

Jr Newsletter January 1988

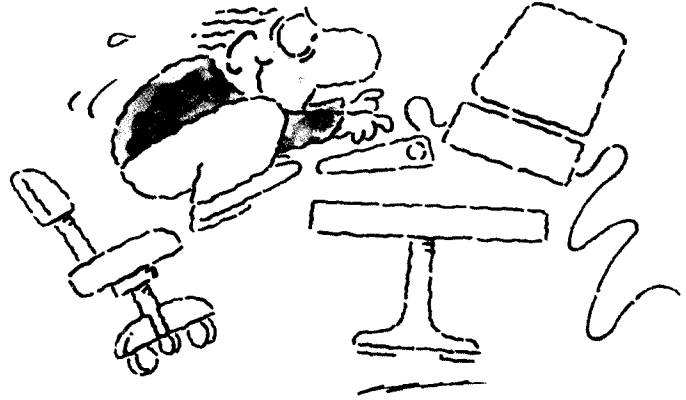
New Cartridge Resets PCjr Defaults Conveniently

A new cartridge developed by PC Enterprises will reset by means of a switch PCjr's defaults, which normally require rebooting your system. The cartridge, which costs \$29.95 also has keyboard indicator lights.

Other than the keyboard indicators, the cartridge won't do anything you can't achieve with software, but use of the cartridge provides greater convenience. Normally, for instance, the PCjr will boot up in 40 column mode and will recognize only one diskette drive. You must have software on all your boot disks to change these defaults. PC Enterprises cartridge will do this for you without the software. This feature would be especially convenient when using self-booting software that requires 80 column mode and a second disk drive.

The cartridge also enables your PCjr to fool software into thinking it is running on an IBM PC. A PC-ID cartridge by Racore also does this, but the PC Enterprises cartridge enables you to manually switch from PCjr to PC identifiers at any time, rather than rebooting your system, which you must do with the Racore cartridge. Both cartridges achieve the goal of fooling software into

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Harry's souped-up PCjr is faster than an XT!

Some Notes on PCjr Software Compatibility

Although PCjrs can operate most software that is written for PCs, there is some software that will not run on PCjrs and other software that requires modifications in order to run properly. We have reported on this subject regularly, even to the point of printing a list of over 200 excellent software titles that are known to be PCjr compatible.

This article contains some new information obtained from a variety of sources on the endlessly fascinating subject of what's compatible and what's not. These are bits and pieces of news and tips that bear on the subject of compatibility. We plan to publish collections like this every two or three months. We invite any of our readers who would like to contribute to this sharing of compatibility information to please write to us at the address on page 2.

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A note in the Compuserve PCjr Forum from Scott Miller says Dollars and Sense V2.0 runs fine on his PCjr. It ran well for a year with 256K and then continued to run after he expanded to 640K with a Racore Drive II Plus.

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The newly released Deep Space by Sir Tech will run on PCjrs, according to the manufacturer.

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DOS For Beginners

By Read Gilgen

In this article, I will discuss two fundamentally important topics: drive designations and the COPY command. (NOTE: Please see the DOS manual from IBM for details on these and other DOS commands and procedures.)

When you first "boot" DOS you are asked for the DATE and TIME and then you are presented with the A > prompt. This prompt mark tells you two things: (1) you are in DOS, and (2) the default drive is A:

Just what is meant by a default? In computer jargon, a default specification is what the computer expects to find or to do automatically when it operates. For example, the A > prompt means that if you ask the computer to look for a file on the disk drive, but don't specify which drive, it will assume you want a file from the default, or A: drive.

You may have noticed that I talk about the A > prompt, but that I talk about the A: drive. When the operator specifies a drive letter, it is always followed by a colon. The only place that the ">" sign is used is in the DOS prompt itself.

If you want to change the default drive so that the computer looks to drive B: unless told otherwise, you simply enter "B:" at the prompt:

```
A > B: (ENTER)
```

(NOTE: Whenever I tell you to ENTER something, that means to type the indicated word or words, and then press the ENTER or CARRIAGE RETURN key.)

If you want a directory listing of the default drive, you need only enter "DIR" at the DOS prompt. If you want a directory listing of another drive without changing the default, you could enter "DIR B:". It is important to understand the concept of default drive designations before you proceed to other commands.

Copy Command

One DOS command that can make life a lot easier for you is the COPY command, which allows you to transfer a copy of a file from one disk to another.

When using the COPY command, you will need to specify at the very least the name of the file you are copying FROM. If the file is not on the default drive, then the drive designation should be included as part of the filename. For example, if I enter "COPY B:MYFILE.TXT," DOS will go to drive B: look for the file MYFILE.TXT and copy it to the disk on the default drive.

If I want to specify the drive TO which a file is copied, then I use the drive designation. For example, if the file is on the default drive A: I might enter: "COPY

A:MYFILE.TXT B:" and an exact copy of MYFILE.TXT in drive A: would be copied to a file by the same name in drive B:

Finally, if I want to copy the file, but change the name of the copy, I might enter: "COPY A:MYFILE.TXT B:MYTEXT.DOC" and an exact copy of MYFILE.TXT would be copied onto the disk in drive B: under the name MYTEXT.DOC.

Here's a little exercise: If you have two floppy disk drives, place a blank formatted disk in drive B: and place any other disk with information on it in drive A:. Next, do a DIRectory listing of drive A: and then copy a file or two from drive A: to drive B: changing names at least once.

Once you get the hang of it, COPYing files can be simple and in the long run may save you hours of work trying to reconstruct an accidentally erased master file. (The above article was originally published in the Madison PC Users Group Newsletter.)

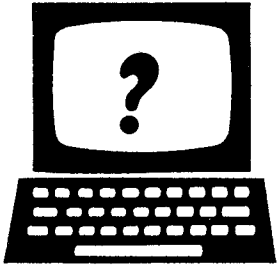
PC Network Warning

The Boston Computer Society reports in a recent issue of its newsletter that many of its members have complained about lack of service from PC Network, the mail-order computer supply organization that advertises in many national computer magazines.

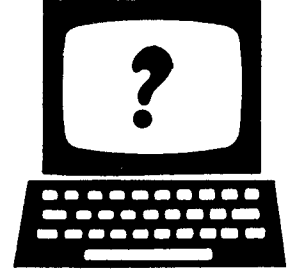
BCS has received many complaints about PC Network's ability to fill orders and its lack of telephone support. Following the tale of a disgruntled customer who used her American Express Card to place an order which had not arrived a month later, although her account had been charged, the BCS article stated:

"PC Network claims to have a membership of 180,000 customers and to carry 30,000 different types of products. So be it. Despite their assurances that they are working towards a positive relationship with their customers, it is clear that they have their work cut out, starting in the phone room. Lying to customers coupled with evasive tactics on the phone do nothing to build customer confidence. Absolutely nothing replaces honesty."

