This program is almost required for any Amiga owner. After spending several hours with this program, I STILL have not magically acquired any artistic ability... but it's a LOT of fun! Very HIGHLY RECOMMENDED! -Art Lewis Kimball

GRAPHICS INTEGRATOR 2: \$24.94 graphics utility program on disk for the C64. From Inkwell Systems.

Since too few graphics package developers have written drivers for the *Flexidraw* lightpen into their programs, Inkwell Systems, the creators of Flexidraw, have come out with a next-best solution which is a boon for all graphics users. *Graphics Integrator 2* is a dynamic format converter that lets you exchange drawings between the major graphics programs and even drop them into several word processors with external file capabilities like *Paperclip* an *GEOS*. Fast and easy, it is compatible with most printers/interfaces and uses either lightpen or keyboard for input so everyone may share the bounty.

With *Graphics Integrator 2* you can bypass the tedious drawing option in *Print Shop*, *Print Master*, and *Newsroom* by quickly and easily converting any high-resolution graphic with no loss of resolution. Reformat in any direction, hi-res to hi-res, hi-res to multicolor, multicolor to hi-res, multicolor to multicolor. Exchange between *Computer Eyes*, *Cadpak 64*, *Billboard Maker*, *Animation Station*, *Koala*, *Doodle*, *Supersketch*, *Blazing Paddles*, and *Flexidraw*. You now have the flexibility to produce a label with a tiny graphic or a poster size printout using the same drawing or video dump.

Graphics Integrator 2 has several program modules including a delightful, self-running Slide Show. It gives you three dissolves - Sparkle, Door, and Shutter - in your choice of random, sequential, or one mode, with the ability to change at any time. It is wonderful for business or teaching presentations. Using the Picture Printer program, you convert to *Flexidraw*, then choose between two print sizes and several page placements (even side-by-side with some printers). You may also load in several color printer drivers.

Right-brain types who neglect to read the manual may suffer needlessly. This manual is well organized and explains complicated concepts with clear illustra-

tions of all screens and procedures.

It's the nature of the beast for some color changes or loss to occur in converting color graphics from multi-color to hi-res, and hi-res to graphic. When changing hi-res or graphic to multi-color, horizontal lines will thicken. Hi-res pictures taken to graphics will appear elongated, and when put into *GEOS* will be compressed.

These changes are unavoidable, but there are a few things in *Graphics Integrator 2* I would alter. I would like to see more escapes back to the menu, access to data disk directories with the block size, plus disk formatting, from all program modules. The program disk directory cycles endlessly and can cause a crash if not removed when some data disk directories are requested. In the Slide Show program, if the properly formatted files are not available on the data disk, the program appears to crash but can be retrieved by dancing on the <RETURN> key.

Still, *Graphics Integrator 2* is the best all round graphics conversion program I've seen. It really pushes the boundaries of those precious 64K. HIGHLY RECOMMENDED. Sue Albert.

DELUXE VIDEO: \$. . graphics animation system on 3 disks, from Electronic Arts. Standard package is key disk protected.

Have you ever gone on a date with someone good looking, with a reasonably nice personality, and with whom you shared interests, only to find out you didn't get along together as well as you'd hoped? That's how I felt about *Deluxe Video*. *Deluxe Video* is a group of programs to help you create animations. It includes a copy protected "maker" disk, a "player" disk, and a "parts and utilities" disk. The maker is used to construct the videos. The player can only play them back. Among other things, the parts & utilities disk contains a program to help make cell animations.

Using the mouse, you can create your own scripts describing the background,

foreground, and what gets moved around and when. For example, the tutorial has you create a scene in which a shuttle takes off from its launch pad. First you load the launch pad as background. Then you load the shuttle as foreground, place it on the pad, and tell *Deluxe Video* where you want it to go and when it should get there. Then you synchronize the sounds to the lift off. Finally, you add credits and a musical soundtrack. Except for entering filenames or text, everything is done by the mouse. There must be about a zillion options, such as rotating text, fading in and out, and color cycling. If I tried to describe all the options, I'd take up as much space as the 90+ page manual. And if you send in your registration card you'll receive another 40+ pages called *Deluxe Videos Advanced User's Guide*.

I'd suggest you learn *Deluxe Video* by following along and trying the examples as they are presented. I read the manual before booting the program and didn't get much out of it. After spending a couple of hours going through the tutorial, things began to make sense. *Deluxe Video* is a complex program. But then, animation is a complex subject. Computers still don't do it as well as Disney used to. While it's complex, *Deluxe Video* is about as easy to use as it could be and still be useful. If you spend the time with the tutorials, you'll catch on. While *Deluxe Video* uses IFF format, it does have restrictions about its inputs. Pictures can only have 8 colors, for example. If you plan ahead, *Deluxe Paint* or *Deluxe Music* can be incorporated.

One thing I liked is that it works if an MC68010 is installed. It would therefore probably work for someone with a Turbo Amiga option. The manual also mentions that *Deluxe Video* can take advantage of memory beyond 512Kb.

Now for some things I didn't like. Electronic Arts is (in)famous for its copy protection. Some *Deluxe Paint* users found out the hard way that they were not supposed to write on the master disk. *Deluxe Video* has a slightly less loathsome copy protection scheme referred to as key

disk protection. You are encouraged to make copies of the maker disk. However, every time you start up your copy, you are instructed to temporarily insert the original so you can be validated. While this saves on wear and tear, the original still has to be available, and vulnerable. Electronic Arts calls *Deluxe Video* a productivity "tool" that can be used in professional applications. To me, any copy protected program is a toy. I would never bet a deadline, much less the company, on a single disk that HAD to always work. On the other hand, for another \$20 and a promise not to cheat, they will sell you a non-copy protected version.

The reference card for *Deluxe Video* says to use a V1.1 Kickstart disk. I tried to use a 1.2gamma Kickstart and was about an hour into the tutorial before my Amiga crashed. I think it had something to do with playing sounds. Sometime later, after I began using the V1.1 Kickstart, I ran into another scary situation. I had made a mistake during the tutorial and had started out on my own to patch things up. At one point, I had an extra effect object (a box used to describe an action) and tried to cut it out using the cut option from one of the menus. It ignored me. Cut was NOT ghosted out. At this point, I began to get nervous and decided to save my work. Unfortunately, the "Save as..." option also ignored me. Did I panic? Did I lose my cool? Of course I did! However, with nothing left to do but go on, on I went. A few minutes later, I was able to save to disk and even cut out the extra effect. I have not been able to reproduce the problem.

I have been interested in computer animation for a long time, and was really looking forward to *Deluxe Video*. Some of its quirks, like redrawing the screen EVERY time the left mouse button was pressed, began to irk me. Somehow, I just didn't enjoy the experience as much as I had planned. For me, *Deluxe Video* is a program that I'll probably learn to be friends with, but I doubt we'll ever be lovers. [RECOMMENDED?] Harold Ravlin.

Music

DELUXE MUSIC CONSTRUCTION SET \$99.95 music performance/composition program on disk for the Amiga. From Electronic Arts.

Deluxe Music provides users with complete input, editing, and notation utilities for easy and fast composing. Whole rests and notes to 32nd rests and notes, triplets, quintuplets, dotted notes, and accidentals are all available. You can use the Note Palette to move notes onto the staff or play them on the keyboard. A cut-and-paste feature allows you to move whole measures or individual notes. Lyrics can be added to the composition in variety of type styles and sizes.

