

Computer News PC

P.O. BOX 680 CASPER, WY 82602

307-265-6483

MARCH/APRIL 1995 VOLUME 3 NUMBER 2

\$4.00

INDEX

EDITORIAL COMMENT

DESKMATE AND VDISK A HAPPY MARRIAGE MADE IN COMPUTER HEAVEN

by Harold J. Hendriks

DESKMATE AND VDISK by Harold J. Hendriks	Page 1
QUALITY ADVENTURES II by David Goben	Page 3
DESKMATE NOTE I by Clifton N. Duval	Page 7
SECRETS OF THE 1000'S by Dave Knarr (Micro Systems)	Page 7
BRIDGE, ANYONE? by Rita Laws, Ph.D	Page 10
THAT'S SPORTSTER, NOT SPORTSCAR by Rita Laws, Ph.D	Page 10
DESKMATE NOTE II by Clifton N. Duval	Page 11
A FALSE START by David P. Miller	Page 12
MORE POWER TO BASIC by Danny C. Mullen	Page 14
METASTOCK 4.5 by Fred Blechman	Page 15
TO FELLOW DOOMFREAKS by Bob Martin	Page 16
LOCKS, THE RETURN by Danny C. Mullen	Page 17
MS-DOS REFERENCE TABLE by Danny C. Mullen	Page 18
PROGRAM LISTINGS	Page 21
BIN2DBUG,DEJA VU AGAIN by Danny C. Mullen	Page 22
WYOMING SOFTWARE	Page 24

Have you ever been confused with so many MS-DOS versions? Are you confused over what the MS-DOS you are using and the difference in what you may be missing by not upgrading? Well turn to the Program Listing Section and you will find a MS-DOS table compiled by Danny C. Mullen. The table covers all the MS-DOS versions from 1.0 to 6.22 and gives the commands that were contained in each version. This should be a useful table for you users of the Tandy 1000 computers, as well as users of IBM-PC clone owners.

Do you really need to jump on the latest MS-DOS being offered? In many cases you have no need for the latest DOS version as long as the version you are now using does all that you want it to.

What is the best version to use with your Model 1000? The best is the DOS version that was supplied with the machine. If your Model 1000 boots from ROM then you will sacrifice the memory space that a new version of DOS will take by discarding the ROM based DOS. Other strange things can happen to some of the programs that you run by not sticking with the DOS that the computer was designed to accommodate.

1400/FD/HD/LT Tandy Laptop owners! We were fortunate to find a very limited supply of Tandy External Disk Drives Cat. #90-2084 (Originally \$299.00) The unit comes complete with a 360K double-sided 5.25" disk drive, metal case, a 110 volt supply cord, its own power supply and 37 pin signal cable. Our price is \$45 + \$6 (S&H).

VDISK SAVES TIME AND WEAR AND TEAR

VDISK, Virtual Disk or RamDisk are all names for the same thing. Model 4 users will recognize the same thing as MemDisk. A RamDisk or a Virtual Disk uses a small portion of the computer's random access memory to mimic or to simulate many of the functions of a real disk drive.

The great virtue of a RamDisk or VDISK is that you can access files that you have copied from a real disk to the VDISK much more rapidly than you can from even a hard disk, and with no wear and tear on the disk drive mechanisms. You will find that the use of a VDISK will result in an amazing speed up of file access operations.

Although it is always nice to have more memory, its possible to use VDISK effectively with less memory than 640 K. I have used VDISK with DeskMate to good advantage, although with some limitations, on a Tandy 1000-HX computer with only 256 K of memory.

INSTALLING VDISK

To install a VDISK or RamDisk in memory, the MS-DOS VDISK.SYS file must be on the boot disk or in the root directory of the hard disk. In addition, the following line, or a variation of it, must be added to your CONFIG.SYS file:

*March/April
1995*

```
DEVICE=VDISK.SYS 64 128 12  
[ENTER]
```

After adding the above line to your CONFIG.SYS file the computer must be rebooted to install the VDISK in memory.

If you have a two drive system with drives A and B, MS-DOS will assign the VDISK as being drive C. If your system has two disk drives and a hard drive, MS-DOS will assign the VDISK as being Drive D, and so on.

The VDISK parameters specified in the CONFIG.SYS line shown above will set up a 64 K VDISK in memory with a sector size of 128 bytes and 12 directory slots.

I use TEXT in DeskMate on my Tandy 1100-FD (Floppy Drive) laptop computer for most of the many writing jobs that I do. The 1100-FD has one floppy disk drive and 640 K of memory. I added the following line to the CONFIG.SYS file that is on the System disk that I use to boot my 1100-FD laptop:

```
DEVICE=VDISK.SYS 96 128 20  
[ENTER]
```

The VDISK parameters specified above will set up a 96 K VDISK in memory with a sector size of 128 bytes and 20 directory slots. Such a VDISK configuration will accommodate up to 20 data files averaging 4.8 K-bytes each, or three data files averaging 32 K each, etc.

You can use larger sector sizes, such as 256 bytes or 512 bytes, or you can use smaller sectors such as 64 bytes or 32 bytes. The smaller the size of the sector, the more efficiently VDISK utilizes the precious amount of limited memory space allocated to the VDISK. However decreasing the sector size tends to slow down the operation of the VDISK.

Using a sector size of 128 bytes is a good compromise between speed and the efficiency of data storage by the VDISK. A sector size of 128 bytes for the VDISK does not create any problems in copying files back and forth between the

VDISK and the floppy or hard disk.

OTHER VDISK ADVANTAGES

If you're using a floppy disk based system without a hard drive, the use of VDISK will help your computer to work much more efficiently and make your work go much faster. If you're using a computer with only one disk drive, such as the 1000-EX, the 1000-HX, or the 1100-FD, VDISK can add a lot of flexibility and convenience of use to your system.

You can use the VDISK on a one disk drive system to simplify and expedite the copying of groups of files from one disk to another. On a one disk drive system you can copy DeskMate or MS Works data files to the VDISK and then work with the Program disk in the disk drive.

The use of VDISK not only speeds up your work, it also eliminates the need for all those frequent and inconvenient disk swap operations on a one disk system. Don't forget to copy from the VDISK to your data disk any files that you may wish to save before you turn off your computer.

TASK SWITCHING

One of DeskMate's most useful and convenient Accessories (in version 3.0 and higher) is the Task Switch Accessory. If you're using DeskMate 3.0 or higher, and you're not using the Task Switch Accessory, you're missing one of the greatest and most convenient features of DeskMate.

The very helpful book, "Getting The Most Out of DeskMate 3", by Michael Banks, does a good job of telling users how to use the Task Switch Accessory effectively. This useful book can be ordered through most B. Dalton Book Stores.

Using TEXT, the DeskMate Word Processor, and the Task Switch, you can open two different TEXT files and switch instantaneously back and forth between the two TEXT files. You can move blocks of text back and forth between the two files and/or

copy blocks of text from one file to the other. The ability to switch instantaneously back and forth between the two text files is a great boon to writing and editing.

Using WORKSHEET, the DeskMate Spreadsheet Program, and the Task Switch, you can open two WORKSHEET files and switch instantaneously back and forth between the two WORKSHEET files. You can move blocks of WORKSHEET data back and forth between the two files and/or copy blocks of data from one file to the other.

Using the Task Switch you can work on a word processing file in TEXT and a spreadsheet file in WORKSHEET and switch instantaneously back and forth between the WORKSHEET and the document in TEXT. You can copy blocks of data from the WORKSHEET and paste the blocks of data into the document in TEXT.

The more you use the Task Switch Accessory in DeskMate, the more uses you will find for this powerful and most convenient feature. In a practical sense, Task Switching with DeskMate gives those of us with older computers, such as several of the later Tandy 1000's, many of the advantages of Windows. You need a Tandy 1000 with adequate memory and DeskMate version 3 or higher.

You can multiply the advantages and convenience of Task Switching many times over by "marrying" up DeskMate with a VDISK. Although it is possible to get by with less memory than 640 K when using Task Switching with DeskMate "married" to a VDISK (Virtual Disk), you have more flexibility and latitude of operations with 640 K of RAM rather than with less memory.

TASK SWITCHING USING MULTIPLE FILES

I am interested in many things, such as astronomy, computers, Old Testament studies and research, and, natural health and alternative

therapies, to name a few. I do quite a bit of writing in connection with my various interests and I carry on quite an extensive correspondence with my many friends and associates who share one or more of the same interests with me.

Often times, when I am working at writing an article or a letter, I may want to incorporate blocks of text from several different letters and/or several different articles that I have previously written on related subjects. Working with the primary document in TEXT, I can use the Task Switch to load a source document file stored on disk into the alternate TEXT screen. Then using the Task Switch I can instantly switch back and forth between the primary document and the source document and copy blocks of text from the source document into the primary document. This handy procedure saves much rewriting.

When working on a new document, I may switch back and forth many, many times between the primary document and the several source documents that I'm using. Calling the different source documents, one at a time, from a real disk into the alternate TEXT screen takes time, and subjects the disk drive to much wear and tear.

USING THE TASK SWITCH WITH VDISK

When I am preparing to write an extensive documentary article or letter, I scan an index of letters and/or articles that I have previously written on related subjects. I then copy the files of the related source documents from the floppy or hard disk to the VDISK.

I start by opening the primary document in TEXT in DeskMate. With a list of the source document files at hand, I use the Task Switch Accessory to instantly load one of the source files from the VDISK into the alternate TEXT screen. I can then task switch instantaneously back and forth between the primary document and the source document and copy the desired blocks of text

from the source document to the new document.

Whenever I need to switch to another source document, I close the one currently in use. Then I use the Task Switch to instantly load another source file from the VDISK into the alternate TEXT screen.

Having the files for the source documents stored in the VDISK makes for almost instantaneous switching of the source documents into and out of the alternate TEXT screen, and saves much time and much wear and tear on the real disk drive or hard disk.

The disk drive or the hard disk needs to be accessed only once for each source file copied to the VDISK. Then no matter how many times the various source files are accessed from the VDISK by means of the Task Switch, the disk drive or hard disk undergoes no additional wear and tear. But the big advantage is the savings in time due to the high speed operation of the VDISK.

I now use the integrated database and the spreadsheet in Microsoft Works for financial planning and bookkeeping purposes. However I used to make extensive use of WORKSHEET in DeskMate for the same purposes.

When working up a new financial plan or a budget WorkSheet, I often needed to use data from five or six existing WorkSheet files. I copied the desired source files from disk to VDISK and then used the Task Switch to instantly switch various source Worksheets into and out of the alternate WORKSHEET screen while working on the primary WorkSheet.

Using DeskMate's Task Switch Accessory in conjunction with source files stored on a VDISK in memory speeds up my work many fold, eliminates frustrating and time consuming disk access delays and saves immeasurably on disk drive wear and tear.

IN CONCLUSION

Try "marrying" your DeskMate

to VDISK. You will like the arrangement. You will find it is a convenient, useful and time-saving "marriage" made in computer heaven.

Happy Computing.
-Harold J. Hendriks

QUALITY AVENTURES II

by David Goben

In my last installment I provided you with a list of a significant number of disks that you can obtain incredibly inexpensively from Wyoming Software, Computer News PC's own shareware and public domain library. In it you could choose various shareware Commander Keen adventures, loads of shareware Wolfenstein 3D adventures, as well as DOOM add-ons and upgrades. This month I will build upon my last efforts. Before doing so, however, I think that it is important to explain the concept of shareware which most of the disks I'm describing this month are listed as. Years ago we would go into a computer or software retailer and see an item on the shelf, sealed and shrink-wrapped. There might be a program description printed on it, but often that is not enough to swing us over to shell out hard earned cash for it. We would often catch ourselves saying, "Gee, I wish I could try using this software, to see if it is for me." Well, the purpose of shareware is exactly that, to allow you to try using a commercial package, sometimes even uncriddled (not limited) copies, before purchasing it. If we are satisfied, we should have enough honor and self-respect to "register" with the author(s). This idea is growing in popularity, but in most cases we now only can obtain "free" copies of crippled software (often called crippleware).

Why? Because too many people were obtaining the software, using it extensively, and believed that there was no reason to register because they already had the software. Sure, the supplied documentation might suck, as opposed to the nice manuals we'd receive by registering, but they had it none-the-less. Even if the registration fee was a paltry \$10. Granted, this is usually among those who feel that they "have to have" everything in sight, including pirated copies of off-the-shelf packages. From personal experience as a software author, it is very frustrating to have these people call or write to me demanding support because they have a copy of my software, and after feeling obligated to help users of my product to provide him with this support, to later find out that they did not purchase it but got a copy "from a friend." No friend of mine. Piracy, and the failure to register, are the single most important reason why so many authors have moved away from producing quality software. I almost stopped on a number of occasions, thanks to people such as Andy and Gary, to name only two of many (if you read this last sentence and felt a pang of guilt, you know who you are, you leaches). The moral of the story is, support those who support you. It's only fair, and it's the right thing to do. If you end up not using the shareware product, erase it, or better yet, pass it on to someone else who might find it useful and register. End of speech.

Ever since the release of DOOM, I hear from various people that it seems like "everyone" has abandoned previous game efforts and do nothing but work off their personal frustrations by giving monsters in DOOM lead poisoning. That is not true. The replay value of many graphical adventure games is very high, especially when there are several different approaches to solving a single puzzle, and so I still find myself relaxing with a Commander Keen adventure, such as the less graphically refined "Invasion

of the Vorticons" or "Goodbye Galaxy." (I find it odd to say that, because when they were respectively released, they were at the same time establishing totally new standards of graphics and quality.) Other games on my hit parade, which I will perhaps provide you with in the next installment are "Monster Bash," where you play a young kid who must fight off monsters and snakes in order to free the many kidnapped dogs and cats on each level, "Cosmo's Cosmic Adventure," where you are a young extra-terrestrial in search of your parents, and you find candy, power-ups, and fruit as you fight off foes, "Duke Nukem," where you are an acrobatic warrior making the world safe from a robotic take-over, and "Jill of the Jungle," where you are an Amazon making your way through a hostile jungle. Many people have tried to copy any of the many works released by id Software, simply because they traditionally lead the pack in quality software adventures. When they write something, everyone sits up and takes notice. Consequently other game producers try to emulate that work and produce endeavors that have the look and feel of that gaming experience. This is free-enterprise at work. Fortunately id Software is not like Apple Corporation in trying to sue someone (Microsoft comes to mind) for "copying" the look and feel of their windowing environment. I don't suppose that Apple ever bothered revealing to the court that they "borrowed" that same windows look and feel from the Palo Alto research center where many of them had been former employees, where the windowing environment was owned and invented, along with the computer mouse, as well as many of the other common computer items we take for granted.

Other game producers simply license the technology from the innovators. An example of this is Softdisk Publishing. If you recall from my last time here, Softdisk Publishing was the firm that

distributes id Software's "Lost Games" collection. Softdisk Publishing licensed the technology that id developed for its Catacombs 3D adventure and subsequently produced the very entertaining "Curse of the Catacombs" game, which was subsequently commercially distributed through Froggman Software, and which I still play periodically. Look for it on the store shelves, it's worth playing! A very entertaining blastfest that the young at heart will really enjoy. If you can't find it, call 1-800-876-FROG (3764). They also have the commercial version of "Rescue Rover", called "Dognapped," plus others (You'll also be helping the National Fish and Wildlife Fund, which Froggman Software enthusiastically supports).

BLAKE STONE

Another example of licensing technology is Apogee Software, made famous by its distribution of both the Commander Keen games, as well as Wolfenstein 3D. Apogee is merely the distributor for many if id Software's works, but people now associate them so closely that many consider them to be an integrated team, or even the same people. Not so. But see how associations can make a marketer synonymous with a product, even if it is produced by someone else? I fully expect one day to read about this presumed union in a college marketing book. Apogee licensed the Wolfenstein 3D technology from id and produced the development of the BLAKE STONE adventure "Aliens of Gold." Quite a nice piece of work, but their advertising hindered itself, because they touted it as the best games yet produced, which might have been true if id Software had been sitting on their butts instead of releasing DOOM. Consequently they have been railed and scorned by many because BLAKE STONE and DOOM are incomparable, DOOM being a far superior work. Regardless of this, version 2 of BLAKE STONE is quite an

interesting piece of effort. It has lots and lots of fascinating puzzles, and an almost infinite number of hidden passages that you access by pressing against a wall. By periodically studying the map, or by blindly pressing against every wall in sight, you can usually guess where secret rooms and passages are, and often where their secret entrances are usually located. All things considered, BLAKE STONE is a whole lot of fun, and is a truly enjoyable alternative for those whose computers do not have the muscle or expansion to support high definition games, such as DOOM. BLAKE STONE requires that you have MS-DOS 5 or greater, a 386 or better computer, hard disk, and a VGA monitor to supports its 256-color graphics. I've submitted the shareware version to Wyoming software on a singled high density 1.44 MB diskette, as I am doing for all the adventures that I am describing this month.

NITEMARE 3D

An example of copying a style can be found in David P. Gray's NITEMARE 3D adventure, "A House of Horrors." If any of you are long-time adventure addicts, you will probably recall that David produced the highly entertaining Hugo trilogy of adventures. Well, David seems to be stuck on the Hugo idea, and his stupid sweetheart Penelope has been once again kidnapped by strange beings. This time Dr. Hamerstein is holding her hostage, for God knows what, and defends himself from Hugo's intrusion with classic horror movie monsters, among other creations. This game is also a lot of fun. I enjoyed it even in the fact of simply noticing the similarities to Wolfenstein 3D, and also its many differences from its look and feel. The registered version includes a mapping feature, so that you don't need to keep a notebook handy to map where you have been (one of the shortfalls of the shareware version). The shareware version is available from Wyoming Software on

a 1.44 MB diskette, and requires a 386 or better, VGA, and a hard disk.

DOOM 1.9

DOOM is probably the most popular computer game in America right now. Literally millions of people are playing it. Go anywhere where there is a gathering of computer gamers and mention DOOM, and an animated conversation will ensue that will last the rest of the day or evening. Even Ron at Computer News PC was stuck on it. I think Stan was considering using a prybar to pull Ron from the game to get some real work done. Indeed, the game is so addictive that there are lots of actual cases of people being fired because they could not stop playing during business hours, some while at work, some while at home when they *should* have been at work. Although I really enjoy the game, I have yet to get stuck on this trip, except to use it to fully test communications on a LAN (Local Area Network). DOOM is probably the best product to test LAN systems, simply because it really puts a network through the wringer.

Because of DOOM's incredibly emense following, the bugs that might have otherwise gone completely unnoticed are found by these millions of "testers." Last time I provided you with a diskette so that you could upgrade DOOM from version 1.2 to version 1.666. This time I'm providing you with a disk to upgrade version 1.666 to version 1.9. This upgrade was almost 1.8. The reason for this is that I had downloaded the 1.8 upgrade from the id Software Internet site, and was preparing them for submission to Wyoming Software, when by chance the other day (as far as it was for this writing), I noticed that the 1.8 upgrade was completely pulled from all Internet sites and replaced by a 1.9 upgrade. Regardless, it seems that version 1.9 runs a bit faster. It is also a lot less touchy. If you ever had any trouble getting DOOM to run on

your computer before, this upgrade will probably solve the problem.

This month I've submitted several disks for DOOM I (as it is now called). The first is a 2-disk set of 1.44 MB disks that supply you with version 1.9 of the shareware version of DOOM, "Knee-Deep in the Dead." Also included in this version is the 1.666 version of the Official DOOM FAQ (Frequently Asked Questions), providing you with many clues to both DOOM I and DOOM II. This game requires a 386 or better, 4MB RAM, VGA, and a hard disk. Another 1.44 MB disk I've submitted is the "DOOM UPGRADE 1.9." This upgrades DOOM I version 1.666, either the shareware or registered version, to version 1.9. This also includes the DOOM FAQ. To round out this DOOM I submission, I've also included my own creation, "DOOM 1.9 DEMOS," which will play for you all 9 levels (8 main levels, plus the secret Military Base level) of the first episode, "Knee-Deep in the Dead," and show you all the secret passages. To make it really interesting (and gory), I recorded all of these adventures using the Ultra-Violense mode, all starting out with just a pistol and fifty bullets. This job was getting to be a bit trying, because I had originally recorded them for 1.2, but later I had to do them again for 1.666, because demo files (those with an .LMP file extension) will not work between versions. It became a bit more frustrating later, because when I had JUST finished recording the version 1.8 demos, I found out that version 1.8 had been totally scrapped and replaced by version 1.9. Therefore, by the time I recorded the version 1.9 demos, I decided to intentionally let the hero take on a lot more painful damage, as a sort of self-punishment, and at the same time give those who play and find a high degree of self-damage frustrating and causing them to quit and start over, that things are not always as bad as they might

seem, as I am still able to completely finish, even when things are looking pretty grim for the hero.