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Questions and Answers



EDITOR'S NOTE: jr Newsletter gets questions in the mail from PCjr owners every day. So many, in fact, that we apologize for not being able to answer them personally. This Questions and Answers column is our way of responding to the questions readers ask about their PCjrs. We can't answer all of the questions we receive, but we try to answer those that are either asked by several readers or those we feel will be of interest to PCjr owners in general. If you have a question that you do not see answered here, or elsewhere in this newsletter, please feel free to write to us at jr Newsletter, Box 163, Southbury, CT 06488.

Q. I have a PCjr with one disk drive and 128K. I would like to expand it, but I don't want to spend a lot of money. What do you recommend?

A. As is usually the case with open-ended questions, the answer depends on many things. Too many factors, most of which relate to how you use your computer, for us to provide a neat answer that would be right for every PCjr owner. But we would like to suggest one major consideration as a first step in deciding which way to go if you only want to make one addition to your PCjr. Many people make what, in our opinion, is a mistake when purchasing the first expansion item for their PCjrs. They buy a second disk drive. For many people, this is probably not the best choice. True, a second drive eliminates tedious disk swapping. But for just about the same amount of money you can expand your PCjr's memory to 640K. This will allow you to run most of the software that is on the market today, rather than being confined to those relatively few programs that will run with 128K. In addition, you can easily learn how to set up a RAM drive within your new memory. This will give you a second drive that will operate much faster than a physical drive. Also, with the software provided with memory expansion units, you will be able to set up your computer so that it will run all software two or three times faster than you're used to, simply by virtue of it being shifted in "high" memory. This may not make sense to you if you have been using a PCjr with 128K, but all memory expansion units come with instructions which will explain these points more clearly and help you to get the most out of your added memory. Of course the best of both worlds is to have a second drive AND additional

memory. But we think, for most people, if you only plan to make one addition to your PCjr, additional memory is the best choice.

Q. I went into a software store recently and they told me I couldn't run Microsoft Word on a PCjr. I didn't know whether to believe them or not.

A. As a rule, most staff people in software stores and computer stores in general think the PCjr is a toy. They don't know that its memory can be expanded to 640K, that it can have two (or more) drives, a hard drive, modem, printer and can run most software written for IBM PCs, XTs and their clones. Microsoft Word runs very well on PCjrs provided they have enough memory installed for the particular version you have in mind. Version 3.1 is the last one we have confirmed PCjr compatibility info on. There are many PCjr owners who are quite happily processing words with Word Perfect, Wordstar, Wordstar 2000, Volkswriter, PFS Professional Write, IBM Writing Assistant, Executive Writer, Bank Street Writer (and BSW Plus), XYWrite, and other commercially distributed word processing software, in addition to the excellent shareware word processor PC-Write. In fact, we have not had reports of ANY word processor that would not run on a PCjr with adequate memory.

Q. What is the highest baud rate that the PCjr can utilize with a modem ?

A. The PCjr's internal modem (IBM version) operates at a maximum baud rate of 300. Many PCjr owners have external modems attached to their serial ports. The external modem we use operates at a maximum rate of 1200 baud. You can find advertisements in computer magazines for modems operating at 2400, 4800 and even 9600 baud, which is probably the reason this question was asked. From what we can gather from various technical manuals, the maximum baud rate for a PCjr operating through its RS-232 serial port would theoretically be 4800, although we do not know of anyone who has operated a PCjr attached modem at that baud rate. Legacy Technologies (800) 228-7257 makes a Serial Interface Card which fits into the modem slot inside your PCjr. Legacy says this card will give you a "true" RS-232 port enabling you to run a 2400 baud modem. It costs \$85. Before you run out and buy a new

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ProComm—Outstanding Telecommunications Shareware

By Merv Adrian

ProComm, what a find it is! I have used a number of communications packages starting with Crosstalk and Smartcom, and going on through RELAY and a number of public domain products. I can honestly say that this one is in a league with any of them and in many ways better than most.

Of course, the first thing to remind you is that freeware is a concept deserving of your support; the program is freely available for copying and distribution. You are urged, encouraged, and vigorously enjoined to contribute as suggested by the author — you'll sleep better, and no doubt the author will too.

In richness of capabilities, ProComm is second to none. The most obvious first requirement is the ability to control your communications parameters, and you may range through the usual baud rates, stop bits, and parity settings. One very nice feature is the use of toggles for several commonly annoying parameters (annoying when they're wrong, that is), including the duplex setting and echo.

You can get help with the keys at any time with the Alt-F10 combination. This brings up one of my very few quibbles with the program: I'm not thrilled with the keys used for some functions. For example, the duplex toggle is Alt-E, which is not exactly intuitively obvious. However, keyboard macros are available by pressing Alt-M. You get a window, some help which is very easy to follow and the ability to set Alt-n (where n is 0-9) to any 24-character string.

Terminal Emulation is a particularly attractive and useful feature, especially for us occasional telecommuters. ProComm supports a whole host (no pun intended) of terminals: IBM 3101, DEC VT100, Televideo 910/920, and many more, including a default setup optimized for BBS'ing called ANSI-BBS.

A 100-entry directory with communications parameters is accessed with Alt-D, displaying ten entries at a time. Revision or addition is easy and the commands are displayed without any need to go somewhere else in the program for help. You can specify codes for various long-distance services if you're not using AT&T exclusively. Other directory features include an easy directory print utility available from within the program and an auto-redial mode which removes reached numbers from the list.

A utility called CONVERT-EXE is also provided as a stand alone which will convert your QMODEM or PC-TALK directory to ProComm format for you.

File Transfer Protocols

XMODEM support is, of course, a must these days, but here an additional step is taken: a "relaxed" XMODEM suitable for use with CompuServe's non-(some would say sub-) standard implementation. ProComm automatically senses the use of CRC checking and will use it if it is encountered and, in fact, will automatically change to no parity, eight data bits and one stop bit (N/8/1) if XMODEM is requested regardless of the existing settings at the time the request is made. A variation of XMODEM called MODEM7, which permits multiple files to be transferred in batches, is also supported. There is also support for YMODEM, which uses larger blocks for faster throughput and YMODEM batch.

TELINK, often found on FIDO boards, is another variation which supports batches and includes some file statistics as well (file size, creation date), and you may use this if any of the boards you frequent are enlightened enough to use it.

KERMIT, the public domain protocol developed at Columbia, is supported on micros and mainframes in many places where hardware, operating system, and other incompatibilities make other modes of transfer impossible. In fact, I have used it to transfer executable code through a mainframe network to another user on a PC.