A wide range of instruments can be combined and changed in mid-composition in any sequence you wish. Transposition up or down can be accomplished with a click of the mouse button.

Once the music is composed, it can be played in its entirety or by measure, with complete control of tempo from 1 to 240 beats per minute. With a sequencer and MIDI controller, you can output to any of 16 MIDI channels, or channel a MIDI keyboard performance into *Deluxe Music*.

One of the nicest features is its compatibility with other DELUXE products. *INSTANT MUSIC* can be used to create a piece of music and then run with *DELUXE MUSIC*. *DELUXE MUSIC* compositions can also be used to create soundtracks that will run in *Deluxe Paint II*. Recommended. -Art Lewis Kimball

Utilities

The CRADOC CAPTIONWRITER: \$89.95 slide labelling system on disk for CP/M computers, including the C128 w/ 1571. Includes 1000 labels. *MBASIC* (CP/M disk from MicroSoft) required.

The *Cradoc Captionwriter* is a specialized application, most useful to professional photographers or amateurs with very large collections of 35mm or other transparencies.

Developed by Cradoc Bagshaw, a well known photographer, the system is designed to print on very small labels which are applied to the front of a 35mm slide mount and wrap around the edge to the back side. This allows six lines of compressed type to be printed, 3 on each side of the mount.

The first line is a copyright notice, entered once by you into the program and stored for future use. The second line may contain "Model Release," "NO Model Release," "All Rights Reserved" or nothing at all.

You define the first 23 characters of line three, which are followed by a slash and then (if you desire) sequential numbering, starting with any number.

On the right side (which is folded to the back of the slide) you are allowed up to three lines, totalling a 81 characters, and each line may be edited individually.

Installation is simple, consisting mainly of placing the *Captionwriter* on a working disk with your CP/M system and *MBASIC*. (*MBASIC* was bundled with many computers and may be available at low prices in the CP/M formats.) After providing information about your printer, you are ready to go. You may store several copyright messages, choosing the correct one each time you print.

The program is menu driven and includes a method for testing label alignment in

the printer. This is critical since the labels are so small they leave little margin for error. Once set up, you merely define your caption, indicate whether you want them numbered, and the number to print. and tell the program how many labels you wish to print, and whether to number them. If you don't wish to print immediately, you can store your label information to be printed later.

These labels might also be used on file folders or other items like tape cassettes. If you have ever tried to hand write or rubber stamp hundreds of slides, you will appreciate the usefulness of this program. While it's true that you could perform some of these functions with a word processor, the sequential numbering would be hard to implement.

If you own a 128 and have access to *MBASIC*, this program can save you a lot of time. I have found that the 3 1/2 x 7/16 labels are available locally for much less than Cradoc sells them (10,000 for \$55.00 + \$6.00 shipping).

For the photographer with a 128, this is about the only choice available to you. IBM owners may choose from several programs, including one at \$150.00 which also provides a database system in addition to labels. This is ideal, since you only have to enter the data once. Viewed in that light, the *Captionwriter* is a bit overpriced, but the only game in town. For those needing its special features, RECOMMENDED. Jeff Lowenthal

ASTRONOMY SOFTWARE FOR HOBBYISTS: \$variable, individual programs and collections. From Science Software

Science Software is a small company owned and operated by David Eagle. He writes programs catering to serious astronomy or model rocket hobbyists. Software is available on tape or disk, ranging from \$4.95 for a single program up to \$19.95 for a disk (or tape) full of assorted programs. Each collection also includes public domain programs on the related subject.

Most of the software is compiled and uses high resolution graphics. Science Software graphic programs will support the following printers: Epson, Gemini, Okidata, Commodore 1525, 1525e, 1526, MPS-801, MPS-802, Prowriter, Siemens PT-88, and Okimate 10 color or b/w. In addition, they are compatible with Cardco ?/A, ?/+G, ECX C6401, MicroWorld MW-302 and MSD CPI. The user can specify a device number and secondary address, and ASCII conversion for other printer interfaces. This brings up the possibility of maybe even working with the CBM color plotter. Write and ask if you have a different set-up. In our testing, we used a Gemini 10x with a Cardco ?/A and everything printed out extremely well. Two sizes are offered: the small size took about 95 seconds, while the larger size took 265 seconds. Data screens can also be printed, but at the same speeds. Of course, using a printer is optional - all graphics are displayed on the screen. Tape users should specify the model of their printer when ordering; disk users select from a menu.

With a selection of programs designed to "display the phase of the selected planet" or for "visual tracking and observations of earth satellites," it seems unlikely that they will have a large audience. But for those interested, they do their job adequately. [RECOMMENDED?] Neil Phillips.

EVELYN WOOD DYNAMIC READER: \$.. speed reading tutorial on disk from Timeworks.

Every been tired of having to read something in too little time? In this information age, we should be reading more and more, but most of us still crawl along at about 300 words per minute. *Evelyn Woods Dynamic Reader* aims to improve that. "Reading Dynamics is not a skimming or 'key word' association technique. It is a ... reading concept that registers every word, every idea, every shade of meaning in written material at a highly accelerated speed. You will use more of your mental capacity and learn to concentrate.

Your mind won't wander while you read." So claims the manual's introduction. The basic theory is to use one's hand as a pacer and avoid speaking each word to yourself mentally or reading one word at a time (instead a group of words).

The package includes a double-sided disk, 119 page manual, booklet of 20 readings, and a ruler. The manual is well laid out and easy to read, with a section on troubleshooting and a detailed table of contents. The program is also easy. Pull-down menus are used to access *Function, Skills, Drills, Reading,* and *Exit.*

Functions allow you to initialize a data disk and open a data file. Though *Dynamic Reader* can be used by many, each must have his or her own data disk. Simply open a data file with your name and insert that disk. General information is a listing of starting, last, best, and goal statistics. Progress Report may be in the form of a detailed chart or graph showing speed and comprehension. All screens may be printed out.

Skills work with characters, words, and phrases. You must match up the item with the correct one from the list as quickly as possible. Each skill builder has ten lists. There is also an eye exercises option where you follow a dot across the screen at a desired reading rate. I found this quite useless, and would suggest concentrating on reading skills instead.

There are three different types of drills. The push-down drill pushes you to read a fixed amount of material in less time; push-up drill to read more material in less time; power drill helps increase your comprehension level while increasing reading speed. Reading material is of your own choice, after which you must enter the number of words per line and the number of lines per inch (hence the ruler). To judge comprehension, you are given five statements (eg. "I did not lose the thread of the story.") to which you must either agree or disagree on a level on one to ten. Not too accurate, but you must try to honestly evaluate yourself.

Reading can be either on- or off-computer. Ten readings are stored on disk,

ten in the supplied booklet. After each reading you will be asked ten multiple choice questions to rate your comprehension - a more accurate method than the drills. Even though there are two quizzes per reading, I doubt that you could use one twice as you would remember some of the details anyway and could simply skim through the second time. Thus it would give great results, but not "true." Reading from your own material is handled the same way as drills. To exit the system it is suggested you use that option - simply turning off your computer could lose data.