DOOM II 1.9

DOOM II has also gone through 3 upgrades. Again, the 1.8 upgrade had been totally scrapped. The first upgrade was supplied in my last installment, which enhanced version 1.666 and version 1.7 to version 1.7a. The upgrade that I am supplying you with this time will upgrade version 1.7a to 1.9, and is called "DOOM II UPGRADE 1.9," and it is supplied on a singled 720K disk. The version 1.9 upgrade seems to make the game run faster. It gets rid of some transparent walls, walls which sometimes beasties seem to be able to pass through, to fix networking bugs, and to add some simplifying utility programs.

HERETIC

People have begun to license the DOOM technology now. An excellent example is Raven Software, who has teamed up with id Software in producing Heretic. Heretic is a fantasy-type adventure, using the tried and true DOOM engine to produce a very entertaining and exciting game. This game is much less violent than DOOM, and so many of you will feel much more comfortable with it, due to less gore but still lots to explore. The shareware version is supplied on two 1.44 MB disks, and requires a 486-33 or better, 4MB RAM, VGA, and a hard disk. I think it will play acceptably on a 386 system, even at 20 or 25 MHz, but frame smoothing (the sequence of moving from one screen picture frame to the next) seems to be best at 33 MHz and higher. It is absolutely seamless on a Pentium.

DEPTH DWELLERS

An example of people independently developing similar technology (strange how we use such terms to describe today's games) is the development of "DEPTH DWELLERS -- The Quest." This game is a lot of fun, though

sometimes a bit boring and/or confusing due to a constant barrage of mazes, a concept that does not seem to work very well in 3D gaming, and play is not anywhere near as intense as DOOM. Indeed, by comparison it is quite tame. However, the husband and wife developers of this game are simulation engineers for NASA, and what they have done I wish could be done for DOOM. And that is by obtaining the registered version of Depth Dwellers you are provided with 3D glasses, and you can play this 3D movie in VISUAL 3D! This has to be seen to be believed. It looks just like a hologram. It's bad enough when a rocket is launched at you and you see it growing larger as it gets nearer, but to also visually PRECEIVE it as getting closer is a bit unnerving. The registered version is a definite must-have. I've supplied the shareware version on a single 1.44 MB disk. The game requires a 386 or better, VGA, 4MB RAM, and a hard disk.

DESCENT 1.1

If you thought the 3D experience of DOOM was incredible, the TRUE 3D perspective of DESCENT will blow you away. DOOM is actually 2D mapped, meaning that you cannot take a passage that passes over or under another passage. Although in DOOM II I thought there were actually instances of this, it was actually done using a quite tricky floor raising/lowering technique. DESCENT will place you in a world where you actually FEEL the sense of zero gravity. It also feature incredible 3D perspectives, with true hightmapping and light sourcing. As far as graphic rendering goes, this game blows DOOM away (I'm just waiting on id Software to release their QUAKE project, which is supposed to totally blow away anything yet produced, even Descent). Because of the true 3D perspectives, the movement controls in Descent are a lot more complex. Not only do you use the 8 cardinal points of the compass, but you also

have controls for height movement and roll. But once you gain sufficient experience with these extended controls, look out, because they will become as second nature and you will quickly become addicted to this new world! Indeed, the only other place I have experienced such effects is while scuba diving, were you are not very concerned with which way is up (except when the ol' tank is starting to run low). Descent is another games that you truly must see to be made a believer. The shareware version is available from Wyoming Software on two 1.44 MB disks, and requires MS-DOS 5 or better, VGA, a 486 or better, 4MB RAM, and a hard disk. A fair warning, after you set the destruct sequence at the end of each level, those last 45 seconds seem like 2 as you try to gain the exit port to escape. I'm still breathing hard!

With that, I'll close for now. May you adventures always be hazardous, but with happy endings!
-David Goblen

Contributions to CNPC are valued from anyone. We want CNPC to be as varied and as helpful as possible.

Programs and articles must be on a disk saved in ASCII and should have a hard copy enclosed.

Programs submitted for publication in CNPC must be released into the Public Domain.

Shareware and PD programs for the File Cabinet PC Library are welcome and will be reviewed in future issues.

Mail to:
Computer News
PO Box 680
Casper, WY 82602
Material submitted cannot be returned.

DESKMATE NOTE I

by Clifton N. Duval

This is an expansion of an idea that I gave in the first Notes on DeskMate. As noted there it is easy to work with any ASCII file, and that DeskMate TEXT is not limited to those files ending with the .DOC extension.

If you wish to work with several files with an ending other than .DOC or if you would like to make several changes to one file and try them out one at a time, it is easier to use the Desktop F7 menu of DeskMate. First select the F7 pull down menu. Now select redefine. Next select TEXT from the list of available DeskMate programs. Then move the cursor to the Data File Extension box. Let's assume that you would like to work with BATCH files. With the Data File Extension box highlighted type BAT. Then move to the Start-up Directory box. Perhaps you wish to work with your AUTOEXEC.BAT file. This is usually kept in the root directory, so type C:\ and press ENTER.

Your AUTOEXEC.BAT file is now showing in your Desktop TEXT program box. Select it and you enter TEXT with AUTOEXEC.BAT on screen. This works very well making multiple changes to a file and trying out the changes. When you are finished be sure to redefine TEXT from the Desktop F7 menu back to its original values.

If you would like to view or work with several files with a different extension, give the following method a try. Redefine the TEXT extension as noted above. Again let's use BATCH files as an example. Type BAT in the Data File Extension box. (Remember that this method can be used for any extension used with ASCII files.) This time do not change the Start-up directory box. Press ENTER to take you back to the Desktop.

Select Tree from the F5 View pull down menu. After the screen has changed to the Tree view, it is

easy to select the directory you wish to work in. (One reason for choosing BATCH files for our example is that many computer users will have a separate BATCH file directory.) When you have selected your directory (pressing ENTER with the directory highlighted or double clicking the mouse) the list of files in that directory are shown. Any with a .BAT extension will have TEXT.PDM showing in the PROGRAM Column. If you would like to view or modify one simply select that file by double clicking on it with the mouse or by highlighting it with the arrow keys and pressing ENTER. You will now be in TEXT with the selected file shown on the screen.

You might like to try this method to work with regular TEXT .DOC files. The ability to use the F6 Sort by menu can be very handy at times when looking for the file you wish to see or change. Of course the F6 Sort by menu is not available from the normal Desktop.

Also by redefining the TEXT extension and using Task Switch, information can be copied between files with different extensions.

-Clifton N. Duval

SECRETS OF THE 1000's TANDY 1000 HINTS AND TIPS

by David Knarr (Micro Systems)

I want to start out this month's column by saying, "Micro Systems Is Leaving The Hardware Business." That's right, we will no longer be offering hardware for the Tandy computers or any other computer, for that matter. We are NOT going out of business, we are just going to be focusing more on the books and video side of our business. Many of you might be wondering why, so I will explain.

In the last two years, we have been watching the Tandy add-on

business decline. For example, the EX/HX memory boards, we sold an average of over 100 boards per month. Now, we sell maybe 2 boards per month. The same goes with hard cards, we sold an averaged 300 per month, now, 10 per month. One reason is that most people are scared off when they find out the smallest hard drive in production is 420 megs. However, the price of a 420 meg hard card, is in the ball park of a 40 meg was just two years ago. Even though you can move most add-on products from a Tandy to a Non-Tandy 386 or 486, most people have become afraid to put anymore money into their computer.

Another example is, with our EX/HX memory boards. The circuit board companies don't want to make small quantities of the memory boards. They are looking for a 500 piece minimum order. It's too costly of an investment for us to have anymore boards made when you are only selling 2 boards per month and your profit margin is only \$11 per board! This is not a good business investment.

On the other hand, our books and videos continue to sell at a very high rate. That is why we are going to be focusing more in this area. We want to help the computer owner get more out of their system and to learn as much as they can about their computer.

With all of these changes taking place and the declining demand for products, we decided it was time to move on. After 13 years in the Tandy add-on business, we are changing our direction. We will continue to support the Tandy owners, but with the information that you will need to keep your system running. This was a hard decision for us and we hope you understand. If you are looking for products, spare parts or upgrades for your system, order them now, our quantities are limited and we will not be restocking our shelves.

Yes, I will keep writing this column and passing on information to you. We have several ideas for

new videos aimed at the Tandy owner and new computer owners. If you have any ideas on what you would like to see, drop me a line, our address is in our ad. Now, on with the rest of the column.

One of the most often asked questions that I receive on a day to day basis is, "What software will run on my Tandy 1000?" Sound familiar to anyone?

First, let me say, there is plenty of software that will run on your 1000! You just need to know where to look for it. If you go down to your local software store, you may find a few programs for your system, but the stores are now mainly catering to the Windows crowd. If you find that this is the case in your area, see if they have a table with older software or close-out software. Some of the best deals on software for the older systems can be found there.

For example, one gentleman told me he picked up Microsoft Works version 2.0 (the current version is 3.0) for \$19 at a local computer store. It was on the discontinued merchandise table.

Also, watch in your newspaper for auctions on computer equipment. I went to one recently, and they had tons of old versions of various software packages selling for 5 cents on the dollar. One note, make sure you inspect the package before you bid on it. Make sure it will work on your system and that it is still sealed or has all the disks and manuals.

Another source for good programs is Computer News PC and other places that offer shareware or public domain programs, such as CompuServe, American On-Line or Internet. Now, before you start to complain that the shareware or public domain programs aren't any good, just keep reading.

There is alot of junk shareware and public domain programs, however, there are quite a few good ones, too. You just have to try the program and see if it meets your needs. Just remember, that these programs are not always going to be

as fancy as the more expensive store bought programs. Generally with public domain software you get no support and the documentation for the program is usually on the disk. For \$3 to \$10 a disk, what do you expect. We use quite a few public domain programs here at Micro Systems, especially utility software and we have been very happy with them.

PC-SIG is another good source for shareware and public domain software. They even have a book, that you can buy in most bookstores, that has a description of the programs and the system requirement.

Software is still out there for your systems, you just have to look in the right places.

TWO SOFTWARE PACKAGES I RECOMMEND.

Whether you are a home user, student or small business user, the two programs that I recommend are Microsoft Works for DOS and Quicken for DOS. (Note: Make sure you get the DOS versions, not the Windows version.)

Microsoft Works has an excellent word processor, a spell checker and thesaurus, a communication program, database program, spreadsheet, and a charting program, for producing graphics and charts. In fact, you can even rename, delete, copy files, format disks and more all from within this program. It sells for about \$109. We used Microsoft Works to write both volumes of the Tech Notes and Jumpers Manuals and the Building A New System book. In fact, it is the only word processor that we use anymore at Micro Systems!

I know it's not Word Perfect, but then again, how many of us need Word Perfect? You can do some pretty impressive stuff with Works, I recommend you check it out.

The other program I recommend is Quicken. Whether you want to just keep your checkbook or personal finances straight or whether you want to do your small business

accounting, this is an ideal program. I know quite a few small businesses in our area who use Quicken for all of their needs. You can keep it as simple as you want or make it as powerful as you need. Watch for promotions for Quicken, I purchased our copy on a special promotion of \$29.

PROTECT YOUR SYSTEM

As springtime is coming, so is thunderstorm season to most parts of the country. This is the time of year we get so many calls about dead or damaged systems. Remember, not only to unplug your computer, but unplug the phone line from the modem. You see, lightning may hit several miles away, but through lightning induction, the phone lines can act as an antenna and become charged. Thus sending this electrical charge down the phone line and into your modem. Depending upon the circumstances, it may do nothing to your modem or it may burn out your modem and in some cases it may burn out the modem and the motherboard!

Most people have surge protectors on the power line for the computer, but almost everyone forgets about the phone line. There are surge protectors available for fax and modem equipment, this will help protect you. You may want to replace the power surge protector and modem surge protector every year or so. You see a surge protector can only take so many hits by surges, before it stops protecting. Some of the better surge protectors have an indicator light, that shows you it is still protecting your equipment from surges. Don't confuse the power on light with a surge protection indicator light, there is a difference.

COMMON QUESTIONS

Here are some of the most frequently asked questions:

"When I boot my system, it comes up with I/O ERROR 378H." All this means is you have

the printer cable on upside down on the back of the computer. This only applies to the earlier 1000's that have a card edge connector for the printer port.

"I just installed a floppy into my SL (or TL's, RL's, RLX's, HX), but my system doesn't recognize it." Whenever you add a floppy, remove a floppy or change the floppy drive from say a 5 1/4" to a 3.5" on these systems, you must run the setup program for your computer. This will tell the system that you have added or removed a drive or change the type of drive in the system. Once you have run setup, save and exit from the program and REBOOT the system, so the new setup will take effect.

"I want to use a regular joystick on my 1000, but when I install a joystick card into my system it won't work, why?" The 1000's have built-in joystick ports that use the same address the game card or joystick card uses. When you install the game card, you are creating an address conflict between the built-in joystick ports and the game card. I have seen some game cards that let you use a different address for the joystick, but not all software will work the joystick being at a different address.

"I can't get my clock chip to work in my TX." The 1000 TX and SL's use special software to run some clock chips. Lucky for you, the software was included with the DOS that comes with the SL and TX. The program for the clock on the SL is SLCLK and for the TX it is SMWCLOCK. Simply use this software instead of the software that came with the clock chip.

KEYBOARDS

I have received several calls from readers looking for replacement keyboards for the 1000's. Below is a chart showing you which computers can use standard 101 keyboards and which ones need special keyboards.

1000 Special Keyboard Required
1000A Special Keyboard Required

1000HD Special Keyboard Required
1000SX Special Keyboard Required
1000TX Special Keyboard Required
1000SL Standard 101 Keyboard,
see note 1
1000SL/2 Standard 101 Keyboard,
see note 1
1000TL Standard 101 Keyboard,
see note 1
1000TL/2 Standard 101 Keyboard,
see note 1
1000TL/3 Standard 101 Keyboard,
see note 2
1000RL's Standard 101 Keyboard,
see note 2
1000RLX's Standard 101 Keyboard,
see note 2
1000RSX Standard 101 Keyboard,
see note 3

Special Keyboards: These systems will not work with a standard 101 style keyboard. They require a keyboard that has a converter built-in to convert the keycodes from standard IBM to Tandy. There has been several companies to make 101 keyboards for these systems, such as DataDesk and Northgate. DataDesk is out of business and as far as Northgate goes, I am not sure if they are still making a Tandy compatible keyboard anymore. I know we used to sell the Northgate keyboard, however, we discontinued them due to the high cost and Northgate rarely had them in-stock.

NOTE 1: These systems can use a standard 101 style keyboard that is XT/AT switchable. You must switch the keyboard into the XT mode. Not all keyboards are XT/AT switchable, so be careful when you purchase one. If you try to use a 101 keyboard that is in the AT mode or that is not switchable (it will be in the AT mode), it will not work. I want to point out that keyboards that are XT/AT switchable are starting to become hard to find.

NOTE 2: These systems can use a standard 101 style keyboard that is XT/AT switchable, that has a mini-din plug. This is a smaller plug

than is used on most systems. You must switch the keyboard into the XT mode. There are adapters available that will convert a standard din plug to a mini-din. These will work fine, just make sure the keyboard is XT/AT switchable and in the XT mode. Not all keyboards are XT/AT switchable, so be careful when you purchase one.

NOTE 3: These systems can use a standard 101 style keyboard that has a mini-din plug. The keyboard should be AT compatible and if it is switchable, it should be in the AT mode. If you are having trouble finding a 101 keyboard with a mini-din plug, then you can use a 101 keyboard with a standard size din connector and use an adapter to convert it to a mini-din.

I have had several people call and ask if we were going to ever release volume two of the Secrets Of The 1000's. We have shot most of the footage for this second volume, however, when we sent out about 50 demo reels of the second volume, almost everyone said it was too technical. (We were showing how to modify MFM and RLL controller cards, different modifications to the 1000's that required soldering, modifications to floppy drives, building your own cables, etc.) So we decided not to release a second volume, but thanks for asking. We have had several people ask if we would make a simpler version of volume 2, so we may release another hardware video on the 1000's. It will show you how to make floppy drive cables so you can use standard floppy drives in your systems. How to make printer cables, how to build your own hard cards, how to make EX/HX expansion slot adapters so you can use standard expansion cards in your EX and HX, and more. I would like to hear from you if you think this type of video would be of interest.

We are considering making a

video titled "A Beginner's Guide to DOS." It will cover making directories, deleting directories, backup, restore, copying files, formatting floppies, and more. Again, I would like to hear from anyone who thinks this might be of interest. If we get enough positive response, we will have it ready within 30 days. Till next time, happy computing.

-David Knarr

BRIDGE, ANYONE?

by Rita Laws, Ph.D

100 million players throughout the world can't be wrong. That's how many people love the game of Bridge. According to card game experts, Bridge takes longer to learn than any other card game but is the most challenging and popular. More than 5,000 books about Bridge have been published, as have dozens of different Bridge computer games and tutorials.

Bridge originated in England under the name whist, or whisk, in the early 17th century. At first whist was a game for the lower classes, but early in the 18th century it was taken up by the upper classes in London coffeehouses. In 1742 the first Bridge book, Edmond Hoyle's Short Treatise on Whist, became a best-seller. Bridge was soon the rage throughout fashionable English society, and spread to Europe and America. Bridge has been a staple among computer card game offerings since the first game software was developed in the 1970's.

One of the newest computer bridge games is available in both shareware and commercial forms. The former is called MVP Bridge for Windows (there's also a DOS version) and can be ordered through Computer News PC. (Disk # 10357) Both types have a colorful interface, background music, and lots of help for the beginner. When you register*

MVP Bridge for \$39.95, you receive Eddie Kantar's Bridge Companion for Windows developed by MVP for Lifestyles Software Group. This game comes on one HD diskette, and has extra features like the 50 interactive tutorials hands written by the namesake Bridge whiz. It also allows the user to edit, save, and create hands. Make the computer your partner or your opponent. There are different levels of play from novice to advanced, multiple bidding conventions, and Rubber, Duplicate and Chicago Bridge Scoring Rules.

As an old time spades player, but a Bridge novice, I was pleasantly surprised to discover that I could master the shareware version easily. One of the best things about the registered version is that you can change the options as your expertise grows. In this way, the game is always challenging. The hint option and explanations of plays came in handy for me.

The registered version offers an additional tutorial that is very easy to follow. If I keep playing these games, the world will soon have 100 million and one Bridge players.

-Rita Laws

THAT'S SPORTSTER, NOT SPORTSCAR

by Rita Laws, Ph.D

You wouldn't know it to see me lumbering down the street in an old three-quarter ton army tank disguised as a Chevy van, but I'm a speed demon. Fortunately, there are no Highway Patrol officers on the Information Highway, or my license would have been revoked already.

That's because I've discovered the 28,800 baud modem, a US Robotics* external Sportster, to be exact. Insiders call them V.34's but I like the way "28,800" looks and sounds. Compared to 2400, 9600 and 14,400, well, there's no comparison. I can now chat on my favorite BBSs at lightning speed. Connection- zip!

Chatting- zap! Hanging up- pow! Instantaneous modeming. For the first time in my life, a virtual chat is as swift as the real thing.

Please understand that I don't care how fast my computer is. In fact, my relatively slow computer meets all my needs nicely. I don't drool over Pentiums. I don't mind pretty pokey gaming or slightly sluggish calculations, but when I'm online, paying by the hour, and, sometimes, at long distance rates, speed is the thing.

I THINK I'M IN LOVE WITH SPEED.

Yes, I realize that someday my great-grandchildren will come across this article while browsing a publication database on the Net, and will laugh heartily at my excitement. Then they'll rush off to their online classes at 57, 600,000,000,000,000 baud speed. But for today, in 1995, I'm quick.

The down side of 28,800 is that this newfound peripheral rapidity highlights too many inconsistencies in my life. For example, my modem is state of the art- my shoes are ten years old. Last night I spoke electronically to people in Poland, Finland and South Africa on the Internet Relay Chat, but I haven't called my Mom in weeks. I think nothing of grabbing a file off a Web page in Canada, yet I balk at running to the store for bread. I talk to strangers daily, and have been known to put my best friend on hold. I should work on these things. And I will, but not now. I'm late for a chat, and then I have to pick up some email, check in at some Internet newsgroups and.....