ProComm implements all the newest features and provides a separate menu for tailoring your use of KERMIT. For example, using "sliding windows," it is possible to transmit and receive at the same time!

A special feature is pacing of ASCII upload. This is very useful when you find that you're outrunning the receiver of your transmission. The pace is adjustable in tenths of seconds after each line of transmission from zero up. ASCII download is, of course, a special case since no handshaking is performed (although you may use XON/XOFF).

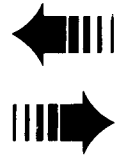
Command Files

These may be executed at start-up with the /F option, which is extremely useful if you have some fairly routine, frequently used needs such as checking your MCI mailbox and printing the contents. Alt-F5 selects a window listing the available command files from within ProComm. The command language is quite rich, but I will not cover it in detail here, except to note that some

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READER FEEDBACK



Irate PCjr Owner Speaks Up!

EDITOR'S NOTE: The following letter from the proud owner of a PCjr appeared in a recent issue of PC Clones Magazine. We thought other PCjr users would appreciate the way Mr. Taylor spoke up on behalf of our under-rated computers.

On page 49 of Stan Veit's otherwise outstanding article on how to buy a pc clone, "What You Need to Know," is a boxed quote that brought me out of my seat and almost caused your magazine to end up on the floor at the opposite side of the room. The quote says, "One word of warning, don't buy an IBM PCjr. There are still some of these failures around and they are now being offered at bargain prices. They are no bargain at any price."

I BEG YOUR PARDON!!!

Sitting in front of me is a very reliable, excellent machine that started life as a PCjr. I will grant that in its original incarnation, it was an expensive toy with little or no practical use beyond playing games and teaching children the joys of BASIC—if you had a cartridge for BASIC. However, it is now every bit as powerful and several times more flexible than 99 percent of the clones floating around on the market today.

Besides having all of the color and graphics capability I need as a writer, the PCjr, if properly enhanced can become a giant killer. This one has a second disk drive, an additional 512 KB of memory (bringing it up to 640 KB), a built-in clock/calendar, DMA, and a pc emulation switch all purchased from Racore. It bumps along at 7-8 MHz thanks to a NEC V20 chip and it is equipped with one of the finest keyboards in the world, the KeyTronic 5151 jr, which is identical with the standard 5151. If I decide not to go the 720 KB disk drive route, I will install Racore's 20-MB hard disk. In addition, I am debating whether to go with an internal 1200-baud modem or get an external—my "failure" allows me that option.

I have more power and flexibility on this little machine than a clone costing twice what I have invested in it. In addition, I don't have to worry about compatibility in software because I can run anything written for the PC or jr.

Don't tell me I have a "failure" and "no bargain," fella, people who see what I'm with stand around with their mouths watering.

Nevertheless, I enjoyed your magazine. Good luck in

the future and I'll be looking forward to your next edition. Now, if I can just decide whether to go with a 720 KB floppy or a 20-MB hard disk and...

Hugh R. Taylor
Los Angeles, CA

* * * *

The Joys of Fuse Blowing

The fuse blew in the black box for the side-cars extra power supply the other day. (I had three IBM memory-cars, a parallel port and the power supply hitched on.) After sawing the box open (unnecessary) and replacing the quik-blow 5 A fuse, it didn't blow again, but the power supply side-car itself was gone. The cost to diagnose and repair seemed unreasonable so I opted for a Hotshot 512k internal from one of your advertisers. It came in on overnight delivery, and now happily resides in my CPU slot, giving me 650k! A beautiful product! The extra memory side-cars are now on my wife's jr. She had only 256k with a Tecmar 128k add-on. Now she has two more 128k IBM cars hitched to that. She won't put the third IBM one on for fear of loading up the jr's power supply, even though the Tecmar has its own separate power, so she now has a mere 512k. We both gained from the failure of the original power supply.

Rene Waldron
Westport Point, MA

* * * *

Super PCjr Owner Couldn't Be Happier

I wrote some time ago telling you how I had configured my jr. It included 2 floppy drives, an Impulse 512K board, a Keytronic 5151 jr keyboard, a V20 chip, and a print buffer in the Proprietary.

I took off the Impulse board yesterday, upgrading it to a Racore board. This still gave me a total of 640K. I now have a 20M hard disk, but still kept by 230K RAM disk in memory for the software that I access a lot plus working storage for i/o intensive applications. I still have the two floppies. The result is a jr with the speed of a bat out of hell.

I've spent the price of a PS/2 by this time, but consider. I have had the use of the jr for over two years. I've added to it a little at a time. I wouldn't trade the current configuration in for anything.

Jim Goldfrank
Reston, VA

Powerful PCjr Utilities

By Brit Hume

JRCONFIG.SYS and CONFIGJR.SYS, written by Larry Newcomb of the Metro PCjr Users Group, would qualify as "utilities" but that would be an understatement. They are by far the most powerful and flexible software available for getting a PCjr to run with expanded memory and additional disc drives.

These two programs are the same except for one thing. JRCONFIG.SYS automatically creates a RAM disc in low memory, which can be set by the user to any size from 19K to the limit of expansion memory. The default is 91K. CONFIGJR.SYS does not create a low memory RAM disc.

Both programs will cause the PCjr to recognize all expansion memory and added floppy disc drives. They also allow the user to establish the size of the so-called "video buffer" at as little as 4K. The video buffer is that part of memory allotted to the computer's display.

The feature is particularly useful for those with only 256K, since the usual video allocations of 16K or 32k can leave a PCjr short of memory for some programs that are supposed to run on 256K machines. JRCONFIG.SYS and CONFIGJR.SYS also allow the user to boot the jr up in 80-column instead of 40-column mode and to turn on the electronic keyboard click.

In addition, these two programs can be set to look for

expanded memory above 640K and use up to 736K of RAM. Larry Newcomb has included in the archived package with the two programs and the documentation some other useful utilities for your jr. One is a program called COMSPEC.COM which fixes the bug in the DOS 2.1 SET command so that the computer can be made to look somewhere besides Drive A to reload COMMAND.COM when it needs to.

Thus, when using a RAM disc, COMMAND.COM can be copied to the RAM disc and DOS told to look for it there. The result is an extremely fast reload and the end of the annoying message "Insert COMMAND.COM disc in Drive A and strike any key when ready."

Also included is a handy program called RAM.SYS which creates a RAM disc in high memory. This allows the size of the RAM disc to be changed without rebooting the computer. Larry has fixed both these programs so that there is an on-screen indicator that spins when the RAM disc is being accessed.