Don't plan on getting quick results with *Dynamic Reader* - a period of six to eight weeks is recommended. *Dynamic Reader* won't give you the desire to read faster, and it's up to you to work at it. If you do not have faith in the system, then don't even bother attempting it. But if you honestly wish to improve your reading habits, Evelyn Wood's method can be a great help. Timeworks has a toll-free customer support hotline for those who require help. [RECOMMENDED?] Neil Phillips.

Reference

LEROY'S CHEATSHEET 128 Products: \$2.95 to \$... keyboard overlays for the C128. From Cheatsheet Products.

The pre-printed C128 Cheatsheets are all very nice laminated cardboard, with small black type against a light grey surface. They are 17" long by about 10.25" deep. The depth requires the use of the *Keyboard Extender* or an adequate substitute to prop up the part of the sheet that extends beyond the peak of the keyboard. The sheets have good perforations (much better than the perforations on the C64 Cheatsheets) for punch-out areas for they keys, and are scored to allow folding between the main

keys and the top row of function (ESC...F7). The type is small, but clear.

Keyboard Extender \$2.95. This piece of scored and perforated cardboard is a rip-off. It does have a bit of printing on it, telling you how to go into the C128's various modes - but it does not even do a very good job of that. I can understand the need to charge something for a cheap piece of stiff paper, but \$2.95 is ridiculous. Unfortunately, this *Keyboard Extender*, or a homemade substitute, is necessary to use the regular cheatsheets. NOT RECOMMENDED. Tim

BASIC 7.0: \$.. This one is packed full of useful information, with over 160 entries divided into about 14 main sections on the main sheet, plus more than 30 entries in 4 sections on the front and back of the main pop-out. Entries range from simple definitions of operators to full explanations of all parameters for graphic and sound commands. The sheet gives the uppercase/graphic abbreviations for BASIC commands, with the appropriate <SHIFT>ed character in parentheses. I have not checked every command for accuracy, and have noticed only one error which it perpetuates from the *C128 User's Guide* - 'ESC C' does not cancel quote mode. It does not document all commands, most notably the BEGIN/BEND options for loops, and the ML monitor is completely ignored. Still, it is very nearly complete and very handy for checking syntax and optional parameters. HIGHLY RECOMMENDED. Tim.

FOR THE BEGINNER \$... This sheet is similar to, but less complete and more explicit than, the *BASIC 7.0* Cheatsheet. It might be very helpful to the absolute novice, but as a user becomes more familiar with the machine, it will become pretty useless. It might be useful in a school, where there are many new users, but it is much too expensive to justify for a single user. It, too, perpetuates the 'ESC C' sequence to cancel quote mode, and it shows the syntax for the dangerous 'SAVE"@:' command. NOT RECOMMENDED. Tim

Accessories

DE-SOLV-IT: \$4.95 (2 - 16 oz.) multi-use solvent and cleaner.

Ok, admit it. You knew you weren't supposed to try to save a few labels by backing them out of the printer, but you did it anyway. And now you have a label or two stuck to the platen or one of its associated parts, and you can't get them loose.

Your salvation has arrived in De-Solv-It. I managed to get a label jammed in my Epson, and, despite arduous work with a Swiss army knife, I couldn't get a few last pieces out. Leaving them there didn't affect tractor feed, but friction feed resulted in skewed or creased paper. I decided to try De-Solv-It. I applied it with a Q-Tip, and it instantly dissolved the adhesive, so the label's remnants came right off.

On another occasion I used it to remove some ink stains from the plastic surface of my C-128. Although they had resisted all kinds of detergents, a few moments of De-Solve-It treatment and they were gone.

It can also be used to remove those pesky price labels from metal objects, and is claimed to remove "oil, tar, grease and chewing gum." \$4.95 saved me a trip to the repair center, so I think it's a good investment. HIGHLY RECOMMENDED and especially handy if you have young children who like to "experiment." Jeff Lowenthal

Games

MOEBIUS: \$39.95 fantasy role-playing game on disk for the C64. From Origin Systems.

MOEBIUS is the first attempt I have seen to combine the action of an arcade game with the strategy of a good adventure that really works. MOEBIUS is a spirit (who just happens to look a little like Caine). He will start you off on your mission to free his realm from an evil disciple who has stolen the sacred Orb of Celestial Harmony. He will also tutor you in the use of magic and the martial arts.

You have four different playfields to explore...Earth, Water, Air and Fire. On each level you must free two monks. You'll have to battle evil monks, assassins, guards, and a variety of beasts and magic creatures. Most of the game takes place on a full screen scrolling landscape in which the benign personalities you confront and interact with are depicted as faces. You can converse with them via a series of menu selections.

In combat mode, the screen switches to a full profile of the two combatants. Action again is confined to the keyboard and you chose your tactics from a menu of options. As with other games of the genre, you are awarded hit points and experience points. Hit points can be restored by magic elixers or resting...and from time to time MOEBIUS will appear and award you extra hit points for good service. You are initially allowed four deaths before you must start over, but with each successful rescue you gain extra lives.

You must pay attention to your earthly as well as your spiritual needs. The search for food and water is a constant requirement, as you can carry only a small amount of each. As your experience increases, you also grow more powerful in the magic arts and grateful monks will sometimes reward you with magic objects.

Unfortunately...the use of each magic object must be 'divined' by use of a somewhat boring arcade sequence.

There is extensive character interaction and some townspeople can be extremely helpful if you know the right thing to say. There is an extensive training section available before you set out. Graphics are well done and the mixture of adventure and arcade action is handled better than I've seen it done before. An interesting game. [RECOMMENDED?] -Art Lewis Kimball

DEFENDER OF THE CROWN: \$49.95 graphic strategy game on disk for the Amiga. From Master Designer Software. Distributed by Mindscape Inc.

Somebody has FINALLY taken advantage of the powerful graphics of the Amiga!

This is the first release in the Cinemaware series of interactive movies from Master Designer Software. From the opening title to the conclusion, everything is high resolution and it is easy to forget you are sitting in front of a computer. If you shut off all the lights, it's almost like being in a movie theatre.

The setting is England in 1149, the midst of the conflict between Normans and Saxons. The Saxon King has been killed, and each side is blaming the other. Your duty, as a Saxon knight, is to keep the crown from falling into the hands of the Normans. You can do this only by conquering all of the Norman lands. All the traditional types of battle are available... Jousting, attacking, storming castles, sword fighting, etc. Robin Hood is also available to give you advice.

This is no simple, shoot-em-up. You must use quite a bit of strategy in this game. You have to build an army, buy weapons, make decisions as to whether you want to storm a castle or go seek conquest with an army or hold a jousting tournament. With each conquest, whether in full battle or personal combat, you can win fame and land. The more land you have, the more 'tribute' you will be paid and the

more money you'll have for further action.

A map is constantly available (and constantly changing as the battles progress) informing you of which land belongs to whom. Once you have beaten back all the Normans, and put your own castle in each of the lands available, the Crown is safe and you have won the game.

A description doing full justice to the graphics in this game would take two or three full pages. They are superb. The jousting tournaments start out with an aerial view of the tournament field as the combatants head for their respective positions. When they arrive, the perspective quickly changes, and you are charging down the tilting lanes at full speed with another knight coming at you! All action is controlled with a mouse and most of it is fairly easy to master.