-Rita Laws

(* USR: Voice-800-DIAL-USR;
Fax-708-676-7320)



DESKMATE NOTE II

by Clifton N. Duval

I am a DeskMate fan. I have found DeskMate along with some its add-on programs quite adequate for my needs. The computers I am using with DeskMate are a 1000SX, 1400 FD, and a 2500 SX 20. None of these have DeskMate in ROM.

Filing information for later use is for me as important as word processing. Although DeskMate lacks a relational database it has otherwise been well endowed. DeskMate comes with FILER and its related FORM SETUP program. This is really a quite neat card file type database program and serves well for many purposes. Two files `INVENTORY.FIL` and `CARMAINT.FIL` are provided to help you get started.

Several years ago when using DeskMate version 3.0 or possibly 3.3 I had FILER apparently hang up the computer. This was with a fairly large database. The first couple of times this happened I waited a few minutes and then rebooted the computer. My database was corrupted of course. This happened a third time. However, instead of rebooting the computer, I just let it set there. After about an hour the computer returned to operation with the database intact. I imagine some programming problem was corrected with later versions. The problem hasn't reoccurred in years. I have one database with over 1900 records and it has caused no problems. There have, however, been numerous warnings against creating large databases with FILER. The amount of computer memory may be important.

However, FILER is only one of the filing programs included with DeskMate. ADDRESS BOOK is another database designed to hold your addresses. This program is well integrated to work with TEXT. The PHONE LIST accessory also makes use of the ADDRESS database. CALENDAR is another DeskMate database predesigned with a special use in mind. With 20 CALENDAR

databases possible, it is easy to have separate calendars for several people and/or different types of events. The TO DO LIST makes use of the CALENDAR database to display events for the current day.

In some of the newer Tandy computers with DeskMate in ROM, FILER (and WORKSHEET) were replaced with HOME ORGANIZER. This program is also available as a DeskMate Companion and usable by anyone running DeskMate. Much of this program is a set of dedicated databases. If you are a new computer user or if your filing needs are not extensive you will find this a very useful addition to DeskMate. Included are an Information Center, Collections, Diary, Home Inventory, Itemized List, Travel Planner, Cookbook, Grocery List, Meal Planner, Account Information, and a Financial Notebook.

The Information Center contains a monthly calendar, a message board, a scratch pad, and place for important phone numbers. If you use the TO DO LIST accessory, you will need to choose between the Information Center calendar and the regular CALENDAR program. If both are used the TO DO LIST will show the events from the Information Center and ignore those from the regular CALENDAR program.

The COLLECTIONS solution contains several sample collection databases including `ANTIQUES.COL`, `BOOK.COL`, `COIN.COL`, `L-LEAGUE.COL`, `MOVIES.COL`, etc. You may add and define any others that you wish. With this filing system your data is limited to four short fields, one money amount field, and one large field for notes.

The DIARY is a nice password protected, easy-to-use database for your personal thoughts.

COOKBOOK, GROCERY LIST, and MEAL PLANNER are databases that contain the information that their titles suggest. They are designed so that inform-

ation contained in one may be used by the others as needed. If you have favorite recipes, it is a pleasure to just print one out for your friends.

There are two other database programs designed to run under DeskMate. These are MemoryMate for DeskMate from Broderbund and filePro for DeskMate from The Small Computer Company, Inc. Both are excellent, but each has its own purpose.

filePro for DeskMate takes over where DeskMate FILER stops. This program has so many features that it is difficult to enumerate them. filePro for DeskMate offers multiple screens, multiple reports, multiple report types, associated fields, multiple subfields, field types with edit types, data import and export, multiple indexes, and extensive query options. If you do not need a relational database, filePro for DeskMate will probably serve you well. A bit intimidating at first glance, I think it is actually easier to design a database file with filePro than with DeskMate's FILER and FORM SETUP.

Here's how to import the DeskMate ADDRESS file into filePro for DeskMate. It is necessary to change the ADDRESS database name from `PERSONAL.ADR` to `PERSONAL.FIL` and import as a DeskMate FILER file. Remember to change the ADDRESS database name back to `PERSONAL.ADR`.

MemoryMate for DeskMate is another great database program for use with DeskMate. It is unlike filePro for DeskMate because it is a free-form database. No form design is needed although you may design and use one if you wish. You may easily store and retrieve any type of information. MemoryMate is very, very fast in searching for your desired information. The program uses Hyper-text to allow the connection of records, thereby allowing moving forward and backward through the

connected records. Reports are not generated in the manner of filePro or FILER. However, individual records, a group of selected records, or blocks of text may be printed. Data may imported or exported as ASCII files. The program also has an alarm feature to automatically display records at a specified time. MemoryMate will easily serve as a PIM (Personal Information Manager).

Indeed, it is hard to imagine a database need that one or the other of these fine programs won't handle.

Another database that is often forgotten is all those letters and documents that you have written with your word processor over the years. Many of these often contain information worth saving and remembering. If collecting some of these into a group is desirable, importing them into MemoryMate for DeskMate is a great idea.

As mentioned in a previous article, Q&A Write for DeskMate contains a Card File database. This is particularly useful for form letters. A Card file may contain up to 1000 cards, 18 pages per card, with a maximum of 180 fields, 10 fields per page, a maximum of 127 characters per field. The maximum card length is 2000 characters. The ADDRESS database may be converted to work as a Card file.

Another possible database is Lotus Spreadsheet for DeskMate. This is attractive for certain types of information. Information may be exchanged between filePro for DeskMate and Lotus Spreadsheet for DeskMate. Browse screens may be generated in filePro for DeskMate that display information similar to that in the spreadsheet.

I had a problem using Lotus Spreadsheet for DeskMate with MS-DOS 5.0. As near as I can determine the problem was with the memory manager. The problem does not exist with MS-DOS 6 or the memory manager in Norton Desktop for DOS.

-Clifton Duval

A FALSE START?

by David P. Miller

Oops! I goofed again. Last issue, I presented a sample AUTOEXEC.BAT file that contained the command:

```
IF CONFIG==Windows GOTO Windows
```

Had I been reading my own articles, I would have caught the fact that this should have read:

```
IF %CONFIG% == Windows  
GOTO Windows
```

The percent signs surrounding a variable name tells the MS-DOS batch file processor that the statement refers to a DOS environment variable. As originally presented, the statement included a static text string for comparison, and resulted in the comparison of "CONFIG" to "Windows"; which would have always resulted in a False condition.

Oh, well: I never claimed to be perfect! Apologies for the error and I hope this did not cause any undue problems. However, since the subject of variables has been presented in previous installments, how many readers caught the mistake and were able to correct it?

Since I've indirectly gotten on the subject of controlling the environment, let's examine ways to make prompts more pleasing and informative by use of the MS-DOS driver 'ANSI.SYS'.

Long before personal computing existed, a standard method of representing alphabetic, numeric, and punctuation characters was needed to support the electronic transfer of information. The American National Standards Institute (ANSI) examined the codes currently in use and found that the de facto standard used by teletype equipment was well laid-out, so they adopted it under the name American Standard for Communications Information Interchange (ASCII).

This standard consisted of 128 characters, internally represented within electronic equipment by the numbers 0 to 127. The first 32 (0 to 31) and last character (127) were defined as special codes used to control the equipment in use; and the other 95 as printable characters. The ASCII definition was limited to 128 characters because the transmission methods of teletype machines of the time were limited to 7 'bits' of information per character, allowing only numbers within this range. Other codes consisted of fewer bits; the set used by military teletypes of WWII vintage consisted of five bits and used the special control characters 'SI' (shift-in) and 'SO' (shift-out) to obtain a second set of printable characters. (This set did not support lowercase letters.)

At any rate, the advent of personal computers (in kit form) with internal storage 'bytes' consisting of 8 bits meant that and additional 128 characters (#'s 129 to 255) were available, but not defined within the ASCII standard. Each computer manufacturer therefore created their own additional characters for use within this range; most provided graphic shapes that could be combined to enhance the screen in various ways.

After some years of personal computing, the Institute determined a need for a specification to support computers, and developed the ANSI character set from the codes used by the IBM Personal Computer and several printer manufacturers that were marketing printers designed to support the IBM PC. These codes included sets of line-drawing characters that allowed for easy construction of borders on the screen and forms on a printer.

The ANSI.SYS driver supplied with MS-DOS allows for the display of all these characters in the DOS prompt, as well as response by DOS to several 'Escape' sequences, which instruct the computer to perform specific

actions having to do with screen displays and setting of modes on the display and keyboard. Note that this discussion pertains to the latest version of ANSI.SYS supplied with MS-DOS Version 6.22; some items mentioned may not pertain to earlier versions, although the discussion regarding the DOS prompt applies to all versions.

To install ANSI.SYS, include the following line in your CONFIG.SYS file:

```
DEVICE = C:\path\ANSI.SYS  
[switches]
```

Where 'path' is the subdirectory or path pointing to the location of this file. 'Switches' are a relatively new addition: '/X' remaps the extended keys on 101-key keyboards; '/K' causes DOS to treat a 101-key keyboard as if it were an 84-key keyboard; 'R' adjusts line scrolling. These switches will not be further discussed at this time. Many of the available 'Escape Sequences' used by ANSI.SYS will also not be covered.

ANSI.SYS provides specific actions in response to 'Escape Sequences' for programs that can use them. Since the Escape character (27) is not a printable character and therefore not present on the keyboard (it is NOT represented by the [ESC] key), it is instead represented to ANSI.SYS with the character sequence '\$E'. An escape sequence consists of this pair followed by the left bracket ("["), and the characters making up the remainder of the sequence. Many such sequences are available; they permit movement of the cursor to any point on the display; movement of the cursor in any direction relative to the current cursor location; save and restore of the cursor location; clearing of the screen or a line; change of the graphics or text display mode; remapping of the keyboard (one key at a time); and setting of text attributes on the display. This latter feature is the subject of this month's discussion.

The command used to set text

attributes is:

```
$E[ps:[ps;...]psm
```

where 'ps' represents a decimal number corresponding to a specific text attribute, some of which may be used in conjunction and some of which are mutually exclusive. Once the escape sequence is encountered by ANSI.SYS, any number of decimal values may be included. Each is separated by a semi-colon, and the sequence is ended with a lower-case letter 'm'. The decimal values that may be used are as follows:

Text Attributes:

- 0 Normal
- 1 Bold
- 2 Underline (mono displays only)
- 3 Blinking
- 4 Reverse
- 5 Concealed

The concealed attribute is useful for allowing a user to type in a password, so that the text typed does not appear on the display.

Foreground (text) Colors:

- 30 Black
- 31 Red
- 32 Green
- 33 Yellow
- 34 Blue
- 35 Magenta
- 36 Cyan
- 37 White

Background Colors:

- 40 Black
- 41 Red
- 42 Green
- 43 Yellow
- 44 Blue
- 45 Magenta
- 46 Cyan
- 47 White

Therefore, to obtain bold, yellow text on a blue background, you would use the following escape sequence:

```
$E[1;33;44m
```

Naturally, what appears depends upon the type and quality of your monitor.

PUTTING IT ALL TOGETHER:

These escape sequences may be used to modify your DOS prompt using the PROMPT command within AUTOEXEC.BAT. Since the PROMPT command simply specifies text to be displayed at the DOS prompt, any escape sequences included cause the appropriate action to be taken. While ANSI.SYS responds to the sequences mentioned above, the DOS PROMPT command supports the following:

- \$A Allow next char*
- \$B "|" (Pipe)
- \$D Date
- \$E Escape Char
- \$G '>' Character
- \$H Backspace
- \$L '<' Character
- \$N Current Drive (only)
- \$P Current Drive+Path
- \$Q "=" (Equal Sign)
- \$T Time
- \$ _ New Line
- \$ \$ "\$" (Dollar Sign)

* 'Allow next character' is not an officially defined sequence, but is instead a convention used by batch file programmers to display any character not normally displayable from the DOS prompt. The '\$A' sequence is actually invalid, and causes DOS to simply display the single character following it.

By combining the sequences supported by the PROMPT command with the escape sequences processed by ANSI.SYS, the DOS and Windows/DOS prompts may be varied to suit the individual taste of each computer owner.

In the example provided in the Listing section, the DOS prompt is modified to do the following each time it is displayed:

o set the screen to yellow on blue
o display the word 'Type'

- o display "WIN" in red on black
- o set the screen to yellow on blue
- o display 'for Windows'
- o move to the next line down
- o display the drive and path
- o display the '>' symbol

The 'SET WINPMT =' command is used to define the prompt that will be displayed when Windows is active (the "MS-DOS Prompt" is activated from the group 'MAIN'.) This prompt is constructed using the same rules as the DOS prompt, and the example shown performs the following actions (the only difference being "EXIT" instead of "WIN"):

- o set the screen to yellow on blue
- o display the word 'Type'
- o display "EXIT" in red on black
- o set the screen to yellow on blue
- o display 'for Windows'
- o move to the next line down
- o display the drive and path
- o display the '>' symbol

As can be seen, the capabilities provided by the PROMPT and SET WINPMT commands in conjunction with the features of ANSI.SYS allow a wide variety of informative and pleasing prompts.

-Dave Miller

MORE POWER to BASIC

Product Review

by Danny C. Mullen

Like the speed and ease of QBasic? Hate loading and running the QBasic environment to run your programs? Well, an alternative to the latter and surpassing the first may be the PowerBASIC compiler from the company of the same name. A product that was formerly marketed by Borland as Turbo Basic has come back to the original authors. But now there are more features and power.

One thing you'll notice is that PowerBASIC is almost totally compatible with QBasic - there are very few changes, if any, that you would have to make to a QBasic program to have it run and compile in PowerBASIC. Note that QBasic is an interpreted subset of Microsoft's QuickBasic compiled basic. QBasic comes free with later releases of MS-DOS where QuickBasic will cost you about \$100.00 plus. My PowerBASIC cost about \$119.00 but I recently saw an ad for it around \$95.00.

PowerBASIC comes with its own operating environment (IDE) which contains an editor, the compiler, and selectable compile options. Anything you can do in the QBasic environment, PowerBASIC does, and more. You can, for instance, run a program similarly to QBasic, without compiling and saving to disk. This is handy to test your code prior to saving a compiled program to disk. PowerBASIC creates a genuine .EXE file that you can run alone when you are finished developing.

Complete debugging support is built into PowerBASIC and you can include debugging code into your programs. When you're satisfied all works well, compile without the debug code for smaller .EXE files. There are other options to help keep finished code smaller, such as eliminating printer and communications support. This can be important, since even a small program of a few lines can approach

20-30K in size after it's compiled and saved to disk. While not large by some of today's standards, smaller usually means faster loading and running. Not to say that PowerBASIC is lethargic; on the contrary, it blazes through compilation and execution. If you thought QBasic was fast, well...don't blink!

You can create pre-compiled modules of re-usable routines (.PBU) and collect them into libraries (.PBL). This is similar to files created under other compiled languages (e.g. .OBJ and .LIB files). PowerBASIC can even use .OBJ files created by assemblers such as TASM or MASM.

Ever dreamed of writing TSRs? You guessed it - PowerBASIC makes it so easy. Have TSRs pop up at the touch of a key, at a certain time, or on a certain event. TSR code can be switched out to disk or EMS memory to allow maximum available RAM for your main program. Have some experience with assembler? Yes, that too; include assembly directly into your code for those tight routines everyone needs at times. You can also utilize its ability to call DOS and BIOS interrupts directly.

PowerBASIC came on one 1.44 meg disk and one extra disk of demos and source code to get you started. Two manuals, one User Guide that covers most areas in general terms, and a Reference Guide for the specific syntax of the language. Both manuals are 300+ pages, fairly-well written, and except for a few typos/grammar errors, easy to follow. Phone, FAX, and BBS support are all available, as are add-on products and disks of Public Domain source code.

I had no problems installing the disks, or running any of the samples enclosed on disk or in the book. There are many features not mentioned here, and untested by me (as yet), but from what I've seen so far, I don't believe I'll be disappointed.

continued



PowerBASIC 3.0 Basic Compiler
from:

PowerBASIC, Inc.
316 Mid Valley Center
Carmel, CA 93923-9968

800-780-7707 (orders)
408-659-8000 (queries)
408-659-8008 (fax)

Terms used in text:

ASSEMBLER = Program that compiles a source file or sometimes used as the name of a programming language BIOS Basic Input-Output System.

COMPILED = Lines of source code converted to computer's internal code.

DEBUG = Fix problems in code such as logic or typographical errors.

EMS = Expanded Memory System

EXE = A type of file format

IDE = Integrated Development Environment.

INTERPRETED = Translated source code (one line or word at a time).

INTERRUPTS = Small subroutines or code modules that perform specific tasks.

LIBRARY = A collection of re-usable code modules.

MASM = Microsoft Macro Assembler.

OBJ = An intermediate block of program code needing linking to run.

PBU = PowerBASIC Unit (similar to OBJ).

PBL = PowerBASIC Library.

RAM = Random Access Memory.

SOURCE CODE = Original lines of program you write.

TASM = Borland Turbo Assembler.

TSR = Terminate and stay resident program.

-Danny C. Mullen

MetaStock 4.0

Investment Analysis Program
by Fred Blechman

MetaStock is a software program that charts and analyzes a variety of investment products using popular technical analysis tools. But don't let the name "MetaSTOCK" mislead you! Many of the indicators and studies available in MetaStock were originally developed to analyze bonds, commodities, currencies, futures, indices, mutual funds, options - and stocks. With its combination of technical indicators and charting features, MetaStock helps investors and traders make more profitable and better-informed decisions.

MetaStock uses a "layered" approach that makes the program convenient for both beginning and experienced computer users and investors. The "outer layers" consist of simple analytical tools, such as moving averages, which most investors use. The "inner layers" consist of progressively more complex tools, from common trendlines to complex user-added formulas and system testing. As your skills grow, MetaStock can grow with you by providing additional layers of powerful analytical tools.

MetaStock can store up to 32,000 records (days, weeks, or months) for each security. It can track up to 255 securities per data subdirectory, with an unlimited number of data subdirectories. You can display up to 1,300 time periods per chart.

The latest version of MetaStock, Version 4.0, has a number of new and powerful enhancements, some difficult to describe without using words you may not understand. As is common with many specialties, investing analysis has a lexicon all its own, so some of the expressions that follow may be unfamiliar to you. If you're a newcomer to this field, MetaStock will "train" you, and these "odd" words will become meaningful. So bear with the jargon...

A convenient toolbar appears at

the top of the screen, and can be customized. You can also access all of MetaStock's features from easy-to-use pull-down menus, or by using simple keyboard commands. The menu method is easier; the command method is faster. A mouse is optional.

To help you analyze any type of security, MetaStock gives you more than 80 pre-programmed indicators and studies. If an indicator you want is not included in MetaStock, you can write your own using MetaStock's custom formula builder. A special tutorial in the MetaStock User's Manual teaches you how to create custom formulas.

Several layers of on-line help are provided to make it easy for you to run MetaStock. MetaStock's 500-page User's Manual contains more than 100 pages devoted exclusively to indicators, indicator interpretation, and technical analysis. The EQUIS Monitor, a free quarterly newsletter sent to registered users, also provides the latest information on technical analysis and MetaStock.

You can plot any type of moving average from the Moving Average dialog. A "System Tester" generates buy/sell signals when the security moves above/below the moving average. Or, you could have MetaStock optimize a trading system to find the most profitable moving average.

MetaStock provides several indicators to help you trade options. A full-featured "Option Worksheet" with MetaStock lets you compare options, and how changes in the security's price/volatility affect the option.

A "Pointer Mode," with its own toolbar and menus, uses a Pointer to inspect values at various points on a chart, display trendlines, and display various trendline studies. You can even plot four different Fibonacci studies, draw and change Gann grids, and can write text directly on a chart. A Data Window can display chart values at the Pointer. There are 30 different

Pointer commands and studies.

The "Smart Charts" feature remembers the contents of your charts, so you can move or re-size a chart window and your analytical tools remain intact. You can edit arrows, moving averages, text, trendlines, etc.

Using the Redraw Option, MetaStock lets you group (tiled or stacked) any combination of charts (up to 36 on a screen) into a page "layout." It's a great way to keep similar securities or industry groups together for quick and easy related reference. You can save the layout and retrieve it at your convenience. For example, you might save a layout featuring airline stocks, commodities or indices. When you load the layout, all the securities will be displayed with up-to-date data, with their trendlines, moving averages and indicators intact.

MetaStock 4.0 introduces "templates." A template remembers the windows and studies displayed. You can then load a template using a different security. MetaStock includes several pre-defined templates, and you can also create your own. Templates make it easy to quickly arrange charts and indicators into your favorite format. You could easily attach a template to a button on the toolbar so a single mouse click would do this automatically. You can also move charts anywhere on the screen, and stretch a chart, horizontally and vertically, to any size that fits on the screen.