This software runs from a CONFIG.SYS file, and this is one of its greatest advantages. DOS looks for CONFIG.SYS file on bootup and, if it finds it, executes it. Thus all of these tasks, installing memory, disc drives, setting display, turning on the keyboard (optional) and setting a RAM disc are all done at once.

It has been tested with memory boards from IBM, Tecmar, Racore and Microsoft and works with all. (The utilities mentioned in this article are on Disk #52 in the jr Newsletter Software Store.)

Bard's Tale PCjr Patch

If you are having trouble running Bard's Tale in 16 colors on your PCjr, you might be interested in trying the patch we have added to Disk #56 JR PATCHES.

Although we do not have Bard's Tale and therefore cannot test the patch, we have been told it works well. Score another one for PCjr ingenuity.

The patches on Disk #56 now enable PCjrs to run the following software that PCjrs are not supposed to be able to run: Starflight, Advanced Flight Simulator, Quick Basic, Turbo Basic, Double DOS, and now Bard's Tale. There is also a patch on the disk that is intended to make Turbo C run on PCjrs, but we have reports of problems with the patch. Reader feedback on these patches would be greatly appreciated.

CHECK OUT THE NEW ADDITIONS TO OUR SOFTWARE COLLECTION. GREAT SOFTWARE FOR UNDER \$10!

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THE LOWEST PRICES IN THE U.S. ON UPGRADE AND REPLACEMENT PARTS FOR YOUR PCjr.

- jr. HOTSHOT-512K internal memory expansion available w/optional clock/calendar, second disk drive controller card, V-20 microprocessor or complete with second disk drive unit.
- All RACORE products
- CANON printers and IBM parts
- AT style keyboard w/adaptor
- 300/1200 Baud modems
- IBM cartridge Basic w/manual
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"Upon this rock"....Matt. 16:18

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Making Junior Faster

By John M. King

Everyone knows that a PCjr is slower than its big brother, the PC. Well, that's true, but not entirely true. Disk accesses will always be a bit slower on Junior because it doesn't have DMA, direct memory access, which lets the PC read or write to a disk while you are typing. Junior just beeps to say "let me finish with the disk operation first."

Aside from disk operations, Junior is still slower than the PC when programs run in the first 128K of memory. The Norton Utilities report that it is only 70% as fast as the PC. However, above the first 128K, in expansion memory, Junior is just as fast as any PC.

How do you get programs to run in expansion memory? There are several ways, but first you have to buy someone's expansion board (Racore, Tecmar, Microsoft, IBM, etc.). After that, you must check the software that comes with your board to learn how to reposition video memory, so that the extra memory can be used by DOS.

The software with every board offers an option to expand video memory to fill up the first 128K. This will force all programs to run in the expansion memory, but it is very wasteful of RAM in most cases. The video buffer will be 96K while most programs need only 16K, or at most 32K, for video memory.

Filling Lower 128K

What are the alternatives? Well, the first 128K must be filled, but let's use something other than unnecessary video. BIOS data and the DOS files, IBMBIO.COM and IBMDOS.COM occupy most of the first 32K of ram. Video must start on a 16K boundary, so the first location for video is between 32K and 48K, for a 16K buffer, or up to 64K for a 32K buffer. We have 80K or 64K left to fill up the first 128K. This is an ideal place to put a ramdisk or a memory resident utility of the right size.

A ramdisk can be just 64K or 80K or bigger with the same speed-up effect. IBM, Racore, Quadram and Impulse memory expansions come with ramdisks which fill this space. (Also, jr Power Pack, Disk #52 in the jr Newsletter Software Library has ramdisk software that will do the trick and will also allow you to set the video buffer size.) The Tecmar ramdisk loads into high memory, so it won't do the job here; but it works with PCjr Basic.

PC-Deskteam is a memory resident program like Sidekick which will use 64K and provide clock, calculator, notepad, printer control, and typewriter features. A keyboard macro program like Prokey or Newkey is another possibility. Any combination which

fills the space, or more than fills it will have the speed-up effect.

Now that you have the idea, I'm sure you'll come up with your own favorite use for this space and speed up your Junior as well.

If you need to use Basic, you'll discover that the command BASIC will produce an "Out of memory" message and lock up your machine. If you rename BASICA.COM on your disk to something else (i.e. PCBASICA.COM), the command PCBASICA will run ordinary PC Basic rather than PCjr Basic, but it will run much faster.

The Size of DOS

By Delmar R. Mineard

DOS has evolved to include more features and its size has grown significantly since DOS 1.1. The table below shows the disk/memory requirements of the different versions of DOS. The disk space listed includes the two hidden files IBMBIO and IBMDOS as well as COMMAND.COM, and the memory taken was determined by using CHKDSK.

	DISK	MEMORY	
DOS	SPACE*	SPACE*	PRICE
1.1	13,279	12,400	UNKNOWN
2.0	39,424	24,8000	\$65.00
2.1	39,552	24,800	\$65.00
3.0	58,926	37,024	\$85.00
3.1	60,534	37,040	\$85.00
3.2	68,637	44,704	\$85.00

(* = bytes)

Most of the additional disk and memory space occupied by the newer DOS versions is for features such as networking and support for additional formats (3.5 - inch disk drives). I have stuck with DOS 2.1 since I don't have a need for these new features.

Though reports of minor bugs in DOS 2.1 still occasionally surface, it is essentially a stable and trouble-free product. Personally, I have used 2.1 for three years and have never experienced any problems.

DOS 3.0 comes with some new and useful commands, but unless you are a real "power user," you probably have little need for many of them. Unless you are using a high-capacity drive in an AT, the new 3.5 inch type, or are operating a network, why give up the memory?

A Menu-Driven Formatting Plan

By Sid Fleischer

I set up a menu-driven batch file system to do my formatting quickly, easily and safely.

The first step was to rename the FORMAT.COM file to FMAT.COM which would prevent the accidental entry of the normal FORMAT command without a specified Drive.

Next, I created the following menu screen (using WordPerfect) called FORMAT.TXT which set forth the command list for the batch files. The menu is accessed by a batch file which changes the prompt to read "Please enter your selection:"

Formatting a Diskette in Drive A

You may format a diskette in drive A with one of several configurations by typing the appropriate number and pressing Enter.

- 14A...Formats a diskette without adding any additional files or titles.
- 14B...Formats a diskette and adds the capability to create a Volume Title for the diskette.
- 14C...Formats a diskette and adds the Operating System files to the diskette.
- 14D...Formats a diskette, adding the Operating System files and a Volume Title to the diskette (14B & 14C combined).