The dueling sequences when storming a castle are so detailed that it is quite easy to forget you have to control the fighters and just sit back and watch the action! The catapult sequences, when you are trying to knock down a castle wall must be seen to be appreciated!

Although the game itself is not particularly sophisticated, it is quite enjoyable and the graphics alone will give you hours of enjoyment. When prizes are given for 1986 Software, **DEFENDERS OF THE CROWN** will no doubt be right up there in front. HIGHLY RECOMMENDED. -Art Lewis Kimball

PORTAL: \$39.95 strategy/adventure game on disk for the C64. From Activision.

You have just returned to earth from an aborted 100-year voyage in space. You've always been something of a loner...but this is RIDICULOUS! As far as you can tell, you are the ONLY living creature on earth! You haven't a CLUE as to what happened to everybody...and your only hope is 'Worldnet'.

Worldnet is a VERY sophisticated computer. Contained in its 12 databases is everything that ever happened. The problem is that some of the information is buried and you have to figure out how to retrieve

it. The computer is also not really sure what's important and what isn't. You'll have to do a LOT of detective work to coax the proper and useful information out of the computer. Once you get on the right track...you MIGHT be able to figure out where all the people went.

All the action is controlled by icons. Instructions as to where to start and what to look for are rather sketchy...which can be a little frustrating...but that appears to be part of the plan. Similar to *HACKER*, part of the puzzle is figuring out what you are supposed to do.

This is definitely NOT a game for those who like fast action arcade games. You will spend MANY hours sitting in front of your screen staring at it and wondering which path to take next... what you can do to coax another tiny little piece of information out of the computer. RECOMMENDED for those who enjoy a complicated puzzle. -Art Lewis Kimball

MAKE YOUR OWN MURDER PARTY: \$39.95 strategy/multiplayer party game on disk for the C64. From Electronic Arts.

MAKE YOUR OWN MURDER PARTY is a computer game with a difference. It's NOT a computer game! It's a PEOPLE game (Gee...people, interacting with other live people...what a strange concept!).

For the past few years there has been a growing interest in Murder Parties. No...this is not where you gather all your enemies and kill them off...it's a sort of stage-play for amateurs. You set up a scenario, gather a group of people together for a party and then one of the guests is 'killed'. The rest of the guests are all suspects and you spend the rest of the evening...or weekend...trying to figure out who is the killer.

MAKE YOUR OWN MURDER PARTY is the first program to take advantage of this interest. Actually, the computer is a tool to customize the characters and print the materials necessary to stage the party.

It's a very interesting concept...and Electronic Arts has none a very nice job

in putting this package together. Virtually everything you need is contained in the program.

You can chose one of two scenarios included on the disk. (EA promises that more are on the way!). 'The Big Kill' is set during a reunion of old college chums. During the festivities Jeremy Summers, one of the greatest film stars ever created, is found dead. In 'Empire', the matriarch of the rich and powerful Hips family has died of an overdose of prescription drugs. Suicide or murder? This family is very reminiscent of the Ewings...only nastier!

The program is extremely user-friendly. Almost everything is done by use of menus. You first read about the murder you're going to use, then you plan your party. The program will customize the characters to fit your guests, and then provide you with personalized invitations and envelopes; personalized profiles for each character; a confidential profile page for each guest revealing some of their characters' most intimate secrets; a clue book for each guest; a log sheet for keeping track of all clues; and verdict sheets on which each guest can indicate his or her guess as to the murderer and also vote for the Best Actor, Best Actress, and Best Costume.

Once all this is printed out, the computer is no longer needed - all you have to do is send out the invitations and get ready to have fun!

The instruction manual is VERY informative and includes hints on how the guests should dress for each scenario, where you should hide the clues, and even has a suggested menu with recipes for food that will be in keeping with the party you are planning.

This is an EXTREMELY innovative and interesting program. The market is probably somewhat limited right now, but since this software makes the planning of a murder party so EASY maybe it will create a whole new generation of people who actually TALK to people!

A BIG round of applause to Electronic Arts for being innovative! [RECOMMENDED?]
-Art Lewis Kimball

ACTION BIKER: \$6.99 game on disk for the C64 from Mastertronic. One player, joystick or keyboard controlled, unprotected.

This game features an excellent title screen and fair game graphics. The game screen is a four way scrolling city. You must steer your action biker through the city and overcome obstacles such as the lake, fairground, and construction sites. You must pick up forty items that will help you overcome the obstacles and get you to the final drag race at the end. This game is an excellent investment for anyone who likes fast game action without the price. HIGHLY RECOMMENDED. Tony a. Tompkins.

BALL BLAZERS: \$32.97 game on disk for the C64. From Epyx, one or two players, DOS protected. 90 day limited warranty.

This fast action, 3-D game was designed by Lucasfilm Games. The basis for this game is a type of spaceage soccer. The object is to attach the bouncing ball to the front of your Rotofoil spacecraft and force it through your opponent's goal. Sounds fairly easy, but sometimes this simple task turns into a real dogfight. If you are a good shot and can hit the goal from a distance you receive more points, the only thing is the goal is constantly moving across the game field. The game has split screens to make it more realistic. The player with the most points at the end of the timed competition wins. Average playing time is about 30 minutes per game. NOT RECOMMENDED. Tony A. Tompkins.

KENNEDY APPROACH: \$17 game on disk for the C64. By Any Hollis, from MicroProse, one player, joystick controlled. DOS protected. 90 day limited warranty.

This is an excellent simulation of an air traffic controller. Five scenarios are available for you to choose from: Atlanta, Denver, Dallas-Fort Worth, Washington

D.C., and New York. The game uses a real time system. Displayed during game play is terrain, airports, plane location, thunderstorms, altitude, and direction for all flights, and shows flight plans for all aircraft. The game screen is a 20x20 square grid. As you enter commands for each plane you hear the computer "radio" your commands to the aircraft and the pilot's response. The game has very good speech simulation. You must keep the aircraft separated by the specified distances & altitudes. You must also prevent delays in takeoffs and landings. Average playing time is 30 minutes to 1 hour per game. AVERAGE. Tony A. Tompkins.

ADVENTURE CONSTRUCTION SET: \$26 game on disk for the C64. By Stuart Smith, from Electronic Arts, one to four players. DOS protected. 90 day limited warranty.

The difficulty level is for the intermediate. You can play adventures already made or create your own. Full map is a 40x40 square, the screen displays 10x15 sections at a time. The game includes a 44 page manual that shows you how to create sophisticated and elaborate adventures of your own. Each adventure may contain up to 500 different creatures, 15 map regions with 16 rooms, and 300 objects per region. You can also have up to 355 text messages. The game contains three construction sets: a fantasy, a spy mystery, and a science fiction set. Each set contains graphics, music, sound effects, objects, special effects, and assorted creatures. You can custom build new adventures or set up a basic outline and let the computer build the rest for you. An excellent investment, but I have one complaint. To build a large and complex adventure it can take up more than an hour, but it's worth the wait. Average playing time per game is 30 hours, but the game does have a save option. RECOMMENDED. Tony A. Tompkins.

MAIL ORDER MONSTERS: \$12 game on disk for the C64. By Paul Reiche, III, and Evan & Nancy Robinson, from Electronic Arts, one or two players, joystick controlled. DOS protected. 90 day limited warranty.