MetaStock 4.0 features "The Explorer," which helps you locate investment opportunities by searching and arranging your securities. For example, it could find only those securities that are above their 200-day moving average, where the Stochastic Oscillator is making a new high, or where both volume and prices are increasing. The Explorer can also sort securities by performance or various indicator values.

Included free with MetaStock is "MetaStock Utilities," a software program that converts data files

between the MetaStock format and several other popular formats (ASCII, 1-2-3, etc.), and tests your data file for errors.

You can use MetaStock's "Program Automation" commands and create keyboard macros that enable MetaStock to run unattended. For example, you might create a macro that loads, tests and prints charts on any or all of your securities while you're away from your computer.

MetaStock prints publication-quality charts to nearly any type of dot-matrix, laser, or inkjet printer, and even plotters! Advanced printing features let you include headers and footers, control how the charts are arranged on a page, add drop shadows, designate a range of charts to print, specify margins, and much more. You can also print tabular reports of prices and securities. MetaStock charts are saved as .PCX files, which can be loaded into most word processor and desktop publishing software.

MetaStock is an end-of-the-day program. It has no provision for automatic updating all day long. However, MetaStock RT (\$495), for the really serious trader, is the real-time version. MetaStock RT has all the features of MetaStock, plus a number of additional features, including Data Broadcasting Corporation's Signal real-time datafeed, DBC SignalReports, and real-time news headlines in a scrolling ticker at the bottom of your screen. (For these you'll need a special Signal account, receiver, and password from Data Broadcasting Corporation at 800-367-4670.) A Quote Screen can be used to set price and volume alerts, and display the Most Actives on various exchanges.

It is difficult to cover MetaStock's extensive capabilities in a brief review. When you install MetaStock (takes about five minutes), you can run the AUTORUN screen tutorial (generated from a single MetaStock keyboard macro!), which goes into detail about the program features

with actual screens. A Demo Disk, available for only \$5, gives you a tour through many of the MetaStock features and screens. The MetaStock User's Manual contains hundreds of illustrations, examples and tutorials to help you get the most from your program - and your investments!

-Fred Blechman

MetaStock Version 4.5 (current)
EQUIS International
3950 South 700 East, Suite 100
Salt Lake City, UT 84107
Phone: 800-882-3040
First-time buyers - \$349 End of
Day, Real Time \$495
Upgrade from MetaStock 3.5 \$99
Upgrade from earlier versions \$149
Demo Disk: Free

System Requirements: IBM
AT, PS/2 or true compatible.(80386
or faster processor strongly
recommended), hard disk with at
least 2 megabytes of free space,
DOS 3.0 or higher, EGA or VGA,
mouse optional, math-coprocessor
optional.

(See printout examples in the
Program Listing section.)

TO FELLOW DOOMFREAKS

by Bob Martin

I was not a game player (on computers), until I was turned on to DOOM. I still don't consider DOOM & DOOM II games, but more of a challenge (to my ability to play them), which is my "hook". I am also at awe of this thing the id people (creators of DOOM/DOOM II) made, that has enabled gamers, hackers, and "ordinary" computer owners to get into something more than just participating - much like the "thing" that got me going in the 80's with the TRS-80's.

Editing levels, making new levels, playing fellow workers on the

network, over modems, and serial links - both with them and against them. Deathmatch against a someone I personally know is my ultimate challenge.

When I read David Goblen's "ADVENTURES" in the latest issue of COMPUTER NEWS PC, I can relate totally to his descriptions of DOOM.

I've been cruising the BBS's for .WAD files, but when I snagged a CD-ROM with over 1000 levels, gobs of utilities, editors, etc., I found DOOM/MASTER 3.0 in the Menu programs.

DOOM/MASTER 3.0 is a DOOM (original "DOOM I") shell that offers much much more than just a "shell". This disk contains both the original .ZIP file, as well as all the unzipped files. It is "Shareware", created by a student - with the help of some of his "friends", with a registration request of only \$5 - well worth it.

On the surface, it is a shell utility that allows you to select the .WAD file of your choice, identifies what episode and level it replaces, and after you pick the skill level you want, it creates the batch file that launches you directly into it. It is also set up for modem/serial control - does the dialing, etc., but there's so much more... Without sermonizing (the manual tells it all), I'll discuss two features that blew me away. First, it has a "PRAY TO GOD" skill level (above NITEMARE) that warps the monsters to you - you gotta keep moving, and you better activate the cheat codes, because you can't be caught running on empty.... and it's not uncommon to end a level with 130% kills (or more).

But the feature that astounded me was "Random Items". With "Random Items" you can play your favorite episode/level over and over again - and its never the same. You can randomize monsters, things, powerups, etc., and the rooms even look different. Different monsters hit you in different places, and the adrenalin never stops.

I never tried any other menu

program because I'm "stuck" on this one. There's still a gob of them on the CD-ROM. And here I am at 4:00 am writing this letter - because I have been trying out various Deathmatch levels for today's challenge on lunch hour at work.

Ain't it great! This thing called a computer.....

Enclosed is a 3 1/2" disk with 19 programs on it that you can enter into your Wyoming Software as DOOM/MASTER 3.0, "the ultimate Doom Shell," so that they will be available to other "fellow DOOMFREAKS."

-Bob Martin

(Disks # 10403, 3.5" 720K)

LOCKS, the RETURN

by Danny C. Mullen

GENERAL NOTES:

A few months back I submitted a small TSR program that beeps whenever you press the CAPS LOCK, NUM LOCK, or SCROLL LOCK keys. As you may recall, LOCKS was not removable once you installed it until you re-booted your computer.

That has changed; LOCKS1.EXE, on the disk, is a removable version of that original program. This new version is a bit larger and it's in the .EXE format versus the original's .COM format. And it does occupy a bit more memory (approximately 2200 vs 200 bytes) when resident. The difference is attributable to the overhead needed for uninstall routines and some internal safety checks.

To load LOCKS1, exit to the DOS prompt and type its name and press the ENTER or RETURN key. To unload LOCKS1 from memory, re-do this sequence.

When LOCKS1 is in memory, any press of the mentioned keys will cause a short beep; whether you're

setting the lock keys or unsetting them. If you desire to load LOCKS1 into the upper memory area just type in LH LOCKS1 and it will be placed into an upper memory block if your machine is set up for this.

TECHNICAL NOTES:

LOCKS1 does not allow itself to be loaded more than once, since that would serve no purpose anyway. Its routines check every one-half second to see if any of the target keys were pressed since the last half-second and emits the beep through the computer's speaker if they have. Also, to save a little memory, LOCKS1 releases the automatic copy of the environment block that DOS gives to programs. On my machine, that saved 572 bytes of memory. This made it slightly larger (about 200 bytes) for a net saving of about 300+ bytes. Sometimes that amount can make a difference when trying to squeeze many programs into limited ram.

LOCKS1 was made possible by the excellent assembly language library named SPONTANEOUS ASSEMBLY by BASE TWO DEVELOPMENT. LOCKS1.EXE is released to the PUBLIC DOMAIN, especially for COMPUTER NEWS PC & COMPUTER NEWS 80 readers. Enjoy.

-Danny C. Mullen

REMINDER

If your mailing label ends in 95/03 this is your last issue. Time to get your renewal in the mail.

MOVING ?

Remember to send us your change of address.

MS-DOS REFERENCE TABLE

Compiled by Danny C. Mullen

The following MS-DOS commands are some that have existed or still exist. The '0' indicates the versions of DOS they were included with. Note there are some conflicts with the various sources of this data as to under which version of DOS these first appeared. Also, some of the older versions of these commands may still work under the latest releases of DOS, but use them carefully. The reason some commands aren't in the later versions is because another command has either replaced its functionality or it was possibly dangerous to use. There is no version 6.1 in MS-DOS. Some commands listed are internal (i.e. exist as a part of COMMAND.COM) while others are external (i.e. are stand-alone .com or .exe files).

VERSION NUMBERS	
6 6 6 6 5 4 3 3 3 2 2 2 1	
.....	
2 2 2 0 0 0 3 2 1 0 1 0 1 0	
Command	2 1 0 0
APPEND	0 0 0 0 0 0 0
ASSIGN	0 0 0 0 0 0 0 0
ATTRIB	0 0 0 0 0 0 0 0 0 0
BACKUP	0 0 0 0 0 0 0 0 0 0
BREAK	0 0 0 0 0 0 0 0 0 0 0 0
CALL	0 0 0 0 0 0 0
CHCP	0 0 0 0 0 0
CHDIR/CD	0 0 0 0 0 0 0 0 0 0 0 0
CHKDSK	0 0 0 0 0 0 0 0 0 0 0 0 0 0
CHOICE	0 0 0 0
CLS	0 0 0 0 0 0 0 0 0 0 0 0 0 0
COMMAND	0 0 0 0 0 0 0 0 0 0 0 0 0 0
COMP	0 0 0 0 0 0 0 0 0 0
COPY	0 0 0 0 0 0 0 0 0 0 0 0 0 0
COUNTRY	0 0 0 0 0 0 0 0 0 0
CTTY	0 0 0 0 0 0 0 0 0 0 0 0
DATE	0 0 0 0 0 0 0 0 0 0 0 0 0 0
DBLSPACE	0 0
DEBUG	0 0 0 0 0 0 0 0 0 0 0 0 0 0
DEFRAG	0 0 0 0
DELETE/DEL	0 0 0 0 0 0 0 0 0 0 0 0 0 0
DELODDOS	0 0 0 0 0
DELTREE	0 0 0 0
DEVICE	0 0 0 0 0 0 0 0 0 0
DEVICEHIGH	0 0 0 0 0
DIR	0 0 0 0 0 0 0 0 0 0 0 0 0 0
DISKCOMP	0 0 0 0 0 0 0 0 0 0 0 0 0 0
DISKCOPY	0 0 0 0 0 0 0 0 0 0 0 0 0 0
DOSKEY	0 0 0 0 0
DOSSHELL	0 0 0 0 0 0
DRIVPARM	0 0 0 0 0 0
DRVSPACE	0
ECHO	0 0 0 0 0 0 0 0 0 0 0 0 0 0
EDIT	0 0 0 0 0
EDLIN	0 0 0 0 0 0 0 0 0 0 0
EMM386	0 0 0 0 0
ERASE	0 0 0 0 0 0 0 0 0 0 0 0 0 0

NOTE 3

NOTE 5

NOTE 1
NOTE 5

Cont'd on next page

VERSION NUMBERS

	6 6 6 6 5 4 3 3 3 3 2 2 2 1

	2 2 2 0 0 0 3 2 1 0 1 0 1 0
Command	2 1 0 0

EXE2BIN	0 0 0 0 0 0 0 0
EXIT	0 0 0 0 0 0 0 0 0 0
EXPAND	0 0 0 0 0
FASTHELP	0 0 0 0
FASTOPEN	0 0 0 0 0 0 0
FC	0 0 0 0 0 0
FDISK	0 0 0 0 0 0 0 0 0 0 0 0
FIND	0 0 0 0 0 0 0 0 0 0 0 0
FOR	0 0 0 0 0 0 0 0 0 0 0 0 0 0
FORMAT	0 0 0 0 0 0 0 0 0 0 0 0 0 0
GOTO	0 0 0 0 0 0 0 0 0 0 0 0 0 0
GRAFTABL	0 0 0 0 0 0 0 0
GRAPHICS	0 0 0 0 0 0 0 0 0 0 0 0
GWBasic	0 0 0 0 0 0 0 0 0 0
HELP	0 0 0 0 0
IF	0 0 0 0 0 0 0 0 0 0 0 0 0 0
INSTALL	0 0 0 0 0 0
INSTALLHIGH	0 0 0 0 0 0
INTERLNK	0 0 0 0
INTERSVR	0 0 0 0
JOIN	0 0 0 0 0 0
KEYB	0 0 0 0 0
LABEL	0 0 0 0 0 0 0 0 0 0
LINK	0 0 0 0 0 0 0 0 0 0
LOADFIX	0 0 0 0 0
LOADHIGH/LH	0 0 0 0 0
MEM	0 0 0 0 0 0
MEMMAKER	0 0 0 0
MIRROR	0
MKDIR/MD	0 0 0 0 0 0 0 0 0 0 0 0
MODE	0 0 0 0 0 0 0 0 0 0 0 0 0 0
MORE	0 0 0 0 0 0 0 0 0 0 0 0
MOVE	0 0 0 0 0 0 0 0 0 0 0 0 0 0
MSAV	0 0 0 0
MSBACKUP	0 0 0 0
MSCDEX	0 0 0 0
MSD	0 0 0 0
MWAV	0 0 0 0
MWBACKUP	0 0 0 0
MWUNDEL	0 0 0 0
NLSFUNC	0 0 0 0 0 0 0 0 0 0 0 0
PATH	0 0 0 0 0 0 0 0 0 0 0 0
PAUSE	0 0 0 0 0 0 0 0 0 0 0 0 0 0
POWER	0 0 0 0
PRINT	0 0 0 0 0 0 0 0 0 0 0 0
PROMPT	0 0 0 0 0 0 0 0 0 0 0 0
QBASIC	0 0 0 0 0
RECOVER	0 0 0 0 0 0 0 0
REM	0 0 0 0 0 0 0 0 0 0 0 0 0 0

NOTE 2

Cont'd on the next page

VERSION NUMBERS

	6 6 6 6 5 4 3 3 3 3 2 2 2 1	
	
	2 2 2 0 0 0 3 2 1 0 1 0 1 0	
Command	2 1 0 0	
RENAME/REN	0 0 0 0 0 0 0 0 0 0 0 0 0 0	
REPLACE	0 0 0 0 0 0 0 0 0 0	
RESTORE	0 0 0 0 0 0 0 0 0 0 0 0	NOTE 4
RMDIR/RD	0 0 0 0 0 0 0 0 0 0 0 0	
SCANDISK	0 0 0 0	
SET	0 0 0 0 0 0 0 0 0 0 0 0	
SETVER	0 0 0 0 0	
SHARE	0 0 0 0 0 0 0 0 0	
SHIFT	0 0 0 0 0 0 0 0 0 0 0 0 0 0	
SIZER	0 0 0 0	
SMARTDRV	0 0 0 0 0 0	
SORT	0 0 0 0 0 0 0 0 0 0 0 0	
SUBST	0 0 0 0 0 0 0 0 0 0	
SYS	0 0 0 0 0 0 0 0 0 0 0 0 0 0	
TIME	0 0 0 0 0 0 0 0 0 0 0 0 0 0	
TREE	0 0 0 0 0 0 0 0 0 0 0 0	
TRUENAME	0 0 0 0 0 0	NOTE 2
TYPE	0 0 0 0 0 0 0 0 0 0 0 0 0 0	
UNDELETE	0 0 0 0 0	
UNFORMAT	0 0 0 0 0	
VER	0 0 0 0 0 0 0 0 0 0	
VERIFY	0 0 0 0 0 0 0 0 0 0 0 0	
VOL	0 0 0 0 0 0 0 0 0 0 0 0	
VSAFE	0 0 0 0	
XCOPY	0 0 0 0 0 0 0 0 0 0	

Notes:

1. incomplete/unable to verify.
2. undocumented.
3. replaced by MSBACKUP.
4. retained for compatibility for previous DOS version backups.
5. DBLSPACE appears in version 6.20, ver 6.21 had no compressed disk support, and ver 6.22 comes with DRVSPACE - these are not compatible compression programs, but DRVSPACE can convert older DBLSPACE drives to its format.

(Editor's Note) "BASICA In PC-DOS (MS-DOS) on the IBM-PC family of computers, the command BASICA calls up an interpreter for a special version of Microsoft BASIC. This interpreter uses code stored on a ROM chip inside the computer; it works only on IBM machines. A similar interpreter for clones is called GW-BASIC."

Quoted from Barron's Dictionary of Computer Terms Second Edition.

Hint: Pick the MS-DOS version you have from the vertical version number at the top of the page and then color in all the 0 in a vertical line under that version number. This will highlight just what your version of DOS has and what it does not have.

SELL YOUR NEW/USED SOFTWARE/HARDWARE

With A CNPC Classified Ad

RATES: \$1 per Line of 35 Characters or Spaces, \$6 Min.

SETDOS/WINDOWS PROMPTS by David P. Miller

```
PROMPT=$E[33;44mType $E[31;40m$A"WIN$A"$E[33;44m for Windows$ _$P$G
SET WINPMT=$E[33;44mType $E[31;40m$A"E0IT$A"$E[33;44m for Windows$ _$P$G
```

CNPCSAVR.BAS PROGRAM LISTING NUMBER ONE by Danny C. Mullen

A TSR Screen Saver that cuts to the saver if the keyboard is idle for five minutes.

```
'CNPCSAVR.BAS
'POWER BASIC 3.0 source code for screen saver TSR
'Remove from memory by waiting until it's running then press Q
'Public Domain by Danny C. Mullen Dec '94

$COMPILE EXE                                'make .EXE file on disk
MSG$ = "Computer News PC                    'the message to show on screen
IF COMMAND$ = "" THEN                        'check command line
    D% = 5
END IF
IF COMMAND$ = "/" THEN
    PRINT "Usage: CNPCSAVER [d]"
    PRINT "Where d is time to delay in minutes (default is 5)."
END
END IF
IF COMMAND$ <> "" THEN
    D% = VAL(COMMAND$)
END IF
ELAPSE% = 18.2 * 60 * D%                    'convert 18.2 timer ticks to minutes
bg% = 0                                     'times command line entry, if any
fg% = 1                                     'foreground color white to start
RANDOMIZE TIMER                             'seed random number generator
x& = SETMEM(-500000)                        'free memory
PRINT "Press Q when running to QUIT and unload TSR"
POPUP QUIET ELAPSE%                        'use inactive time amt to popup
POPUP SLEEP USING EMS, "C:\T.TMP"          'activate & use EMS for storage
WHILE 1=1                                  'do forever
    x% = POS                                'save cursor column
    y% = CSRLIN                             'save cursor row
    DEF SEG = &hB800                        'point to video memory
    SAVESCREEN$ = PEEK$(0,4000)             'save what's on screen
    CLS                                     'clear screen
    DO                                     'clean slate
        fg% = RND * 15                     'random foreground colors
        IF fg% = 0 THEN iterate loop        'if black foreground need other color
        COLOR fg%,bg%                      'change fore/back colors
        x1% = RND * 24 + 1                  'rows
        y1% = RND * (79 - len(MSG$)) + 1    'columns
        LOCATE x1%,y1%,0                    'where to print/cursor off
        PRINT MSG$;                         'print it
        SLEEP 3                             'wait 3 seconds
        LOCATE x1%,y1%,0                    'locate to same spot
        PRINT SPACE$(LEN(MSG$));            'then erase it/cursor off
```

Cont'd on next page.

A\$ = INKEY\$	'check for key press
LOOP UNTIL A\$ <> ""	'go till user presses a key
IF UCASE\$(A\$)="Q" THEN	'Q = uninstall
IF POPUP(1) THEN	'if safe, uninstall
COLOR 7,0	'white on black
CLS	'clean slate
POKE\$ 0,SAVESCREEN\$	'put back screen info
LOCATE y%,x%,1	'put cursor back
END	'end makes it uninstall
END IF	
END IF	
COLOR 7,0	
POPUP SLEEP USING EMS	'back to sleep
WEND	

BIN2DEBUG Deja Vu Again...

by Danny C. Mullen

BIN2DEBUG.COM, on the disk for this issue, is the latest update (actually new version) of a utility I wrote in QBasic recently. It's purpose is to make a DEBUG script file from an already-existing .COM or .EXE file. This version is written in assembler, so it is quite small, and very fast.

For a quick review, a debug script is simply a text file that lists certain commands and data that you would manually enter into DOS's DEBUG utility to produce an executable file. Note that DEBUG can do much, much more than this, but many programmers/hackers use it to write short programs. The benefit to others upon receiving the script listing is that they can type it in to re-create the original file. Another advantage is that when publishing these scripts, they save a lot of space in the articles.