IBM PCjr SPECIALS

MEMORY & DISK DRIVE UPGRADES

512K jrHOTSHOT Internal Memory Expansion	\$189
512K jrHOTSHOT with Clock & 2nd Floppy Disk Drive	\$424
512K jrHOTSHOT with Clock & 2nd Drive Control without 2nd Floppy Drive	\$269
2nd Disk Drive Add-On with Disk Drive (no memory)	\$198
2nd Disk Drive Add-On Semi-Kit (you supply drive)	\$45
2nd Disk Drive with Case — for Semi-Kit	\$155
RACORE DRIVE II — with DMA and 512K Memory	\$460
20 Megabyte Hard Drive (complete system add on)	\$700

ACCESSORIES

IBM PCjr JOYSTICK (hard to find)	\$29
Keytronic Numeric Keypad (originally over \$100)	\$39
Adapter Cable for Serial Devices	\$15
IBM Cartridge Basic	\$75
IBM Power Attachment	\$55
IBM Parallel Printer Port	\$79
IBM PCjr 300 baud Internal Modem (with software)	\$79
IBM PCjr Keyboard Cord	\$15
Techmar Parallel Port with Clock	\$85
Keyboard Cable/Adapter (for large keyboards)	\$28
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Finally, I set up my batch files to initiated the format commands using certain pre-established parameters. The files also return the normal system prompt upon return to the main menu.

The Batch files used to access the formatting activity are:

```
14.Bat:
echo off
cls
type FORMAT.TXT
prompt Please enter your selection:
```

These are the batch files that select the proper format routine.

Format the A: drive:

```
14A.BAT:
echo off
cls
format a:
cls
prompt $p$g
type MAINMENU.TXT
Format the A: drive with a Volume Label:
14B.BAT
echo off
cls
format a:/V
cls
prompt $p$g
type MAINMENU.TXT
Format DOS System Disk:
14C.BAT:
echo off
cls
format a:/s
cls
prompt $p$g
type MAINMENU.TXT
Format the DOS System Disk with a volume label:
14D.BAT:
echo off
cls
format a:/S/V
cls
prompt $p$g
type MAINMENU.TXT
```

Now the diskette formatting process is relatively easy and, hopefully, fool proof!

(Reprinted from the Idaho IBM-PC Users Group Newsletter.

Notes on Compatibility

Continued from page 1

Borland International has now fixed Turbo-C so it will run on PCjrs. Earlier versions were released without a patch to make it run on PCjrs.

* * * * *

Superkey by Borland works well on PCjrs, and seems to enable PCjrs to run software, such as Freelance, which will not run on PCjrs without Superkey. It accomplishes this feat by fixing a keyboard interrupt incompatibility that is also fixed by using savenmi.com, a file on Disk #52 Jr Power Pack.

* * * * *

If you're having trouble running Webster's Thesaurus, which is reported to be the top thesaurus on the market, here is a tip from John Wager on the Compuserve PCjr Forum. He found that while trying to install the thesaurus his screen would go blank until he set the command line switch to -wv = n instead of -wv = y.

* * * * *

PC-Paint and PC-Paint Plus both run well using 16 colors on PCjrs, whereas PC-Paintbrush is said to cause problems. Anyone have any definitive information on PC-Paintbrush?

* * * * *

We have heard from several PCjr owners that First Publisher, the desktop publishing software, runs fine on PCjrs with sufficient memory (640K, we think, but it may run with just 512).

* * * * *

Electronic Arts says these three newly released titles will run on PCjrs: Mavis Beacon Teaches Typing, Instant Page, Patton vs. Rommel.

* * * * *

Another new title, Boulderdash Construction Set, is listed as running on PCjrs by the manufacturer, Epyx.



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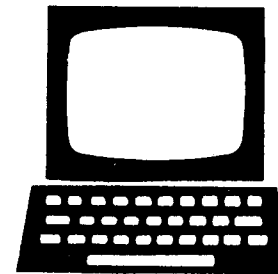
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Fun With BASIC

By Ray Stroud

Have you ever wondered how programs, especially word processors, center text? Here is how it is done in BASIC, and the same technique is used in other languages.

```
100 WIDTH 80
110 INPUT "What";T$
120 PRINT SPC(40-LEN(T$)/2);T$
```

Line 100 sets the screen to 80 character width. Line 110 is essentially a prompt for the string, T\$ which substitutes for a title or whatever the user wants to center. For example, when you see "What" displayed along with a question mark, enter your name. Line 120 is a combination formula and command to print T\$ (which now could be your name). SPC is a command for the number of spaces to the beginning of the text. In this case 40 is one-half of the page width. Now the length of the text to be centered is determined by the statement LEN(T\$)/2. LEN is a BASIC statement that determines the length of a string and the 2 divides it in half. Subtracting the result from 40 becomes the starting point for the text. Simple, uh?

Here is simple bar chart you can make by using keyboard characters. This chart depicts the production or sales or whatever for the years 1980 through 1982:

```
110 FOR C = 1 TO 4
110 READ Y,V
120 PRINT Y " " STRING$(V,"=");V
130 NEXT
140 DATA 1980, 40, 1981, 35, 1982, 56, 1983, 49
```

You can enter your own data on line 140. In fact, you can have as many PAIRS of data items that you want. But to READ the data, be sure to change line 100. Change the 4 to the total number of PAIRS in the DATA line. The READ statement will read pairs of information. The first read would be: 1980, 40. The second read would be 1981, 35, etc. The expression " ", is to place two spaces between the year and the start of the bar. The statement STRING\$(V,"=") is BASIC's way of telling the computer to make a series of "=" as long as the "V" that was just read in the DATA statement. For example, the first line will have 40 "=". The final "V" in the line is an instruction to print the quantity shown in the DATA statement. Make your own bar chart for days of the week or months of the year or departments, etc.

Procomm Rates High Marks As Versatile Telecommunications Software

Continued from page 4

examples are provided, and a lot of boards have command files contributed by users. Here is another minor quibble: QMODEM supports the assignment of a command file through the directory which is automatically invoked when an entry is selected. This is very nice, although I'd like to be able to select and request that the default command file not be used.

There is another wonderful stand alone program called TEF (for Timed Execution Facility) which allows you to execute a given command file whenever you wish. It is less program-intensive than implementations I've seen in other packages; it prompts you for the time, while other packages force you to code the time into the command file you wish to use (and recode it whenever you want to change the time).

Other Features

To edit files, use your own editor! Doesn't sound too revolutionary, but I consider it a godsend not to be stuck with either the program's editor (ala RELAY, an otherwise excellent product), or worse, EDLIN. I've grown very fond of KEDIT (you see, I do buy some commercial

programs), so that's what I use.

Sound effects may be set on or off by default on the configuration menu, but they may also be overridden at start-up time with the "/S" switch on the command line.