The game allows you to design and use your very own custom created creature. The game features a tactical and strategic map. Combat action is shown on the tactical map. Each creature you create is rated for armor, muscle, speed, mind, and life. You can also purchase 11 extras, such as extra movement abilities, means of attack, defense, etc. Includes a full range of weapons, such as lasers, autorifles, flamethrowers, swords, missiles, and bombs. You can also buy other useful items in the sundries section. You have the choice of several terrain types for your contests. Average playing time is 30 minutes to 1 hour. NOT RECOMMENDED. Tony A. Tompkins.

F-15 STRIKE EAGLE: \$23 game on disk for the C64. By Sid Meier and Bill Stealey, from MicroProse, one to four players, joystick controlled. DOS protected. 90 day limited warranty.

This 3-D air combat simulation features the most advanced USAF fighter plane. The screen displays 3-D graphics, radar, ground target map, weapons display, and more, in real time. You can see enemy planes, terrain, and ground targets that are of prime importance. Secondary targets such as airfields and SAM sights may be attacked to pick up extra points. You also get points for knocking down enemy planes. The game includes Heads up display, radar, ground tracking target display, surface to air missile launch indicators, and much more. Your plane is armed with bombs, air-to-air missiles, and 20mm multi-barrel cannon. You also have ECM defenses, afterburners, flares, and full aerobatic capabilities. Your enemies have fighter aircraft, air-to-air missiles, and surface-to-air missiles. The game features 4 skill levels with missions for the Middle East and Southeast Asia. Average

playing time is 30 minutes to 3 hours per game. RECOMMENDED. Tony A. Tompkins.

TACTICAL ARMOR COMMAND: \$27.95 game on disk for the C64. By Ralph H. Bosson, from Avalon Hill, one or two players, joystick required. DOS protected. 90 day limited warranty.

This game of tactical armor combat in World War II features individual tanks, assault guns, anti-tank guns, and infantry squads. You get 30 seconds a turn. The map represents 2000x1800 meters. The multiple screen display shows units, terrain, smoke, minefields, strategic map, and much more. The game includes meeting engagements, static defense, rear guard, breakout, and stalemate. You can choose combat vehicles from England, Germany, USA, and Russia, over 40 different armored vehicles in all. Each vehicle is rated for front, rear and flank armor thickness, speed, and fire power. You can choose weapons for each side. The game also includes hidden movement, mines, smoke, and indirect fire. You can play the computer as either side. There are 5 scenarios, each with many options. Average playing time per game is 1 to 5 hours, and the game does feature a save option. The game has good graphics and sound, a very good simulation in my opinion. HIGHLY RECOMMENDED. Tony A. Tompkins.

MIG ALLEY ACE: \$23 game on disk for the C64. By Sid Meier, from MicroProse, one or two players. Joystick controlled, DOS protected. 90 day limited warranty.

The game is similar to *Hellcat Ace*, but with important differences. It covers the Korean War air combat and uses a split screen. The top of the screen shows the view out of your cockpit while the lower half shows the view from the enemy's cockpit. You can play against the computer, against a friend, or two players can fly together against two computer controlled planes. You have 5 scenarios in

which you have up to four planes flying. There is also a daring night scenario from which few return. There are five levels of difficulty. Average playing time per game is 30 minutes to an hour. RECOMMENDED Tony A. Tompkins.

MAXWELL MANOR: \$17 game on disk for the C64. By William H. Maxwell, from Avalon Hill, one player, joystick controlled. DOS protected. 90 day limited warranty.

This is a graphic mystery game. Scrolling graphics show your character and his location. It displays overhead or side view. The game includes a variety of monsters, mazes, underground chambers, and a rival scientist who wants to harm you. Treasure and useful items are scattered throughout. This is a fast paced game, and requires quick reflexes. The game includes a hint booklet and maps. there are 10 levels of difficulty and 1000 possible variations in the scenarios. In my opinion, this game is unique, but was unable to keep me interested. Average playing time varies with each level of difficulty. AVERAGE. Tony A. Tompkins.

AMAZON: \$22 game on disk for the C64. From Telarium, one player, keyboard controlled. DOs protected. 90 limited warranty.

This is a combination of a text and graphics adventure game. Your mission is to find the lost city in the jungle and bring back a great treasure. You will face wild animals, cannibals, corrupt government officials, and many other dangers. The game has three skill levels and a save option. The graphics are very good, but the game has little plot to it. Average playing time is 5-10 hours. AVERAGE. Tony A. Tompkins.

FAHRENHEIT 451: \$22 game on disk for the C64. From Telarium, one player, keyboard controlled. DOS protected. 90 day limited warranty.

This game is a combination of a text and graphics adventure game. In this future world, books are illegal and fireman burn houses that have books in them. You are a fireman that wants to put a stop to this madness. The graphics are fair, but the game has very little plot to it. The game has a save option. the graphics are optional, if you want to play the game without the lengthy time to load the graphics you can play the game by text only. Average playing time is 15-25 hours. NOT RECOMMENDED. Tony A. Tompkins.

HOLLYWOOD HLJINX: \$34.95/\$39.95 standard level mystery adventure on disk for the C64 and the Amiga. From Infocom.

'You build a hundred bridges and nobody says a word...but let one of those suckers FALL DOWN....' That must be the way Infocom has been feeling for the past couple of months. After the release of *MOONMIST* there was a lot of muttering about Infocom having 'lost it'. How quickly everyone forgot the phenomenal list of hits produced by this company! I, for one, was willing to give them several more chances before turning to *Space Invaders* (shudder) as an alternative. With the appearance of **HOLLYWOOD HLJINX**, Infocom has renewed my faith that Cambridge, Massachusetts is indeed the center of the universe.

You are dumped outside your late Aunt and Uncle's mansion (in Malibu, where else?) at 8 p.m. with nothing but a flashlight, an autographed picture of Uncle Buddy, and a note from Aunt Hildegarde. Twelve hours later, the lawyer is going to come back to check on you...and if you haven't found all 10 of the 'treasures' they've hidden around the grounds you'll go home with the picture, the note, and the flashlight. If you manage to find them all by the time the

lawyer returns at 8:00 a.m., you inherit the entire estate and a vast fortune. You even get to keep the 'treasures'! Of course YOUR idea of what is a treasure might be quite a bit different than Uncle Buddy and Aunt Hildegard's.

Your first problem, of course, is getting INTO the house! Uncle Buddy has provided you with a 'key', but it's up to you to figure out how to use it. Once you get in there, you're in for some real surprises. This house is STRANGE. Full of secret hiding places and odd devices...and if I'm not mistaken, I think there might be someone ELSE in there with you!

As in many of Infocom's games...everything here is not QUITE as it appears, and you're going to have to pay attention to descriptions. Two of the puzzles in particular are fairly involved and you'll have to read the description several times before you really catch on to what is going on. When you've finished them, though, there is a genuine feeling of satisfaction in having figured it out.

There's no 'magic' in this game. There are no elixirs to drink or magic items to help you. You're going to have to rely on your wits and (sometimes) your mechanical abilities. None of the solutions are beyond the realm of believability, and all the puzzles can be solved with patience and logic. For the first time that I can remember, Infocom has even provided you with a ready-made solution to one of the puzzles.