A typical DEBUG script looks like this:

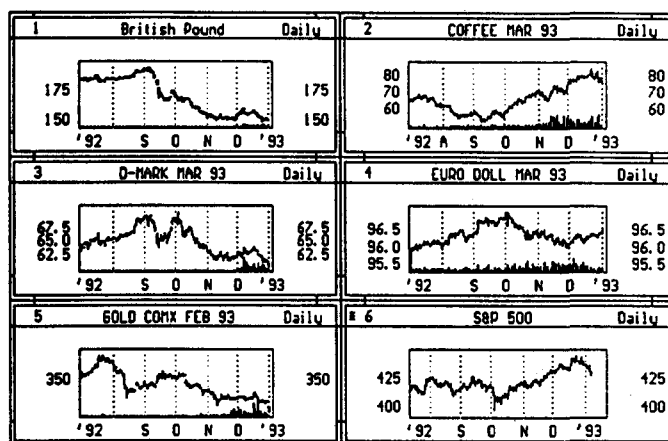
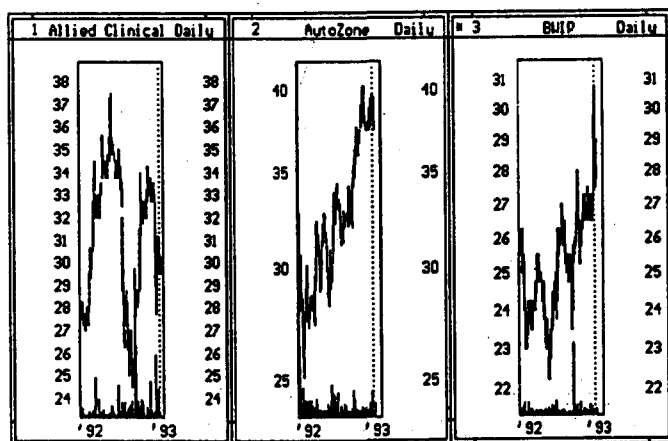
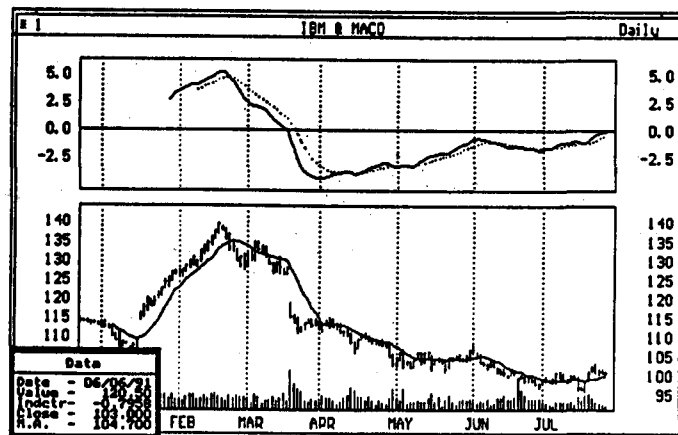
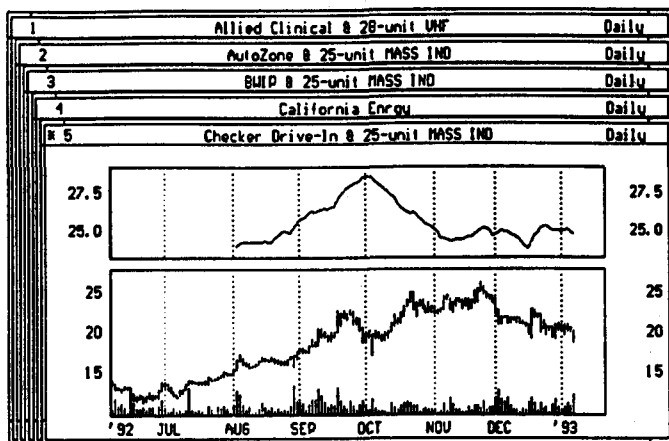
```
N COLD.COM
E 0100 B8 40 00 8E C0 26 C7 06
E 0108 72 00 00 00 EA 00 00 FF
E 0110 FF
RCX
0011
W
Q
```

(Note: This is a valid script if you care to enter it. It will COLD BOOT your computer - the same as if you had pressed CTRL-ALT-DEL. I believe it was presented in PC/COMPUTING some time back.)

Consult your DOS manual for more information on DEBUG. Enjoy.

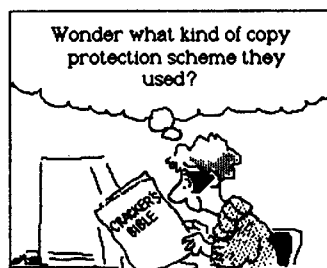
METASTOCK PRINTOUT EXAMPLES

by Fred Blechman



HACKER

by Vadun



Wyoming Software

Shareware and Public Domain Programs

at "Cash and Carry" Prices.

Both Shareware and Public Domain Programs are available on 3-1/2" or 5-1/4" disks. Shareware is a method for programers to market their software products on a try-it before you buy-it concept. When you try the software and like it, you are asked to register with the producer of the program for a fee, usually very small. By sending in your registration fee, you are normally entitled to program support from the author and notification of any upgrades as they become available. Sometimes by sending the registration fee you will receive a printed manual and expanded program. Computer News PC does not own or support these programs, the fee we charge is for copying, handling and shipping, no money paid to Computer News is paid to the program authors.

Public Domain programs are fully working programs placed into the public domain by the authors for you to use in anyway you see fit without additional charge. The author of the program or Computer News does not offer any support for these programs. Again the fee we charge is for copying, handling and shipping.

Why is *Wyoming Software* so unique? We carry many programs that will work on IBM PC, XT, AT, PCjr, PS/2 and PC, XT, AT Compatibles, 286, 386, and 486, Tandy 1000's, DOS or Windows, Color or Mono Screens. Many of the Shareware distributors no longer provide programs that run on the older computers. But we do.

The sole liability of Wyoming Software consists of replacement of the disk media if you receive a damaged disk.

There are two levels of prices charged for our distribution service. One for subscribers to Computer News PC and one for non-subscribers.

NON-SUBSCRIBERS

Price per disk:

5-1/4" \$ 2.00

3-1/2" \$ 2.50

SUBSCRIBERS TO COMPUTER NEWS PC

Price per disk:

5-1/4" \$.98

3-1/2" \$ 1.25

Wyoming Residents add 5% Sales Tax.
Add \$ 4.00 Shipping and Handling per order.

How can our prices for disk distribution be so low? Because we do everything possible to keep the cost of this service at the lowest price anywhere. Your cost is even lower than downloading a program from a bulletin board. We do not accept credit card orders which also reduces the overhead that accepting credit card orders adds to the cost of doing business. When you place an order with us you are receiving top service at the lowest possible cost. Enclose payment by money order or personal check with your order.

IT PAYS TO SUBSCRIBE TO COMPUTER NEWS PC

ORDER FROM

Computer News PO Box 680 Casper, WY 82602 (307) 265-6483

Wyoming Software Catalog
January 1995

CATAGORY	DISK #	MEM REQ	PROGRAM NAME	DESCRIPTION
BUSINESS	10027		ORDER (SW)	PURCHASE ORDER GENERATOR
	10029		ADDRESS BOOK & FINANCE (SW)	ADDRESS BOOK IN BASIC & 18 ROUTINES FOR FINANCIAL CALCULATIONS
	10031		MINDREADER (SW)	BOILERPLATE WORD PROCESSOR
	10043		ACCOUNTING SYSTEM (SW)	SMALL BUSINESS ACCOUNTING SYSTEM
	10044		MR. BILL (SW)	BILLING PROGRAM
	10045		MR. BILL (SW)	BILLING PROGRAM
	10046		STOCK CHARTING (SW)	STOCK PORTFOLIO MANAGEMENT
	10047		EXPRESS GRAPH (SW)	GRAPHS AND PIE CHARTS
	10048		CHARTS UNLIMITED (SW)	GRAPHICS AND TEXT CHARTS
	10050		MAIL LIST (PD)	MAIL LIST PROGRAM
	10125	384K	THE SIMPLE BOOKKEEPER (SW)	EASY TO USE SINGLE ENRTY BOOKKEEPING PROGRAM. DOS 2.1+ CGA-EGA-VGA-SVGA, 286+
	10139		ENVELOPE (PD)	UNCOMPLICATED UTILITY FOR TYPING ENVELOPES
	10148		PC-MAIL (SW)	MAIL LABEL PROGRAM DISK #1 OF 2
	10149		PC-MAIL (SW)	MAIL LABEL PROGRAM DISK #2 OF 2
	10167		MAILLAB (PD)	A BASIC MAIL LABEL PROGRAM
	10178		THE BOTTOM LINE (SW)	USER-FRIENDLY, MENU-DRIVEN, PACKAGE FOR STOCK & BOND INVESTORS 5 1/4" HD OR 3 1/2 DD DISK ONLY REQUIRES CGA OR BETTER
	10179		ENLIST (SW)	GENERIC CUSTOMER WAITING LIST PROGRAM. REQ: WINDOWS 3.1 5 1/4" HD OR 3 1/2 DD ONLY
	10187		AS EASY AS (SW)	VERSATILE SPREADSHEET PROGRAM
	10203		LEGAL GUIDE & FORMS (SW)	HANDY LEGAL GUIDE & FORMS GENERATOR DISK #1 OF 2 HOME OR BUSINESS
	10204		LEGAL GUIDE & FORMS (SW)	DISK #2 OF 2
	10231		THE BOTTOM LINE (SW)	5 FINANCIAL CALCULATORS, AVERAGING. WINDOWS. HD ONLY DISK #1 OF 2
	10232		THE BOTTOM LINE (SW)	DISK #2 OF 2
	10263		WINVELOPE (SW)	ENVELOPE ADDRESSING PROGRAM FOR WINDOWS. DISK #1 OF 3
	10264		WINVELOPE (SW)	DISK #2 OF 3
	10265		WINVELOPE (SW)	DISK #3 OF 3
	10270	512K	DOCUMENTSNEKUS (SW)	PROJECTS/DOCUMENTS DEVELOP RECORDS, DOS 3.1+, HD
	10298		ZPAY PAYROLL SYSTEM (SW)	A LOADED POWERFUL PAYROLL SYSTEM. DISK #1 OF 5
	10299		ZPAY PAYROLL SYSTEM (SW)	DISK #2 OF 5
	10300		ZPAY PAYROLL SYSTEM (SW)	DISK #3 OF 5
	10301		ZPAY PAYROLL SYSTEM (SW)	DISK #4 OF 5
	10302		ZPAY PAYROLL SYSTEM (SW)	DISK #5 OF 5
	10322		PC-BOOKS (SW)	SMALL BUSINESS GENERAL LEDGER, BOOKKEEPING PROGRAM
	10323		100 BUSINESS LETTERS (SW)	100 BUSINESS FORM LETTERS ALREADY CREATED
	10324		FORM MASTER (SW)	CREATE YOUR OWN BUSINESS FORMS
	10325		DOCTOR DATA LABEL (SW)	EASY TO USE MAILING LIST PROGRAM & LABEL MAKER. & LABEL MAKER. DISK #1 OR 2
	10326		DOCTOR DATA LABEL (SW)	DISK #2 OF 2
	10352		EXPRESS CHECK (SW)	CHECKBOOK RECORD & WRITING UTILITY. DISK #1 OF 2
	10353		EXPRESS CHECK (SW)	CHECKBOOK RECORD & WRITING UTILITY. DISK #2 OF 2
CLIP ART	10119		SOULE'S CLIPART VOL 4 (SW)	CLIP ART .PCX VOLUME 4
	10213		SOULE'S CLIPART VOL 10 (SW)	CLIP ART .PCX VOLUME 10
	10214		SOULE'S CLIPART VOL 1 (SW)	CLIP ART .PCX VOLUME 1
	10215		SOULE'S CLIPART VOL 2 (SW)	CLIP ART .PCX VOLUME 2
	10220		SOULE'S CLIP ART VOL 5 (SW)	CLIP ART .PCX VOLUME 5
	10221		SOULE'S CLIPART VOL 3 (SW)	CLIP ART .PCX VOLUME 3
	10222		SOULE'S CLIP ART VOL 7 (SW)	CLIP ART .PCX VOLUME 7
	10223		SOULE'S CLIP ART VOL 6 (SW)	CLIP ART .PCX VOLUME 6
	10224		SOULE'S CLIP ART VOL 8 (SW)	CLIP ART .PCX VOLUME 8
	10225		SOULE'S CLIP ART VOL 9 (SW)	CLIP ART .PCX VOLUME 9
	10226		SOULE'S CLIP ART VOL 11 (SW)	CLIP ART .PCX VOLUME 11
	10227		SOULE'S CLIP ART VOL 12 (SW)	CLIP ART .PCX VOLUME 12
	10228		SOULE'S CLIP ART VOL 13 (SW)	CLIP ART .PCX VOLUME 13
	10229		SOULE'S CLIP ART VOL 14 (SW)	CLIP ART .PCX VOLUME 14
	10230		SOULE'S CLIP ART VOL 15 (SW)	CLIP ART .PCX VOLUME 15
	10234		SOULE'S CLIP ART VOL 16 (SW)	CLIP ART .PCX VOLUME 16
	10235		SOULE'S CLIP ART VOL 17 (SW)	SOULE'S CLIP ART .PCX VOLUME 17

Wyoming Software Catalog
January 1995

CATEGORY	DISK #	MEM REQ	PROGRAM NAME	DESCRIPTION
CLIP ART	10236		SOULE'S CLIP ART VOL 18 (SW)	SOULE'S CLIP ART .PCX VOLUME 18
	10237		SOULE'S CLIP ART VOL 19 (SW)	SOULE'S CLIP ART .PCX VOLUME 19
	10238		SOULE'S CLIP ART VOL 20 (SW)	SOULE'S CLIP ART .PCX VOLUME 20
	10239		SOULE'S CLIP ART VOL 21 (SW)	SOULE'S CLIP ART .PCX VOLUME 21
	10240		GRIN GRAPHICS DISK #1 (SW)	GRIN GRAPHICS CLIP ART .PCX DISK #1
	10241		GRIN GRAPHICS DISK #2 (SW)	GRIN GRAPHICS CLIP ART .PCX DISK #2
	10242		GRIN GRAPHICS DISK #3 (SW)	GRIN GRAPHICS CLIP ART .PCX DISK #3
	10243		GRIN GRAPHICS DISK #4 (SW)	GRIN GRAPHICS CLIP ART .PCX DISK #4
	10244		CLIP ART DISK #1 (PD)	CLIP ART .PCX PUBLIC DOMAIN DISK #1
	10245		CLIP ART DISK #2 (PD)	CLIP ART .PCX PUBLIC DOMAIN DISK #2
	10248		FRAMES & BORDERS DISK #1 (SW)	FRAMES & BORDERS .PCX DISK #1
	10249		FRAMES & BORDERS DISK #2 (SW)	FRAMES & BORDERS .PCX DISK #2
	10250		FRAMES & BORDERS DISK #3 (SW)	FRAMES & BORDERS .PCX DISK #3
	10251		FRAMES & BORDERS DISK #4 (SW)	FRAMES & BORDERS .PCX DISK #4
	10252		SOULE'S CLIP ART (SW)	SOULE'S CLIP ART .PCX
	10253		SOULE'S CLIP ART (SW)	SOULE'S CLIP ART .PCX
	10254		BEST SELLING CLIP ART (SW)	BEST SELLING CLIP ART .PCX
	10255		BEST SELLING CLIP ART (SW)	BEST SELLING CLIP ART .PCX
	10257		HORNBACK ARTWORK (SW)	HORNBACK ARTWORK CLIP ART .PCX
	10258		HORNBACK ARTWORK (SW)	HORNBACK ARTWORK CLIP ART .PCX
COMMUNICATION	10075		MTE (PD)	MENU DRIVEN TERMINAL PROGRAM
	10172		DOSMODEM (PD)	SIMPLE DOS MODEM COMMUNICATION UTILITY
	10341		TELIQ (SW)	COMMUNICATIONS PROGRAM FOR PC/MS-DOS. DISK #1 OF 2
	10342		TELIQ (SW)	DISK #2 OF 2
COOKING	10109		GROCERY MANANAGER (SW)	MANAGE SHOPPING LISTS, CREATES MENUS, FOOD INVENTORY. REQ: WINDOWS 3.X; DISK #1 OF 3
				ORDER DISKS #10109,10110,10124
	10110		GROCERY MANAGER	DISK #2 OF 3
	10124		GROCERY MANAGER (SW)	DISK #3 OF 3
	10206		PERSONAL NUTRITIONIST (SW)	TRACK BAD HABITS, CREATE MENUS, RECIPIES, ANALIZE MEALS, CALCULATE EXERCISE.
	10211		KOMPUTER KITCHEN (SW)	SELECT, RESIZE, ADD & EDIT RECIPES, METRIC CONVERSION, SPANISH & GERMAN TRANSLATIONS. WINDOWS . DISK #1 OF 2
				DISK #2 OF 2
	10212		KOMPUTER KITCHEN (SW)	RECORD, FILE, LIST & PRINT YOUR RECIPIES. DISK #1 OF 2
	10327		EDNA'S COOK BOOK (SW)	DISK #2 OF 2
	10328		EDNA'S COOK BOOK (SW)	DATA BASE MANAGER
DATA BASE	10004		PROFILE (SW)	DATA BASE MANAGER
	10005		PROFILE (SW)	PERSONAL INFORMATION MANAGER. DISK #1 OF 2
	10038		DAYFLO TRACKER LITE (SW)	DISK #2 OF 2
	10039		DAYFLO TRACKER LITE (SW)	DATABASE MANAGER FOR CD's, RECORDS & TAPES; 5 1/4 HD
	10061		CD-PROFILE (SW)	DATA BASE OF BASE BALL CARDS
	10099		BASE BALL CARDS (PD)	CATALOG, SORT, SEARCH & CREATE LABELS FOR 32,000+ MOVIES
	10290		MOVIE (SW)	DATA BASE FILE MANAGER; HIGH DENSITY DISK ONLY
	10380		PC-FILE (SW)	DESKTOP PUBLISHING PROGRAM
	10192		RUBICON (SW)	DISK 1 OF 3
				DISK 2 OF 3
EDUCATIONAL	10193		RUBICON (SW)	DISK 3 OF 3
	10001		TYPING TUTOR (SW)	SEVERAL LEVELS OF TYPING EXERCISES
	10012		KID GAMES (PD)	5 GAMES TO TEACH
	10019		CHALKBOARD MATH 1.5 (SW)	MATH TUTOR FOR AGES 5 TO 12. WINDOWS
	10025		GOOGOL (SW)	MATH TEACHING GAME
	10037		ALBEBRAX (SW)	LEARN ALGEBRA
	10066		POLYGLOT (SW)	VOCABULARY BUILDING WORD GAME
	10123		LANGUAGE LEARNER (SW)	LEARN 4 LANGUAGES, GERMAN, FRENCH, ITALIAN OR SPANISH AT YOUR OWN PACE. DOS OR WINDOWS
	10284		PC-FASTTYPE (SW)	EXCELLENT TYPING TUTOR & TESTER. DISK #1 OF 2
	10285		PC-FASTTYPE (SW)	DISK #2 OF 2
	10296		DOS LEARNING SYSTEM (SW)	TUTORIAL ABOUT YOUR COMPUTER & THE OPERATING SYSTEM
	10307		THE I.Q. CHALLENGE (SW)	WORD PUZZLES TO TEST YOUR I.Q.
	10313		COMPUTER TUTOR (SW)	READ CODED TEXT FILES & LEARN HOW YOUR COMPUTER SYSTEM OPERATES
	10314		MATH CASTLE (SW)	SOLVE THE MATH PROBLEMS & SAVE THE CASTLE
	10354		PRECALCX (SW)	LEARN CALCULUS
	10355		PROFSTAT (SW)	LEARN STATISTICS