Color may be set for the program screens individually for foreground, background, and highlighted text. The program will also display any color information passed to it by a BBS you are connected to.

You may tell ProComm to be "well-behaved," that is, to use BIOS calls rather than direct screen writes, which makes it easier to use under multi-tasking systems. This may be set up by default or through the "M" option on the command line.

Environment support (SET PROCOMM = path name) is a substantial topic. Someone really should cover it, but in the meantime read your DOS manual, I'm busy enough as it is.

Documentation

The manual is one of the best I've ever seen. It includes thorough details on each of the terminal emulation settings in appendices, discusses character translation at length (in case you ever wondered how the program can tell the difference between receiving a carriage return and being asked to send a carriage return, for example) and provides a well thought-out introduction to all the features of the product.

I've never seen a better discussion of XON/XOFF; this one tells you what you need to know about it, what you might want to do about it in a tricky situation and doesn't give you any unnecessary technical information (at least at this point, it would be unnecessary).

Summing Up

I hoped to keep this brief; I could have gone on because there is so much to say about ProComm. I'm a believer, my check is in the mail already. Try it, and support another great piece of software.

(Reprinted from the February, 1987 issue of the Elkhart PC Users Group. Originally printed in NYPC, the newsletter of New York Personal Computer.)

(Editor's Note: ProComm version 2.4.2 is available in the jr Newsletter Software Store on page 13.)

If you have any tips on getting the most out of your PCjr, please share them with readers of this newsletter by sending them to jr Newsletter, Box 163, Southbury, CT 06488.

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Easy To Use Software For Checkbook Records

By Dorothy DeBisschop

Many people want to use computers to simplify home record-keeping. Sometimes, though, they find complicated software is more bother than help. If that's your situation, then Check Processor, the newest addition to the jr Newsletter Software Store, may be for you.

Check Processor is simple software. That can be a strength or a weakness, depending on your individual needs and preferences.

Check Processor provides a simple method of keeping your checkbook records, balancing your checkbook and printing out expense reports reconciliation. You don't have any menus to go through to enter data.

Using Check Processor is more like using a word processor than accounting software. The screen looks just like the printed checkbook register you get from the bank. Check Processor is a quick, reliable, and convenient replacement for manual addition and subtraction. It eliminates those all-too-frequent mistakes in calculating the balance.

If you should make a mistake, though, Check Processor allows you to go back and correct it. Correcting an error is easier on Check Processor than erasing an error in your printed checkbook register. Once you make the change, Check Processor automatically corrects the balances of all subsequent entries.

Easy To Learn and Use

Check Processor is easy to learn. It's easy to use, and it's easy to correct an error. Straightforward and simple. Yet, it has a few extra features you can use to good advantage. It allows you to set up categories for expenses and income. You don't have to use categories, but they can help when you do your income taxes.

Check Processor will give you a printout of your checkbook activity either by time period or by category. You can reconcile your checks with the bank statement each month. You can print out a list of checks from tax-deductible categories when you are ready to do your income tax forms.

The Check Processor will also keep records of savings accounts and credit cards.

If your needs are basic and you want to be able to correct errors simply and easily, Check Processor is just right for you. If you need a record with a clear audit trail of every account, the Home Budget Management System (Disk #57—reviewed 11/87) is preferable. The program is easier to operate than our other checkbook program, PC Check Manager (Disk #25), though it lacks some of that program's features.

If you want a simple, easy-to-use program, Check

Processor is a good choice. The program will operate on one or two drives and needs only 128K. Check Processor is Disk #59 in the jr Newsletter Software Store, page 13.

Salvage That U-Floppy!

By Joe Pylka

You all know what a u-shaped floppy is. I must have gotten six or seven of them in the past year. You've been waiting for that disk in the mail for weeks. The shipper packed it in a stiff mailer. He had "DO NOT BEND" in flaming red block letters all over it. So what happens? You got all your magazines the same day and the disk mailer is in the middle of the stack where the mailman can't see it. He folds it all up so the whole wad will fit in your mailbox. It's there all day until you get back from work. The magazines all unfold flat, but not the mailer. You've gotten another u-shaped floppy. What to do.

Well, if you're patient, you can unpack the disk from the mailer and let it sit flat on the desk for a day or two; it'll usually flatten out if there's no crease in the jacket. But then again, you've already been waiting patiently for too long. Or maybe there IS a crease in the jacket. Now what?

You've probably got a crashed disk or two around. I took one and cut off the top end, just inside the edge, and removed the dead disk. I keep this jacket around for just such a situation. I very carefully cut off the edge of the u-shaped floppy, remove the disk and put it into the flat jacket after first inspecting the disk surface for dents, creases and the like (in which case, too bad). Now you can read the diskette and make a copy right away for safety's sake.

As long as the diskette doesn't have dimples or creases, you can usually read it well enough to copy it. I once had to restore a diskette full of data that somebody spilled a milkshake onto. I cut off the top of the jacket and dropped the whole thing into a tray of distilled water. If I'd tried to pry the disk out I might have peeled away some of the magnetic surface. After a good soaking I was able to coax the disk out. This was rinsed in a fresh tray of distilled water using gentle finger pressure to dislodge any remaining debris, followed by a short bath in Photo-Flo wetting agent to prevent water spots from forming. It was hung up to dry on a string through the center hole, then placed in a new jacket and copied. 100% success!

So the u-shaped floppy isn't always the disaster it seems. Of those I've received so far, all have been recovered.

(Reprinted from "README.DOC," the Newsletter of the Orange Coast IBM PC Users Group)

jr Newsletter Software Store

This software is the best public domain and user-supported software for the PCjr we've been able to find. All the programs in this collection have been tested on our PCjrs and are highly recommended. Some of these programs are equal to or better than commercial programs costing hundreds of dollars.

The programs in this collection are available for \$9 per disk or \$7 per disk, if you order four or more.

THE BEST OF JR NEWSLETTER. The best and most informative articles from twelve issues of jr Newsletter (June 1986 through May 1987 issues) are contained on this disk. More than 50 articles on compatibility, problem solving, software, maintenance, memory expansion, how-to projects, tips on using DOS, and more! 128K (Disk #54)

PC-WRITE. This extremely popular word processing program is both powerful and easy to use. A review in PC World said "PC-Write may well be more versatile than WordStar — it's certainly more straightforward." Version 2.5 runs well on 128K. Version 2.7 has more features, comes on two diskettes and requires 256K to run without the spelling checker, which requires 384K. (Order Disk #1 for 128K V2.5. Order Disks #2A and 2B for V2.7)

PC-FILE III. This excellent database manager will handle up to 9,999 records, such as names and addresses, notes, product descriptions, etc. Uses generic, embedded, soundex and wildcard searches. Global updates and deletes. Sorts on any field. Too many features to mention. (Disk #3 runs on 128K, Disk #4 needs 256K)

PC-CALC. A versatile spreadsheet program that can do up to 26 columns of adjustable size and 256 lines. Features on-screen prompts, many math and statistical functions, hidden column capability, many formatting options, 64 character cells, automatic global recalculation, and more. Has some limits on 128K, but still very useful. (Disk #5 runs on 128K, Disk #6 requires 320K and two drives.)