There are enough 'rooms' in this game to keep things interesting, but not so many that you'll spend hours mapping before you can get down to playing the game.

Infocom players have come to look forward to the 'goodies' included with the package. This package is a little sparse. Aside from the autographed picture and the note from Aunt Hildy, the only other 'goody' is a Palm Tree Swizzle Stick. Of course, according to the ad in the magazine, the Swizzle Stick is worth \$12.95 and is GUARANTEED to help you find HIDDEN TREASURE in your own home (or possibly the home of a deceased relative.)

'Hollywood' Dave Anderson has written a very clever and entertaining Standard Level Mystery. For a first effort, this is a very enjoyable and well thought out adventure. Although not on a par with the *Zork* or *Enchanter* trilogies, this is definitely one you want to have in your collection. RECOMMENDED. -Art Lewis Kimball

COMPUTER SCRABBLE: \$32.95 strategy game on disk for the C64. From Leisure Genius, distributed by Electronic Arts.

I doubt that there is anyone over the age of five who has not heard of SCRABBLE. Now this perennial favorite is here for the computer. Like the original board version, up to 4 players build words using tiles which have numerical values. The person who ends up with the highest score wins the game (and everyone else learns some words they had never heard before).

COMPUTER SCRABBLE can be played by up to four players and the computer can provide you with up to three opponents of various skill levels if you are playing alone.

There are eight skill levels in the game. Levels 1-4 use only 12,000 words of the 20,000 word vocabulary. (Some of the words the computer has in its vocabulary are really OBSCURE!). Levels 5-8 use the entire vocabulary. A clock feature is also included and you can chose a range from 10 seconds to 10 minutes as a time limit for each round.

The computer can challenge your choice of words but since the vocabulary IS limited you can reject the challenge. This may not stop arguments with the computer...but at least your human opponents cannot argue with YOU if the computer accepts your word.

A couple of features not available in the board version are really nice touches. One option allows you to watch the computer 'thinking'. It will display all the words and combinations that the computer is considering before it settles on a word and placement. The second is a

'hint' feature. The computer will give you all playable words, one at a time and a possible (although not necessary the BEST) position on the board. You are free to use the hint or reject it.

Placement speed is also adjustable so that you can slow down the computer action if you want to watch it 'thinking'. Even at the highest speed, it is not a fast-paced game...but then neither is the board game!

This is a traditional favorite parlor game for any age, but particularly useful for the younger set since it teaches them a lot of new words without them being aware that they are learning! A good family game. [RECOMMENDED?] -Art Lewis Kimball

To all *Midnite* Reviewers:

Good morning! If anything was ever uncharacteristic of the *Midnite*, it has been telling reviewers how or what to write. I have presented, below, a list of guidelines that I would like for you to follow. These are not prescriptive in the sense that reviews not fulfilling the points listed below will be rejected; the list of guidelines is a statement of goals, the achievement of which will serve to make the *Midnite* more consistent and more informative. If followed, these guidelines will also make my life easier.

1) Follow the established standard pattern for header information. Namely, look at the header paragraph of any review in issue numbers 35, 36, 38, or 39, and try to include the pertinent information in the same order. This first, header, paragraph should include:

- A) Product Name, all capital letters;
- B) Suggested retail price, prevailing retail price, or, if a special offer (cf. COMB Total Telecommunication Modem), the price given in the special offer;
- C) Class/genre, eg. "word processor," "arcade game," "printer," etc.;
- D) Media/packaging, eg. "disk," "tape," "cartridge";
- E) Intended machine or operating system;
- F) Author;
- G) Vendor;
- H) Warranty, guarantee, licensing agreement;
- I) Form of protection, and type (software only);
- J) Compatibility
- K) Required accessories
- L) Optional accessories

2) If the program is of a standard genre (wordprocessors, spreadsheets, telecommunications programs, dot matrix printers, printer interfaces, etc.), or

ACADEMIC TOOLS 620 Peachtree St., NE Suite 306 Atlanta GA 30308
ACTIVISION Box 7286, Mountain View CA 94039
ASHTON TATE 10150 W. Jefferson Blvd., Culver City CA 90230
AVALON HILL 4517 Harford Rd., Baltimore MD 21214
BANTAM 666 Fifth Avenue, New York, NY 10103
CHEATSHEET PRODUCTS P.O. Box 111368, Pittsburgh PA 15238
Checks & Balances CDE Software
COUNTRY ROAD SOFTWARE 70284 C.R. 143, Ligonier, IN 46767
CRADOC P.O. Box 11324, Costa Mesa CA 92627
DeSolvit ORANGE SOL, INC Chandler, AZ 85244
DIGITAL SOLUTIONS PO Box 345 Station A, Willowdale ONT M2N 5S9
ELECTRONIC ARTS 1820 Gateway Dr., San Mateo CA 94404
EPSON AMERICA 2780 Lomita Blvd., Torrance CA 90505
EPYX 1043 Kiel Ct., Sunnyvale CA 94089
INFOCOM 125 Cambridge Park Dr., Cambridge MA 02140
INKWELL SYSTEMS 5710 Ruffin Rd., P.O. Box 85152 MB290, San Diego CA 92138
MASTERTRONIC 7311B Grove Rd., Frederick MD 21701
MERIDYNE PUBLISHERS
MICROPROSE 120 Lakefront Dr., Hunt Valley MD 21030
MINDSCAPE 3444 Dundee Rd., Northbrook IL 60062
ORIGIN SYSTEMS 340 Harvey Rd., Manchester NH 03103
PRISM SOFTWARE 401 Lake Air Dr., Ste D, Waco TX 76710
PROGRESSIVE PERIPHERALS 464 Kalamath St., Denver CO 80204
SCIENCE SOFTWARE 7952 W. Quarto Dr., Littleton CO 80123
SUNBURST COMMUNICATIONS 39 Washington Ave., Pleasantville NY 10570
SUNCOM 260 Holbrook Dr., Wheeling IL 60090
TELARIUM/Spinnaker One Kendall Square, Cambridge MA 02139
THOMSON CONSUMER PRODUCTS 330 Washington St. Ste 509 Marina del Rey, CA 90292
TImEwORKS 444 Lake Cook Rd, Deerfield IL60015

a standard sub-genre (RAM based databases, disk based databases, etc.), identify it as such without going into great detail about the principles of operation. This guideline should be applied to command structures (key-stroke command sequence VS menu driven, etc.) or program control (keyboard, joystick, mouse, etc.) as well.

- 3) If a program cannot be placed within a standard genre, consider whether the program is likely to be useful, popular, or both. Excellent programs, regardless of their function or source, deserve some attention, but unless it is extremely useful or popular, do not deserve a full column of space. Conversely, a poor program generally should not be reviewed unless it is likely to be popular, or it is marketed by a vendor generally recognized for popular, quality packages. For example, issue #38 includes a review of Xetec's *Fontmaster 128*. Xetec is generally recognized as a vendor of high quality programs and peripherals for Commodore machines, but the original version of *Fontmaster 128* has some major oversights. The review is published in order to warn trusting users that Xetec goofed. Don't be afraid to hurt anybody's feelings.
- 4) Make a clear recommendation consistent with the tone of the review. Yes, we are looking for opinions, and we expect our reviewers to be impartial judges. That is what our readers expect. Each of you have been working with Commodore computers for some time, and should be at least somewhat aware of what is available in the marketplace. Simply put, answer the question, "Does this product do what it is supposed to do without too much trouble at a reasonable price?" If it does, then recommend it. If it does not, then give it a "Not Recommended." If the recommendation needs to be qualified, then qualify it, but make the qualifications clear. I cannot emphasize enough the need to

make the recommendation consistent with the tone of the review. It will only confuse readers to spend three paragraphs pointing out all the problems of a program and then give it a "Recommended." Either don't do it, or give good reasons why.