Wyoming Software Catalog
January 1995

CATEGORY	DISK #	MEM REQ	PROGRAM NAME	DESCRIPTION
FONTS	10350		HP LASER JET II FONTS (SW)	FONTS FOR HP LASER JET II. WINDOWS OR DOS. DISK #1 OF 2
	10351		HP LASER JET II FONTS (SW)	DISK #2 OF 2
GAMES	10006		BACKGAMMOND PC-GAMMON (SW)	PLAY BACKGAMMOND ON A PC
	10007		DRACULA OF LONDON (SW)	VAMPIRES GAME
	10008		DIGITAL LEAGUE BASEBALL (SW)	LEAGUE BASEBALL
	10009		DUNGEONS AND DRAGONS (SW)	ROLE PLAYING GAME
	10010		CAVERNS OF ZOARRE (SW)	FANTASY GAME
	10011		GAME DISK (PD)	WORLD AND WHEEL OF MISFORTUNE
	10013		GAME DISK (PD)	CHECKERS, GLOBAL THERMONUCLEAR WAR, IBM ADVENTURE
	10014		VIDEO POKER PLUS (SW)	DRAW AND STUD POKER
	10015		ULTIMA 21 DELUXE (SW)	BLACKJACK GAME
	10016		CORNCOB 3D (SW)	AIR COMBAT GAME. DISK #1 OF 3
	10017		CORNCOB 3D (SW)	AIR COMBAT GAME. DISK #2 OF 3
	10018		CORNCOB 3D (SW)	AIR COMBAT GAME. DISK #3 OF 3
	10020		GAME BUILDER LITE (SW)	GAME CREATION SOFTWARE
	10021		GAME BUILDER LITE (SW)	GAME CREATION SOFTWARE
	10022		GAME BUILDER LITE (SW)	GAME CREATION SOFTWARE
	10024		PANGO (SW)	ARCADE GAME
	10028		GAME DISK (PD)	22 GWBASIC GAMES: AARDVARK; ATLANTIS; BACKGAM; BIO; BLACK; BLKFRDY; ELIZA; FIREFIRE; STARTREK; TRUCKER; YAHTZEE; FUUTBOL; HIQUE; JETPILOT; KENO; LOTT; PATTERN; SHOP; SYNONYMS; WUMPUS.
	10030		GAME DISK (PD)	16 GWBASIC GAMES: MARS-ESC; DART; MAP; SOUNDEFF; AGE-TEST; BOWLING; STORY; TELLTIME; WHEEL; BELL; SHUTTLE3D; SKETCH; CHESS; SPACEVAD; VOYAGE.
	10033	128K	GAME DISK (PD)	8 DOS GAMES: ARCHERY; AV; BEAST; COREWAR; EM; FORTUNE; KAMAKAZE; PENTE; SKIING.
	10034		MIRAMAR (SW)	JET FLIGHT SIMULATOR
	10040		ZZT (SW)	ACTION ADVENTURE GAME; COMPLETE THE TOWN OF ZZT.
	10041		SUPER ZZT (SW)	ADVENTURE GAME SEQUAL TO ZZT
	10042		MASTER THE MARKET (PD)	STOCK MARKET GAME
	10053		CASTLE OF THE WINDS (SW)	HIGH DENSITY DISK ONLY. WINDOWS
	10055		ASSAULT OF THE ORCS (SW)	ACTION/ADVENTURE GAME HOOSIER CITY;ASSAULT OF THE ORCS
	10057		RAPID RESPONSE (SW)	GRAPHICS WAR SIMULATION
	10058		ROBOMAZE II:THE LOBBY (SW)	GRAPHICS ACTION GAME
	10059		ROBOMAZE III:THE DOME (SW)	GRAPHICS ACTION ADVENTURE
	10060		SAND STORM (SW)	VGA ARCADE GAME
	10077		NYET (PD)	VERSION OF TETRIS
	10098		GAME DISK (PD)	2 GAMES: ENCOUNTER & UNO
	10112		DOOMKILL	SAVED GAME MODIFIER FOR DOOM W/AMMO, ARMOR, INVISIO, LIGHT, ALL KEYS (NO SKULLS), ALL WEAPONS EXCEPT #6 & 7, & COMPUTER. DOOM: THE CHEAT! EDIT YOUR SAVEGAMES.
	10113		DMCHEAT (PD)	DOOM: THE CHEAT 2! EDIT YOUR SAVEGAMES FOR EASY WIN.
	10114		DMCH2 (PD)	DOOM EDITOR V.2, WILL GIVE YOU A VARIETY OF NEAT STUFF.
	10115		DOOMEDIT	MODIFY SAVEGAMES FOR THOSE ADDED GOODIES WHEN PLAYING DOOM.
	10116		DOOMED (SW)	DOOM MAPS IN .GIF OR .PCX FORMAT
	10117		DOOM MAPS (PD)	THIS IS "THE" ACTION GAME. REQ: 386 OR LATER, 5Mb FREE SPACE ON HD. 3.5" HD DISKS ONLY. DISK #1 OF 2
	10121	4MG	DOOM (SW)	DISK #2 OF 2; 3.5" HD ONLY
	10122		DOOM (SW)	GAME OF KONG
	10141		KONG (PD)	GAME OF CRIBBAGE IN BASIC
	10142		CRIBBAGE (PD)	BEAT THE COMPUTER WITH FOUR IN A ROW
	10145		GAME OF FOUR (PD)	FOUR GAMES - BLOCKS
	10150		FOUR ACTION GAMES (SW)	RAIDERS, RESCUE, RUNNER
	10151	384K	ADVENTURE GAME TOOL KIT (SW)	CREATE YOUR OWN ADVENTURE GAME. DISK #1 OF 2
	10152		ADVENTURE GAME TOOL KIT (SW)	DISK #2 OF 2
	10159		THREE ACTION GAMES (SW)	THREE GAMES, ARCADE, TRIVIA, WORDWHIZ
	10175		POWERCHES (SW)	GOOD CHESS GAME FOR YOUR PC
	10177		QUATRIS PRO (SW)	TETRIS WITH A TWIST. REQ: EGA/VGA
	10207		COMMANDER KEEN (SW)	ARCADE ADVENTURE GAME, GOOD GRAPHICS, SOUND.
	10216		WOLFENSTEIN 3D (SW)	BATTLE THE NAZI'S TO ESCAPE FROM THE CASTLE. DISK #1 OF 2

Wyoming Software Catalog
January 1995

CATAGORY	DISK #	MEM REQ	PROGRAM NAME	DESCRIPTION
GAMES	10217		WOLFENSTEIN 3D (SW)	DISK #2 OF 2
	10218		WMAF WOLFGOD.DOC (PD)	GENERATE MAPS FOR WOLFENSTEIN 3D v 1.0 OR 1.1 & WOLFGOD.DOC GET GOD MODE PLUS OTHER GOODIES
	10233		JILL OF THE JUNGLE (SW)	256-COLOR VGA ARCAD-ADVENTURE GAME. HD ONLY
	10256		DOOM MOVIES DEMO (PD)	RUN MOVIES FOR LEVELS 1-9 IN "KNEE-DEEP IN THE DEAD". REQ: DOOM v 1.2 SHAREWARE OR COMMERCIAL. 5 1/4 HD, OR 3 1/2 DD DISKS
	10277		DOUBLE BLOCKS (SW)	DOUBLE BLOCKS GAME
	10279		SAVE THE PLANET (SW)	SAVE THE PLANET FROM OZONE DEPLETION & GREENHOUSE WARMING
	10280		LOTTO NUMBER GENERATOR (SW)	GENERATE LOTTO NUMBERS FOR A BETTER CHANCE TO WIN
	10281		BATTLESHIP GAME (SW)	SINK YOUR OPPONET'S BATTLESHIP
	10282		GO-MOKU (SW)	GET FIVE STONES IN A ROW AND WIN
	10286		SUPER TRIVIA PAK (SW)	5 TRIVIA GAMES, INCLUDES STAR TREK & NEXT GENERATION
	10287		PC-JIGSAW (SW)	SOLVE A JIGSAW PUZZLE ON YOUR PC
	10288		AQUARIUM (SW)	TURN YOUR COMPUTER SCREEN INTO AN AQUARIUM
	10291		VEGAS DRAW POKER (SW)	DRAW POKER UP TO 8 PLAYERS. REQUIRES DOS 2.0+ PC/XT/AT
	10306		MORAFF'S BLAST (SW)	INTENSE ACTION GAME
	10310		ASTROLOGICAL FORTUNE (SW)	GET YOUR ASTROLOGICAL, NUMEROLOGICAL & CHINESE FORTUNES BY PROCON
	10311		FACTS/BAS & STATES/BAS (PD)	FACTS & PICTURES OF THE 50 STATES. REQ: GWBASIC
	10312		GEOGRAPHY/BAS (PD)	PLAY A GAME & LEARN GEOGRAPHY. REQ: GWBASIC
	10316		ELIZA (PD)	DISCUSS & SOLVE YOUR PROBLEMS BY TALKING TO ELIZA
	10318		6 - ARCADE GAMES (PD)	SIX ARCADE ACTION GAMES
	10319		PLAY N LEARN (PD)	GAMES FOR THE VERY YOUNG, PLAY & LEARN
	10338		MUZEHC (SW)	PLAY SONGS ON YOUR PC SPEAKER
	10339		PCBEAT (PD)	CHEAP DRUM MACHINE SIMULATOR FOR 6-12 MHz
	10340		LOTTO (SW)	PLAY LOTTO AND TRY TO WIN
	10345		BIBLE QUIZ (SW)	LEARN THE BIBLE WHILE PLAYING A GAME
	10382	640k	COMMANDER KEEN (SW)	ADVENTURE GAME; EGA, 286+, ON 3.5" DISK
	10383	640k	KEEN DREAMS (SW)	ADVENTURE GAME; EGA, 286+, 3.5" DISK
	10384	640k	COMMANDER KEEN (SW)	"GOODBYE GALXY" ADVENTURE GAME; CGA VERSOPH. 286+, 3.5" DISK
	10385	640k	COMMANDER KEEN (SW)	"GOODBYE GALAXY" (SW) ADVENTURE GAME; EGA VERSION, 286+, 3.5" DISK
	10386	640k	COMMANDER KEEN (DEMO)	"ALIENS ATE MY BABYSITTER" ADVENTURE GAMES; EGA, 286+, 3.5 DISK
	10387	640k	WOLFENSTEIN 3D (DEMO)	ADVENTURE GAME; VGA, 286+, 3.5" DISK
	10388		WOLFMASTER (FREWARE)	REQ: REGISTERED VERSION WOLFENSTEIN 3D; GENERATE UP TO 378 NEW LEVELS FOR WOLFENSTEIN 3D; 3 1/2 DISK
	10389		WOLF-60 (FREWARE)	REQ: REGISTERED VERSION OF WOLFENSTEIN 3D; NEW, 6 EPISODE 60 - LEVEL GAME; 3.5" DISK
	10390		SHANKENSTEIN I (FREWARE)	REQ: REGISTERED VERSION OF WOLFENSTEIN 3D; NEW 6 EPISODE 60 - LEVEL GAMES; 3.5" DISK
	10391		WOLFENSTEIN MAP EDITOR (FW)	REQ: REGISTERED VERSION OF WOLFENSTEIN 3D; FULLFEATURED EDITOR W/NEW 6 EPISODE, 60-LEVEL GAME. 3.5" DISK
	10392		WOLFEDIT (FREWARE)	REQ: REGISTERED VERSION OF WOLFENSTEIN 3D; GRAPHICS EDITOR 3.5" DISK
	10393		WOLFMAP 4.1 (FREWARE)	REQ: REGISTERED VERSION OF WOLFENSTEIN 3D; CREATE TYPABLE GRAPHICAL MAPS, 3.5" DISK
	10394	640k	SPEAR OF DESTINY (DEMO)	ADVENTURE GAME; VGA, 286+, HARD DISK; 3.5" DISK
	10395		ALIENS-TC2	REQ: REGISTERED VERSION OF DOOM II; ADD & RELIVE THE MOVIE "ALIENS" TO DOOM II. 3.5" HD DISKS, DISK #1 OF 2
	10396		ALIENS-TC2	3.5" HD DISK #2 OF 2
	10397		ALIEN-TC2 .PCX LEVEL MAPS	REQ: .PCX VIEWER; 3.5" HD DISK
	10398		ALIENS DOOM 2.1	REQ: REGISTERED VERSION OF DOOM OR DOOM II; ADDS ALIENS TO EPISODE 3 OF DOOM OR ALIEN CREATURES TO DOOM II, 3.5" HD DISKS; DISK #1 OF 2
	10399		ALIENS DOOM 2.1	3.5" HD DISK; DISK #2 OF 2
	10400		ALIENS DOOM 2.1 PCX MAPS	REQ: .PCX GRAHICS VIEWER. 3.5" DISK
	10401		DOOM UPGRADE TO 1.666	SHAREWARE OR REGISTERED VERSION OF DOOM (NOT DOOM II);

Wyoming Software Catalog
January 1995

CATAGORY	DISK #	MEM REQ	PROGRAM NAME	DESCRIPTION
GAMES	10401			UPGRADES DOOM v 1.2 TO v 1.666, 3.5" HD DISK
	10402		DOOM II PATCH	REQ: REGISTERED VERSION OF DOOM II; UPGRADES v 1.666 OR 1.7 TO v 1.7a; 3.5" DISK
GRAPHICS	10070		DREAM HOUSE (PD)	FLOOR PLAN DRAWING PROGRAM
	10072		GRBIRD (PD)	BIRDS TO USE W/PRINTSHOP
	10076		SIMGRAFB (SW)	GRAPHIC ROUTINES FOR BASIC, C, & FORTRAN LANGUAGES
	10103	512K	IMAGE::RUNNER (tm) (SW)	DEVELOPERS' PCX DISPLAY UTILITY FOR DOS APPLICATIONS. VGA, HD, DOS 3.1, OR WINDOWS 3.X
	10104	512K	TRADE::SHOW (tm) (SW)	SLIDESHOW APPLICATION PROGRAM FOR PRODUCTS OR SERVICE DEMOS OR PRESENTATIONS W/PCX FILES, SELF-RUNNING OR OR OPERATOR - VGA, HD, DOS 3.1 OR WINDOWS 3.X
	10105	512K	FACADE (tm) (SW)	DEVELOPERS' PCX SPLASHSCREEN DISPLAY FOR DOS APPLICATIONS; VGA, HD, DOS 3.1 OR WINDOWS 3.X
	10129		SVGA (SW)	GRAPHIC VIEWER FOR GIF,PCX,WINDOWS BMP, & TARGA FORMATS
	10130		GRAPHIC DISPLAY SYS (SW)	GIF87a,GIF89a, BBM, LBM, PCX,RIX & MAC GRAPHICS VIEWER, SLIDESHOW, PROCESSING, ARRAYS, MOUSE SUPPORT
	10131		GRAPHIC WORKSHOP (SW)	PROGRAM FOR WORKING W/COMPUTER BITMAPPED GRAPHIC FILES
	10132		GRAPHIC WORKSHOP (SW)	DISK 1 OF 3
	10133		GRAPHIC WORKSHOP (SW)	DISK 2 OF 3
	10134		CSHOW (SW)	DISK 3 OF 3
	10135		GRAPHIC WORKSHOP (SW)	MENU DRIVEN GRAPHICS VIEWER
	10136		SHOWGIF (SW)	GOOD GRAPHICS EDITOR FOR WINDOWS 3.1
	10137		WINDOWS GRAPHIC VIEW (SW)	HIGH DENSITY DISK ONLY
	10153		GRAPHIC ART	WINDOWS IMAGE VIEWER & CATALOG MANAGER
	10154		RLE FILE GENERATOR	DISPLAY, CONVERT, & MANIPULATE GIF & BMP FORMATS, SLIDESHOW, WINDOWS REQ.
	10164		PAINTER'S APPRENTICE (SW)	GOOD 16 COLOR GRAPHIC PICTURES FOR TANDY 1,000 OR PCjr
	10166		THATS ALL FOLKS & VGAGIF (PD)	CAPTURES SCREEN TO GENERATE A FILE, THEN DISPLAYS IT IN .RLE FORMAT
	10330		OPTIKS (SW)	BITMAP EDITOR FOR MACPAINT, PC, PAINTBRUSH, DR. HALO,ETC.
	10333		ATHENA VIDEO BIOS (SW)	REQ: EGA,VGA & MOUSE DRIVER COMPATIBLE W/MICROSOFT'S
	10337		DRAFT CHOICE (SW)	THATS ALL FOLKS .GIF & VGAGIF A .GIF DISPLAY PROGRAM
	10343		PICTURE LABEL (SW)	READ, WRITE OR CONVERT MANY GRAPHIC FILES
	10346		PRINT MASTER GRAPHICS (SW)	GRAPHIC SUPPORT FOR HERCULES GRAPHICS STANDARD
	10347		PRINT MASTER GRAPHICS (SW)	GRAPHIC DRAWING PROGRAM
	10348		PRINT SHOP GRAPHICS (SW)	PRINTS GRAPHICS ON LEFT HAND SIDE OF ADDRESS LABELS
	10349		PRINT SHOP GRAPHICS (SW)	WITH TEXT, USES GRAPHIC LIBRARIES OF PRINTMASTER, OR PRINTSHOP. REQ: CGA, HERCULES OR BETTER
MUSIC	10035		MELODY MAKER (SW)	GRAPHIC PICTURES TO USE WITH PRINT MASTER. DISK #1 OF 2
	10049		MUSCIAN (SW)	GRAPHIC PICTURES TO USE WITH PRINT MASTER. DISK #2 OF 2
	10052		PIANO MAN (SW)	GRAPHIC PICTURES TO USE WITH PRINT SHOP. DISK #1 OF 2
	10097		MUSIC DISK (PD)	GRAPHIC PICTURES TO USE WITH PRINT SHOP. DISK #2 OF 2
PERSONAL	10051		HOME BUDGET MANAGER (SW)	WRITE AND COMPOSE MELODIES
	10054		HOME INSURANCE (SW)	MUSICAL NOTATION PROGRAM
	10071		RESUME (PD)	PLAY KEYBOARD LIKE PIANO
	10107	512K	MONEY & BANKS (SW)	2 PROGRAMS: BEATLES.COM & MRORGAN.COM
	10111		HOME MANAGEMENT II (SW)	HOME BUDGET RECORD KEEPING
	10118		MONEY SMITH FOR WINDOWS (SW)	HOME INVENTORY AND INSURANCE
	10119		MONEY SMITH FOR WINDOWS (SW)	GW BASIC RESUME PROGRAM
	10127	256K	FPLAN (SW)	SIMPLE, EASY TO USE PERSONAL BANKING MANAGER.
	10128		FPLAN (SW)	REQ: HD w/1.4MB FREE, DOS 3.1 & EMS IF AVAILABLE
	10156		RETIRE ANALYSIS (SW)	CREATE BUDGETS, ANALYZE SPENDING HABITS,
	10176	640k	MOVIES TO GO!	BALANCE CHECKBOOKS LOAN AMORTIZATIONS, STOCK TRANSACTIONS. GOOD TUTORIAL
				PERSONAL MONEY MANAGEMENT SYSTEM. BALANCE YOUR CHECKBOOK, HANDY CALCULATOR. REQ: 800Kb FREE ON HD, WINDOWS 3.X DISK #1 OF 2
				DISK #2 OF 2