CHECK PROCESSOR — Easy to use software for financial record keeping. Balance checkbook, print expenses by category, etc. 128K (Disk #59)

PROCOMM. This powerful, yet easy to use telecommunications program has become the one favored by more PCjr users than any other. Dialing directory, auto redial, XMODEM, Kermit and other file transfer protocols, auto logon, DOS gateway, keyboard macros, exploding windows and many other features. The editor of PC Magazine called Procomm "competitive with the best comm programs on the market." Manual on disk. 256K (Disk #15)

PC-OUTLINE. Review in PC Magazine called this program "really fine" and it outperformed many commercial programs. Word processing functions are merged, allowing greater control. Many customizing features. Nine windows. Many useful features. 128K, plus DOS 2.0 or higher. (Disk #17)

PC-TOUCH. Designed to teach and practice touch typing. As you type, an on-screen line shows the number of erroneous keystrokes, and your accuracy rating as a percentage of keystrokes. 128K. (Disk #18)

3 X 5. An information management program that works just like a 3 x 5 card file. It offers speed, versatility and simplicity in entering, indexing and retrieving data. Has an integrated word processor, powerful search commands, multiple windows so you can edit in one and search in another, etc. Requires 256K. (Disk #19)

PC-DESKTEAM. Enables you to have an alarm clock, calendar, typewriter, calculator, and phone book accessible from your keyboard. Can be a resident program while you are using other software if you have the memory. 128K will run it alone. Need more to run it with other software. (Disk #22)

PC-PROMPT. A memory resident program that provides the format for DOS commands in an on-line mode. Help screen toggles on and off. Also help screens for BASICA, Turbo Pascal, Debug and EDLIN. 128K. (Disk #23)

PC-DOS HELP. Similar to PC-Prompt, but takes up less memory (16K) as a resident program. Geared to DOS 2.1 with special PCjr commands included. 128K (Disk #24)

PC-CHECK MANAGER. A menu-driven program that can handle multiple checkbooks, unlimited payees and ledger account assignments. Requires 256K. (Disk #25)

FAMILY HISTORY. Includes complete manual on disk with how-to info on tracing and setting up your family tree with detailed genealogical information. Easy to use and modify as you gather more data. New compiled version runs faster than previous version. 128K order Disk #33 alone. 256K order #33 and #33A.

NEW KEY. Powerful, popular program that allows you to redefine keystrokes and assign series of keystrokes to one or two keys. Customize software to meet your needs. Many other useful features included. 128K. Disk #35)

PIANOMAN. A great music program! Allows you to write your own music, store it and play it on jr's terrific sound system. 128K. Disk #36)

PC-KEY DRAW. A powerful graphics program that allows you to draw, paint, produce slide shows, store and print your work. 256K, two drives. (Disk #37)

PC-KEY DRAW DEMO. Contains a slide show demonstration which allows you to see the amazing results you can get with PC-KEY DRAW. Helps to learn the many graphic capabilities of PC-KEY DRAW. (Disk #38)

PRINT HANDLER — Excellent software for printing banners, sideways, etc. Contains custom font generator, print spooler, and other useful print control utilities for Epson and compatible printers. 128K. (Disk #51)

IMAGEPRINT. Produces letter quality print on dot matrix printers. IBM Graphics Printers, Proprinters, Epsoms and compatibles. Contains many format features, three quality levels, interfaces with word processors. 128K ok (Disk #50)

JR POWER PACK. A collection of particularly useful programs for PCjr owners. Set up RAM disks, address memory to 736K, turn a joystick into a mouse, set screen colors, keyboard click, scan and search text files, screenblanker, print spooler, and more. 128K. (Disk #52)

SUPER UTILITIES. The 15 utilities in this collection include Undelete, to recover a mistakenly deleted file; a powerful command editor; a clock, notepad, time and calendar; another to redirect file contents from printer to disk...and many more useful utilities. Under 128K ok. (Disk #28)

MORE SUPER UTILITIES. A collection of excellent screen and keyboard enhancements, useful file managers, color selectors, and more. Under 128K ok. (Disk #29)

DOS 2.1 FIX. Patches to fix the bugs in DOS 2.1. Cures most problems encountered when running memory intensive programs. Also patches to run BASIC and BASICA on DOS 2.1 without having Cartridge BASIC installed. 128K ok. (Disk #40)

DOSAMATIC. A nifty way to view the contents of disks, easily manipulate files and carry out DOS commands. Features a Mac-like "point and press" interface which allows you to select the commands you want from pull down menus. Also permits loading several programs at once and jumping from one to the other. 128K ok, but more memory needed for "multi-tasking." (Disk #49)

PCJR PATCHES. Many patches to fix software that ordinarily won't run on PCjrs. Includes patches for Starflight, Advanced Flight Simulator, Quick Basic, Turbo Basic, Double DOS, and Bard's Tale (16 colors). (Disk #56)

HOME BUDGET MANAGEMENT SYSTEM. Easy-to-use system for keeping track of income and expenses. Create separate accounts for income tax categories and get a summary at end of year. Provides chart of accounts, transaction reports, sorted ledger entries, etc. 128K (Disk #57)

HOME INVENTORY. Taking an inventory of your home might even be fun with this easy-to-use software that takes you through the process step by step. Gives a complete record for insurance purposes. Also good for listing collections. 128K (Disk #58)

GAMES

GAMES. An assortment of games for hours of fun and excitement. Includes Spacewar, Airtrax, Life, Wumpus, Wizard and more. All good with 128K. (Disk #8)

DUNGEONS & WARS. In Dungeon Quest you can choose to be a dwarf, elf, magic-user, fighter or other type of character. You select your strengths and weapons, too. Then you enter the dangerous dungeons on your Quest. Thermonuclear War pits the US vs the Soviets in a very real demonstration of what a nuclear war might be like. Combat is a strategic battle on the ground. 128K ok. (Disk #9)

PINBALL RALLY. A colorful collection of amazingly realistic pinball games. Using the Shift keys as flippers, the games get more and more complex until you get to Twilight Zone, which is the hardest because some parts are invisible. Runs on 128K. (Disk #10)

ARCADE GAMES. Includes Kong, Pango, PC-Golf, Pyramid and other exciting, colorful games for hours of fun. 128K. (Disk #30)