- 5) Assume that every commercial program has bugs. (If you believe that you know of a commercial program without bugs, let me know. I will probably be able to find some of the nasty little critters for you.) Assume, further, that users are aware of this general principle. A catalog of the bugs in a well-written, sophisticated, commercial program could fill several pages (look at the back of *Superbase: The Book*). Point out only those bugs that interfere with the normal function of the program or inhibit its free use (the early shipments of Xetec's *Fontmaster 128*, for example).
- 6) Provide the full name and address of the vendor or author, as appropriate. This is especially needed for good public domain programs and small, low visibility software houses.
- 7) Both typescript and disk files are accepted and welcome. Typescript should have all the pertinent information asked for above as part of each review. The typescript may be single-spaced or double-spaced, and every page should have the name of the reviewer and the name of the product reviewed. Disk files should be sequential - I prefer carriage returns at the end of the paragraph instead of at the end of each line. - or WordPro files. Unless you are using WordPro, please do not use your wordprocessor's enhancement commands! Rather, if you would like to use enhancements, follow these conventions:
 - A) underline - `[[start: double left bracket; end: double right bracket]]`
 - B) bold - `((start: double left`

- parentheses; end: double right parentheses))
- C) *italic* - *1start: asterisk-1; end: asterisk-2*2
- 8) Follow general rules of good grammar. For reference, I use *Hodges's Harbrace College Handbook, Ninth Edition*. I also recommend Strunk & White's *Elements of Style*. Reviews and articles will not be rejected because of grammatical errors unless it has so many that they would require a major revision, or unless the errors cause such ambiguity that I cannot be certain of the intended meaning. Grammatical errors will be edited; avoiding them will give you greater control of the final published review.
- 9) Avoid wordiness, redundancy, and unnecessary information. These, too, will be edited.
- 10) Use short words. One of my pet peeves is the use of five dollar words instead of perfectly good two-bit versions. For example, can you explain to me (without using a dictionary) the difference between the words "use" and "utilize?" If you cannot, use the shorter word. I am sure that you could utilize the larger word, but there is seldom any need to. Short words also make more attractive text within our format. Long words often require hyphenation or cause big blank spaces in the middle of the line. The same is true of ellipses (...), slashes, and hyphenated words (role-playing/adventure game).
- 11) As a general rule, assume that Midnite readers have been using a Commodore for somewhere between six months and two years. Most such users will know some BASIC, the difference between keystroke and menu command systems, etc. Do not go into great detail about command structures or how a program works unless it deviates greatly from standard procedures. (cf. item # 2, above.)
- 12) Please follow the following conventions for special words:
- A) Capitalize BASIC command words and machine language opcodes;
 - B) Capitalize variable names;
 - C) *Enclose keystroke sequences in single quotes ('PRINT A\$');*
 - D) *Enclose BASIC strings in double quotes ("filename");*
 - E) Enclose non-character keys in angle brackets (<RETURN>);
 - F) Jam combination keystrokes together ('<SHIFT><RUN/STOP>');
 - G) Separate keystroke sequences with a space ('<ESC> R');
- 14) If you want to be extra helpful,
- A) The name of the product being reviewed is underlined, emboldened, and italicized in the header paragraph; it is emboldened and italicized throughout the rest of the review;
 - B) The name of other software products, books, and standard accessories are italicized in the review of other products;
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- We would really appreciate your following these guidelines as closely as possible. Please read them over and remember them as you write reviews and articles for us. Our primary concern is content, and following these conventions of style will help us focus on the meaning rather than the mechanics of the *Midnite*.
- Thank you.

FAST FILE CHANGER

by Bob Kodadek

The Commodore 1541/1571 drives are intelligent devices containing their own microprocessor, RAM, and operating system ROM. More like computers minus keyboards, these drives can be programmed by the user to perform functions not directly provided by the Commodore DOS. User written code is sent over the serial bus into drive RAM and runs totally independent from the host computer. Several disk commands are provided to access and utilize the drive's RAM and ROM. Of these, the most often used are Memory-Write (M-W), Memory-Read (M-R), and Memory-Execute (M-E). These are analogous to the BASIC commands POKE, PEEK, and SYS respectively. The only RAM available for user programs consists of five 256-byte buffers located at \$0300, \$0400, \$0500, \$0600, and \$0700. These buffers are numbered from 0-4. Buffer #4 is usually reserved for the BAM (Block Allocation Map) and should be left alone. The accompanying program, "Fast File Changer", demonstrates a purpose for, and the implementation of, programming the drive.

Overview

The first byte of each file entry is very important. Bits 0-3 signify the file type, which can be DEL (0), SEQ (1), PRG (2), USR (3), or REL (4). Bit 7 is set whenever a file is properly closed, therefore the values found for valid file entries will be \$80, \$81, \$82, \$83, and \$84 respectively. Bit 6 shows whether a file is locked. When this bit is set, a file can only be read and is therefore said to be locked. The most commonly used files are the program (PRG) and sequential (SEQ). SEQ, PRG, and USR files have similar file structures, but are used differently.

It is easy to see then, that the ability to access and modify this area of the directory could be useful. We could easily change the file type or lock or unlock any file. Unfortunately, no commands support this. Usually a

sophisticated track and sector editor program is required to change these bytes. There are some programs which use only direct access commands to lock or unlock files. These, however, must transfer large amounts of data between the drive and the computer, making them very slow.

Using The Program

First type in and save the BASIC program, listing 1. The program will run on a C64 or C128 in native mode without any modifications. The machine code can be relocated by changing the variable SA in line 50. When the program is run, it will prompt for the drive unit number (8-15) containing the target disk. Next, enter the filename of the file you wish to alter and press <RETURN>. Select the file type you want from the menu. Finally, you will be asked if the file is to be locked. The error channel is read and reported after each operation.

About The Program

Line 50 determine which computer the program is in and adjusts the starting address for the machine code accordingly. Lines 450-570 in the BASIC program contain the machine language routine that will run inside the drive buffer. This routine will read the directory and search for the filename requested. When found, the file type byte will be altered for that entry, as specified. The sector is then written back to the diskette and an "OK" message is issued. If the file is not found or other error should occur, the appropriate error message is given and the routine is aborted. Refer to the source code, listing 2, for complete details on this section of code. Lines 330-410 contain the code to perform a fast Memory-Write from computer RAM to Drive RAM at location \$0500. Lines 250-260 sends the filename and other information to the drive routine and then executes the code with the User command, "U3," to jump to \$0500.