Wyoming Software Catalog
January 1995

CATAGORY	DISK #	MEM REQ	PROGRAM NAME	DESCRIPTION
PERSONAL	10180		ABOVE & BEYOND	PERSONAL INFORMATION MANAGER; POP-UP CALENDAR; RECORD VITAL INFO; ADDRESS BOOK; ALARMS; etc. 3-1/2 720k OR 5 1/4 HD DISK
	10186		FAMILY TIES (SW)	GENEALOGY PROGRAM
	10189		HOME MONEY MANAGER IIa (SW)	HOME BUDGET & CHECKBOOK SOFTWARE
	10191		CASHFLOW (SW)	HOME CASHFLOW PROGRAM
	10201		EXCHEQUER (SW)	CHECK WRITING & CHECKBOOK MANAGEMENT PROGRAM
	10205		MONEYMAKER VOL I (SW)	HOW TO MAKE MONEY W/YOUR PC PROGRAM HAS VOICE SYNTHESIS
	10266	512K	AUDIONEXUS (SW)	MUSIC LIBRARY RECORDS DOS 3.1+, HD
	10267	512K	VIDEONEXUS (SW)	VIDEO COLLECTION RECORD KEEPING PROGRAM DOS 3.1+,HD
	10269	512K	APPOINTMENTS SCHEDULER (SW)	PROFESSIONAL/PERSONAL APPOINTMENTS SCHEDULING SOLUTIONS. DOS 3.1+, HD
	10271		PHOTONEXUS (SW)	PHOTOGRAPHY COLLECTION RECORDS. REQ: 1.3MB ON HD
	10273	512K	COINSNEXUS (SW)	NUMISMATIC COLLECTION RECORDS DOS 3.1+
	10274	512K	REGISTRYNEXUS (SW)	VALUABLES/POSSESSIONS RECORDS DOS 3.1+
	10275	512	SPROTSNEXUS (SW)	SPORTS CARDS COLLECTION RECORDS. DOS 3.1+
	10293		ALMANAC (SW)	ELECTRONIC FARMERS ALMANAC.
	10294		VACATION PLANNER (SW)	VACATION OR BUSINESS TRIP PLANNER
	10295		RETIREMENT PLANNER (SW)	FINANCIAL PLANNER FOR RETIREMENT
	10304		NAMES & DATES (SW)	COMBINED ADDRESS BOOK, MAILING LIST, & DATE REMINDER. DISK #1 OF 2
	10305		NAMES & DATES (SW)	DISK #2 OF 2
	10320		FAST BUCKS (SW)	FAST BUCKS HOME FINANCIAL PROGRAM. DISK #1 OF 2
	10321		FAST BUCKS (SW)	DISK #2 OF 2
SCREENSAVER	10065		MOVIE TIME SCREEN SAVER (SW)	RUNS .GIF,.AVI FILES OR MOVIES;5 1/4 HD
	10183		EXPLOSIV (SW)	THE NAME TELLS THE STORY. DOS OR WINDOWS DISK 1 OF 2
	10184		EXPLOSIV (SW)	DISK 2 OF 2
SPECIALTY	10185		DAZZLE (SW)	NICE DOS SCREEN SAVER
	10003		MODEL I EMULATOR (SW)	RUN RADIO SHACK MODEL ONE PROGRAMS
	10036		ZEPELAN (SW)	NETWORK MANAGER
	10056		MVP PAINT (SW)	256-COLOR GRAPHICS WORKSHOP;REQ. VGA/SVGA & MOUSE
	10062		GSCRIPT (SW)	WORD FOR WINDOWS TEMPLATE FOR FEATURE SCREENPLAYS 5 1/4 HD DISK
	10063		GTOOLBOX (SW)	MACROS & MACRO TOOLS FOR WORD FOR WINDOWS V 2.0, 5 1/4 HD DISK
	10064		INI PROFILER (SW)	REVIEW & EDIT CONTENTS OF ".INI" FILES. WINDOWS
	10188		ICONDRAW FOR WINDOWS (SW)	DRAW YOUR OWN ICONS FOR WINDOWS 3.0
	10190		BOWL - 101e (SW)	BOWLING LEAGUE SECRETARY SYSTEM
	10200		MILEAGE (SW)	MILEAGE BETWEEN MAJOR US CITIES
	10210		SCREEN PEACE (SW)	SCREENSAVER W/AQUARIUM, EYES, FADE, FIRE, FLASH, ETC. WINDOWS
	10259	300K	DC CIRCUIT ANALYSIS (SW)	EDUCATIONAL TOOL FOR INTRO INTO DC CIRCUITS EGA,VGA DISK #1 OF 3
	10260		DC CIRCUIT ANALYSIS (SW)	DISK #2 OF 3
	10261		DC CIRCUIT ANALYSIS (SW)	DISK #3 OF 3
	10262	320K	CIRCUIT DESIGN (SW)	ELECTRONIC CIRCUIT DESIGNER
	10268	512k	VISIBLE::SETUP (SW)	DEVELOPERS' INSTALLATION UTILITY FOR DOS APPLICATIONS DOS 3.1+ OR WINDOWS 3.X
	10297		WINDOWS ICONS (SW)	100+ ICONS FOR WINDOWS. REQ: WINDOWS & ICONDRAW
	10356		PRANGER.WAV	ORIGINAL SOUND CLIP OF POWER RANGERS AS THEY MORPH INTO THEIR SUPERHERO ALTER EGOS. SOUND BOARD NOT REQUIRED
SPREADSHEET	10309		PROCUBE LITE (SW)	3 DIMENTIONAL SPREADSHEET PROGRAM
	10381		PC-CALC SPREADSHEET (SW)	SPREADSHEET PROGRAM. HIGH DENSITY DISK ONLY.
UTILITY	10002		COPYCAT (PD)	ONE PASS DISK COPYING
	10023		PC TUTOR (PD)	MS-DOS COMMANDS TUTOR
	10026		HARD DRIVE INFORMATION (PD)	HARD DRIVE INFORMATION
	10032		DOS UTILITIES (PD)	4 PROG: CDIR, FORM FEED, LHARC, SFX
	10067		DVICEMAP (SW)	DEVICE DRIVER MAP PROGRAM FOR MS-DOS W/BIBLIOGRAPHY OF BOOKS
	10068		NMIEXIT (SW)	CURE FOR "LOCKED KEYBOARD" CONDITION
	10069		10 UTILITY PROGRAMS (PD)	10 DOS UTILITIES: DUPDSK; 400KDISK; INVIS; WAIT; DISKTIME; DISKTIME; DRIVESPEC; DAZZLER; CAPSOFF; CAPSON;
	10073		SFX.EXE (PD)	GREAT DISK/FILE MANAGEMENT PROGRAM

Wyoming Software Catalog
January 1995

CATEGORY	DISK #	MEM REQ	PROGRAM NAME	DESCRIPTION
UTILITY	10074		DIRMAGIC (PD)	GREAT ALTERNATIVE TO DOS "DIR" W/ADDED FEATURES
	10078		SECURE (PD)	PASSWORD PROTECTION FOR COMPUTER & PROGRAMS
	10079		UTILITY PROGRAMS (PD)	2 PROGRAMS: BIGD.EXE & DISKINFO.EXE
	10080		EATERS (PD)	JOKE UTILITY THAT EATS SCREEN
	10081		FRED (SW)	FULL SCREEN FILE EDITOR
	10082		VIRUS DETECTOR (SW)	VIRUS DETECTOR
	10083		VIRUSCAN (SW)	IDENTIFIES 41 MAJOR VIRUS STRAINS
	10084		AT LAST (SW)	POP-UP PROGRAMMER'S UTILITY
	10085		SLICE AND SPLICE (PD)	SPREAD LARGE DOS FILE OVER MORE THAN ONE DISK
	10086		DOS HELP (PD)	ON LINE UTILITY FOR QUICK REFERENCE
	10087		PRICOM (SW)	PRINTER SETUP UTILITY
	10088		SENTRY (SW)	VIRUS PROTECTION PROGRAM
	10089		THE LABEL MAKER (PD)	REQ. IBM OR EPSON DMP, BUT HAS SOURCE CODE
	10090		KEEPER (PD)	RE-EXECUTE LAST 10 DOS COMMANDS
	10091		SETUP (PD)	SELECT & TRANSMIT PRINTER CODES FROM PROGRAMS
	10092		READONLY (PD)	SET FILES FOR READ-ONLY OR READ/WRITE
	10093		BAC BACKUP DIRECTORY (PD)	FILE SPECIFIC BACKUP UTILITY
	10094		LEHARC (PD)	ARCHIVING UTILITY FROM JAPAN
	10095		FF (PD)	SEND TOF FROM PC TO PRINTER
	10096		CDIR (PD)	FULL COLOR HD OR FLOPPY DISK DIRECTORY
	10101		COVER (PD)	DIR PRINT UTILITY TO PLACE ON DISK OR JACKET
	10102		LOOZ (PD)	EXTRACTOR FOR ".ZOO" ARCHIVED FILES
	10106	512K	VISIBLE::SETUP (SW)	DEVELOPERS' INSTALLATION UTILITY FOR DOS APPLICATIONS. DOS 3.1, OR WINDOWS 3.X
	10108		STAR MENU (SW)	COLORFUL EASY TO SETUP AND USE MENU SYSTEM.
	10120		ORGANIZE!FOR WINDOWS (SW)	THE PIM, PERSONAL INFORMATION MANAGER. REQ: 286 OR BETTER - EGA, VGA, OR SVGA; & WINDOWS
	10126	128K	NUMDIR (SW)	HARD DISK MANAGEMENT PROGRAM, VIEW DIRECTORIES, TEXT, DO DOS OPERATIONS OR RUN PROGRAMS BY THE NUMBERS DOS 3.0 +, ONE DISK DRIVE, & MGA, HERCULES, CGA, EGA, OR VGA
	10138	128K	REBEEP (FREWARE)	AUDIBLE BATCH FILE TERMINATION UTILITY USED AS LAST ENTRY IN .BAT FILE
	10143		TEXTCON (SW)	PROGRAM FOR CONVERSION OF ASCII FILES BETWEEN WORD PROCESSORS
	10144		PROINDEX (SW)	CREATES AN INDEX FROM ANY TEXT FILE
	10155		MKPROMPT (PD)	PROGRAM TO CUSTOMIZED YOUR DOS PROMPT
	10157		PSEARCH (SW)	FILE FIND & TEXT SEARCH UTILITY
	10158		AMBER.COM (PD)	TURNS SCREEN LETTERS TO AMBER
	10160		ARC (SW)	FILE ARCHIVER & COMPRESSOR
	10161		WAITUNTIL (PD)	WAIT UNTIL A PARTICULAR TIME TO TRIGGER EVENTS CREATES .BAT FILE
	10162		VALIDATE	CHECK SHAREWARE & OTHER SOFTWARE FOR SIGNS OF TAMPERING
	10163		PAK16 (SW)	CREATE & MAINTAIN FILE ARCHIVES IN COMPRESSED FORM
	10165		INKEY (SW)	HANDY TOOL FOR BATCH FILES
	10168		PD SIDEWAYS (PD)	PRINT SIDEWAY ON EPSON PRINTER ON LPT1
	10169		EX.COM (PD)	PROGRAM WHICH ALLOWS NESTED BATCH FILES
	10170		PROMPT (PD)	SCREEN COLOR CHANGE EXAMPLE .BAT FILES
	10171		DMON (PD)	CHANGE YOUR COLOR DISPLAY MONITOR SETUP
	10173		PKZIP (SW)	FILE COMPRESSION & DECOMPRESSION UTILITY DISK 1 OF 2
	10174		PKZIP (SW)	DISK 2 OF 2
	10181		PRINTPARTNER	PRINT BANNERS, SIGNS & CALENDARS
	10182		ELFTREE (SW)	INTEGRATED FILE & DIRECTORY MANAGER
	10198		WSSINDEX (SW)	DATABASE W/ALL INFO ABOUT DISK AVAILABLE FROM DIR COMMAND DISK 1 OF 2
	10199		WSSINDEX (SW)	DISK 2 OF 2
	10202		MENU IT (FREWARE)	MENU PROGRAM FOR DOS USING YOUR HARD DRIVE
	10208		DISKTRAK (SW)	UTILITY FOR MANAGING DISKETTES
	10209		DOS HELP (SW)	QUICK REFERENCE FOR DOS HELP FOR DOS v 4.0
	10272		FIND FILE (SW)	FIND A FILE UTILITY
	10276		CSWEEP (PD)	SWEEP LIKE PROGRAM FOR MSDOS LIKE PROGRAM IN CP/M
	10278		HELPDOS (SW)	DOS HELP FOR MSDOS v 2.X THRU 4.0
	10283		TREETOP (SW)	HARD DRIVE DIRECTORY PROGRAM
	10289		CURSOR UTILITIES (SW)	CHANGES CURSOR SIZE, TURNS ON OR OFF

Wyoming Software Catalog
January 1995

CATAGORY	DISK #	MEM REQ	PROGRAM NAME	DESCRIPTION
UTILITY	10292		ALARM CLOCK (SW)	ALARM CLOCK PROGRAM WITH SONG COMPILER. REQ: IBM PC/XT/AT, DOS 2+
	10315		BANNER MAKER (PD)	MAKE YOUR OWN BANNERS
	10317		DOSAMATIC (SW)	POINT & PRESS USER INTERFACE MULTI-TASKING CAPABLE
	10329		PROFESSIONAL MASTER KEY (SW)	FIND, ERASE, MAP, UNFORMAT, EDIT ... UTILITIES
	10331		EPSON FX UTILITIES (SW)	MENU-SELECT 160+ EPSON FX FONTS/FEATURES. DISK #1 OF 2
	10332		EPSON FX UTILITIES (SW)	DISK #2 OF 2
	10334		ALT (SW)	PROVIDES USEFUL NEW FRAMEWORK FOR COMPUTING WITH YOUR IBM.
	10335		MASTER MENU (SW)	MENU PROGRAM FOR DOS
	10336		BACKUP/RESTORE (SW)	STAND ALONE BACKUP/RESTORE POINT & SHOOT HARD DRIVE MGR
	10344		WINZIP	NEW IMPROVED WINDOWS SHELL FOR COMPRESSION- DECOMPRESSION OF PROGRAMS ON THE HARD DRIVE.
WORD PROCESSOR	10140		MAKE TABLE (SW)	SOFT FONT WIDTH TABLE FOR PC-WRITE
	10195		PC-WRITE (SW)	GOOD WORD PROCESSOR FOR DOS DISK 1 OF 3
	10196		PC-WRITE (SW)	DISK 2 OF 3
	10197		PC-WRITE (SW)	DISK 3 OF 3
	10302		MULTIWORD (SW)	TSR OR STAND ALONE THESAURUS
	10308	640k	NEOBOOK PRO	CREATE DOCUMENTS, NEWSLETTERS, etc. IN MAGAZINE PAGE FORMAT MULTIMEDIA EFFECT & TURN DOCUMENT INTO AN .EXE FILE THAT WILL RUN AS A PROGRAM. 3 1.2 720K OR 5 1/4 HD DISK DOS 3.1 or HIGHER; MOUSE; EGA, VGA, OR SVGA

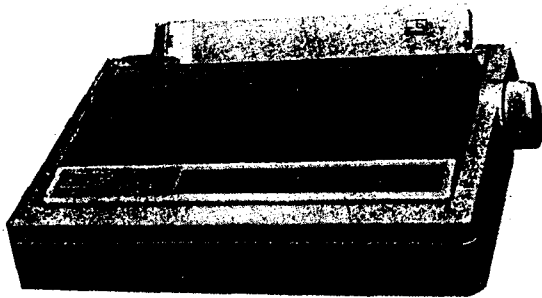
All the programs in this catalog are provided in their standard ready to run form, none are compressed so that you do not have to use any uncompression programs to set up your working files. (SW) Shareware programs which require that you register the program with the author for a fee. (PD) Public Domain programs which do not require any payment to the author. Please order by disk number. All disks are supplied as 5-1/4" 360K or 3-1/2", with few exceptions as noted. Some newer programs are so large that they will only fit on high density disks.

If you don't see the program that you are looking for call or write and ask for it.

We have thousands of programs that are not in this catalog yet.

Panasonic

Office Automation **OA**



Panasonic KX-P1150

"Back to basics" 9-pin perfect for first time buyers

Having trouble finding your first printer? Well, you can stop looking. Panasonic's KX-P1150 was specially designed for students and home users. This "back to the basics" printer includes features you want, like seven resident fonts, an easy-to-use front panel and a 240 cps print speed. It also has a flat-belt push tractor for easy paper loading and a utility disk that lets you make onscreen setup changes. The KX-P1150 has everything you need to produce great-looking, professional documents. Your search is over—order Panasonic's KX-P1150 today.

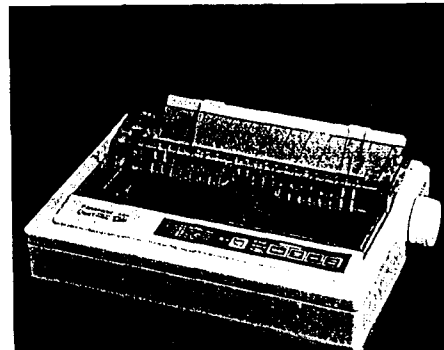
- 9-pin NLQ printing
- 160-240 cps high-speed draft/
160 cps draft/32-38 cps NLQ
- 240 x 260 dpi
- 4K print buffer
- Parallel interface
- Epson FX-850 and
IBM Proprinter III emulations
- Seven resident bit-mapped fonts
- Paper parking
- **FREE** setup disk with
Windows 3.1 driver
- Two year manufacturer's warranty

\$ 167.00 Plus \$6 S&H

Panasonic

Office Automation **OA**

KX-P2023



"EZ" To Operate And Afford

Put an end to printer set-up hassles with Panasonic's economical KX-P2023. This 24-pin printer makes high-quality printing a cinch—thanks to its EZ Set operator panel. EZ Set remembers more than 20 functions—including font, pitch, form length and emulation. At the touch of a button, the KX-P2023 recalls the most often used printer functions. Imagine the time you'll save printing your next brochure, form letter or report. For added versatility, Panasonic included advanced features like a 360 dpi resolution, seven LQ fonts, automatic loading and a flat belt tractor for simple fanfold paper loading. But best of all, it has the feature you've been waiting for—a low price.

Features:

- 24-pin LQ printing
- 160-240 cps draft/53-80 cps LQ
- 43.5 dBA noise level
- IBM Proprinter X24E and
Epson LQ-850 emulations
- 11.7" mid-sized paper carriage
- 360 dpi
- Seven resident bit-mapped fonts
- EZ Set operator panel
- IBM PC-compatible set-up disk
- 14K print buffer
- Two year manufacturer's warranty

\$ 200.00 Plus \$6 S&H



COMPUTER NEWS PURCHASING CLUB

Become a Member and Save
On Computer Hardware and Software

Save on
Printers
Ribbons
Laser Cartridges
Computers
Compact Disks
Floppy Disks
Floppy Disk Drives
Hard Disk Drives
Computer Programs
Multi-media
Replacement Hardware
Memory Expansion
Any and all computer related products

----- Detach and Mail With Payment -----

_____ Yes, I want to become a member of COMPUTER NEWS PURCHASING CLUB.

Enclosed is my \$25.00 check or money order for my first years membership.

_____ And please rush my membership kit to me right away, I want to start saving
as soon possible on my computer purchases.

NAME _____ PHONE _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

Check or Money Order Payment Only - Credit Card orders are not accepted.

Computer News, PO Box 680, Casper WY 82602 (307) 265-6483 Mon. - Fri. 8am - 5pm MST

Computer News PC Product Guide

PROGRAMS

PACK - MS-DOS Version \$ 18.95 (Z)
BASIC Program Packer by David Goben.

MS UTILITIES by David P. Miller \$ 30.00 (Z)
Transfer files between TRS/LS DOS disks and
MS-DOS disks. Format MS disks on a model 4.

SAVE & GO by David Goben \$ 18.95 (Z)
MS-DOS Directory Utilities (see Vol 3.1)

DISKETTES

American Made - Bulk Platinum Brand by Syncom.

FLOPPY DISKS DOUBLE DENSITY

5-1/4 DS/DD 360k. \$.38 (Z)
100% Error Free Lifetime Guarantee with
Paper Sleeves, Labels & Read/Write Tabs.

3-1/2" DS/DD 720k \$.59 (Z)
Premium Quality complete with labels,
100% Error Free, Lifetime Warranty.

FLOPPY DISKS HIGH DENSITY

5-1/4 DS/HD 1.2meg \$.58 (Z)
100% Error Free Lifetime Guarantee
with Paper Sleeves, Labels & Read/Write Tabs.

3-1/2" DS/HD 1.2meg \$.69 (Z)
Premium Quality complete with labels,
100% Error Free, Lifetime Warranty.

5-1/4" TYVEK SLEEVES (25 per pk) \$ 1.25 (W)

COLOR CODED DISK LABELS

Five Color 5.25 Write-On Disk Labels
10 labels w/10 read-write tabs per sheet
100 per package \$.50 (W)

FLOPPY DISK MAILERS

Self-Sealing Mailer package of 10 \$ 3.35 (Z)
Holds one or two 5-1/4 floppy disks.

SELECTOR SWITCHES

A-B SWITCH, PARALLEL \$ 14.75 (Z)

With three female 36 conductor centronics connectors.

A-B SWITCH, SERIAL, RS232 \$ 12.75 (Z)

With three DB25 Female connectors.

THREE POSITION SERIAL SWITCH \$ 16.95 (Z)

w/4 DB25 Female connectors

CABLES REQUIRED BETWEEN AB SWITCH and PRINTER

Printer to Selector Switch 6' M-M \$ 13.49 (Z)
Printer to Selector Switch 10' M-M \$ 15.95 (Z)
Printer to Selector Switch 15' M-M \$ 18.95 (Z)

RS232/MODEM CABLES

Serial Cable 6 ft. DB-25 M TO DB-25 F \$ 6.95 (Z)
Serial Cable 6 ft. DB-25 M TO DB-25 M \$ 6.95 (Z)
Serial Cable 3 ft. DB-9 F TO DB-25 M \$ 6.00 (Z)
Serial Cable 6 ft. DB-9 F TO DB-25 M \$ 6.95 (Z)

NULL MODEM Cable 6 ft DB-25 M TO DB-25 F \$ 6.95 (Z)
Connect two computers together.

PRINTER CABLES

For PC IBM/Compatible Computers to Parallel Printers.
Round 6 ft. Parallel Printer Cable \$ 9.05 (Z)
Round 10 ft. Parallel Printer Cable \$ 10.35 (Z)

For Tandy 1000 Computers to Parallel Printers.
Flat Ribbon 6' Parallel Printer Cable \$ 12.95 (Z)
Flat Ribbon 12' Parallel Printer Cable \$ 15.00 (Z)

DISK CLEANING, DUST COVERS

5-1/4" DISK DRIVE CLEANING KIT \$ 4.90 (Z)
3-1/2" DISK DRIVE CLEANING KIT \$ 5.25 (Z)
UNIVERSAL PRINTER DUST COVERS \$ 9.75 (Z)
For printers up to 16" wide, anti-static vinyl.