BOARD GAMES. Play Monopoly against the computer. Backgammon, Yahtzee and Four — a game your jr is especially clever at. 128K. (Disk #31)

GAMES, GAMES, GAMES. A wild assortment of games to test your wits and skills. Includes Slither, Xwing, Torpedo, ABM2 and Overreact, where you are in charge of a nuclear plant. 128K (Disk #34)

PC-CHESS. A full color many-featured chess program, with four levels of play. You can play against the computer or another human, save games to disk, set up the board yourself and switch sides if you want. It has two clocks for elapsed time for each player, allows castling, en passant and pawn promotion with validity checking, plus other features. 128K (Disk #44)

ZAXXON/GALAXY TREK. Two exciting high tech shoot-em-up games. In Zaxxon you fly through an obstacle course, shooting while you go, up and over walls, and eventually through space. Galaxy Trek makes you the commander of a Star Ship which you maneuver through the universe seeking to destroy a fleet of Megaton warships before they conquer the planets. 128K. (Disk #45)

PHRASE CRAZE. Based on the TV show Wheel of Fortune, you get to be the guest who guesses the mystery phrases and wins piles of money! The wheel spins to select the amount of money you win for correct guesses. It gets harder with each round you play. You can add your own phrases to this game or try to guess the ones provided on the disk. Lot of fun for adults as well as older kids. 128K. (Disk #46)

GOLF/SAILING. Two great games for sailors and golfers! The golf game has three courses, user definable club ranges, and a swing control that determines whether you hit a slice, hook or straight shot. Three nine hole courses (Novice, Pro, and Sadistic). In the other game, you try to sail the three legs of the Bermuda Triangle, avoiding, if you can, the creeping mists, alien crystals, vortexes and storms. Your boat is equipped with radar, rudder and sail (all of which you control) and an engine for emergencies. 128K ok for sailing. Need 256K for golf. (Disk #47)

BOARD GAMES. Eleven different games on one disk! Hours of fun with Monopoly, Yahtzee, Cribbage, Backgammon, Othello, and others. All run great on your PCjr! 128K (Disk #31)

CASTAWAY/S. AMERICAN TREK. Test your survival skills as the survivor of a shipwreck in the South Pacific. Or as an explorer of South America. Two novice text adventures from Jim Button. Ages 12 and up. 128K (Disk #53)

SUPER BOARD GAMES. Excellent versions of two popular board games — Monopoly and Risk. Very much like the board versions, except your computer keeps track of everything for you. All you have to do is make the right moves and have fun. 256K (Disk #55)

EDUCATIONAL SOFTWARE

ORIGAMI. Learn the art of Japanese paper folding. This program shows you how, step-by-step, to create amazing animals and other objects just by folding paper. Fun for kids and adults, too. 128K (Disk #39)

PLAY AND LEARN. Educational games for kids 5-12. Word match games, find-a-word puzzles, word scrambles, and many more — made by teachers. 128K, need Cartridge Basic. (Disk #32)

WORD PROCESSING FOR KIDS. Simple, fun and easy-to-use word processor designed especially for beginning writers. Allows children to express their ideas easily and then print them out in large type on your printer. Colorful opening menus make learning the simple commands very easy. Parents/teachers manual is on the disk. 128K (Disk #41)

MATH FUN! A great way to get kids learning how to add, subtract, multiply and divide. Includes a program called Math Tutor which has cleverly designed exercises for kids in Grades 1-6. Also Funnels and Buckets, a nifty math game that makes learning math fun. 128K (Disk #42)

EARLY LEARNING. A collection of colorful educational games for ages 6-8. Sing-along alphabet, letter match, counting game, maze, pattern matching and more. 128K, need Cartridge Basic. (Disk #48)

* * * * *

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* * * * *

Questions and Answers

Continued from page 3

modem with the idea that you are going to break some speed records, however, you should be aware of another limitation that has nothing to do with your PCjr. Telephone lines, particularly those outside of large metropolitan areas, are often not capable of supporting speeds over 300 baud. In fact, you could very well have a 2400 baud modem hooked up and set to fly at maximum speed only to find that you are plodding along at a much lower rate. Sometimes your telephone company can give you information on the capacity of their service.

Q. Would it be possible to add a hard drive card to my PCjr?

A. We have not heard of anyone being able to install a hard card in a PCjr. For one thing, they take up too much space. For another, they are designed to work with PCs and other computers, not PCjrs, which, as you may know, have certain peculiarities which must be addressed by anyone designing a hard drive for them. This is one of the reasons hard drives for PCjrs are more expensive than those for other computers. Some day someone may design a hard card for PCjrs, but it just hasn't happened yet.

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New Cartridge

Continued from page 1

thinking it is operating on a PC by altering the identification byte in ROM BIOS. The difference in the new cartridge is in the switch.

Software often checks the identification byte in order to determine what type of computer it is running on. The PC ID cartridge fools software by telling it that your PCjr is a PC, which, in some cases is enough to enable you to run software which will not operate properly on a PCjr. Diskette BASIC is one example. Normally if you try to use diskette BASIC (the version on your DOS diskette), it will require that Cartridge BASIC be installed. With the PC ID cartridge you can operate diskette BASIC on a PCjr without cartridge BASIC.

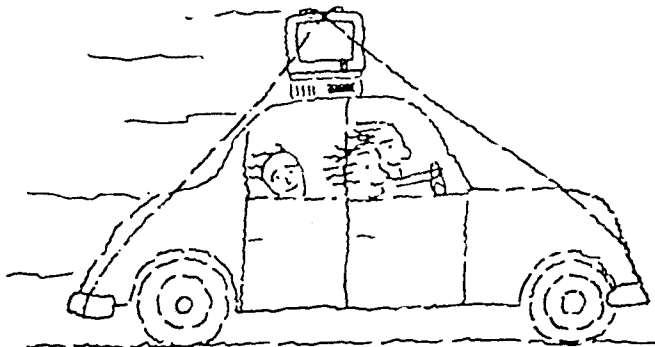
The new cartridge also has indicator lights which show when you have caps lock, scroll lock or num lock keys on. The scroll lock light can be switched to indicate when you have the insert key in insert mode.

According to Pat Calabria, chief engineer at PC Enterprises, another convenience offered by the new cartridge is that PCjr owners can run the self diagnostic program built into PCjrs to test second and third drives. Some additional drives normally cannot be tested in this way.

Calabria says the cartridge was developed in order to provide several features in one unit and to make it easier for the PCjr user to invoke these features quickly and easily.

PC Enterprises, P.O. Box 292, Belmar, New Jersey 07719 (800) 922-PCJR or (201) 280-0025.

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