Some Notes On DOS

The first six locations in zero page (\$0000-\$0005) are known as the job queue,


```

10 rem *- fast file changer 64/128 any mode-*
20 rem *-      (c) 1987 bob kodadek      -*
30 rem *- 3164 surrey lane, aston pa 19014 -*
40 rem *-----*
50 sa=4864:if peek(40960) then sa=49152
60 dc=sa+102:c$=",":print"reading data...."
70 for i=0 to 257:read by:poke sa+i,by:ck=ck+by:next
80 if ck<>32618 then print "data error!":end
90 h=int(dc/256):l=dc-(h*256):poke sa+1,l:poke sa+5,h
100 print"Sqchange filetype and lock/unlock a file"
110 print"qdrive unit? 8";:input"¼¼¼";u
120 if u<8 or u>15 then print"QQ":goto110
130 input"qenter filename";f$:fl=len(f$):if fl=0 then end
140 print"qselect filetype wanted on this file":print
150 print"  1. seq"
160 print"  2. prg"
170 print"  3. usr"
180 get a$:ifa$<"1" or a$>"3"then180
190 lf=0:ft=128+val(a$):print
200 print"want this file to be locked? n";:input"¼¼¼";l$
210 if left$(l$,1)= "y" then lf=128
220 sys sa:rem *- send ml routine into drive ram -*
230 rem *- send filetype, lockflag, and filename to drive ram -*
240 close 1:open 1,u,15
250 print#1,"m-w"chr$(137)chr$(5)chr$(fl+2)chr$(ft)chr$(lf) f$
260 print#1,"u3":rem *- executes code in drive ram at $0500 -*
270 input#1,en$,em$,et$,es$:close 1:print:rem *- read error channel -*
280 print"status "en$;c$;em$;c$;et$;c$;es$
290 print"qdo another file? n";:input"¼¼¼";x$:if left$(x$,1)="y" then 100
300 end
310 rem *- ml routine for fast memory-write -*
330 data 169,102,133,251,169,19,133,252,169,0,133,253
340 data 169,5,133,254,165,186,32,177,255,169,111,32
350 data 147,255,169,77,32,168,255,169,45,32,168,255
360 data 169,87,32,168,255,165,253,32,168,255,165,254
370 data 32,168,255,169,32,32,168,255,160,0,177,251
380 data 201,255,240,34,32,168,255,200,192,32,144,242
390 data 165,251,105,31,133,251,165,252,105,0,133,252
400 data 24,165,253,105,32,133,253,32,174,255,162,0
410 data 240,174,32,174,255,96
430 rem *- ml routine goes into drive buffer #2 -*
450 data 32,0,193,169,18,160,1,133,6,132,7,169
460 data 176,32,119,5,201,1,208,9,169,128,32,119
470 data 5,201,1,240,6,24,105,24,76,200,193,169
480 data 3,133,60,162,0,134,75,240,30,160,0,177
490 data 59,240,16,200,200,200,185,136,5,209,59,208
500 data 6,192,18,240,32,208,242,230,75,166,75,224
510 data 8,240,7,189,129,5,133,59,208,219,173,0
520 data 3,240,6,172,1,3,76,7,5,88,76,69
530 data 217,173,137,5,160,0,174,138,5,240,2,9
540 data 64,145,59,169,144,32,119,5,76,158,193,133
550 data 0,88,36,0,48,252,165,0,96,2,34,66
560 data 98,130,162,194,226,129,0,160,160,160,160,160
570 data 160,160,160,160,160,160,160,160,160,160,160,255

```

```

key list
cursor controls
"Q up, q down, ¼ left, ] right"
screen controls
"S clr/home, s home

```



```

* Routine to run in drive RAM *
* beginning at location $0500 *
* (c) 1987 Bob Kodadek *
*-----*
* Merlin-128 Macro-assembler *

```

```

ORG $500

```

```

START JSR $C100 ;Turn on drive led
      LDA #$12 ;Set track to 18
      LDY #$01 ;and sector to 1
GETsec STA $06 ;for buffer 0
      STY $07
      LDA #$B0 ;Get jobcode for search
      JSR DOJOB ;Look for sector header
      CMP #$01 ;Test for error on job
      BNE ERROR ;If error, then exit
      LDA #$80 ;Get jobcode for read
      JSR DOJOB ;Read sector into buffer
      CMP #$01 ;Test for error
      BEQ GETent ;If okay, get file entry

ERROR CLC
      ADC #$18 ;Send read error
      JMP $C1C8 ;to message buffer and exit

GETent LDA #$03 ;Setup high byte pointer to
      STA $3C ;buffer 0 at $0300
      LDX #$00 ;Initialize file entry counter
      STX $4B
      BEQ NEXent ;read index for low byte
GETtyp LDY #$00
      LDA ($3B),Y ;Read filetype and
      BEQ NOPROG ;if 0, then skip entry
      INY ;Point to filename
      INY
CMPNAM INY
      LDA FNAME-3,Y ;Get filename character
      CMP ($3B),Y ;and compare to entry
      BNE NOPROG ;No match? Go to next entry
      CPY #$12 ;Tested all characters?
      BEQ FOUND ;If so, then a match is found
      BNE CMPNAM ;else go do more
NOPROG INC $4B ;Increment entry counter
      LDX $4B ;and check
      CPX #$08 ;Read all entries?
      BEQ NEXtrk ;If so, then get next track

NEXent LDA TABLE,X ;Get offset for next entry
      STA $3B ;and set low byte of pointer
      BNE GETtyp ;Jump to GETtyp
NEXtrk LDA $0300 ;Read next track and
      BEQ END ;if 0 then end search
      LDY $0301 ;Get next sector

```

```

      JMP GETsec ;and do more
END CLI
      JMP $D945 ;File not found message
      PAG
FOUND LDA FTYPE ;Get requested filetype
      LDY #$00 ;
      LDX LOCFLG ;Get lock flag and test
      BEQ NOLOCK ;Skip if 0 or if not
      ORA #$40 ;then set bit #6
NOLOCK STA ($3B),Y ;Store filetype in buffer
      LDA #$90 ;Get jobcode for write
      JSR DOJOB ;Write current sector to disk
      JMP $C19E ;Send "OK" message and return

```

```

*Subroutine to do job request

```

```

DOJOB STA $00 ;Send job to jobloop
      CLI ;Activate interrupt
WAIT BIT $00 ;Test if job is done
      BMI WAIT ;wait if it isn't
      LDA $00 ;Get error code
      RTS ;Back to calling routine

```

```

TABLE HEX 02224262 ;Lookup table for index
      HEX 82A2C2E2 ;to next file entry

```

```

*Following data to be sent from BASIC M-W command

```

```

FTYPE HEX 81 ;filetype (81,82,83)
LOCFLG HEX 00 ;lock flag($80 to lock file)

FNAME HEX A0A0A0A0 ;filename buffer
      HEX A0A0A0A0 ;must be padded with 160's
      HEX A0A0A0A0 ;reverse space characters
      HEX A0A0A0A0 ;
ENDBYTE HEX FF ;Endbyte for loader routine

```

```

LST OFF

```

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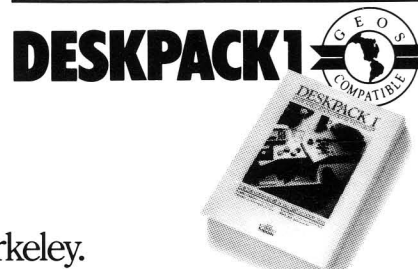
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