INTERNAL HALF HEIGHT DOUBLE SIDED DISK DRIVES

Internal Half Height 5-1/4 360K \$ 60.00 (Z)
Internal Half Height 5-1/4 1.2 meg. \$ 60.00 (Z)
Internal Half Height 3-1/2 1.44 meg. \$ 60.00 (Z)
Internal 2 Floppy Drive Cable IBM style \$ 2.35 (Z)

DRIVE MOUNTING KITS

Floppy Disk Kit for 3.5" drive in 5.25 Bay \$ 7.00 (Z)
Hard Drive for 3.5" HD in 5.25 Bay \$ 7.00 (Z)

ADD SHIPPING & HANDLING CHARGES LISTED BELOW TO YOUR ORDER

\$10 Maximum S&H charge for United Parcel Ground Service. Add the shipping and handling charges per item ordered,
if it exceeds \$10 for shipment in the 48 states then add only \$10 to your order for shipping and handling.

(W) Add \$ 1.00 (X) Add \$ 2.00 (Y) \$ 3.00 (Z) \$ 4.00

Shipments are made by UPS ground service whenever possible. Please use street address and include phone number when ordering. Consistent with industry standards no refunds are made for opened software, manuals, integrated circuit chips or computer parts. Replacement limited to defective material only. No returns without written authorization.

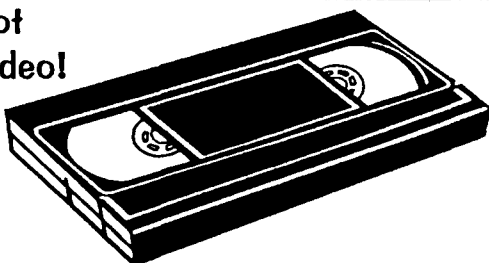
Check or Money Order Payment Only - We do not accept Credit Card orders. C.O.D. add an additional \$4.50 per order. APO, FPO, HI, AK, PR, and Canada add an additional \$2 per order unless otherwise stated. Wyoming Residents Only add 5% Sales Tax. Prices subject to change without notice.

Order from: Computer News, PO Box 680, Casper, WY 82602-0680; (307)265-6483

Monday thru Friday - 8am thru 5pm - Mountain Time. Government, School, and Rated Corporation POs Welcome

Micro Systems Is Revealing The Secrets Of The 1000's!

**Our Hot
Selling Video!**



**** Special Offer ****

**Secrets Of The 1000's Video
Tech Notes & Jumpers Manual Vol. 1
Tech Notes & Jumpers Manual Vol. 2
Get All Three For Only \$59.95**

Shipping \$6

Tech Notes & Jumper Manual

Vol 1: The 1000's \$19.95

Vol 2: The Add-Ons \$19.95

Vol 1: This book covers all of the 1000's! This book contains all the tech notes and jumper/switch settings for the 1000's. Tech notes on BIOS Rom's, video, com ports, printer ports, memory upgrades, pin outs, secrets of the SL's & TL's ROM and much, much more! Memory options, upgrading info, speed-up info, system updates that no one ever tells you about! If you own a 1000, then this book is a must have. The video refers to this book.

Vol 2: This book covers all the add-on products that Tandy produced. It contains all the jumper setting and info on hard drives, hard cards, modems, VGA cards, monitors, floppy drives, mice, clock cards, serial boards, printer port cards and more! If you ever purchase a used product for your Tandy, it may not have the manual. This book will help you configure it for your system. **FOR ALL TANDY SYSTEM, 1000's, 3000's, 4000's, 2500's, etc.**

Upgrading To DOS 6.2

(Also good for DOS 5)

This report shows you how to upgrade to DOS 6.2 on the Tandy 1000 series of computers. It contains the most often asked questions about upgrading. What will work, what won't, expanded vs extended memory, disabling DOS in ROM, creating/deleting partitions, creating a boot recovery disk and more! We will take you step by step on upgrading to DOS 6.2. **Item # TN2 \$3.95 Includes Postage!**

Secrets Of The 1000's \$29.95

This 90 minute video reveals how to upgrade your 1000. It covers all the different models of the 1000's, even the EX and HX! Not sure how to install something in your system? You can now watch it being done! Learn all the secrets of installing hard drives, hard cards, memory, VGA cards, floppy drives and other upgrades! No more secrets! Learn how to make compatible parts work in your 1000. Even if you don't have a 1000, this video will help you in upgrading any PC!

Item # VID1 Order Yours Today!

Micro Systems Is Leaving The Hardware Business!

**We Will Be Focusing On Just The Books
and Video Side Of Our Business.**

***This is your last chance for hardware orders!
So order now! All items are brand new and
have full manufacturers warranty.
Quantities are limited! We have other items
that are not listed, so call today.***

Hard Disk Cards

For 1000, A, HD, SX, TX, SL's, TL's
HC420 420 Meg 12ms \$289
HC530 530 Meg 12ms \$319
We recommend using DOS 5.0 or
6.2 with hard drives this large.

Floppy Drives

SL/SL2/TL's/RL's 720K	\$69
TX Drive A:	\$69
TL3/RLX/RX 1.44Meg	\$69
TL3/RX 1.2 Meg	\$69
2500's 1.44 Meg	\$69
HX Internal 720K	\$69
1000,A,HD,SX 720K	\$69

Tandy 1000 IDE Controller

Now run almost any IDE hard
drive in any model 1000!

ADP50T	\$59
ADP50X For EX/HX	\$79

High Density Drives For Your Tandy 1000!

1.44 Meg Internal Kit	\$139
1.2 Meg Internal Kit	\$139

AFTER MARCH 31, 1995

ORDER FROM

COMPUTER NEWS

PO BOX 680, CASPER WY 82602

307-265-6483

fo



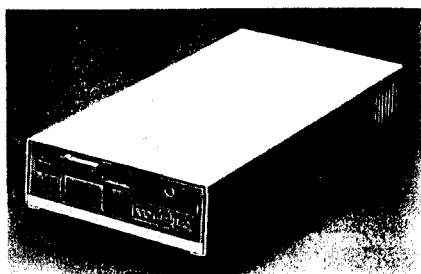
1 Year Manufacturer Warranty

Prices & Availability subject to change. S&H is \$8 on most items, books, videos, memory the S&H is \$5. No refunds! All Sales Final!

Allow 15 days for checks to clear!!

Send Money Orders or Use Credit Cards For Faster Service.

5 1/4" External Floppy Drive. For 1400
FD/HD/LT. 90-2084



One 5.25 double-sided 360K
disk drive. Metal Case, 110 volt
power cord, power supply and
37 pin signal cable.

This unit can be modified to fit
a Tandy Model I/III/4/4P/4D
and other computers by changing
the signal cable connectors. This
modification will be done by CNPC
if requested.

Order from Computer News PC

\$ 45.00 plus \$ 6 S&H

Upgrade Your Key

Looking for a better way to get those graphics or text
from the screen onto the printer? EGAD Screen Print

How?

can help! EGAD not only
makes a faithful printout of
the contents of your screen
display, it gives you control
over features like:

- **Cropping** (print any
rectangular region);
- **Color and Gray Tone selection** (any
color on the screen can print as black, white, or a gray
tone; up to 16 of 64 colors supported on capable printers);
- **Orientation** (print in Portrait or Landscape mode);
- **Enlargement and Reduction** of graphics; and
- **Alignment** (so you can center your printout on the page.)

EGAD also supports a wide variety of **display types**
(including many **Tandy/PCjr modes** as well as VGA,
EGA, CGA, MGA,
Super-VGA to
800x600) and **printers**
(most popular matrix,
inkjet, and lasers.)

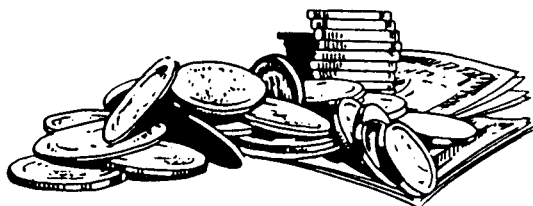
EGAD!

EGAD Screen Print

Normally activated by
the Print-Screen key,
EGAD can also be called from your program.

Single copies \$35.00 postpaid; please specify 5 1/4 " or
3 1/2 " disk. Low-cost site licenses for schools and colleges.
As reviewed in the July/August Computer News PC.

LS Software 8139 E. Mawson, Mesa, AZ 85207
(602) 380-9175 Call/Write for Free Brochure



NEED EXTRA CASH?

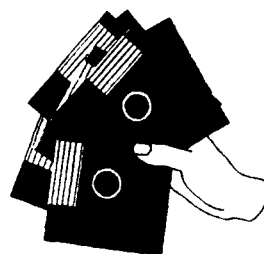
Become a Subscription Agent
for *Computer News 80* and
Computer News PC.

We supply all the materials and pay you
a commission on each subscription order.

For more information contact:

Construction News
PO Box 680
Casper, WY 82602

Phone: 307-265-6483



Can't find double density disk drives in your local store?

Computer News PC
maintains a regular stock of
double-sided double-density
disks.

5.25" floppy disks .38 ea.

3.50" floppy disks .59 ea.

See our product guide for more
information on ordering.



TRS-80 MODEL III/4 EMULATOR

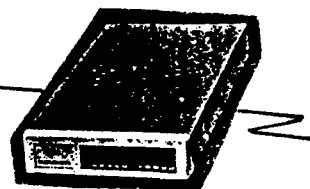
By Jeff Vavasour

**Run your TRS-80 Model 4
and Model III Software on your PC.**

Virtually all software available for your Model III or Model 4 will run on your IBM PC or PC Clone computer using The TRS-80 Model III/4 Emulator. Install TRSDOS 1.3, LDOS 5.x, NewDos (Model III DOSes) TRSDOS 6.x, LS-DOS 6.3.x, (Model 4 DOSes) on your PC.

A Model 4 or 3 and a PC with at least 384K, CGA graphics, MS-DOS 3.3 or higher is required. If you still have TRS-DOS disks but no longer have your Model 4 computer *Computer News Transfer Service* will transfer your files from your TRS-80 disks to the emulator formatted PC disks required for use in your PC, \$5 per disk.

\$ 59.95 plus \$4.00 Shipping and handling.



2400 Baud External Modem

from Computer News

\$ 65.00
\$ 4 (S&H)

2400 baud transmission speed
Hayes compatible
Compatible with Model 3/4/4D/4P
Compatible with IBM PC/XT/AT
Auto dial/answer
Eight status indicator lights
Built-in speaker with volume control
Second jack for local phone
Call progress and error detection
Ten year manufacturer's warranty
Manufactured in the USA

Complete with

Communication Software

COMPUTERS & MONITORS FOR SALE BY COMPUTER NEWS

COMPUTERS

TANDY 1000 EX	256K Memory	\$ 100.00
TANDY 1000 HX	640K Memory	\$ 135.00
TANDY 1000 SL/2	512K Memory	\$ 160.00
TANDY 1000 SL	512K Memory	\$ 140.00
IBM XT	640K Memory	\$ 140.00
RADIO SHACK COLOR II's		\$ 50.00

MONITORS

TANDY CM-2 COLOR	640x200 13"	\$ 100.00
TANDY CM-5 COLOR	320x200 13"	\$ 120.00
LEADING EDGE MONO	12"	\$ 50.00

Add \$20 for shipping/insurance

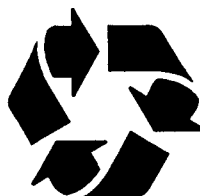
MISC. 1000 BOARDS

25-1011 384K Memory expansion	\$40.00
25-1015 Mouse Controller	\$40.00
25-1004 256 Memory expansion	\$40.00
25-1004 384 Memory expansion	\$50.00
XT/AT Clock Card 62 Cond. Card	\$25.00

Add \$4 for Shipping and Insurance

Boards are sold as is - no returns.

Limited quantities call for availability.



**STOP
THROWING
PRINTER
CARTRIDGES
AWAY!**

RECYCLE THEM

WE WILL RE-INK THEM FOR YOU
\$ 3.00 each

Fabric ribbons can be re-inked dozens of times before the fabric wears out. Even then the plastic cartridge will still be good and the ribbon can be replaced. Send us your used printer ribbons and we will re-ink them using high quality ink that also contains a print head lubricant to prolong the life of your printer.

Add \$3 Return Shipping for 1 to 5 ribbons,
Add \$4 Return Shipping for 6 or more ribbons.
Include your phone number and payment by check
or money order to *Computer News*.



FOR SALE *NEW & USED* SOFTWARE

for your Tandy 1000 and/or IBM PC Compatible - Call CNPC

HP-33404B 5 1/4" & 3 1/2" Used	Type Director v 2.0 Hewlett-Packard Font management program w/ 8 scalable typefaces	IBM XT, AT, PS/2 & Compatibles. Dos 3.1+ (will not run on Dos 4) 640k Ram	20.00
HP-C2050A#D03 3 1/2" Used	Decorative 1 Four typefaces used w/Type Director 2.0		15.00
5 1/4" Used	PC TOOLS <i>Deluxe</i> v 6 Data Recovery, Hard Disk B.U., Dos Shell, Desktop Manager	IBM PC, XT, AT, Dos 3.0+, 512k Ram, Hard Drive Recommended	35.00
25-1174 5 1/4" & 3 1/2" Used	Varsity Scripsit Word Processor w/ spell checker	IBM, Compaq, & Tandy Computers, 384k Ram, Dos 2.11+	40.00
5 1/4" Used	Super Utility PC Data Recovery program for Fixed & Floppy Disk	IBM PC, XT, AT, Tandy 1000, 1200HD & 2000, Dos 2.0+, 128k Ram	35.00
3 1/2" New	Rightwriter Intellegent Grammar Checker - Compatible w/ most major word processors & all ASCII text editors	IBM PC, AT, PS/2, 2 DS Drives or 1 DS Drive & Hard Drive, 512k Ram	40.00
5 1/4" HD Used	IMSI Publisher Word Processor & Desktop Publishing	IBMPC-AT, Compaq, Deskpro 286, Packard Bell, PS/2 mod's 50, 60,&80; 640k Ram, Hard Drive 20 meg free, 1 HD Drive	35.00
5 1/4" & 3 1/2" New	Wealth Starter Budgeting, Savings & Investing Systems	IBM PC, ST, AT, PS/2, Tandy, 256k Ram	30.00
5 1/4" & 3 1/2" Used	Diskette Manager 3 v 2.1 Create detailed labels & reports for all diskettes	IBM PC, XT, AT PS/2, Tandy, 256k Ram	30.00
3 1/2" Used	Type Galley Three Type 1 & TrueType Fonts		15.00
3 1/2" New	Managing Your Money v 7.0	IBM PC, XT, AT, PC, Convertible, PS/2, Compaq, Tandy, 512k Ram, 2 Floppy Drives or Hard Drive, 80-Column Monitor, Dos 2.0+	20.00
CD-ROM Used	Critical Path Adventure Game - Contains Adult Language & Graphic Carnage & Violence	386/33mhz, 4MB Ram, 640 x 480 Super VGA, CD-ROM Drive, 8-Bit Windows Compatible Sound Card, Windows 3.1, Dos 5.0 +	25.00
5 1/4" Used	The Lurking Horror You are trapped in a building on campus - but NOT alone	IBM PC, PCjr, XT, AT, Tandy, Wang, Sanyo ..., 94k Ram, Dos 2.0+	5.00
5 1/4" Used	Leather Goddesses of Phobos You are on Mars' moon Phobos - defeat the Goddesses - save humanity	IBM PC, Pcjr, XT, AT, Tandy, Wang, Sanyo..., 94k Ram, Dos 2.0+	5.00
25-1351 5 1/4" & 3 1/2" New	DeskMate 3 Desktop w/ word processor & spell checker, address, spreadsheet, filer, calendar, draw program , hangman, alarm, music , & tutorial	Tandy 1000 RL, RL-HD, TL, TL/2, RLX, RLX-HD, & IBM Compatibles, 512k Ram, hard disk recommended	87.95
5 1/4" & 3 1/2" New	PLANMaker Powerful business plan software for start-up or existing business	IBM or Compatible. Dos 3.0+, hard drive, 640k Ram, mouse optional	87.95

*** NOTE *** ONLY ONE OF EACH *** CALL TO RESERVE AN ITEM *** ADD \$4.00 S&H

Computer News PC
Published bimonthly.

Copyright (c) 1995
by The Construction
News Publishing Co.

Single issue \$4.00
Subscription Prices:
\$24 per year in US.
\$35.50 per year in
Canada. \$42.00 all
others.

Mailing Address:
PO Box 680
Casper, WY 82602

Street Address:
1220 Jamaica Drive
Casper, WY 82609

Phone: (307) 265-6483

Classified Advertising
Rates:

\$6.00 Minimum
\$1.00 per line of 35
characters or spaces.

Publisher and Editors
Stan Slater
Ron Gatlin

Office Hours are
8 AM to 5 PM
Mountain Time
Monday thru Friday.

We also, publish
Computer News 80
The TRS-80 Model I,
III, 4/4P/4D Support
Magazine.

SUBSCRIPTION ORDER Receive a free software disk

Yes, enter my subscription to *Computer News PC*

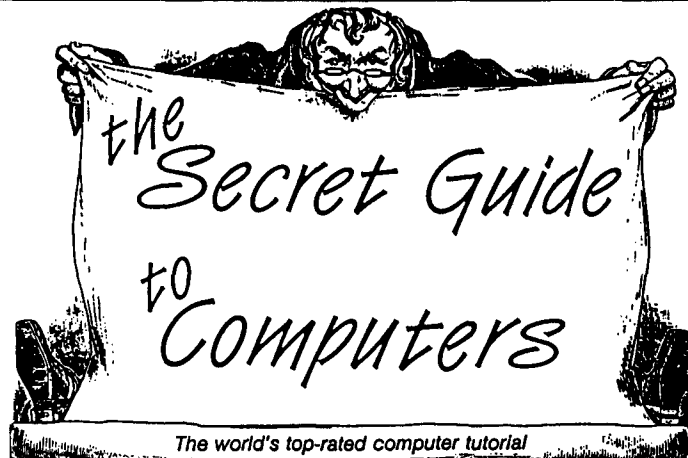
___ One year for just \$24.00 ___ Two years for just \$40.00

Name _____

Address _____

City _____ State _____ Zip _____

Check or Money order enclosed. Please send the
Wyoming Software Disk of my choice. Disk # _____
Computer News PO Box 680 Casper, WY 82602



Just \$15

Postage
Included

639 Pages
8-1/2 x 11"
Soft Bound

It covers
everything.

Organizations worldwide call this the **BEST** computer book.
Praised by PC Magazine, PC World, New York Times, Scientific American
Used by CBS News, Wall St. Journal, The Australian, others in 6 continents

Computer News PC
PO Box 680, Casper WY, 82602

FORWARDING & RETURN POSTAGE GUARANTEED
ADDRESS CORRECTION REQUESTED

BULK RATE
U. S. POSTAGE
PAID
CASPER, WY 82601
PERMIT NO. 309

TOTAL SUPPORT FOR YOUR TANDY 1000 COMPUTER

SUPPORT THAT YOU CAN UNDERSTAND

Computer News PC is a magazine that provides support for your TANDY 1000's, IBM PC, XT, AT, PCjr, PS/2 and Compatible 286, 386, 486.

Support that you will not find in the glossy magazines found on the magazine racks today.

40 or more pages of support articles, software reviews, type-in programs and more - all for your new or older computer.

Nationally known and knowledgeable authors who write in Plain English that you can understand.

Shareware and public domain programs at the lowest price in the country.

For a sample magazine send \$4.00

***THE FIRST 200 TO SUBSCRIBE WILL RECEIVE A FREE EXTRA ISSUE
AND THEIR SUBSCRIPTION WILL START WITH THE NEXT REGULAR ISSUE.***

----- Please detach and return with your check or money order. -----

Yes, please enter my subscription for one year of *Computer News PC* (six issues per year) at \$24.00.

So we can serve you better please tell us a little about your system.

Tandy 1000 Model _____ IBM, or IBM/Clone Model _____

What Disk size do you use 5.25" _____ or 3.5" _____ Hard Disk Size _____

Do you use MS/DOS ____ or Windows ____ Other _____

Name _____ Phone _____

Address _____

City _____ State _____ Zip _____

Computer News PO Box 680 Casper, WY 82602 (307) 265-6483

PCPromo7/sht